Market Expectations and the Credibility of Monetary Policy*

Sebastiao Oliveira† Pedro Simon‡

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Abstract

We provide novel evidence that central bank credibility affects how market expectations react to contractionary monetary policy surprises. Exploiting the Brazilian central bank's loss of credibility under President Dilma Rousseff (2011–2014) and high-frequency data on exchange rate and inflation expectations, we show that when credibility is high, contractionary surprises lead to immediate declines in inflation expectations and anticipated appreciations of exchange rates. The opposite obtains when credibility is low. Our findings indicate that the market's interpretation of monetary policy is state-dependent, shaped by the perceived credibility of the central bank.

Keywords: Credibility, market expectations, monetary policy.

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†Department of Economics, University of Illinois Urbana-Champaign. Email: so28@illinois.edu.

‡Department of Economics, University of Illinois Urbana-Champaign. Email: pvsimon2@illinois.edu.

1 Introduction

Macroeconomic expectations are crucial to understanding the dynamics of financial markets (Chun, 2011; Haubrich, Pennacchi, and Ritchken, 2012; Gomez-Cram and Yaron, 2021). A key determinant of how macroeconomic expectations evolve is the credibility of monetary policy. When market participants trust the central bank to respond appropriately to inflationary pressures, monetary policy surprises can anchor expectations, thereby reducing economic uncertainty. Conversely, absent credibility, the same surprises may destabilize beliefs, induce risk premia adjustments, and trigger asset price volatility. Despite the importance of this relationship, no existing study has empirically identified how monetary policy transmit to financial markets under different degrees of credibility.

We use the Brazilian Central Bank's (BCB) loss of credibility during the first President Dilma Rousseff administration (2011–2014) to study how market expectations react to monetary policy surprises under different degrees of credibility. Cortes and Paiva (2017) document that the BCB switched toward an excessively loose monetary policy stance at the beginning of Rousseff's first term (2011–2014) and remained in this regime for most of that period. Relatedly, Bonomo et al. (2024) show that inflation expectations became unanchored during this time and that re-anchoring occurred only years later, after a regime shift that included a change of government. Together, these findings indicate a sharp credibility loss, consistent with the evidence in Figure 1, which shows that during this period, the BCB's credibility index reached its lowest point while inflation expectations peaked.

To analyze how credibility shapes market expectations, we collect high-frequency survey data on professional forecasters' daily expectations for the exchange rate twelve months ahead. Exchange rate expectations are particularly informative because they cap-

ture how both domestic and international market participants perceive the central bank's commitment to price stability. Our high-frequency data let us trace immediate revisions in expectations following contractionary monetary policy surprises and to compare these responses across credibility regimes. We estimate a smooth transition–local projection model, combining the approach of Jordà (2005) with a smooth regime-switching mechanism, to examine how monetary policy surprises affect forecasters' expectations and market outcomes (exchange rates and inflation).[1]

We provide the first empirical evidence that market expectations respond differently, both qualitatively and quantitatively, to monetary policy surprises depending on the credibility regime. When credibility is high, professional forecasters interpret a contractionary surprise as a commitment to the inflation target—that is, a stronger-than-expected policy reaction to inflationary deviations. As a result, they lower their inflation expectations and anticipate an exchange rate appreciation. In contrast, under low credibility, an unexpected interest rate hike leads forecasters to raise their inflation expectations and expect a depreciation of the exchange rate. In this regime, forecasters are skeptical that the central bank is genuinely pursuing its inflation target; instead, they infer that the rate increase reflects worsening inflation fundamentals. They interpret the surprise hike as a signal that inflationary pressures are more severe than previously believed, prompting higher inflation expectations and hence expectations of a currency depreciation.

Our empirical results show that the central bank's credibility affects how professional forecasters interpret the consequences of a contractionary monetary policy surprise for

[1]Monetary policy surprises are defined as the difference between the actual policy rate decision and the rate expected by professional forecasters, as reported by Bloomberg. Robustness exercises using market-based measures yield virtually identical results (see Section 8).

future exchange rates, with effects that are economically significant.[2] When central bank credibility is high, an unexpected increase of 100 bps in the target rate causes the expected one-year ahead exchange rate to appreciate by about 5.5%. When instead credibility is low, the same monetary policy surprise causes exchange rate expectations to depreciate by almost the same magnitude. With high credibility, a larger-than-expected interest rate increase causes the value of the BRL to increase immediately relative to the dollar. This makes investment opportunities in Brazil more attractive, resulting in capital flows that cause the BRL to appreciate against the US$. With low credibility, professional forecasters instead believe the central bank is under-reacting to inflationary pressures. As a result, the MPS is interpreted as an unexpected decrease in the real interest rate as inflation is perceived as unexpectedly higher. This reduces the BRL's attraction to investors, causing the BRL to depreciate.

We confirm this mechanism through an analysis of the high-frequency reactions of inflation expectations. In line with our exchange rate findings, when the central bank has high credibility, an unexpected increase of 100 bps on the target rate causes professional forecasters to reduce their inflation expectations by 0.30%. In contrast, in a low credibility regime, the same monetary policy surprise increases their inflation expectations by 0.50%. We also estimate the dynamic response of professional forecasters' inflation expectation disagreement after monetary policy surprises. We find no statistically significant changes in disagreement after a monetary policy surprise under high or low credibility. This finding suggests that professional forecasters interpret the new information about monetary policy surprises in the same way, but the state of credibility determines how they incorporate it

[2]The exchange rate expectation collected by the Focus Survey concerns the $\frac{BRL}{US\$}$.

into their expectations.

We present evidence that realized inflation is consistent with economic forecasters' beliefs. We document a sharp increase in 12-month accumulated inflation during the period of low credibility: accumulated inflation rose, on average, from 5.6% to 7.1% when comparing periods before and during the loss of credibility. At the same time, we see a substantial rise in short-term inflation expectations during President Rousseff's administration. This suggests that the market correctly anticipated the changes in inflation dynamics after shifts in monetary policy credibility.

We conclude by documenting an overreaction in long-term expectations during periods of low credibility. We estimate the impact of monetary policy surprises, conditional on the credibility regime, on inflation surprises (released CPI minus the CPI expected by forecasters) and find that contractionary shocks increase inflation surprises in the low-credibility regime but not in the high-credibility one. These results are consistent with contractionary monetary policy surprises leading to higher inflation expectations when credibility is low, suggesting that markets interpret rate hikes, not as disinflationary actions, but rather as signals of worsening inflation fundamentals.

The paper is structured as follows. Section 2 discusses the related literature. Section 3 provides background on the BCB. Section 4 describes data sources, measures of inflation expectations, monetary policy surprises, and central bank credibility. Section 5 explores the relationship between credibility and inflation expectations. Section 6 presents our empirical strategy and main results. Section 7 offers further evidence of the credibility channel. Section 8 confirms the robustness of our key findings. Section 9 concludes.

2 Related Literature

Our paper relates to several strands of the macro-finance literature. A large body of literature shows that inflation and inflation expectations play an important role in policy-making and asset pricing (Chernov and Mueller, 2012; Ehling et al., 2018; Boons et al., 2020; Schnorpfeil, Weber, and Hackethal, 2025; Hillenbrand et al., 2025). For example, Ehling et al. (2018) show that inflation disagreement, not just expected inflation, has an impact on nominal interest rates. Although these papers also examine inflation, expectations of inflation or interest rates, their analyses do not consider central bank credibility and professional forecasters' responses to contractionary surprises, which are central to our investigation. In particular, we are the first to document the very different exchange rate and inflation expectations reactions to contractionary monetary policy surprises under high and low central bank credibility. We also show that expectations disagreement does not increase right after a monetary policy surprise either in low or high credibility states.

We contribute to the literature that studies the Brazilian central bank's loss of credibility under President Dilma Rousseff (2011–2014). Cortes and Paiva (2017) document that the BCB shifted toward an excessively loose monetary policy regime during the first year of Rousseff's administration and remained in this regime throughout most of that period.[3] Bonomo et al. (2024) show that both short- and long-run inflation expectations—and their dispersion—increased immediately after the abrupt policy change. By contrast, our focus is on how market expectations react to monetary policy surprises under different degrees of credibility. We show that the direction of market expectation revisions to a contractionary

[3]The authors estimate the central bank's reaction function and find that monetary policy was excessively dovish throughout most of 2011–2014.

monetary policy surprise varies according to the credibility regime. We also provide evidence of an overreaction by macroeconomic forecasters in their long-term inflation expectations when credibility is low. Most distinctively, our paper highlights the consequences of these state-contingent beliefs about inflation for exchange-rate expectations. Our evidence demonstrates that credibility affects not only the interpretation of monetary policy but also its transmission to asset prices through movements in expected exchange rates.

Several studies investigate the effect of monetary surprises on financial market reactions.[4] The most closely related paper is Andrade and Ferroni (2021). They show that the coexistence of two components in central bank communication—news about the future state and news about the central bank's future stance—can explain why future interest rates announcements lead to strong reactions in the yield curve together with a weak reaction in inflation expectations and stock prices. We use the Brazilian destruction of credibility and high-frequency data from the daily professional forecast survey to uncover how professional forecasters update exchange rate expectations following a contractionary monetary policy surprise during a clear period of low central bank credibility. This distinction is important because the literature has not considered the possibility that markets would respond very differently to monetary policy surprises according to whether central bank credibility is high or low.

Finally, our paper connects to the literature that studies the effects of conventional and unconventional monetary policy on exchange rates (Dornbusch, 1976; Eichenbaum and Evans, 1995; Taylor, 2001; Gali and Monacelli, 2005; Inoue and Rossi, 2019; Akinci and

[4]For example, see Gürkaynak, Sack, and Swanson (2005b), Gürkaynak, Sack, and Swanson (2005a), Heidari and Wu (2010), Nakamura and Steinsson (2018), Jarociński and Karadi (2020), Bauer and Swanson (2023a), and Bauer and Swanson (2023b).

Queralto, 2024). Our contribution is to provide novel evidence that the response of professional forecasters' exchange rate expectations to monetary policy surprises depends on how they interpret it, and that such interpretations hinge on the central bank's credibility.

3 Background

In 1999, Brazil adopted inflation targeting. According to Mishkin (2004) and Heenan, Peter, and Roger (2006), inflation-targeting frameworks have included four main elements: an explicit central bank mandate to pursue price stability as the primary objective of monetary policy and a high degree of operational autonomy; explicit quantitative targets for inflation; central bank accountability for performance in achieving the inflation objective; and a policy approach based on a forward-looking assessment of inflation pressures. Under this monetary policy regime, the BCB was able to lower inflation, establish credibility, and keep inflation expectations anchored.

Figure 2 (A) shows the trajectory of the core consumer price index in Brazil, the IPCA (henceforth, CPI). The first dashed black line corresponds to the inauguration of Dilma Rousseff as the 36th President of Brazil, and the second dates the first monetary surprise under her administration. The average and standard deviation of the CPI from January 1999 to December 2019 are 6.29% and 2.71%, respectively. In the period before the Inflation Targeting regime (from January 1995 to December 1998), the average and standard deviation of the CPI are 43.54% and 114.05%. Over the period beginning with inflation targeting to the end of President Luiz Inácio Lula da Silva's administration (2003–2010), the BCB was credible for most of the time (Mendonça and Souza, 2007; Levieuge, Lu-

cotte, and Ringuedé, 2018; Issler and Soares, 2018).

