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Motivated Forecasts: Experimental Evidence from the Presidential Elections in Argentina[*]

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Abstract

The growing political polarization may influence a critical input for policymaking: people's economic expectations. This study examines whether political preferences shape individuals' forecasts for key economic indicators (using a preregistered online experiment in the context of Argentina's 2023 election). The experiment (N=1,162) exogenously manipulates (a) the incentives to report accurate forecasts and, (b) the information about current indicators. The results show that providing incentives for accuracy reduces the gap between subjects' forecasts regarding different candidates' performance. Providing information regarding the current economic indicators reduces the variance of the forecasts but not the gaps. These findings are relevant for survey design.

The expectations of economic agents are among the most important inputs that policymakers need to make well-informed decisions (Coibion et al., 2018). These expectations are usually estimated through surveys eliciting respondents' beliefs on specific topics (D'Acunto and Weber, 2024). One of the problems with using surveys is that people often exhibit what is referred to as "motivated beliefs" (i.e., beliefs that are not exclusively guided by a desire for accuracy (Zimmermann, 2020)). More specifically, voters view economic variables as indicators of the performance of the party in power and these views are affected by their political leanings (Bartels, 2002; Prior et al., 2015).[1] If people already disagree on factual questions and are inaccurate in predictable directions based on their political stance (Thaler, 2024), what can we expect from their expectations about future events? This problem has become increasingly relevant in the past few decades, as strong political polarization has emerged around the world (Canen et al., 2020).

I study whether people's *forecasts* about economic outcomes are biased towards their political preferences. This has important implications for the design of monetary and fiscal policy and the communication of these; for instance, it may impact the central bank's chosen messages, medium, and messenger (Coibion et al., 2022; D'Acunto et al., 2020). Apart from affecting policy-design inputs, this bias has other important social and economic implications. For instance, many profitable transactions may become unworkable between agents with different beliefs about future inflation, and people might be more willing to sacrifice career ambitions in favor of a secure job (or continue studying) if they expect higher unemployment. Furthermore, Ropele et al. (2024) show that dispersion in inflation expectations leads to a misallocation of resources and Friedman and Wang (2024) show that polarized motivated beliefs may harm investors by distorting their personal portfolios.

I conduct an online experiment with a sample pool of students and alumni from one of Argentina's largest public universities. The country held presidential elections on 22 October 2023, with polls conducted in the lead-up indicating a highly uncertain

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[1]For other examples of motivated reasoning, see Rathje et al. (2023); Bullock and Lenz (2019); Exley and Kessler (2024); Schaffner and Luks (2018); Berinsky (2018); Prior et al. (2015).

outcome. The two dominant parties, located at the extremes of the political spectrum, espoused divergent views on how to balance inflation and unemployment, and generally projected competing visions for what the government's role in the economy should be. In addition, in September of 2023, Argentina faced monthly inflation of around 12%. This context provides an ideal setting to study how supporters of each party form beliefs about the future of the economy and how these beliefs might be subject to motivated reasoning.

In the experiment, I ask participants to forecast inflation, employment, and other economic indicators for the following year under each possible electoral outcome. I provide with monetary incentives to half of the participants. The idea is that when subjects face real stakes in making their forecasts, the difference between their expected inflation, employment, and other variables across scenarios should shrink. This is because the incentive structure shifts the weight of the incentives towards accuracy (Kunda, 1990).

I find strong evidence for motivated forecasts, and this is the case across different levels of literacy, political leanings and effort (measured by the time taken to respond). I then investigate whether the reduction in the gaps stems from a positive bias (forecasting lower values for the favorite candidate) or a negative bias (forecasting higher values for other, non-supported, candidates). The analysis reveals the presence of negative bias, which is in line with previous literature (Rathje et al., 2023).

In an orthogonal treatment, I provide participants with correct information about the current levels of the variables of interest (after eliciting their beliefs about the current values but before eliciting their forecasts). This information treatment does not significantly affect the forecast gaps. However, it does reduce the variance in forecasts and reduces the effect of the accuracy incentives on the forecast gaps.

The paper's main contribution is to provide causal evidence of the effect of motivated reasoning on economic forecasts. While almost all existing studies on motivated reasoning focus on beliefs about current or past events, I focus on future, unrealized events.[2] Since many economic decisions are based on economic expectations, it is important to understand the prevalence of motivated reasoning in this context. On this matter, this

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[2]See Amelio and Zimmermann (2023) for a review focusing on motivated memory.

study is related to an extensive literature on expectation formation and how people deviate from full-information rational expectations (Coibion et al., 2018). For instance, Malmendier and Nagel (2016) show that people overweight their previous inflation experiences. Other papers employ experiments to study how expectations are affected by different pieces of information (Cavallo et al., 2017; Armantier et al., 2016, 2013), identity (Bauer et al., 2023; Donkor et al., 2023) and other demographic factors (see D'Acunto and Weber, 2024, for a survey). I contribute to this literature by studying political preferences as a new driver of inflation expectations.

Another strand of the literature focuses on eliciting expectations using surveys (Dietrich et al., 2023; Weber et al., 2022; Armantier et al., 2013). This study suggests that the political orientation of the respondents needs to be taken into account to interpret their expectations.

By introducing motivated forecasts, the study belongs to a literature trying to understand why professional forecasters may not reveal their true beliefs (Ottaviani and Sørensen, 2006a,b; Laster et al., 1999; Ehrbeck and Waldmann, 1996). Although household incentives are less affected by profits than those of professional forecasters, I find that they are strongly affected by political motivations. These results suggest the need for a careful aggregation of household expectations, which are normally estimated as the mean or median (Coibion et al., 2018). This is especially important in countries like the US, where there is strong spatial segregation in terms of political leaning.

In terms of methodology, this study contributes to the literature on motivated beliefs in several ways. First, since subjects need to forecast the future, there is no need to worry about participants knowing the correct answer, and they cannot cheat by Googling the answer (especially because of the highly uncertain economic and political context). Second, by asking about the future, we can ask questions conditional on specific outcomes, which allows us to observe differences in counterfactual scenarios.[3] Third, the focus on gaps (if these go in one direction) allows researchers to apply the method in other contexts (e.g., in cases where the researcher is not allowed to ask

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[3]There are few exceptions, but two using this strategy method type of forecasting are Bauer et al. (2023) and Coibion et al. (2020), but they do not manipulate the incentives for accuracy.

sensitive questions, for example, concerning race, religion, or origin).

Regarding the themes studied in the literature on motivated reasoning, many studies address general questions related to topics that are contentious (and emotional) for the respective political parties. It is possible that some of these questions are not relevant to the particular subjects, or at least not to the same extent. Hence, not everyone is equally informed about the topics (e.g., Obama's religion or the number of people in a photograph). It has been argued that subjects may employ heuristics that favor their political party when they are unsure about the answer (Bullock and Lenz, 2019). There may be greater reliance on these heuristics when the discussion concerns irrelevant topics (Bullock and Lenz, 2019). Furthermore, supporters of different parties might differ in the extent of their interest in certain questions. By contrast, in this study, I look at the economic indicators considered most important in the current Argentinean context, which are the same across candidates and are arguably high-stakes topics for everyone.

The study also contributes to the literature by studying a sample from a developing country with very unstable macroeconomic conditions (Argentina has one of the highest inflation rates in the world). In this study, the gap between forecasts does not change when respondents are provided with accurate information regarding the current values. This is in line with the hypothesis that in more unstable economies, people are more attentive to macroeconomic variables (Weber et al., 2023; Cavallo et al., 2017).

Finally, this paper provides not only causal evidence of motivated forecasts but also an effective method to significantly reduce them in surveys eliciting individuals' forecasts.