Political interventions in the BCB started following the election of President Dilma Rousseff in 2011. Although inflation expectations exceeded the target, the BCB, under a new Board of Governors appointed by the President, began to unexpectedly reduce the interest rate. The first monetary surprise occurred on August 31, 2011, when the BCB cut the interest rate from 12.5% to 12%, citing a deterioration in the outlook for the global economy.[5] During President Rousseff's term, the government pursued what became known as the "new macroeconomic matrix"—a developmental policy framework that prioritized short-term growth and employment through administratively lower interest rates, credit expansion via public banks, and selective price controls. Public statements by senior officials and the early easing cycle of 2011—despite above-target inflation—signaled that the government's growth objectives were being prioritized over the inflation target. As the Central Bank of Brazil did not yet enjoy formal independence, these actions were interpreted by market participants as political influence over monetary policy, contributing to the observed loss of credibility.

By 2013, professional forecasters had already consolidated the view that President Rousseff was behind the change in behavior of the BCB. For example, on March 15, 2016, Forbes published an article titled "Brazil Pres Dilma Seems Ready To Give Up On Her Central Bank", citing Barclays Capital's Brazil analyst Bruno Rovai, who stated that investors would have to get used to the idea that inflation was no longer the mandate of Dilma's central bank.[6] These political interventions are consistent with Binder (2021),

[5] https://www.bbc.com/news/business-14743866

[6] https://www.forbes.com/sites/kenrapoza/2016/03/15/brazil-pres-dilma-seems-ready-to-give-up-on-her-central-bank

who documents political pressure on the BCB between 2011 and 2013.

Figure 2 (B) describes the trajectory of the target interest rate, the inflation target adopted by the BCB, and professional forecasters' inflation expectations from January 2011 to December 2013. The target interest rate decreased from 11.25% (January 2011) to 7.25% (March 2013), while inflation expectations were consistently above 5.3% during this same period. At this time, the BCB's target for inflation was 4.5%. The average of the target interest rate, inflation expectations, and inflation target for this period were 9.4%, 5.57%, and 4.5%, respectively.

Cortes and Paiva (2017) also analyze evidence of credibility destruction in Brazil by showing that this political intervention in the BCB reversed a long-term effort of credibility construction in Brazil dating back to the 1990s. They argue that the BCB switched toward an excessively loose monetary policy regime during the starting year of the first Rousseff administration (2011–2014) and remained in an excessively dovish regime throughout most of that period. Similarly, Bonomo et al. (2024) show that inflation expectations became unanchored during this time, and that re-anchoring occurred only years later, after a regime shift that included a change in government.

This destruction credibility and high-frequency data from the daily professional forecast survey provide an excellent opportunity to uncover how monetary surprises affect market expectations. To the best of our knowledge, our paper is the first to study whether market expectations, captured by high-frequency exchange rates expectations, respond differently to contractionary monetary surprises depending on the central bank's credibility.

4 Data

This section describes the measures of macroeconomic expectations used in our main analysis and explains how monetary policy surprises are constructed. The sample period spans from January 5, 2005, to December 31, 2019. We exclude the period before 2005 because few institutions participated in the Focus survey, and the BCB changed the inflation targets for 2003 and 2004 six months before the start of each year. We also exclude the period after 2019 to avoid issues related to the COVID-19 pandemic.

4.1 Macroeconomic Expectations

On each workday, the Focus survey organized by the BCB collects professional forecaster's expectations regarding macroeconomic variables. These high-frequency data provide precise reactions from forecasters after monetary surprises and immediate changes in the BCB's credibility. Almost 140 institutions provide their economic forecasts. These institutions are mainly banks, asset managements, distributors, and brokerages, plus consultancies and other non-financial companies. According to the BCB, most of these agents update their forecasts at least once a week.[7] The BCB only considers data reported in the last 30 calendar days. If a particular institution does not inform or ratify its expectations within 30 days, the statistics are no longer affected by such expectations. Even if the expectations have not changed, the qualified institution must confirm them at least every 30 days to keep them active in calculating the statistics. Therefore, the data are robust to stale information.

To obtain market expectations, we collect daily exchange rate expectations from pro-

[7] Participants who do not update their forecasts for at least six months are excluded from the database.

fessional forecasters in the Focus survey. Exchange rate expectations are particularly informative because they capture how both domestic and international market participants perceive the central bank's commitment to price stability. The questionnaire explicitly asks about the Brazilian currency against U.S. dollar ($\frac{BRL}{US\$}$). Therefore, a higher exchange rate expectation means an expected depreciation, while a lower exchange rate expectation is an expected appreciation. The BCB provides, on a daily basis, the aggregate exchange rate expectation for each month-end, up to twenty-four months ahead. So our measure is the expectation for twelve end of the month ahead. For example, for any day in January 2011, the expected exchange rate is the forecast for January 2012.

We use the expected inflation 12 months ahead, which is the preferred measure of the BCB to summarize short-term inflation expectations. The BCB calculates the median and standard deviation of this time series and makes it publicly available at a daily frequency.[8] We consider as measures of long-term inflation expectations forecasts three, four, and five calendar years going forward. Throughout 2010, we use the expectations at the end of 2014 as the five-year inflation expectations; as soon as 2011 calendar year begins, we use the inflation forecast for the end of 2015 as the five-year inflation expectation; and so on. Similar constructions apply for the construction of expectations three and four years ahead. It is worth noting that professional forecasters' survey-based inflation expectations measures are widely used in the literature.[9] Of note, Coibion et al. (2020) show that professional forecaster survey-based and market-based inflation expectations are very closely related and both respond to policy shocks quickly.

[8] www.bcb.gov.br/en/monetarypolicy/marketexpectationsfaq

[9] For example, see Gürkaynak, Levin, and Swanson (2010) and Coibion et al. (2020).

4.2 Monetary Policy Surprises

We identify all BCB Monetary Policy Committee (COPOM) meeting dates (similar to FOMC meetings) to construct monetary policy surprises (henceforth, MPS). There are 45 days between COPOM meetings (8 meetings per year). There is a period of silence before and after COPOM meetings, which starts the Wednesday before the COPOM meeting (1 week before) and ends four working days after the meeting when the BCB releases its statement detailing and explaining its decision regarding the target rate. During the period of silence, COPOM members are not allowed to issue statements or give speeches about topics related to COPOM, give interviews to the press, or even meet with people who may have an interest in COPOM's decisions, including economists, investors, market analysts, and entrepreneurs. Failure to comply with these rules is communicated to the President, who can prohibit the rule-breaking member from participating in the meeting.

The decisions regarding the target interest rate are publicly announced to the public after the stock market closes. Therefore, we cannot use the high-frequency method right after the COPOM decision. We define the MPS as the difference between the actual COPOM's decision, and the expected target rate of professional forecasters collected through the Bloomberg Terminal.[10] A similar measure of monetary policy surprises is used by Aguilar et al. (2022) and Bonomo et al. (2024).[11]

If the following Thursday is a holiday, we use Friday as the next working day, except for one holiday in April of 2011. After the 04/20/2011 COPOM meeting, Brazil had a two-

[10] We also use daily changes on nominal yields (swap rates) of 1- and 3-month maturity to construct the monetary surprises and find quantitatively similar results. For details, please see Section 8.

[11] We estimate the response of standard macro variables (realized inflation, GDP, and stock prices index) to our measure of monetary policy surprises and find significant and consistent effects with usual theoretical intuition. The results are available upon request.

day holiday (Thursday and Friday) and the next working day was the following Monday, so we set the MPS for this meeting to zero.

4.3 Measuring Central Bank's Credibility

Because credibility is viewed as a medium or long-run concept (Bernanke et al., 2007; Kumar et al., 2015), we use long-term inflation expectations to construct a central bank credibility index. The longer the time horizon, the less likely inflation expectations are to be affected by short-term shocks. For example, in May 2018, truckers blocked major roads across Brazil due to the rise in fuel prices, preventing the delivery of goods to supermarkets and gas to petrol stations. Figure 4 shows no change in the 5Y ahead inflation expectations around that time, but the 1Y ahead inflation expectation increased. Moreover, with a long horizon, inflation shocks should dissipate, precluding the possibility of confounding the presence of mean-reverting shocks to inflation with a lack of credibility.

Figure 3 plots common credibility indexes used in the literature. Each of the credibility indexes shows that during Dilma Rousseff's administration, the BCB's credibility reached its lowest point. We use the LL index (Levieuge, Lucotte, and Ringuedé, 2018) in our baseline specification. The credibility index is given by:

$$\text{LL Index} = \frac{1}{exp(\tilde{\pi^e}) - \tilde{\pi^e}} \quad , \forall \pi^e, \tag{1}$$

where $\tilde{\pi^e}$ is the deviation between expected inflation π^e and the target $\overline{\pi}$. The exponential term in the denominator grows rapidly with $\tilde{\pi}^e$, reflecting that positive and negative deviations of expected inflation from the target entail asymmetric credibility losses. In particu-

lar, positive deviations, which signal doubts about the central bank's ability to achieve its target, are viewed as more detrimental to credibility than negative ones.

The index design captures the idea that credibility can be viewed as the difference between private inflation expectations and the announced policy target; it is not based on ad hoc upper and/or lower thresholds, and it is not linear, i.e., the credibility index declines relatively more sharply when inflation expectations are above the inflation target than when inflation expectations are below the inflation target. The construction of the LL index has two important features. First, we use a rolling window of only 22 working days, which lets us construct a daily frequency central bank credibility index and provide a more timely and granular assessment of central bank credibility. Second, we use inflation expectations for five years ahead, so generating a forward-looking index.

Section 8 shows that similar results obtain for the other three credibility indexes shown in Figure 3.[12] We also perform an additional analysis that does not rely on inflation expectation measures or information about the central bank's target to define the low- and high-credibility periods and find qualitatively similar results.

5 Credibility and Inflation Expectations

This section presents summary statistics of professional forecasters' inflation expectations during periods of high and low credibility, supporting the view that the central bank lost credibility during President Rousseff's term. We also describe the degree of disagreement among professional forecasters' inflation expectations.

[12]For full details of the construction of each credibility index, see Online Appendix B.

5.1 Descriptive Statistics

Table 1 compares twelve-month ahead inflation expectations (Focus) and the 12-month accumulated CPI (CPI). In the period with low credibility, inflation expectations and CPI are higher than in the periods when the BCB was credible. Table 2 uses daily frequency and shows the two-sample t-test (column 6). We find a positive statistically significant difference between the mean of twelve-month ahead inflation expectations in the period with low credibility (Focus during) and with high credibility (Focus before). Table 3 presents the two-sample t-test for the disagreement between forecasters for twelve-month ahead inflation expectations and finds a statistically significant difference depending on the period. The disagreement between forecasters is higher when the BCB does not have credibility.

5.2 Inflation Expectations during Rousseff's Period

Figure 4 shows the daily median of the professional forecasters' inflation expectations for the next five years. The shaded area starts with the first monetary surprise (August 31, 2011) and ends with the Rousseff's impeachment (August 31, 2016). The lines refer to the respective end of the period BCB's inflation target (black line), the upper level tolerance (green line), and the lower level tolerance (blue line).

Figures 4 (A) and (B) show that the tolerance interval upper bound had little impact on containing a substantial rise in short-term inflation expectations during the Rousseff's Period. In contrast, outside of Rousseff's period, short-run inflation expectations did not surpass the BCB's upper bound tolerance interval. Figure 4 also shows that the long-term inflation expectations of professional forecasters increased after the unexpected cut on

interest rates on August 31, 2011. During Rousseff's administration, long-term inflation expectations are above the BCB inflation target for the first time in our sample period.

Figure 5 shows the daily standard deviation (disagreement) of the professional forecasters' inflation expectation for the next five years. The shaded area starts with the first monetary surprise (August 31, 2011) and ends with Rousseff's impeachment (August 31, 2016). There is generally higher disagreement among economic forecasters during Rousseff's period.

6 Empirical Strategy and Main Results

6.1 Empirical Strategy

To estimate how central bank's credibility impacts the MPS transmission to market expectations, we apply the smooth transition-local projection model, a strategy that combines the local projection approach by Jordà (2005) with a smooth regime-switching mechanism.[13] To the best of our knowledge, our paper is the first to do so for monetary policy surprises under different degrees of credibility. This model is more appropriate than a continuous credibility index because it accounts for a more abrupt change in the monetary policy regime, which has been documented in the literature regarding credibility destruction in Brazil (e.g., Bonomo et al. (2024)). Our empirical model estimates the cumulative responses of exchange rate expectations and expected inflation 12 months ahead (y_t) to a monetary policy surprise MPS_t according to the probability of the central bank being in

[13]This same strategy has been applied in several papers that estimate the state dependency effects of monetary policy (e.g. Tenreyro and Thwaites (2016) and Falck, Hoffmann, and Hürtgen (2021)) and fiscal policy shocks (e.g. Auerbach and Gorodnichenko (2012) and Ramey and Zubairy (2018)).

the high- or low-credibility regime:

$$\begin{aligned} y_{t+i-1} - y_{t-1} =& \phi_i S_t + \left(\alpha_i^H + \beta_i^H \text{MPS}_t + \gamma_i^H X_t\right) F\left(z_{t-1}\right) \\ &+ \left(\alpha_i^L + \beta_i^L \text{MPS}_t + \gamma_i^L X_t\right)\left(1 - F\left(z_{t-1}\right)\right) + \epsilon_{t+i} \end{aligned} \tag{2}$$

Here $\lambda = H, L$ refers to the high (H) and low (L) credibility regime, respectively, and $i \in \{0, I\}$ indicates the number of working days after the monetary policy surprise. The vector S_t includes seasonal controls such as yearly, monthly, day-of-the-week dummies, and remaining working days until the end of the calendar year. We also include regime-specific constants, α_i^λ, and regime-dependent effects of the MPS_t, β_i^λ, and a set of regime-specific coefficients for the vector of control variables X_t, γ_i^λ. The vector of controls X_t includes five lags of expected inflation 12 months ahead, one lag of Consumer Price Index (CPI), one lag of the target rate, and CPI Surprise (the released CPI minus the expected professional forecasters' CPI). We also add the log of Brazil 5Y Credit Default Swap, log of the main Brazilian stock market index (Ibovespa), log of Exchange Rate (BRL/US$), 10-year Government bonds, and the expected GDP growth rate. The regression residual is denoted by ϵ_{t+i}, and we use Newey–West standard errors for each horizon i, allowing for an error structure that is heteroskedastic and autocorrelated up to i lags.

The probability of being in a high-credibility regime at time $t-1$ is given by the function $F\left(z_{t-1}\right) \in [0, 1]$. When the coefficients in Equation (2) interact with $F\left(z_{t-1}\right)$, the effects of MPS are conditioned on the probability of being in a high or low-credibility regime. The regimes are distinguished by the regime-indicating variable z_{t-1}, which reflects the central bank's credibility. The regime-indicating variable is lagged by one work-

ing day to prevent potential endogeneity bias.

We follow the standard approach in the literature (Granger and Teräsvirta, 1993) and use a logistic function to calculate the probability that the central bank is in a high-credibility regime at time $t-1$:

$$F\left(z_{t-1}\right)=\frac{\exp\left(\theta\frac{z_{t-1}-c}{\sigma_z}\right)}{1+\exp\left(\theta\frac{z_{t-1}-c}{\sigma_z}\right)},$$

where c is the median of z_{t-1} and σ_z is its standard deviation. The parameter θ determines the curvature of $F\left(z_{t-1}\right)$ and, hence, how suddenly the central bank's credibility changes when z_t changes. Higher values of θ imply a more abrupt change in the monetary policy regime. We follow Tenreyro and Thwaites (2016) and set θ to 3 for the main results. Section 8 shows that results are robust to alternatives parameter values. Figure 6 plots $F(z_{t-1})$ between 2006 and 2019. As expected, during Rousseff's administration, $F(z_{t-1})$ is close to zero. Moreover, it closely tracks the pattern of the credibility index, further validating the interpretation of $F(z_{t-1})$ as the probability that the central bank is in a high-credibility regime.

A potential concern with our specification is that the central bank might endogenously surprise professional forecasters if it believes inflation expectations are too high, thereby introducing bias into our estimates. We argue that this does not happen. First, Cortes and Paiva (2017) show that the BCB monetary policy did not react to the expected inflation gap during Rousseff's administration, which is the period with low credibility.[14] Further, during the period of high credibility, inflation expectations 12 months ahead were consistently

[14]Inflation gap is defined as inflation expectations twelve months ahead minus the inflation target twelve months ahead established by the BCB.

inside the BCB target. Thus, there was no need for the BCB to surprise the market with the intention to reduce inflation expectations. Although the monetary policy rule followed by the BCB could be endogenous to the expected inflation gap, it is unlikely that this could impact our estimation because we use the surprise in the decision, not the decision itself.[15]

Another concern might be that in the high credibility regime, professional forecasters may know the BCB's reaction function and might directly incorporate the surprise based on past economic data releases. However, this is not the case here, as we use high-frequency data on expectations. This allows us to capture the market's immediate reaction to BCB monetary policy decisions. We also control for CPI surprise in the specification; thus, if the professional forecasters were updating their expectations in anticipation of BCB actions conditional on the new inflation data, it would be captured by the CPI surprise.

6.2 Main Results

This section shows the effect of a MPS on market expectations. First, we investigate the impact of a 100 basis point (bps) contractionary surprise on professional forecasters' exchange rate expectations, under different levels of the BCB's credibility. Then, we examine the impact on professional forecasters' inflation expectations 12 months ahead.

[15] In Online Appendix C, we estimate the impulse-response functions of monetary policy surprises to a Cholesky shock on the expected inflation gap and show that the BCB is not endogenously surprising the market to reduce inflation expectations.

6.2.1 Exchange Rate Expectations

We use the log change in the exchange rate expectations 12 months ahead as the outcome variable in Equation (2) to estimate the effect of a MPS on professional forecasters' expectations under different degrees of BCB's credibility. The exchange rate expectation collected by the Focus Survey is defined as $\frac{BRL}{US\$}$. Thus, an increased value of the exchange rate indicates a nominal depreciation, while a lower value corresponds to a nominal appreciation of the BRL against the US$.

Figure 7 shows the dynamic response of exchange rate expectations 12 months ahead to a 100bps MPS using the baseline specification in Section 6.1 (Equation (2)). We use 90% and 95% confidence intervals. Figure 7 shows that, with high credibility, the market reacts to a contractionary MPS by immediately *appreciating* exchange rate expectations 12 months ahead. Indeed, the exchange rate impacts are notably large. A contractionary MPS of 100bps decreases the exchange expectations 12 months ahead by approximately 1.3% after three working days of the announcement and by 6% after twenty-five working days. With low credibility, the exchange rate expectation instead *depreciates*. The same surprise increases the exchange rate expectations 12 months ahead by approximately 0.8% after three working days of the announcement and by 5.4% after twenty-five working days.

Figure 8 shows the dynamic response of exchange rate expectations disagreement among economic forecasters in response to a 100bps MPS. Disagreement is measured as the daily standard deviation of the professional forecasters' exchange rate expectations 12 months ahead. We use 90% and 95% confidence intervals. Regardless of the credibility regime, monetary surprises do not affect the disagreement among professional forecasters' exchange rate expectations.

Our results suggest that the market interprets and reacts to new information about monetary policy surprises in a consistent manner, but that the state of credibility influences how this information is incorporated into expectations. With high credibility, a larger-than-expected interest rate increase causes the value of the BRL to *appreciate* immediately relative to the dollar, as investment opportunities in Brazil become more attractive and attract capital inflows. With low credibility, forecasters instead believe the central bank has private information indicating that the inflationary situation is worse than they previously thought. As a result, the MPS is interpreted as an unexpected decrease in the real interest rate as inflation is perceived as out of control. This causes the BRL to *depreciate*.

6.2.2 Inflation Expectations

To confirm the mechanism in our exchange rate analysis, we study the high-frequency reactions of inflation expectations to monetary policy surprises. Figure 9 presents estimated Impulse Response Functions (IRFs) for the response of inflation expectations 12 months ahead to monetary surprises under high and low credibility using the baseline specification in Section 6.1 (Equation (2)). We again use confidence intervals of 90% and 95%.

Figure 9 shows that with high credibility, a positive MPS has a *negative* and significant effect on inflation expectations 12 months ahead. After a MPS of 100bps, professional forecasters react immediately, reducing their inflation expectations 12 months ahead by about 0.15% after three working days of the announcement and by 0.30% after twenty-five working days. In contrast, with low credibility, the market reaction is *positive* and statistically significant. Following a MPS of 100bps, professional forecasters increase their inflation expectations 12 months ahead by about 0.11% after three working days of

the announcement and by 0.50% after twenty-five working days.

Figure 10 shows the dynamic response of inflation expectations disagreement among economic forecasters in response to a 100bps MPS. Disagreement is measured as the daily standard deviation of the professional forecasters' inflation expectation 12 months ahead. Regardless of whether credibility is high or low, monetary surprises do not affect the disagreement among professional forecasters' inflation expectations.

These results go hand in hand with our previous findings for exchange rate expectations. With high credibility, a positive MPS is perceived as a signal that the central bank is committed to fighting inflation, and expectations adjust downward immediately. With low credibility, the central bank is no longer believed to be committed to achieving the inflation target. Therefore, professional forecasters interpret unexpected increases in interest rates as the central bank's private information that inflationary pressures are worse than they had previously thought. As a result, they immediately increase their expectations of inflation.

6.2.3 Overreaction of Forecasters

Recent research (Fisher, Melosi, and Rast, 2025) suggests that long-term inflation expectations tend to overreact to news. To test for such overreaction in long-term expectations, we estimate the impact of monetary policy surprises—conditional on the credibility regime—on leads of inflation surprises (the released CPI minus the CPI expected by professional forecasters). The regression controls for one lag of the outcome variable, one lag of the Consumer Price Index (CPI), one lag of the target rate, the log of Brazil's 5-year Credit Default Swap (CDS), the log of the main Brazilian stock market index (Ibovespa),

the log of the exchange rate (BRL/USD), the 10-year government bond yield, and the expected GDP growth rate. As in the baseline specification, we also include seasonal controls—year, month, and day-of-the-week dummies, as well as the number of working days remaining in the calendar year.