The paper is organized as follows. Section I describes the context. Section II describes the experimental design. Section III describes the sample and provides some descriptive evidence. Section IV presents the results. Section V explores the heterogeneity of the results and Section VI concludes.

I. Context

In 2023, the primary elections produced three main candidates: Patricia Bullrich (Juntos por el Cambio), Sergio Massa (Union por la Patria), and Javier Milei (La liber-

tad Avanza).[4] Sergio Massa was the head of the Ministry of Economy and responsible for implementing strong populist measures leading to high inflation. Patricia Bullrich was expected to be the strongest opposition candidate, representing the party that won the elections in 2015. Javier Milei was the founder of a new party representing the far right, with very strong views about the appropriate role for the state in the economy (e.g., proposing to 'blow up' the Central Bank). The PASO elections (simultaneous and mandatory open primaries) were very close: La Libertad Avanza (30.04%), Union por la Patria (27.3%), and Juntos por el Cambio (28.3%).

The first round of the elections took place on 22 October 2023. The leading candidate in this round was Massa with 36.68%, followed by Milei with 29.98%, Bullrich with 23.82%, Schiaretti with 6.78%, and Bregman with 2.7%. The second round, held on 19 November, was won by Milei with 55.69% of the vote.

II. Experimental Design

The experiment was conducted online with students and alumni from one of Argentina's largest public universities (Universidad Nacional del Nordeste)(N=1162).[5] The experiment was strategically conducted the week prior to the presidential elections (the survey was open from 16–21 October 2023).[6] [7] This is instrumental for the experimental design because I ask subjects to forecast economic variables for the first few months of the new presidency. I elicit these forecasts using the strategy method such that the forecasts are made conditional on each possible candidate winning the election.

All subjects in the experiment are asked the same questions, that is, regarding the current levels of inflation, unemployment, and exchange rates for the US dollar in the official and black (called blue in Argentina) market;[8] and to make forecasts about the

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[4]The other two candidates were Juan Schiaretti (Hacemos por nuestro pais) and Myriam Bregman (Frente de Izquierda).

[5]The experiment was programmed in Qualtrics.

[6]Figure OA.3 in the Online Appendix shows the distribution of responses over time.

[7]Argentina hosts two presidential debates before the elections. In the first debate, on October 1st, the candidates discussed economics, education, human rights, and democracy. The second debate took place on October 8th, and security, employment, production, human development, housing, and environmental protection were the topics discussed.

[8]Argentina has a multiple exchange rate system. See https://www.bloomberglinea.com/english/

future levels of these variables for each possible electoral outcome. I also ask participants to forecast unrelated events, such as football outcomes in the national league, temperatures, and the change in the price of bitcoin and the MERVAL index on a specific day.

I introduce two treatments in a factorial 2x2 design. For participation, all subjects are rewarded with a chance to win one of the thirty $100 cash prizes. Half of the sample can obtain extra opportunities to win if their economic forecasts are accurate, and the other half can obtain extra opportunities if their forecasts regarding the unrelated questions are accurate (i.e., accuracy treatment). The idea is that the treatment increases the cost of being wrong; hence, subjects' forecasts are less likely to be distorted by emotions, desires, and goals.[9] Furthermore, the direction of the correction is endogenous to the subjects' political identity (Bénabou and Tirole, 2016). The second, orthogonal treatment, is to inform participants about the current levels of the indicators after they have answered the questions regarding current levels but before they provide their forecasts (i.e., information treatment). I also do this for half of the sample. Figure A1 in the Appendix depicts the treatment arms with the four conditions.

I then asked the participants about their preferred candidates, who they thought would win, who they would vote for in the first round, and some literacy questions.

III. Sample and descriptive evidence

The subject pool consists of 1,162 students and alumni from the School of Economic Sciences in one of the country's largest public universities (Universidad Nacional del Nordeste).[10] Notably, the university primarily attracts students from two provinces with very different shares of support for the various parties: Corrientes, which traditionally supports the Radical party and Resistencia, which traditionally supports the Peronist party. The region is also one of the least developed in Argentina.

Public universities in Argentina are free, and spaces are not limited in practice. This

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a-beginners-guide-to-understanding-argentinas-multiple-exchange-rates/.

[9]Note that, for all participants—regardless of their preferred candidate or the election outcome—lower values across all indicators are more economically desirable.

[10]This school includes the departments of accountancy, economics and management.

results in very high enrollments and dropouts at the very early stages of study. Since the sample includes students and alumni (whether they graduated or dropped out), it can be taken as representative of the local society. This is evident in the proportion of people in the sample who reported preferring Milei as president (49%), which is not far from the election results in the second round (56%).

The sample is slightly biased towards women in the control group, but this does not affect my results. On average, participants are 26 years old, and around 58% are employed. On a scale of 0 to 10, respondents report an average of 5.7 when asked about their agreement with right-wing policies. For a more detailed description, see the Online Appendix.

I start by comparing the current levels of the selected indicators reported for Massa (the incumbent candidate) by Massa supporters versus the supporters of the other two candidates. I regress each indicator on a dummy for Massa supporters (see Table A1). The coefficients are negative for all indicators (i.e., Massa supporters are more likely to report lower values of all indicators while Massa is in office), but this relationship is only significant for unemployment.[11] Furthermore, subjects also think their preferred candidate is the least corrupt (see Table OA.7 Panel B).

This analysis provides some (weak) evidence of motivated reasoning since Massa supporters respond with lower values than opposition supporters. However, since we do not know how subjects would have responded regarding the other candidates, we cannot confidently call these motivated beliefs. For example, this result would also be observed if Massa supporters were always reporting lower values than other supporters, regardless of the party responsible for the economic outcomes. I study this in more detail in the next section.

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[11]See Table A2 in the Appendix for the exact values for each group of supporters.

IV. Results

A. Accuracy treatment

The main hypothesis is that the gap between the forecasts for different candidates will shrink with the accuracy treatment. Panel A in Table 1 presents the results of the regressions of different gaps on the treatment.[12] The first row shows the maximum difference (i.e., the difference between the highest and lowest reported levels) for all four variables. The coefficients of the treatment variable are strongly negative and significant for the exchange rates. The last row shows the gap between the forecasts for the scenarios in which the most and least preferred candidates win the elections.[13] Here, the results are also negative in all cases but statistically significant only for the blue dollar.

The remaining rows present pairwise comparisons between the candidates. For example, the second row is restricted to participants who support Massa and Milei only. The gap variable is measured as $Forecast_{Milei} - Forecast_{Massa}$ for Massa supporters and as $Forecast_{Massa} - Forecast_{Milei}$ for Milei supporters. These regressions show a similar pattern. All coefficients are negative, which means that the gap reduces significantly with the provision of accuracy incentives. I discuss various placebos in the Online Appendix.

In economic terms, the magnitude of these effects is substantial, especially for the exchange rate, which is arguably the easiest and most accessible measure of the performance of the Argentine economy. For example, the gap in the blue dollar shrinks by 170 pesos, which is 28% lower than the control group.

Previous literature has studied the effect of the source of information on belief formation. For example, Jerit and Barabas (2012) show that voters know more about facts that confirm their worldviews and less about those that challenge them. There is also evidence that people incur in information avoidance, especially regarding outgroup information (Bauer et al., 2023; Robertson et al., 2023). Furthermore, Coibion et al.

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[12]Table OA.8 presents similar results when using median regressions to account for outliers. The results are qualitatively similar.

[13]This gap was not preregistered.