Table 4 reveals that the coefficient on the interaction between high credibility and monetary policy surprises is negative and not statistically significant. In contrast, the coefficient on the interaction between low credibility and monetary policy surprises is positive and statistically significant up to five days after the contractionary surprise. This evidence suggests that under low credibility forecasters over-react to monetart policy surprises: in this regime, contractionary monetary policy surprises are associated with higher inflation expectations, indicating that the market interprets rate hikes not as disinflationary actions but as signals of deteriorating inflation fundamentals or a lack of policy resolve.

7 The Credibility Channel

In this section, we provide additional evidence in support of the credibility channel. In particular, we explore how our results interact with economic uncertainty and the country's fiscal position. Our findings suggest that central bank credibility is a key determinant of how markets interpret monetary policy actions, shaping the transmission of policy to expectations and, consequently, to macroeconomic outcomes.

7.1 Uncertainty

One might wonder whether our results could instead reflect the higher uncertainty. Suppose that Rousseff's term was also characterized by unusually high uncertainty. In such an environment, the information channel of monetary policy would play a larger role, as market participants would rely more heavily on central bank actions to infer the state of the economy. If so, interest rate hikes could raise inflation expectations—not because of a lack of credibility, but because of a lack of clear information about fundamentals.

We address this concern in three ways. First, we compare our credibility index with the Economic Policy Uncertainty (EPU) index for Brazil developed by Baker, Bloom, and Davis (2016). Figure 11 shows that the decline in credibility precedes the rise in uncertainty. Moreover, the lowest level of credibility does not coincide with the highest level of uncertainty. This temporal ordering is inconsistent with the view that uncertainty alone explains our results. Second, we re-estimate our main specification including the EPU index (and its interaction with monetary policy surprises) as a control to alleviate concerns that our results are driven by political or macroeconomic uncertainty. As Figure 12 shows, the results remain virtually unchanged, indicating that credibility—not uncertainty—drives the heterogeneous response of expectations to monetary shocks.

Finally, under the uncertainty channel, monetary policy surprises should increase forecaster disagreement, as agents update their beliefs about fundamentals heterogeneously. In contrast, we find that forecaster disagreement remains stable across regimes (Figures 8 and 10), consistent with expectations shifting collectively rather than idiosyncratically. This pattern supports the credibility mechanism: agents share a common belief about the central bank's willingness to achieve the target, rather than responding individually to in-

formation shocks. Overall, the combined evidence strongly supports the interpretation that credibility—not uncertainty—is the primary channel through which monetary policy shapes exchange rate and inflation expectations.

7.2 Fiscal Policy

In addition to interventions in monetary policy, public sector debt skyrocketed during the Dilma government. In 2014, the public sector experienced its first deficit since 2002, and the net public debt rose for the first time since 2009—from 33.6% of GDP in 2013 to 36.7% in 2014. One possible concern with our specification is that, in the low-credibility regime, news about higher interest rates could lead to higher inflation expectations or anticipated exchange rate depreciation through a fiscal channel. For instance, higher interest rates may make it more difficult for the government to service its debt, requiring inflation to adjust to satisfy the government's intertemporal budget constraint.

Although the high-frequency nature of our identification strategy rules out many alternative explanations for the differential reaction of professional forecasters under different degrees of central bank credibility, we further alleviate this concern by controlling for the primary surplus and its interaction with monetary policy surprises. In addition to being a crucial indicator of the country's fiscal situation—often more informative than the debt-to-GDP ratio alone, since it reflects the government's ability to generate revenue and control spending while excluding interest payments on the debt—the primary surplus is particularly relevant in our setting because President Dilma Rousseff's impeachment was linked to "fiscal pedaling," in which the government omitted liabilities from public debt statistics. Figure 13 shows that our main results remain unchanged after including these

controls. These findings also suggest that, in Brazil's case, the credibility erosion during the Rousseff administration was largely institutional and political, not fiscal.[16]

8 Robustness

This section reports several robustness tests to which we subject our main specification. We verify that our findings are robust to using alternative values of θ when calculating the probability of the central bank being in a high credibility regime, different credibility indexes, and an alternative set of controls. We also show that our main results are unchanged by using market-based measures to construct inflation expectations and monetary policy surprises.[17]

Credibility Indexes. One potential concern with our specification is that the smoothness of the credibility index may drive the results. To address this possibility, we estimate the model using different values of the parameter θ. The parameter θ determines the curvature of $F(z_{t-1})$ and, hence, how suddenly the BCB's credibility changes when z_t changes. Higher values of θ imply a more abrupt change in the monetary policy regime. Figure 14 reports the results. We use $\theta = 5$ in Figures 14 (A) and (B) and $\theta = 1$ in Figures 14 (C) and (D). The results remain consistent and significant.

Another potential concern is that our results may be sensitive to the credibility index. Figure 15 uses the version of the index proposed by Mendonça and Souza (2007) to char-

[16] We interact the primary surplus variable with monetary policy surprises in a similar way to how the credibility index is interacted, and we do not find that surprises have different effects in high-debt versus low-debt regimes. Results are available upon request.

[17] This section presents robustness exercises primarily for our main outcome variable, exchange rate expectations. All robustness tests for inflation expectations are reported in the Online Appendix D. Our findings remain robust across all specifications.

acterize the probability of being in a high credibility regime at time $t-1$, $F(z_{t-1})$.[18] The impulse response function remains statistically significant on nearly all working days considered after the monetary policy surprise for both credibility regimes. In the Online Appendix D, we document the robustness for the BCGG Index modified and for the original BCGG Index (Bems et al., 2021). The results remain qualitatively unchanged.

The credibility measures discussed above are constructed using five-year inflation expectations. One could argue that five years is a relatively long horizon, and elevated long-term inflation expectations might not reflect a loss of credibility. Another concern might be that the credibility index is based on deviations of long-term inflation expectations from the inflation target, and it relies on an assumption that agents in real time knew future inflation targets. We first note that the use of long-term inflation expectations is motivated by the fact that, although the credibility of monetary policy is not directly observable, it is reflected in the extent to which the public's long-term inflation expectations are anchored (see Bems et al. (2021)). Second, the inflation target in Brazil is announced ex ante by the National Monetary Council. Hence, professional forecasters when forming expectations for future inflation always observed the relevant targets in real time.

Nonetheless, we conduct an additional analysis that does not rely on measures of inflation expectations or information about the central bank's target. We construct indicator variables to classify periods with and without credibility. We define NoCRED as a dummy variable equal to one for periods of low credibility (between the first COPOM meeting after the monetary surprise of August 31, 2011, and the last COPOM meeting before the impeachment). The dummy for the credibility period, CRED, is defined analogously,

[18] We keep $\theta = 3$ in this exercise.

covering all periods in our sample except those classified as low-credibility. We then re-estimate our baseline specification using these dummies instead of $F(z_{t-1})$. We choose the market-based monetary policy surprise for this exercise, as it is not constructed using information on the target rate (i.e., the expected target rate of professional forecasters).

Figure 16 shows the response of exchange-rate expectations to monetary policy surprises across credibility regimes. We consistently find that market expectations respond differently to contractionary monetary policy surprises depending on the central bank's credibility. For example, after 22 working days, exchange-rate expectations significantly (at the 95% level) *appreciate* by 3.9% under high credibility, whereas they *depreciate* by 6.7% under low credibility in response to a contractionary monetary surprise, consistent with our base analyses.

Additional Controls. In Appendix D, we re-estimate our main specification using a model without controls and obtain similar results. This shows that our main coefficient of interest is not sensititve to controls, providing further credibility to our identification strategy.

Market-based Measures. One might wonder whether our results are sensitive to our choice of the measure of monetary policy surprise. To establish robustness, we follow Kuttner (2001) and use market-based daily data to construct high-frequency monetary policy surprises. Using daily changes on nominal yields (swap rates) of 1-month maturity, MPS_{MP} is given by the change in the swap rate on the next day of the COPOM.[19] We then estimate Equation (2) replacing MPS by our market-based monetary policy surprise measure, MPS_{MP}, while keeping the exact same outcome variables, i.e., the log change in the exchange rate expectations 12 months ahead and the survey-based inflation expectations

[19] In a robustness exercise, we use daily changes on nominal yields (swap rates) of 3-month maturity and results are unchanged. The results are available upon request.

12 months ahead. Figures 17 and 18 show that results remain qualitatively unchanged.

Lastly, while our survey-based inflation measure is constructed at the daily frequency, market-based inflation expectations have an even higher frequency and may better capture the markets' response to monetary policy surprises. To confirm the robustness of our findings, we use the 1-year break-even inflation from Bloomberg as our measure of market-based inflation expectations. We then estimate Equation (2) replacing MPS with our market-based monetary policy surprise, MPS_{MP}, and the survey-based inflation expectations 12-months ahead with the 1-year break-even inflation. Figure D.12 in Online Appendix D shows that results are similar to the baseline results, underscoring our findings that the market's interpretation of monetary policy is state-dependent, shaped by the perceived credibility of the central bank.

9 Conclusion

Macroeconomic expectations play an important role in financial markets dynamics. A key determinant of how these expectations evolve is the credibility of monetary policy. In this paper, we use the episode of the Brazilian central bank's loss of credibility under the administration of former President Dilma Rousseff (2011–2014), along with high-frequency data on exchange rate and inflation expectations, to study how the market responds to monetary policy surprises under different degrees of central bank credibility.

We provide novel evidence that, when credibility is high, the market expects the inflation target to be achieved and interprets contractionary monetary policy surprises as the central bank reacting more than proportionally to deviations of inflation from the target.

As a result, after an unexpected increase in the policy rate, inflation expectations of professional forecasters immediately fall and they expect an appreciation of the exchange rate. In contrast, when the central bank has low credibility, inflation expectations of professional forecasters rise and they expect a depreciation of the exchange rate. In this case, the central bank is not perceived as pursuing the inflation target and forecasters believe that the central bank raised the policy rate only in response to unusually high inflationary pressures. Forecasters interpret contractionary surprises as a signal that the central bank has private information indicating that inflationary pressures are worse than previously believed, prompting them to revise their expectations accordingly. These results suggest that credibility plays a central role in shaping financial market dynamics and macroeconomic outcomes.

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Tables and Figures

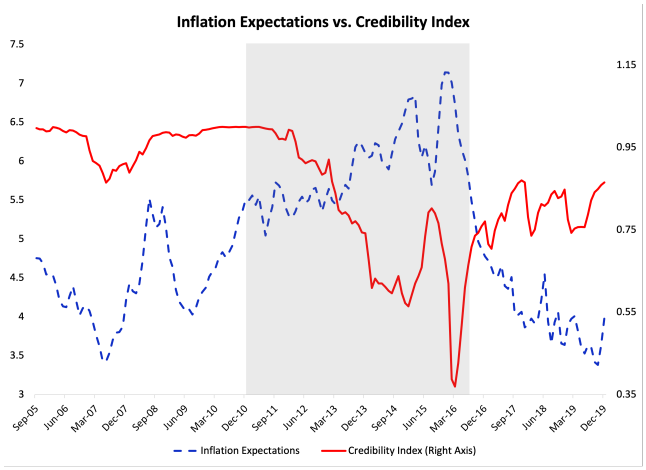


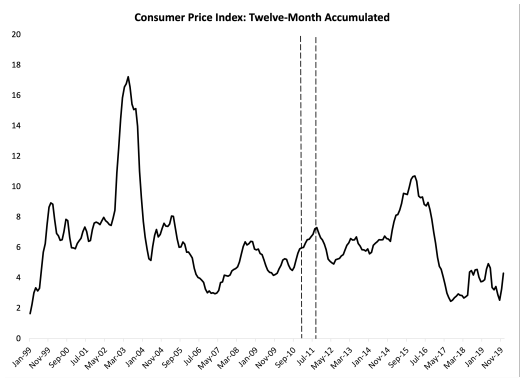
Figure 1: Inflation Expectations and Credibility Index

Notes: This figure shows the monthly frequency of the twelve-month ahead professional forecasters' inflation expectations (blue line) against the LL credibility index (red line) between September, 2005 and December, 2019. Section 4 describes in detail the measures of inflation expectations and credibility. The shaded area indicates Dilma Rousseff's administration (1 January 2011 – 31 August 2016). Source: Central Bank of Brazil (BCB).

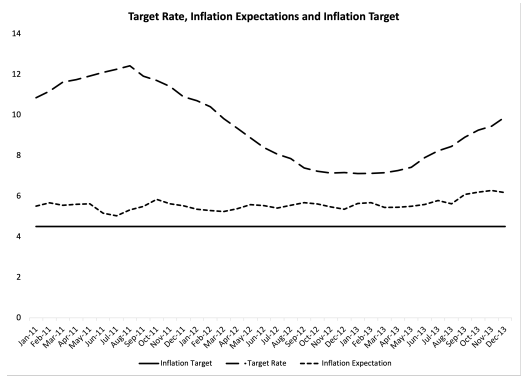
Table 1: Inflation Expectations and CPI (%): Monthly Frequency

Variable	Obs	Mean	Median	Std	Min	Max
Focus	160	5.1	5.0	0.9	3.4	7.3
CPI	160	5.6	5.6	1.9	2.5	10.7
Focus before	72	4.6	4.5	0.6	3.4	5.7
CPI before	72	5.0	4.8	1.1	3.0	7.2
Focus during	60	6.0	6.0	0.5	5.2	7.3
CPI during	60	7.1	6.5	1.7	4.9	10.7
Focus after	28	4.3	4.3	0.5	3.4	5.4
CPI after	28	4.1	3.9	1.6	2.5	8.5

Notes: This table shows twelve-month ahead inflation expectations (Focus) and the 12-month accumulated CPI (CPI). To compare expectations and CPI, we use monthly frequency. Focus and CPI refers to the period Sep/2005 - Dez/2018. Before refers to the period Sep/2005 - Aug/2011, and During refers to the period Sep/2011 -Aug/2016 (In 31, Aug/2011 happened the first monetary surprise and Aug/2016 was the impeachment of President Dilma Rousseff). After refers to the period following the impeachment of President Dilma Rousseff, Sep/2016 - Dez/2018. Source: Brazilian Institute of Geography and Statistics (IBGE) and Central Bank of Brazil (BCB).



(A) Consumer price index (CPI): 12-Month Accumulated



(B) Target Rate, Inflation Expectations and Inflation Target

Figure 2: CPI, Interest Rates and Inflation Expectations

Notes: Figure (A) shows the trajectory of the most well-known consumer price index in Brazil. We use the percentual variation in the consumer price index twelve months accumulated. The first dashed black line refers to the inauguration of Dilma Rousseff as the 36th President of Brazil, while the second refers to the first monetary surprise under her administration. Figure (B) shows the trajectory of the percentage annualized target rate established by the central bank, the inflation target adopted by the central bank, and the median of professional forecasters' inflation expectations from January 2011 to December 2013. Source: Brazilian Institute of Geography and Statistics (IBGE) and Central Bank of Brazil (BCB).

Table 2: Twelve-month ahead inflation expectations (%): Daily Frequency

Variable	Obs	Mean	Standard Error	Std	T-test	P-value
Focus during	1,259	5.99	0.0142	0.505		
Focus before	1,504	4.55	0.0149	0.579		
Combined	2,763	5.20	0.0171	0.902		
Diff		1.440	0.0208		68.93	0.000

Notes: This table shows the two-sample t-test for twelve-month ahead inflation expectations (Focus). We use daily frequency. Before refers to the period Sep/2005 - Aug/2011, and During refers to the period Sep/2011 - Aug/2016 (In 31, Aug/2011 happened the first monetary surprise and Aug/2016 was the impeachment of President Dilma Rousseff). Diff is the difference between Focus during and Focus before. Source: Central Bank of Brazil (BCB).

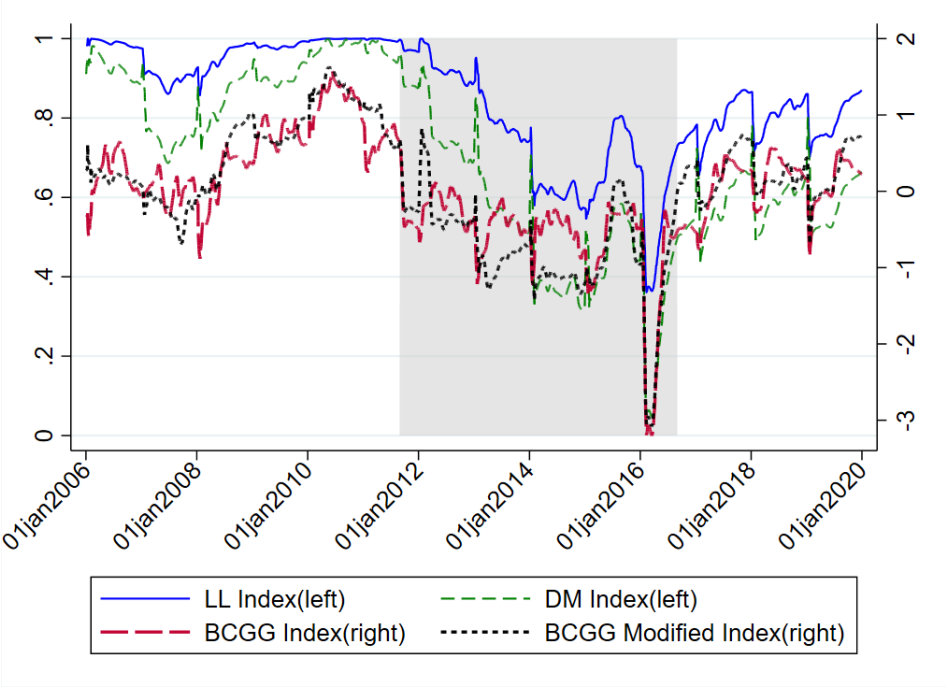


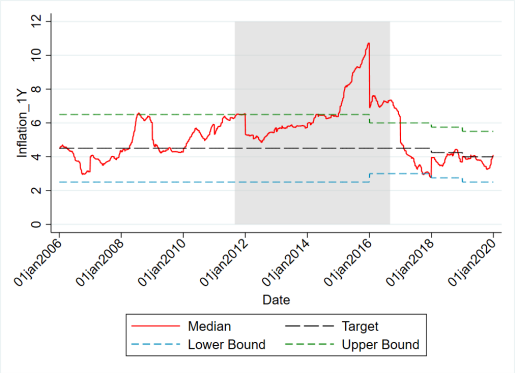
Figure 3: Credibility Index

Notes: This figure shows a comparison of four common indexes used to measure credibility: the LL index (blue), DM Index (green), BCGG Index (red), and BCGG Modified index (black). For all the indexes, we consider the BCB's credibility using the professional forecasters' long-term inflation expectations for five years ahead, employing a rolling window of the last 22 working days. The shaded area starts with the first monetary surprise (August 31, 2011) and ends with the impeachment of Dilma Rousseff (August 31, 2016). Source: Central Bank of Brazil (BCB).

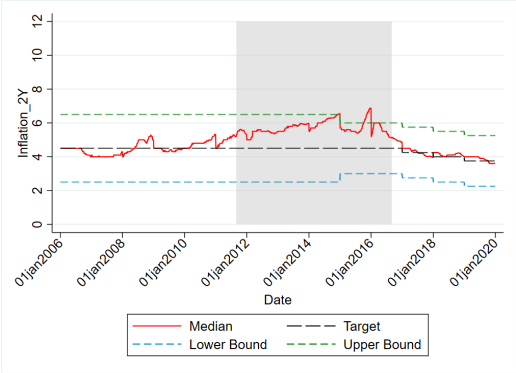
Table 3: Daily Frequency Twelve-month ahead inflation expectations (%): Disagremeent between the forecasters

Variable	Obs	Mean	Standard Error	Std	T-test	P-value
Focus during	1,306	0.3622	0.0043	0.1554		
Focus before	1,564	0.3293	0.0031	0.1256		
Combined	2,870	0.3442	0.0026	0.1409		
Diff		0.0329	0.0052		6.26	0.000

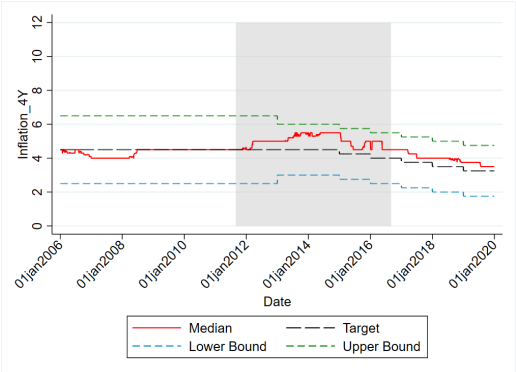
Notes: This table shows the two-sample t-test for the disagreement between forecasters for twelve-month ahead inflation expectations (Focus). Before refers to the period Sep/2005 - Aug/2011, and During refers to the period Sept/2011 - Aug/2016 (In 31, Aug/2011 happened the first monetary surprise and Aug/2016 was the impeachment of President Dilma Rousseff). Source: Central Bank of Brazil (BCB).