Table 1—: Effect of treatments on economic-indicator gaps

Panel A: Accuracy treatment				
	(1)	(2)	(3)	(4)
	Official dollar	Dollar blue	Inflation	Unemployment
Maximum difference	-79.69*	-169.98***	-8.18	-0.75
	(40.66)	(53.09)	(7.59)	(1.28)
Avg. Control: Maximum difference	290.03	618.41	57.11	14.12
Massa and Milei only	-104.98*	-159.51**	-2.68	-0.54
	(54.34)	(69.37)	(9.78)	(1.68)
Avg. Control: Massa and Milei	182.00	543.58	52.11	12.40
Massa and Bullrich only	-33.16	-70.90	-12.04**	-0.03
	(40.74)	(50.72)	(6.01)	(1.51)
Avg. Control: Massa and Bullrich	138.89	302.56	28.50	8.17
Milei and Bullrich only	-62.62*	-99.75**	-3.76	-0.54
	(35.92)	(43.28)	(5.52)	(1.16)
Avg. Control: Milei and Bullrich	95.566	263.05	23.362	6.768
Least - most favourite	-66.67	-109.89**	-4.16	-0.63
	(41.34)	(51.85)	(7.24)	(1.29)
Avg. Control: Least - most favourite	158.39	471.40	46.13	11.71
Panel B: Information treatment				
	(1)	(2)	(3)	(4)
	Official dollar	Dollar blue	Inflation	Unemployment
Maximum difference	-23.37	-71.85	2.34	-0.82
	(40.72)	(53.34)	(7.62)	(1.28)
Avg. Control: Maximum difference	261.85	569.47	51.91	14.15
Massa and Milei only	-51.03	-20.93	3.05	-0.99
	(54.49)	(69.26)	(9.78)	(1.68)
Avg. Control: Massa and Milei	153.13	472.63	49.32	12.60
Massa and Bullrich only	-31.98	-71.56	3.85	-1.20
	(41.37)	(51.13)	(5.96)	(1.51)
Avg. Control: Massa and Bullrich	139.43	305.06	20.77	8.78
Milei and Bullrich only	11.78	-86.95**	-3.45	-0.78
	(35.87)	(43.37)	(5.58)	(1.16)
Avg. Control: Milei and Bullrich	58.00	257.25	23.25	6.89
[1em] Least - most favourite	-36.81	-72.53	0.19	-1.69
	(41.37)	(51.94)	(7.26)	(1.29)
Avg. Control: Least - most favourite	143.50	452.90	43.99	12.24

Notes: The table presents coefficients for the regression of each indicator gap on the treatment dummy (accuracy incentives in Panel A and information treatment in Panel B). Standard errors in parentheses and the average in the control group for each of the cases. *, ** and *** represent significance at the 10%, 5% and 1% levels, respectively.

(2020) find that only people with relatively weak priors significantly revise their beliefs. Although I cannot observe whether participants search for information nor determine which source they rely on during the experiment, my results seem to go in the opposite direction. If participants are searching for news about the future values of economic

variables, it must be the case that they are reading information that contrasts with their pre-existing beliefs, that is, sources with an opposing political leaning. Hence, my results show that when monetary incentives are in place, people exert some effort to make "unmotivated forecasts". Of course, one could also argue that people may be very biased and that even their preferred news outlets will correct their beliefs in the direction of the opposing party. However, as I show below, the reduction in the gap does not depend on their knowledge about the prevailing levels of the variables.

B.   Information treatment

An orthogonal treatment provided subjects with the correct current values of the indicators after they had submitted their responses. This treatment was intended to better align the current beliefs of the subjects with accurate information before eliciting their forecasts. I explore whether this treatment has an effect on its own. The hypothesis is that this treatment would not reduce the gap but would reduce the variance (or standard deviation). Panel B of Table 1 shows the regressions of the political gaps on the information treatment. As expected, none of the coefficients is significant. This is in line with studies that argue that in unstable environments (like Argentina), people are constantly attentive to and already informed about economic developments (Weber et al., 2023; Cavallo et al., 2017).

Panel A of Table 2 shows the standard deviations in the treatment and control groups and the difference between them. I find that the standard deviation decreases for the forecast values of the official and blue dollars (but is only statistically significant for the official dollar). Panels B and C further separate the groups by the accuracy-treatment condition. The results are aligned and become stronger for the group that did not receive the accuracy treatment. Conversely, the standard deviation seems to increase for the group that did receive the accuracy treatment.

C.   Interactions

The 2x2 factorial design produces four conditions. In this section, I explore whether the information treatment mediates the effect of the accuracy treatment. Table 3 re-

Table 2—: Effect of information treatment on the forecasts' standard deviation

Panel A: Pooled data				
	Control	Treatment	Difference	P-value
Official dollar	609.41	559.06	-50.36***	0.001
Dollar blue	738.33	720.31	-18.02	0.334
Inflation	107.74	108.25	0.51	0.862
Unemployment	25.48	26.13	0.65	0.324
Panel B: Without accuracy treatment				
	Control	Treatment	Difference	P-value
Official dollar	648.36	562.25	-86.11***	0.000
Dollar blue	816.36	769.19	-47.17	0.100
Inflation	124.56	100.62	-23.94***	0.000
Unemployment	26.44	26.34	-0.10	0.918
Panel C: With accuracy treatment				
	Control	Treatment	Difference	P-value
Official dollar	566.62	554.62	-12.00	0.553
Dollar blue	645.90	666.95	21.05	0.377
Inflation	87.09	115.67	28.59***	0.000
Unemployment	24.24	25.91	1.66*	0.066

Notes: The standard deviations are computed from the residuals from regressing each indicator on dummies for the favorite candidate, the candidate whose indicator is measured, and the interaction. *, ** and *** represent significance at the 10%, 5% and 1% levels, respectively.

peats the analysis from the previous section, separated by the information treatment status. Although the sample is halved, I obtain similar results for both groups with respect to the exchange rates. It is worth noting, however, that I find stronger effects in the uninformed group. This suggests that part of the effect is due to misinformation, which is in line with Aromí and Llada (2024), who find that even professional forecasters are inattentive to public discussions about the economy.

Similarly, Table 4 repeats the analysis from the previous sections, separated by the accuracy treatment. Conditional on receiving the accuracy treatment, there is no clear effect of the information treatment. Conditional on not receiving the accuracy treatment, there is a strong negative effect on unemployment, which futher confirms that information can reduce the gap, but only when existing knowledge on the topic is low (i.e., the unemployment rate).

Table 3—: Effect of accuracy treatment on economic-indicator gaps by information status

Panel A: Without information				
	(1)	(2)	(3)	(4)
	Official dollar	Dollar blue	Inflation	Unemployment
Maximum difference	-89.54	-209.71***	-9.86	-4.86***
	(55.30)	(76.39)	(10.98)	(1.73)
Avg. Control: Maximum difference	290.03	618.41	57.11	14.12
Massa and Milei only	-98.05	-160.55*	-2.87	-4.53**
	(74.02)	(96.25)	(13.63)	(2.26)
Avg. Control: Massa and Milei	182.00	543.58	52.11	12.40
Massa and Bullrich only	-61.50	-119.10	-9.78*	-2.21
	(57.91)	(72.35)	(5.17)	(1.98)
Avg. Control: Massa and Bullrich	138.89	302.56	28.50	8.17
Milei and Bullrich only	-86.40*	-129.90**	-9.75	-4.14***
	(46.23)	(64.95)	(9.61)	(1.58)
Avg. Control: Milei and Bullrich	95.566	263.05	23.362	6.768
Least - most favourite	-91.55	-146.16**	-9.50	-4.82***
	(56.78)	(71.67)	(10.52)	(1.77)
Avg. Control: Least - most favourite	158.39	471.40	46.13	11.71
Panel B: With information				
	(1)	(2)	(3)	(4)
	Official dollar	Dollar blue	Inflation	Unemployment
Maximum difference	-69.54	-129.09*	-6.47	3.41*
	(59.79)	(73.75)	(10.54)	(1.88)
Avg. Control: Maximum difference	290.03	618.41	57.11	14.12
Massa and Milei only	-111.38	-157.93	-2.43	3.84
	(80.23)	(100.41)	(14.10)	(2.48)
Avg. Control: Massa and Milei	182.00	543.58	52.11	12.40
Massa and Bullrich only	-4.49	-20.20	-14.25	2.11
	(57.02)	(72.26)	(10.55)	(2.23)
Avg. Control: Massa and Bullrich	138.89	302.56	28.50	8.17
Milei and Bullrich only	-39.55	-71.39	1.90	2.97*
	(54.74)	(57.32)	(5.80)	(1.68)
Avg. Control: Milei and Bullrich	95.57	263.05	23.36	6.77
[1em] Least - most favourite	-41.18	-72.63	1.19	3.63*
	(60.24)	(75.02)	(9.99)	(1.86)
Avg. Control: Least - most favourite	158.39	471.40	46.13	11.71