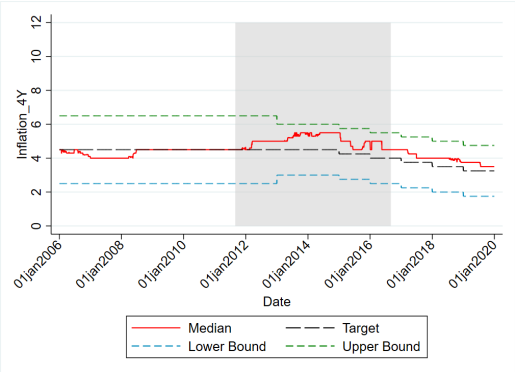
(A) 1 Year



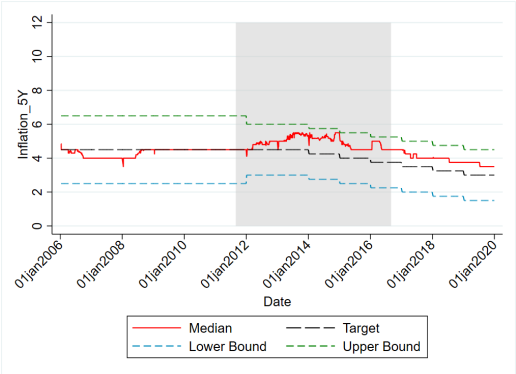
(B) 2 Years



(C) 3 Years



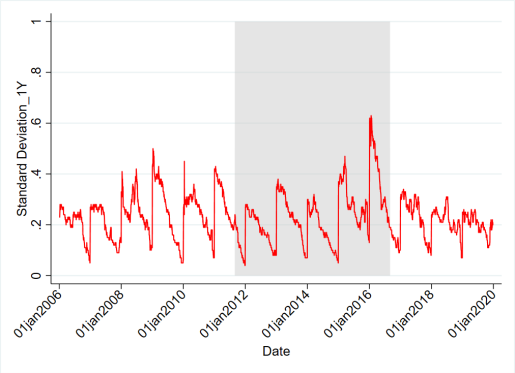
(D) 4 Years



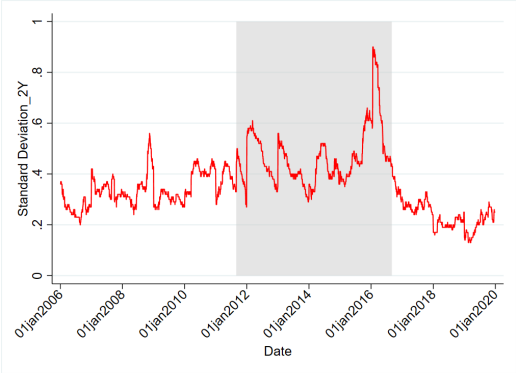
(E) 5 Years

Figure 4: Professional Forecasters' Median Inflation Expectations and Inflation Target

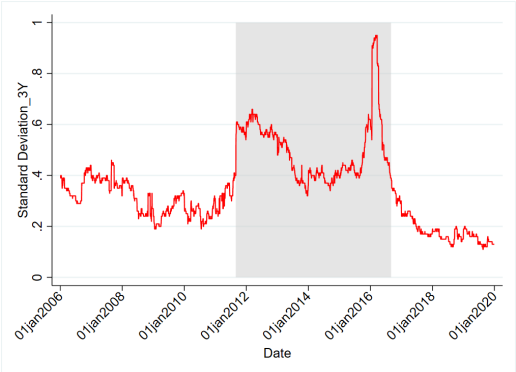
Notes: The figures show the daily median of professional forecasters' inflation expectations for the next five years released by the BCB (red line). The shaded area starts with the first monetary surprise (August 31, 2011) and ends with the impeachment of Dilma Rousseff (August 31, 2016). The lines refer to the respective end of the period BCB's inflation target (black line), the upper level tolerance (green line), and the lower level tolerance (blue line). Source: Central Bank of Brazil (BCB).



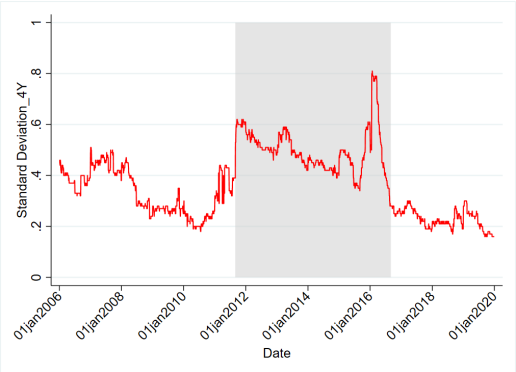
(A) 1 Year



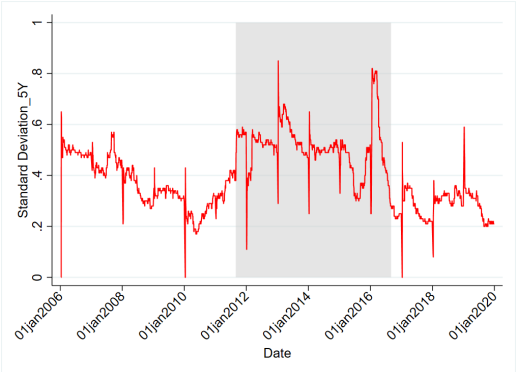
(B) 2 Years



(C) 3 Years



(D) 4 Years



(E) 5 Years

Figure 5: Professional Forecasters' Inflation Expectations Disagreement

Notes: The figures show the daily standard deviation (disagreement) of professional forecasters' inflation expectations for the next five years released by the BCB. The shaded area starts with the first monetary surprise (August 31, 2011) and ends with the impeachment of Dilma Rousseff (August 31, 2016). Source: Central Bank of Brazil (BCB).

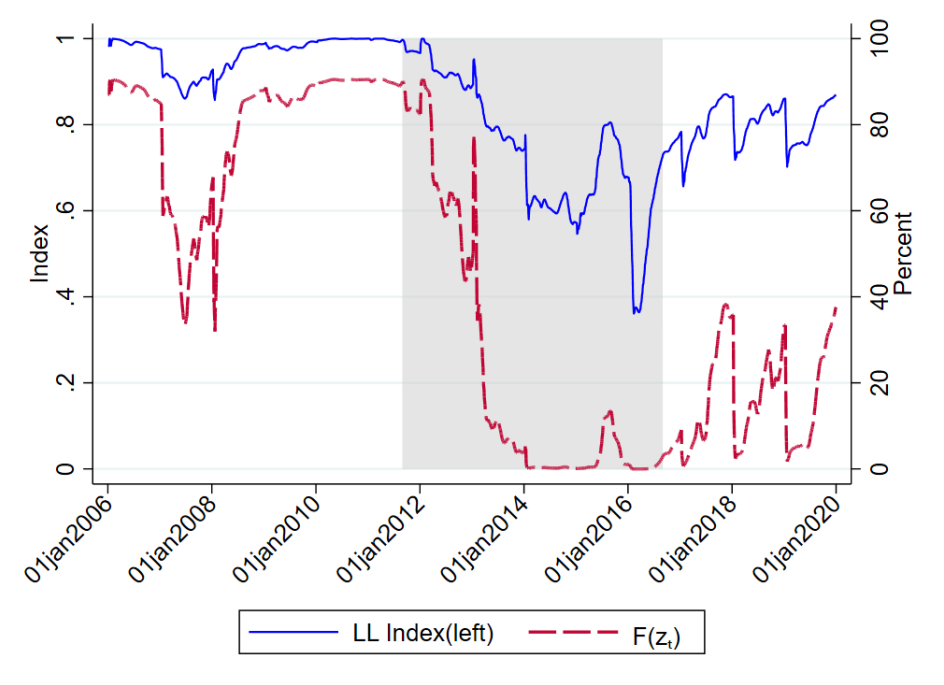
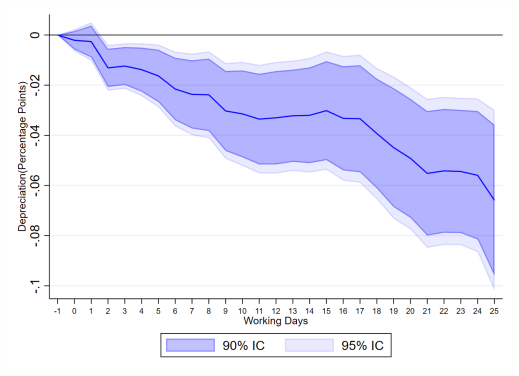
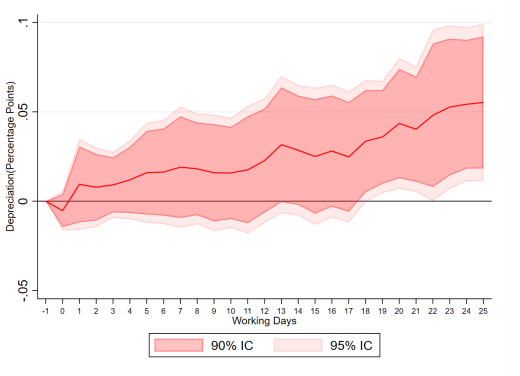


Figure 6: Probability of being in the high credibility regime

Notes: This figure shows the probability of the BCB being in a high credibility regime (red line) and the LL credibility index (blue line) (See Subsection 6.1). The shaded area starts with the first monetary surprise (August 31, 2011) and ends with the impeachment of Dilma Rousseff (August 31, 2016). Source: Central Bank of Brazil (BCB).



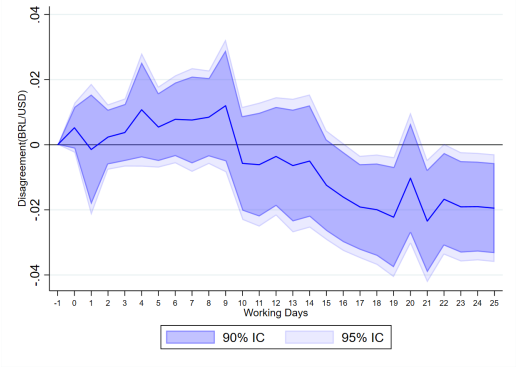
(A) High Credibility



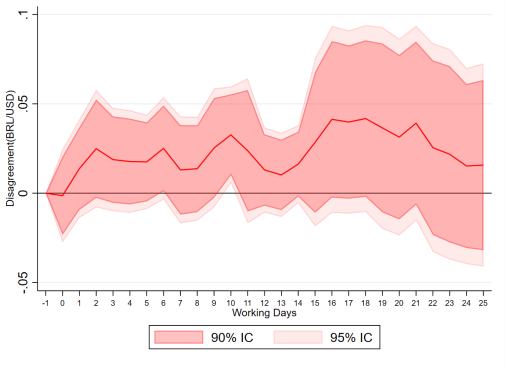
(B) Low Credibility

Figure 7: Dynamic Response of Exchange Rate Expectations: High vs. Low Credibility.

Notes: This figure shows Impulse Response Functions (IRFs) for the response of exchange rate expectations 12 months ahead to a 100 basis points monetary policy surprise under high credibility (A) and low credibility (B) using the baseline specification (Equation (2)). The light and dark areas display 95% and 90% confidence intervals, respectively. We use Newey–West standard errors for each horizon i, assuming the error structure is heteroskedastic and autocorrelated up to i lags.



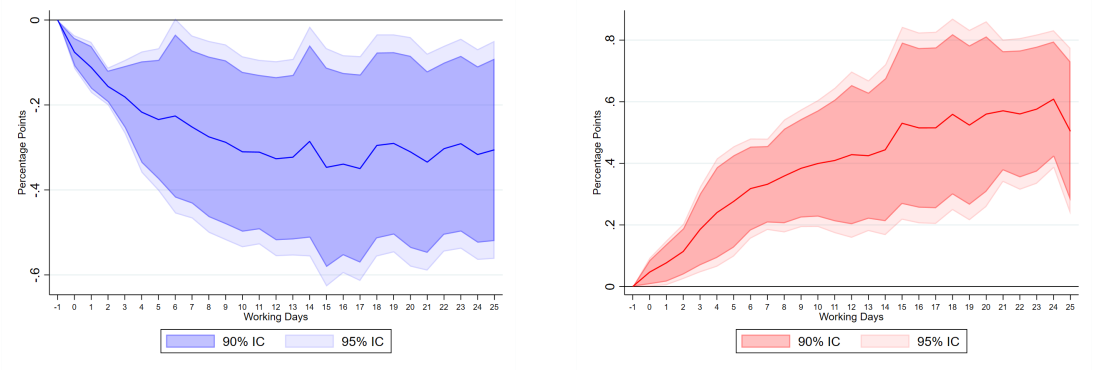
(A) High Credibility



(B) Low Credibility

Figure 8: Dynamic Response of Exchange Rate Expectations Disagreement: High vs. Low Credibility.

Notes: This figure shows Impulse Response Functions (IRFs) for the response of exchange rate disagreement 12 months ahead to a 100 basis points monetary policy surprise under high credibility (A) and low credibility (B) using the baseline specification (Equation (2)). The light and dark areas display 95% and 90% confidence intervals, respectively. We use Newey–West standard errors for each horizon i, assuming the error structure is heteroskedastic and autocorrelated up to i lags.

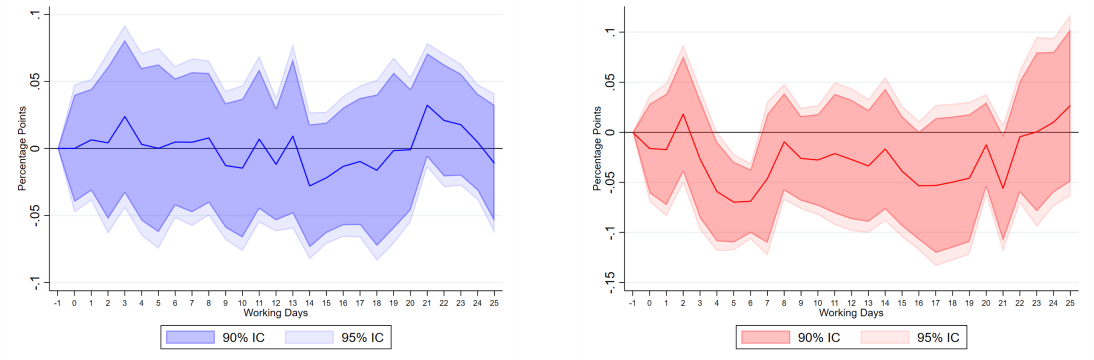


(A) High Credibility

(B) Low Credibility

Figure 9: Dynamic Response of Inflation Expectations: High vs. Low Credibility.

Notes: This figure shows Impulse Response Functions (IRFs) for the response of inflation expectations 12 months ahead to a 100 basis points monetary policy surprise under high credibility (A) and low credibility (B) using the baseline specification (Equation (2)). The light and dark areas display 95% and 90% confidence intervals, respectively. We use Newey–West standard errors for each horizon i, assuming the error structure is heteroskedastic and autocorrelated up to i lags.



(A) High Credibility

(B) Low Credibility

Figure 10: Dynamic Response of Inflation Expectations Disagreement: High vs. Low Credibility.

Notes: This figure shows Impulse Response Functions (IRFs) for the response of inflation expectations disagreement 12 months ahead to a 100 basis points monetary policy surprise under high credibility (A) and low credibility (B) using the baseline specification (Equation (2)). The light and dark areas display 95% and 90% confidence intervals, respectively. We use Newey–West standard errors for each horizon i, assuming the error structure is heteroskedastic and autocorrelated up to i lags.

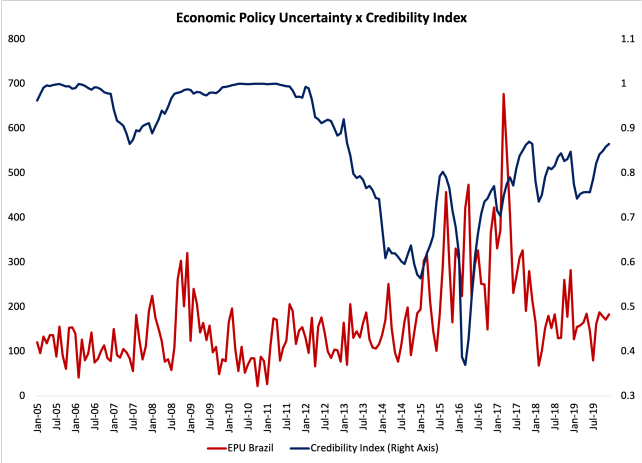
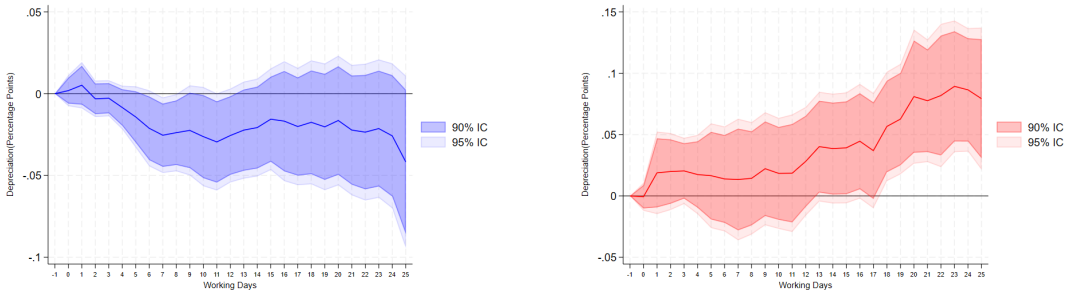


Figure 11: Economic Policy Uncertainty and Credibility Index

Notes: This figure shows the monthly frequency Economic Policy Uncertainty (EPU) for Brazil (Baker, Bloom, and Davis, 2016) against the LL credibility index between September, 2005 and December, 2019. Section 4 describes in detail the measure of credibility. Source: Central Bank of Brazil (BCB) and Baker, Bloom, and Davis (2016).

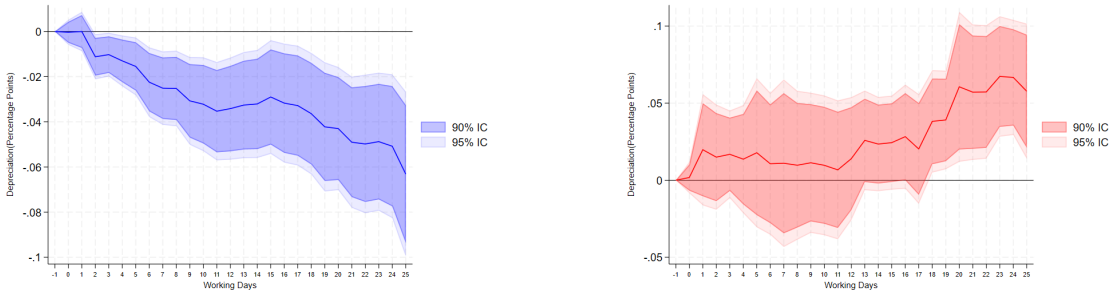


(A) High Credibility

(B) Low Credibility

Figure 12: Dynamic Response of Exchange Rate Expectations: Controlling for Economic Policy Uncertainty.

Notes: This figure shows Impulse Response Functions (IRFs) for the response of exchange rate expectations 12 months ahead to a 100 basis points monetary policy surprise under high credibility (A) and low credibility (B) using the baseline specification (Equation (2)). We add Economic Uncertainty in Brazil (Baker, Bloom, and Davis, 2016) and the interaction of this variable with MPS as a controls variable. The light and dark areas display 95% and 90% confidence intervals, respectively. We use Newey–West standard errors for each horizon i, assuming the error structure is heteroskedastic and autocorrelated up to i lags.



(A) High Credibility

(B) Low Credibility

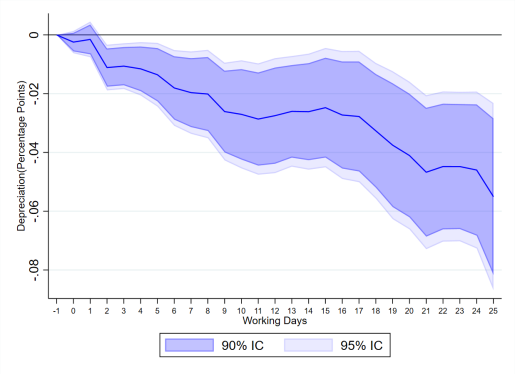
Figure 13: Dynamic Response of Exchange Rate Expectations: Controlling for Fiscal Situation.

Notes: This figure shows Impulse Response Functions (IRFs) for the response of exchange rate expectations 12 months ahead to a 100 basis points monetary policy surprise under high credibility (A) and low credibility (B) using the baseline specification (Equation (2)). We add the primary surplus and the interaction of this variable with MPS as controls. The light and dark areas display 95% and 90% confidence intervals, respectively. We use Newey–West standard errors for each horizon i, assuming the error structure is heteroskedastic and autocorrelated up to i lags.

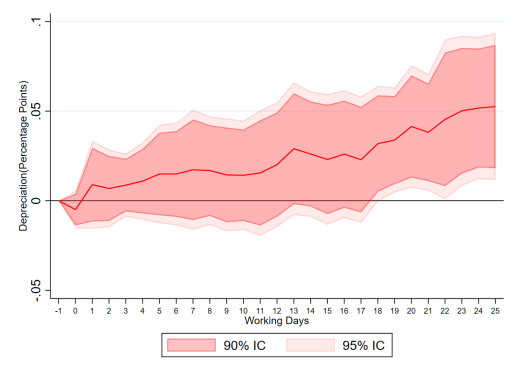
Table 4: The impact of monetary policy surprises on inflation surprises

	IS_t	IS_{t+1}	IS_{t+2}	IS_{t+3}	IS_{t+4}	IS_{t+5}	IS_{t+6}	IS_{t+7}
$MPS_t \times CRED$	-0.017	-0.027	-0.024	-0.052*	-0.054	-0.058	-0.020	-0.013
	(0.014)	(0.031)	(0.029)	(0.030)	(0.035)	(0.042)	(0.054)	(0.056)
$MPS_t \times No\_CRED$	0.034**	0.060***	0.085***	0.115***	0.162***	0.203***	0.047	0.073
	(0.015)	(0.023)	(0.030)	(0.038)	(0.052)	(0.067)	(0.165)	(0.166)
Observations	2,404	2,403	2,402	2,401	2,400	2,399	2,398	2,397
Macro Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Seasonal Controls	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

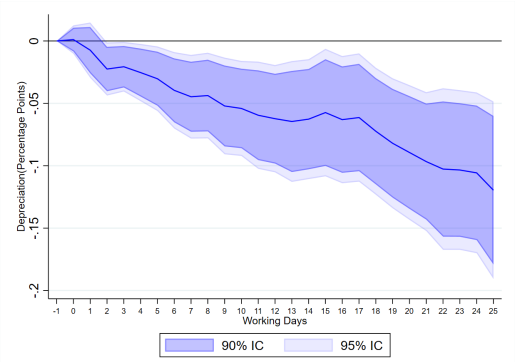
This table presents the results of regressing monetary policy surprises—conditional on the credibility regime—on leads of inflation surprises (the released CPI minus the CPI expected by professional forecasters). The regression controls for one lag of the outcome variable, one lag of the Consumer Price Index (CPI), one lag of the target rate, the log of Brazil's 5-year Credit Default Swap (CDS), the log of the main Brazilian stock market index (Ibovespa), the log of the exchange rate (BRL/USD), the 10-year government bond yield, and the expected GDP growth rate. We also include seasonal controls—year, month, and day-of-the-week dummies, as well as the number of working days remaining in the calendar year—as in the baseline specification. Newey-West robust standard errors are reported in parentheses. Significance levels: *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.