Notes: The table presents coefficients for the regression of each indicator gap on the accuracy treatment dummy (for the group without information treatment in Panel A and with the information treatment in Panel B). Standard errors in parentheses and the average in the control group for each of the cases. *, ** and *** represent significance at the 10%, 5% and 1% levels, respectively.

V. Heterogeneity

In this section, I report on different heterogeneity analyses by participants' literacy, knowledge about the current values of the indicators, effort, and political leaning.

Table 4—: Effect of information treatment on economic-indicator gaps by accuracy status

Panel A: Without accuracy treatment

	(1) Official dollar	(2) Dollar blue	(3) Inflation	(4) Unemployment
Maximum difference	-32.84	-110.63	0.63	-4.94**
	(60.67)	(87.76)	(11.81)	(1.94)
Avg. Control: Maximum difference	290.03	618.41	57.11	14.12
Massa and Milei only	-43.16	-20.40	2.81	-5.25**
	(80.73)	(114.23)	(14.54)	(2.60)
Avg. Control: Massa and Milei	182.00	543.58	52.11	12.40
Massa and Bullrich only	-58.15	-116.55	6.20	-3.28
	(66.92)	(78.41)	(9.49)	(2.17)
Avg. Control: Massa and Bullrich	138.89	302.56	28.50	8.17
Milei and Bullrich only	-12.22	-116.76*	-9.32	-4.35**
	(51.24)	(68.24)	(9.97)	(1.76)
Avg. Control: Milei and Bullrich	95.566	263.05	23.362	6.768
Least - most favourite	-61.34	-108.36	-5.09	-5.91***
	(61.70)	(83.09)	(10.83)	(1.97)
Avg. Control: Least - most favourite	158.39	471.40	46.13	11.71

Panel B: With accuracy treatment

	(1) Official dollar	(2) Dollar blue	(3) Inflation	(4) Unemployment
Maximum difference	-12.84	-30.01	4.03	3.32**
	(54.33)	(59.78)	(9.59)	(1.67)
Avg. Control: Maximum difference	290.03	618.41	57.11	14.12
Massa and Milei only	-56.49	-17.78	3.26	3.12
	(73.48)	(79.36)	(13.16)	(2.12)
Avg. Control: Massa and Milei	182.00	543.58	52.11	12.40
Massa and Bullrich only	-1.14	-17.65	1.73	1.04
	(46.10)	(65.62)	(6.93)	(2.04)
Avg. Control: Massa and Bullrich	138.89	302.56	28.50	8.17
Milei and Bullrich only	34.63	-58.24	2.33	2.75*
	(50.08)	(53.36)	(5.14)	(1.48)
Avg. Control: Milei and Bullrich	95.57	263.05	23.36	6.77
[1em] Least - most favourite	-10.98	-34.82	5.61	2.54
	(55.20)	(62.13)	(9.65)	(1.64)
Avg. Control: Least - most favourite	158.39	471.40	46.13	11.71

Notes: The table presents coefficients for the regression of each indicator gap on the information treatment dummy (for the group without the accuracy treatment in Panel A and with the accuracy treatment in Panel B). Standard errors in parentheses and the average in the control group for each of the cases. *, ** and *** represent significance at the 10%, 5% and 1% levels, respectively.

First, one might expect that those who are more literate will be less affected by the accuracy incentives because they are in a position to make more accurate forecasts from the start.[14] I classify participants as high literacy if they answer five or more of the nine questions correctly (this also roughly splits the sample in half). Figure A2 shows

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[14]See Figure OA.2 for the distribution of literacy scores.

that there are no important differences in making motivated forecasts on the basis of literacy.

Second, the most informed may be expected to be less affected by the accuracy incentives. I split participants at the median regarding the accuracy of their responses regarding the prevailing indicator levels. Again, Figure A3 shows the same pattern is evident across both groups.

Third, I use the time taken to respond to the questions as a proxy for effort. Subjects receiving the accuracy incentive spent, on average, 31 seconds more time responding than the control group. In particular, for the current-values questions, subjects had the chance to find the exact answers by just Googling these. Figure A4 (left) shows that subjects who took longer to respond were more confident in their responses. Furthermore, Figure A4 (right) shows that their increased confidence is justified, as they give more correct answers. I split the sample at the median and find that, in general, the gaps are smaller for slow respondents (regardless of the treatment). Furthermore, as Figure A5 shows, the gaps generally decrease when the incentives for accuracy are in place.

Fourth, there may also be differences regarding the participant's position in the political spectrum. Figure OA.5 shows that 31% of the participants see themselves in the middle of the distribution, 21% on the left, and 49% on the right. Figure A6 shows a slightly larger effect for exchange rates among right-wing participants and for inflation and unemployment among the left-wing participants.

Finally, the negative effect of the accuracy incentives on the forecast gaps could be driven by two types of motivated reasoning. On one hand, it could be that the supporters of candidate X increase the value of their forecasts for that candidate (i.e., positive bias).[15] On the other hand, it could be that the supporters of candidate X decrease their forecast values of their forecasts for candidates Y and Z (i.e., negative bias). It is also possible that both effects are present.

Figures A8, A7 and A9 show the average forecasts by type of supporter and by candidate and indicator. Three main observations emerge. First, for each type of supporter,

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[15]Remember that in this setting, higher levels are always bad.

the levels reported in both conditions are the lowest for all indicators (with all indicators being better when they take lower values). Second, the effect seems to arise from an acknowledgment of the opposing candidate's capacity rather than a decrease in the capacity of the preferred candidate, and the effect is strongest for Massa supporters. This is in line with Rathje et al. (2023), which compares the effect of accuracy incentives on the ability to discern fake news and finds that the effect is driven by subjects' increased belief in true news from the opposing party. My results reinforce the conclusion of negative bias. Third, for unemployment, the treatment always decreases the unemployment forecast for the preferred candidate, which might be evidence that misinformation plays a role (since this is the indicator for which participants are the least informed).

VI. Discussion

There is a growing literature in economics and political science on motivated reasoning with respect to current and past events. However, there are very few examples regarding beliefs about *future* political and economic events and, more specifically, not about indicators that are important for voters. This paper fills the gap by studying how people make economic forecasts in a highly uncertain economic context.

By studying forecasts, the paper also makes a methodological contribution since the forecasts can be elicited by using a strategy method conditioned on each possible electoral outcome. This allows researchers to ask for predictions about the same indicators, while only changing the party that would be responsible for them.

I run an online experiment with students and alumni from a large public university in Argentina in which I ask participants to make conditional forecasts about economic indicators for each of the running candidates. I find that the gaps between the forecasts for different candidates shrink significantly when I provide monetary incentives for accuracy.[16] Conversely, I find informing subjects about the current levels of the indicators on the forecast gaps has no effect, but their variances are reduced in some groups.

The results are present across the board, including different economic indicators,

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[16]Similarly, Gödker et al. (2021) finds that the bias in memory is also reduced with monetary incentives.

knowledge regarding their current values, literacy, effort, and political orientation.

I also find that the narrowing of the gap is driven by a reduction in negative bias, that is, the reduction in negative forecasts about other candidates. This is in line with Rathje et al. (2023).

Although I find a strong reduction in motivated forecasts when the stakes are higher, a significant extent of the forecast gap between the candidates remains. It may be possible to reduce the gap further with larger incentives. However, these gaps may be driven by real differences in how people see and understand the economic context. Further research could investigate both of these aspects. Researchers could also introduce other conditions with higher stakes and/or try to dig deeper into the experience, information acquisition, and cognitive processes used to make the forecasts.

Dietrich et al. (2023) proposes constructing a measure of aggregated consumer inflation expectations by combining category-specific forecasts. My results support their suggested method since it is likely that there is less room for motivated forecasts when the products are very specific (e.g., because of stronger cognitive dissonance).

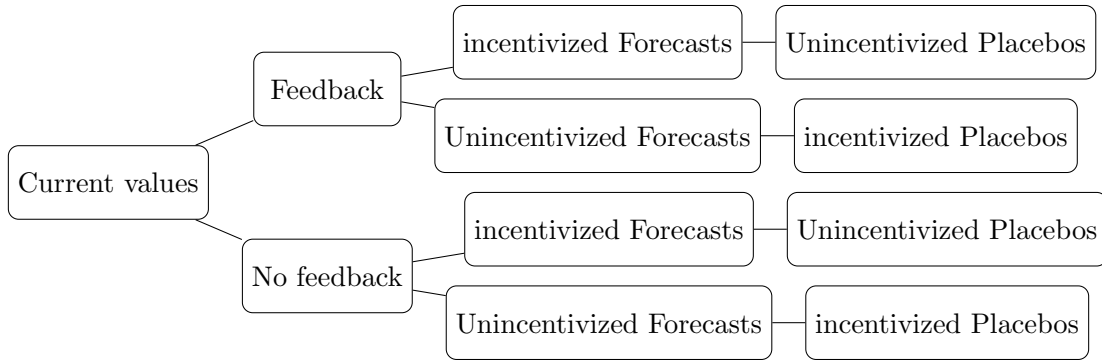Figure A1 : Treatment arms

Table A1—: Effect of Massa's support on current values

|	Dollar blue	Official dollar	Inflation	Unemployment
Massa is favourite	-8.39	-13.43	-5.05	-4.59**
	(8.90)	(16.74)	(3.92)	(1.98)

Notes: The table presents the coefficients from regressing each of the indicators on a dummy that takes the value 1 for participants whose favorite candidate is Massa. *, ** and *** represent significance at the 10%, 5% and 1% levels, respectively. Standard errors in parentheses.

Table A2—: Current value responses by type of supporter

|	Unemployment	Inflation	Dollar blue	Official dollar
Massa	30.77	98.25	921.65	451.30
	(23.18)	(46.53)	(97.43)	(206.83)
Bullrich	35.45	102.34	921.14	463.35
	(24.22)	(46.17)	(128.59)	(213.08)
Milei	35.38	101.59	928.82	441.29
	(24.63)	(46.41)	(112.80)	(194.06)

Notes: The table presents the average responses to the current values of each indicator by each type of supporter. Standard deviations in parentheses.

Figure A2 : Maximum forecasts gaps by literacy score
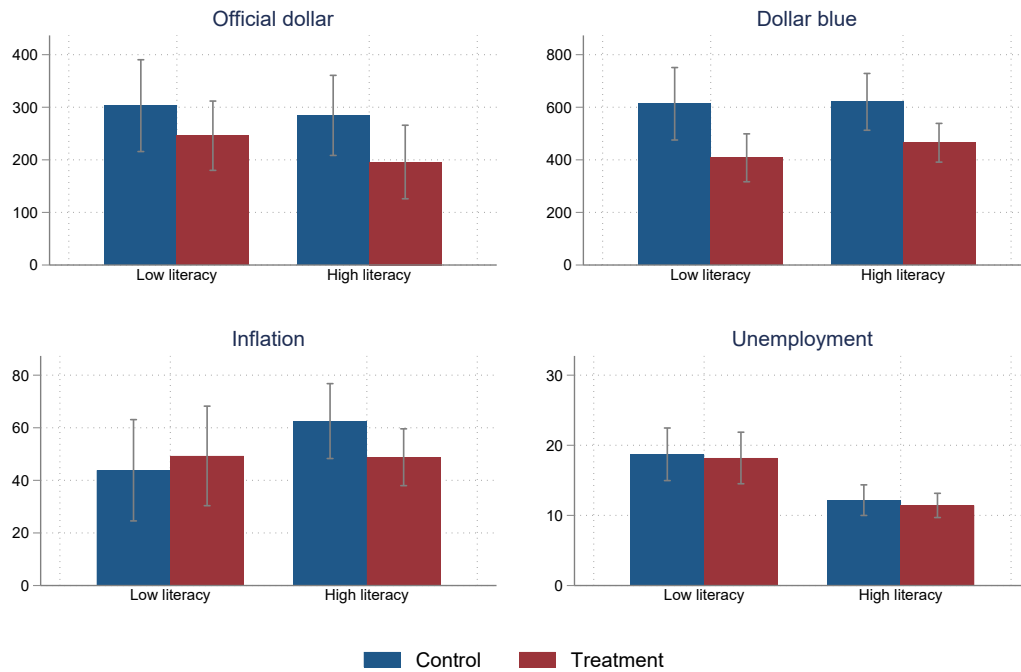
Notes: The figure shows the maximum forecast gap for each indicator, condition, and literacy level. High-literacy participants are those who responded [5,9] of the literacy questions correctly and Low-literacy participants are those who responded [0,4] of the literacy questions correctly.

Figure A3 : Maximum forecast gaps by accuracy of responses to current economic indicators
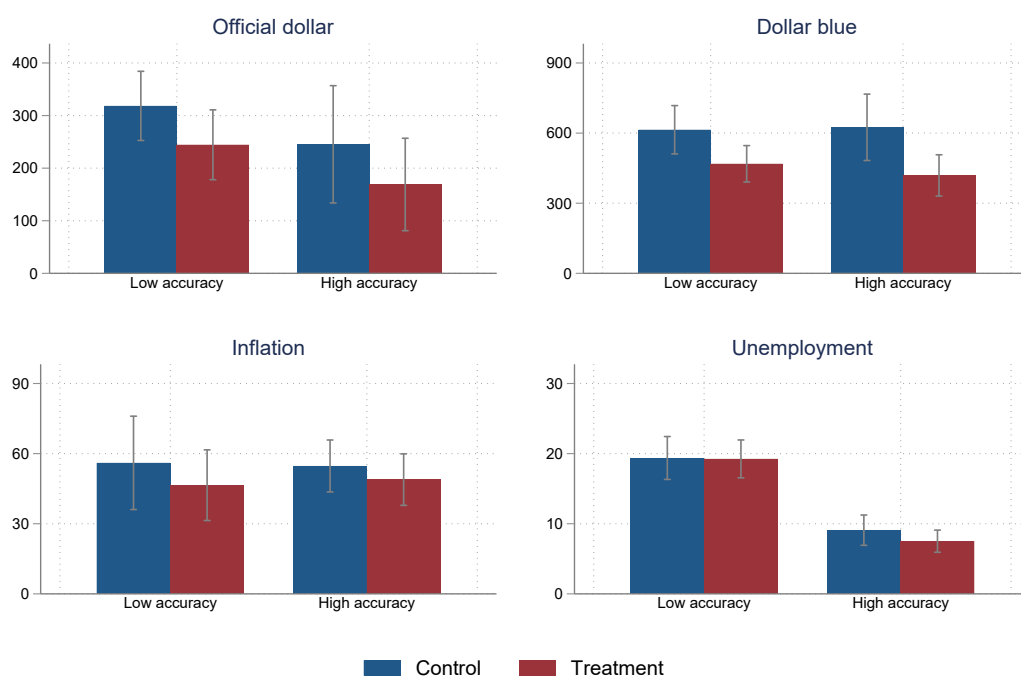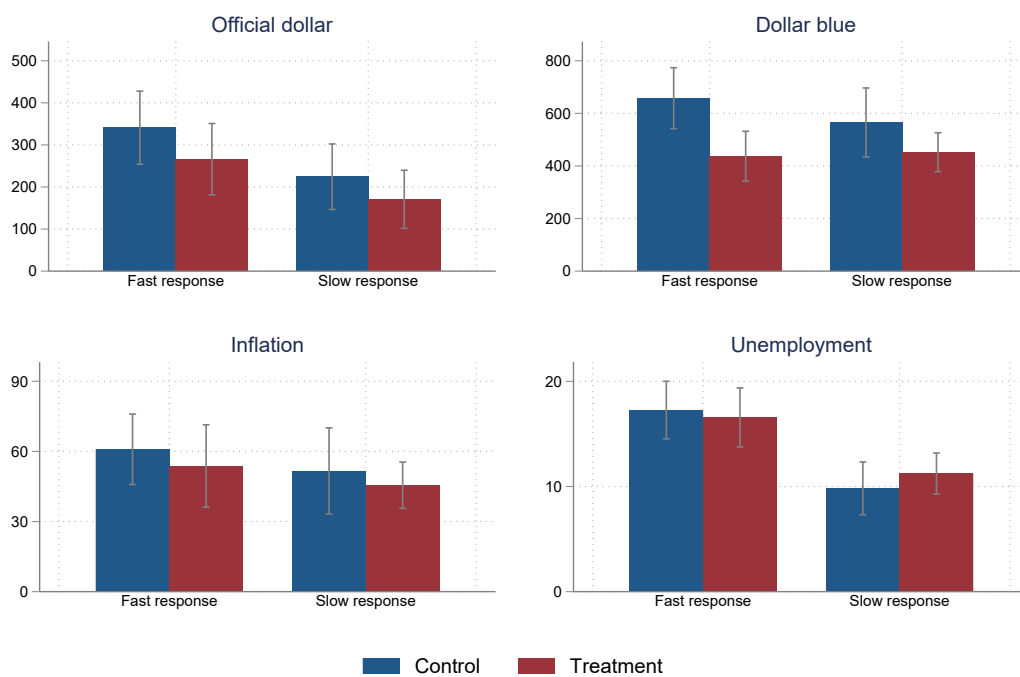

Notes: The figure shows the maximum forecast gap for each indicator, condition, and accuracy regarding the current values. For each indicator, I compute the absolute distance from the responses to the correct values and split the sample at the median. High-accuracy participants are those whose distance is below the median and Low-accuracy participants are those whose distance is above the median.

Figure A4 : Confidence and number of correct current values by time taken to respond
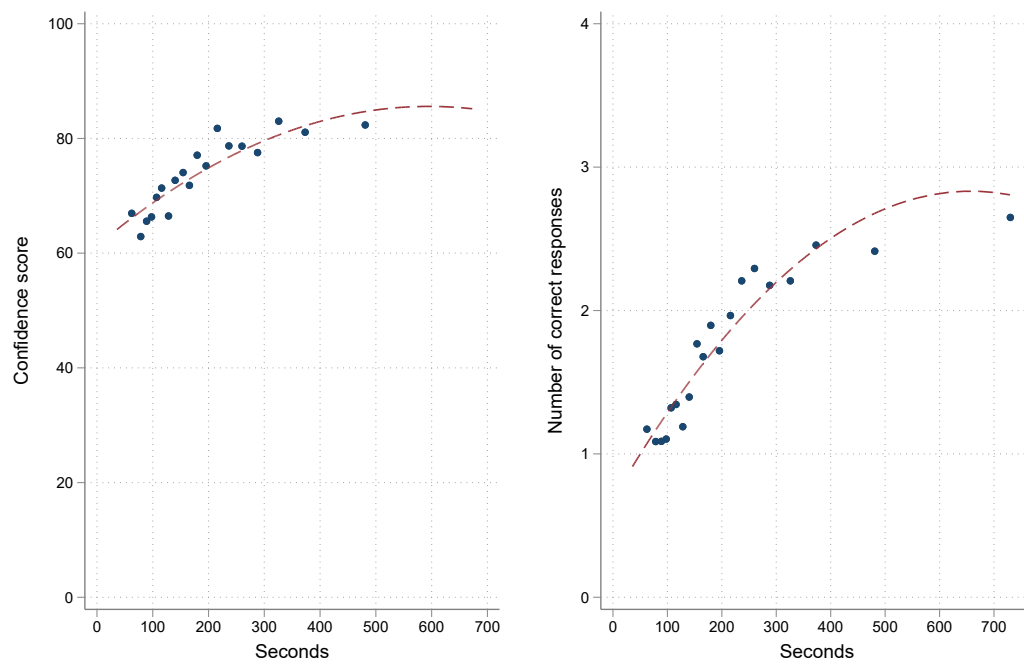
Notes: The figure shows the confidence reported by participants regarding the current value of the dollar by the time taken to respond (left) and the number of correct responses (measured by being within 5% of the correct value) by the time taken to respond (right).

Figure A5 : Maximum forecast gaps by time taken to respond

Notes: The figure shows the maximum forecast gap for each indicator, condition, and time taken to respond. For each indicator, I split the sample at the median time taken to respond. Fast responses are those that were faster than the median and Slow responses are those that were slower than the median.

Figure A6 : Maximum forecast gaps by political leaning
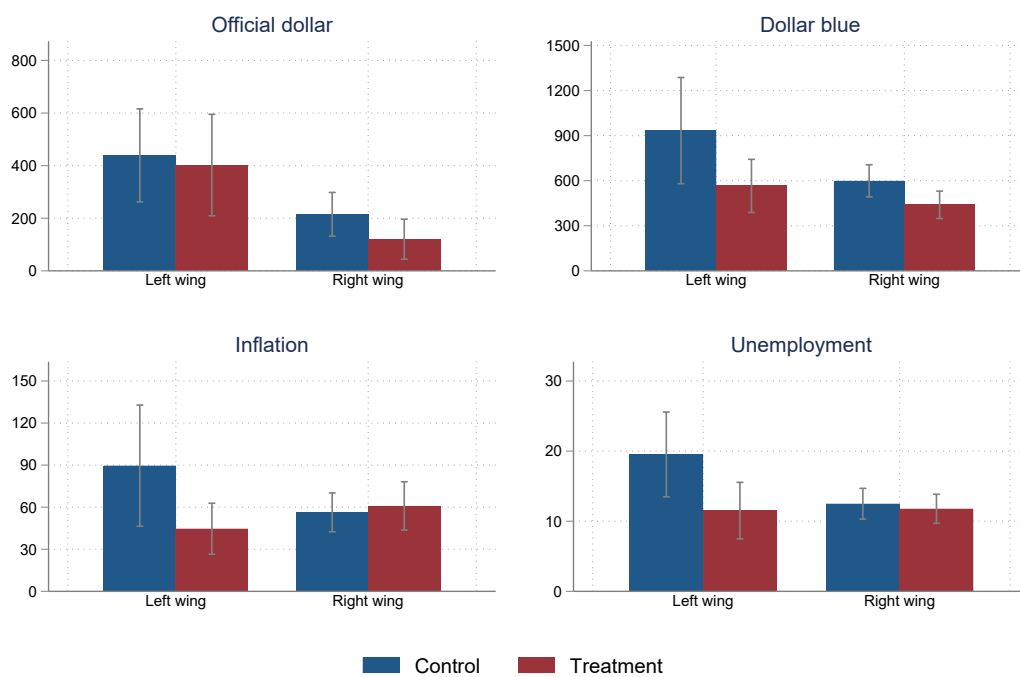
Notes: The figure shows the maximum forecast gap for each indicator, condition, and political leaning. I split participants into Left-wing (those who responded the political leaning question between [0,4]) and Right-wing (those who responded between [6,10]). I exclude participants who reported exactly 5.

Figure A7 : Forecasts of economic indicators for each candidate (Massa's supporters only)
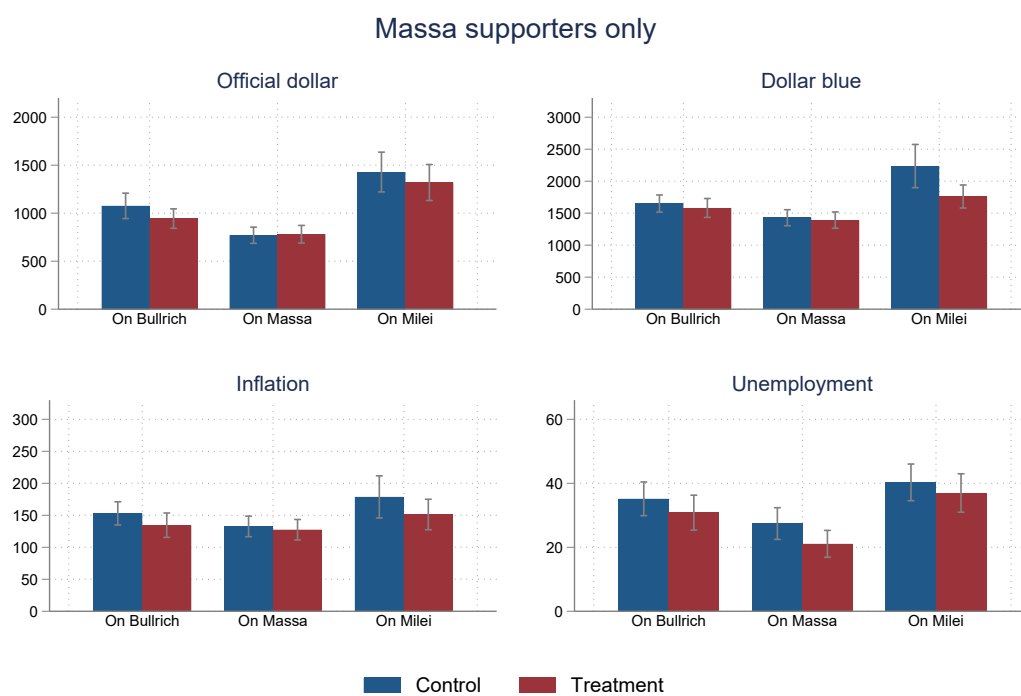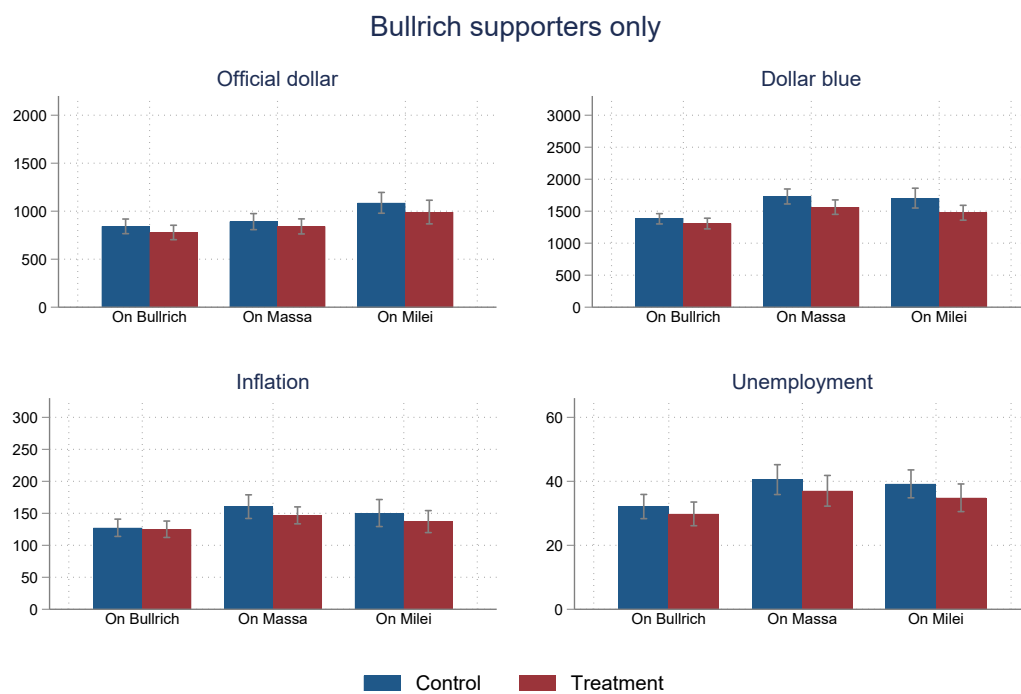

Notes: The figure shows the forecasts for each indicator, condition, and candidate for Massa's supporters.

Figure A8 : Forecasts of economic indicators for each candidate (Milei's supporters only)
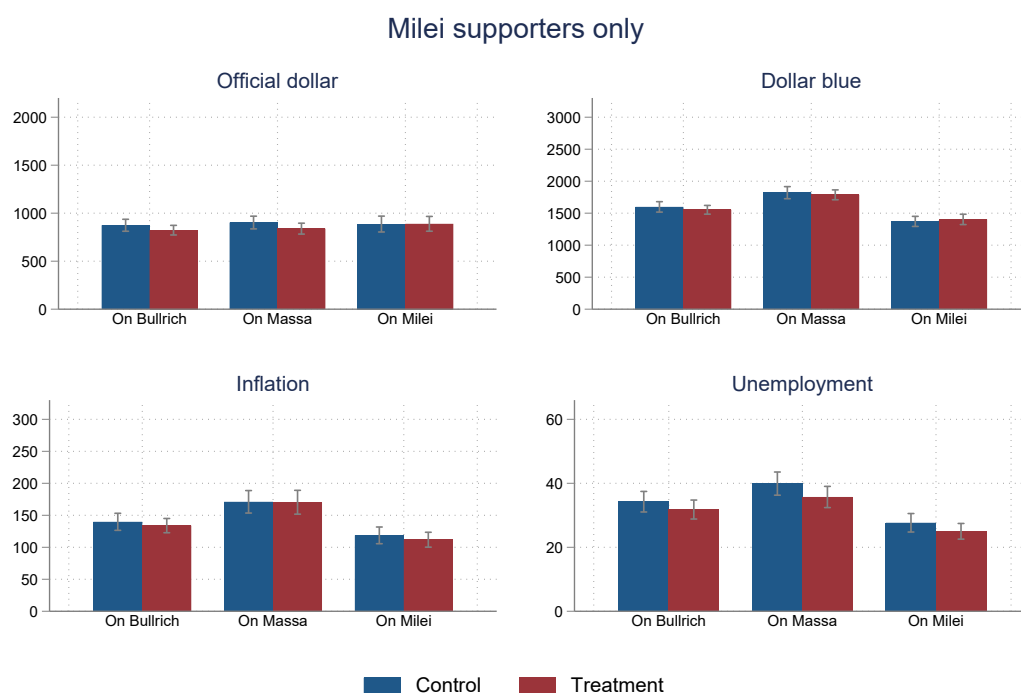
Notes: The figure shows the forecasts for each indicator, condition, and candidate for Milei's supporters.

Figure A9 : Forecasts of economic indicators for each candidate (Bullrich's supporters only)

Notes: The figure shows the forecasts for each indicator, condition, and candidate for Bullrich's supporters.

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REFERENCES

Amelio, Andrea and Florian Zimmermann, "Motivated memory in economics—a review," *Games*, 2023, *14* (1), 15.

Armantier, Olivier, Scott Nelson, Giorgio Topa, Wilbert Van der Klaauw, and Basit Zafar, "The price is right: Updating inflation expectations in a randomized price information experiment," *Review of Economics and Statistics*, 2016, *98* (3), 503–523.

_ , Wändi Bruine de Bruin, Simon Potter, Giorgio Topa, Wilbert Van Der Klaauw, and Basit Zafar, "Measuring inflation expectations," *Annual Review of Economics*, 2013, *5* (1), 273–301.

Aromí, J Daniel and Martín Llada, "Are professional forecasters inattentive to public discussions? The case of inflation in Argentina," *Journal of Forecasting (forthcoming)*, 2024.

Bartels, Larry M, "Beyond the running tally: Partisan bias in political perceptions," *Political Behavior*, 2002, *24*, 117–150.

Bauer, Kevin, Yan Chen, Florian Hett, and Michael Kosfeld, "Group identity and belief formation: a decomposition of political polarization," 2023.

Bénabou, Roland and Jean Tirole, "Mindful economics: The production, consumption, and value of beliefs," *Journal of Economic Perspectives*, 2016, *30* (3), 141–164.

Berinsky, Adam J, "Telling the truth about believing the lies? Evidence for the limited prevalence of expressive survey responding," *The Journal of Politics*, 2018, *80* (1), 211–224.

Bullock, John G and Gabriel Lenz, "Partisan bias in surveys," *Annual Review of Political Science*, 2019, *22*, 325–342.

Canen, Nathan, Chad Kendall, and Francesco Trebbi, "Unbundling polarization," *Econometrica*, 2020, *88* (3), 1197–1233.

Cavallo, Alberto, Guillermo Cruces, and Ricardo Perez-Truglia, "Inflation expectations, learning, and supermarket prices: Evidence from survey experiments," *American Economic Journal: Macroeconomics*, 2017, *9* (3), 1–35.

Coibion, Olivier, Yuriy Gorodnichenko, and Michael Weber, "Political polarization and expected economic outcomes," Technical Report, National Bureau of Economic Research 2020.

_ , _ , **and** _ , "Monetary policy communications and their effects on household inflation expectations," *Journal of Political Economy*, 2022, *130* (6), 1537–1584.

_ , _ , **and Rupal Kamdar**, "The formation of expectations, inflation, and the phillips curve," *Journal of Economic Literature*, 2018, *56* (4), 1447–1491.

D'Acunto, Francesco, Daniel Hoang, Maritta Paloviita, and Michael Weber, "Effective policy communication: Targets versus instruments," *Chicago Booth Research Paper*, 2020, (20-38).

Dietrich, Alexander, Edward S Knotek II, Kristian O Myrseth, Robert W Rich, Raphael Schoenle, and Michael Weber, "Greater Than the Sum of Its Parts: Aggregate vs. Aggregated Inflation Expectations," Technical Report, National Bureau of Economic Research 2023.

Donkor, Kwabena, Lorenz Goette, Maximilian W Müller, Eugen Dimant, and Michael Kurschilgen, "Identity and Economic Incentives," 2023.

D'Acunto, Francesco and Michael Weber, "Why Survey-Based Subjective Expectations are Meaningful and Important," Technical Report, National Bureau of Economic Research 2024.

Ehrbeck, Tilman and Robert Waldmann, "Why are professional forecasters biased? Agency versus behavioral explanations," *The Quarterly Journal of Economics*, 1996, *111* (1), 21–40.

Exley, Christine L and Judd B Kessler, "Motivated errors," *American Economic Review*, 2024, *114* (4), 961–987.

Friedman, Daniel and Zhaoqi Wang, "Motivated Beliefs Meet in the Marketplace," *Available at SSRN 4771293*, 2024.

Gödker, Katrin, Peiran Jiao, and Paul Smeets, "Investor memory," *Available at SSRN 3348315*, 2021.

Jerit, Jennifer and Jason Barabas, "Partisan perceptual bias and the information environment," *The Journal of Politics*, 2012, *74* (3), 672–684.

Kunda, Ziva, "The case for motivated reasoning.," *Psychological Bulletin*, 1990, *108* (3), 480.

Laster, David, Paul Bennett, and In Sun Geoum, "Rational bias in macroeconomic forecasts," *The Quarterly Journal of Economics*, 1999, *114* (1), 293–318.

Malmendier, Ulrike and Stefan Nagel, "Learning from inflation experiences," *The Quarterly Journal of Economics*, 2016, *131* (1), 53–87.

Ottaviani, Marco and Peter Norman Sørensen, "Reputational cheap talk," *The RAND Journal of Economics*, 2006, *37* (1), 155–175.

_ **and** _ , "The strategy of professional forecasting," *Journal of Financial Economics*, 2006, *81* (2), 441–466.

Prior, Markus, Gaurav Sood, Kabir Khanna et al., "You cannot be serious: The impact of accuracy incentives on partisan bias in reports of economic perceptions," *Quarterly Journal of Political Science*, 2015, *10* (4), 489–518.

Rathje, Steve, Jon Roozenbeek, Jay J Van Bavel, and Sander van der Linden, "Accuracy and social motivations shape judgements of (mis) information," *Nature Human Behaviour*, 2023, pp. 1–12.

Robertson, Ronald E, Jon Green, Damian J Ruck, Katherine Ognyanova, Christo Wilson, and David Lazer, "Users choose to engage with more partisan news than they are exposed to on Google Search," *Nature*, 2023, *618* (7964), 342–348.

Ropele, Tiziano, Yuriy Gorodnichenko, and Olivier Coibion, "Inflation expectations and misallocation of resources: evidence from Italy," *American Economic Review: Insights*, 2024, *6* (2), 246–261.

Schaffner, Brian F and Samantha Luks, "Misinformation or expressive responding? What an inauguration crowd can tell us about the source of political misinformation in surveys," *Public Opinion Quarterly*, 2018, *82* (1), 135–147.

Thaler, Michael, "The fake news effect: Experimentally identifying motivated reasoning using trust in news," *American Economic Journal: Microeconomics (forthcoming)*, 2024.

Weber, Michael, Bernardo Candia, Tiziano Ropele, Rodrigo Lluberas, Serafin Frache, Brent H Meyer, Saten Kumar, Yuriy Gorodnichenko, Dimitris Georgarakos, Olivier Coibion et al., "Tell me something i don't already know: Learning in low and high-inflation settings," Technical Report, National Bureau of Economic Research 2023.

_ **, Francesco D'Acunto, Yuriy Gorodnichenko, and Olivier Coibion**, "The subjective inflation expectations of households and firms: Measurement, determinants, and implications," *Journal of Economic Perspectives*, 2022, *36* (3), 157–184.

Zimmermann, Florian, "The dynamics of motivated beliefs," *American Economic Review*, 2020, *110* (2), 337–363.