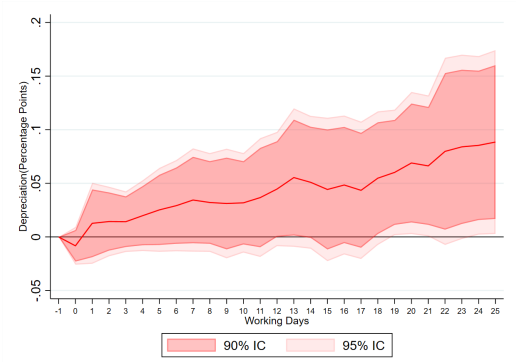
(A) High Credibility, $\theta = 5$



(B) Low Credibility, $\theta = 5$



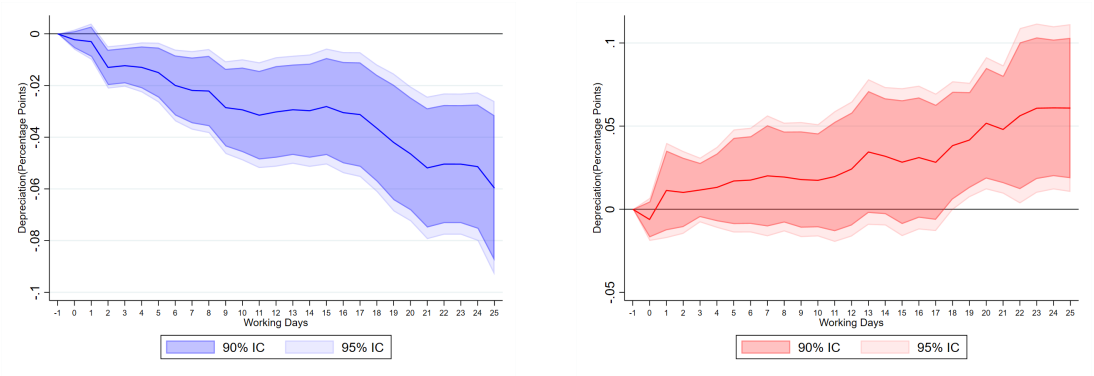
(C) High Credibility, $\theta = 1$



(D) Low Credibility, $\theta = 1$

Figure 14: Dynamic Response of Exchange Rate Expectations: High vs. Low Credibility for Different θ values.

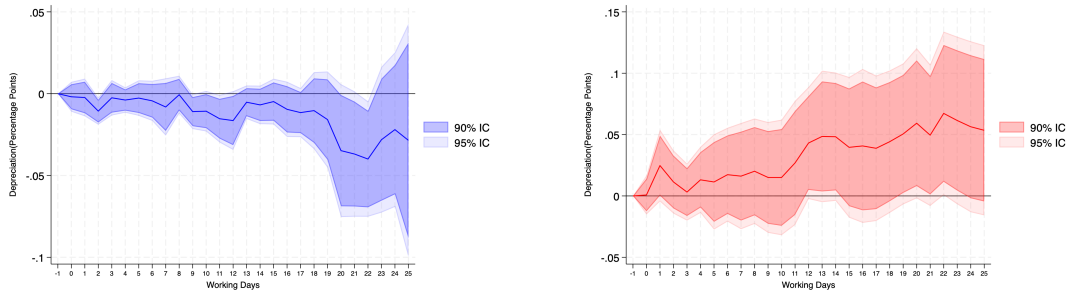
Notes: This figure shows Impulse Response Functions (IRFs) for the response of exchange rate expectations 12 months ahead to a 100 basis points monetary policy surprise under high and low credibility for different values of θ using the baseline specification (Equation (2)). The light and dark areas display 95% and 90% confidence intervals, respectively. We use Newey–West standard errors for each horizon i, assuming the error structure is heteroskedastic and autocorrelated up to i lags.



(A) High Credibility (B) Low Credibility

Figure 15: DM Index: Dynamic Response of Exchange Rate Expectations: High vs. Low Credibility.

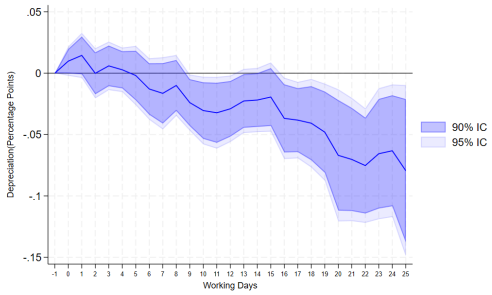
Notes: This figure shows Impulse Response Functions (IRFs) for the response of exchange rate expectations 12 months ahead to a 100 basis points monetary policy surprise under high credibility (A) and low credibility (B) using the baseline specification (Equation (2)). We use the DM Index to define $F(z_{t-1})$. The light and dark areas display 95% and 90% confidence intervals, respectively. We use Newey–West standard errors for each horizon i, assuming the error structure is heteroskedastic and autocorrelated up to i lags.



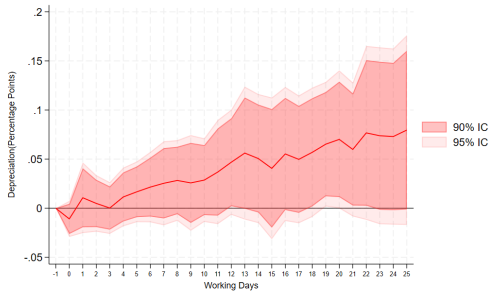
(A) High Credibility (B) Low Credibility

Figure 16: Dynamic Response of Exchange Rate Expectations: High vs. Low Credibility.

Notes: This figure shows Impulse Response Functions (IRFs) for the response of exchange rate expectations 12 months ahead to a 100 basis points monetary policy surprise under high credibility (A) and low credibility (B) using the baseline specification (Equation (2)). We construct indicator variables to classify periods with and without credibility. We define NoCRED as a dummy variable equal to one for periods of low credibility (between the first COPOM meeting after the monetary surprise of August 31, 2011, and the last COPOM meeting before the impeachment). The dummy for the credibility period, CRED, is defined analogously, covering all periods in our sample except those classified as low-credibility. The light and dark areas display 95% and 90% confidence intervals, respectively. We use Newey–West standard errors for each horizon i, assuming the error structure is heteroskedastic and autocorrelated up to i lags.



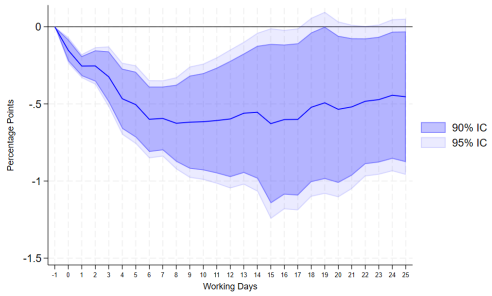
(A) High Credibility



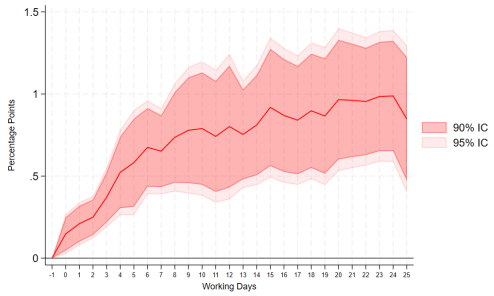
(B) Low Credibility

Figure 17: Dynamic Response of Exchange Rate Expectations: Market-Based Interest Rate Surprise

Notes: This figure shows Impulse Response Functions (IRFs) or the response of exchange rate expectations 12 months ahead to a 100 basis points monetary policy surprise under high credibility (A) and low credibility (B) using the baseline specification (Equation (2)). The monetary policy surprises are the daily changes on nominal yields (swap rates) of 1-month maturity on the next day of the COPOM meeting. The light and dark areas display 95% and 90% confidence intervals, respectively. We use Newey–West standard errors for each horizon i, assuming the error structure is heteroskedastic and autocorrelated up to i lags.



(A) High Credibility



(B) Low Credibility

Figure 18: Dynamic Response of Inflation Expectations: Market-Based Interest Rate Surprise

Notes: This figure shows Impulse Response Functions (IRFs) for the response of inflation expectations 12 months ahead to a 100 basis points monetary policy surprise under high credibility (A) and low credibility (B) using the baseline specification (Equation (2)). The monetary policy surprises are the daily changes on nominal yields (swap rates) of 1-month maturity on the next day of the COPOM meeting. The light and dark areas display 95% and 90% confidence intervals, respectively. We use Newey–West standard errors for each horizon i, assuming the error structure is heteroskedastic and autocorrelated up to i lags.

Appendix For Online Publication

This online appendix is organized as follows. Section A provides the variable's definition, sources, and frequency. Section B defines the credibility indexes. Section C estimates impulse-response functions of monetary policy surprises to a Cholesky shock on the expected inflation gap. Section D presents additional robustness for the professional forecasters' reactions after a monetary policy surprises under different levels of central bank's credibility.

A Variables Description

Appendix Table A.1: Variables description

Variable	**Source**	**Frequency**	**Range**
Professional Inflation Expectations	Focus Survey	Daily	Jan/05-Dec/19
Professional Exchange Rate Expectations	Focus Survey	Daily	Jan/05-Dec/19
Monerary Policy Suprises	Bloomberg	Copom Meetings	Jan/05-Dec/19
Brazil 5Y Credit Default Swap	Bloomberg	Daily	Jan/05-Dec/19
Stock Market Index (Ibovespa)	Bloomberg	Daily	Jan/05-Dec/19
Exchange Rate (BRL/US$)	Bloomberg	Daily	Jan/05-Dec/19
10-year Government Bonds	Bloomberg	Daily	Jan/05-Dec/19
Expected GDP growth rate	Bloomberg	Daily	Jan/05-Dec/19
Consumer Price Index (CPI)	IBGE	Monthly	Jan/99-Dec/19
Central Bank Inflation Target	BCB	Yearly	Jan/99-Dec/19
Economic Policy Uncertainty	Baker, Bloom, and Davis (2016)	Monthly	Jan/05-Dec/19
Public Sector Debt/GDP	BCB	Monthly	Jan/05-Dec/19
Primary Surplus	National Treasury (Tesouro Nacional)	Monthly	Jan/05-Dec/19
PREDI30 Index	Bloomberg	Daily	Jan/05-Dec/19
BRGGBE01 Index	Bloomberg	Daily	Nov/12-Dec/19

B Credibility Index

B.1 BCGG Index

We follow Bems et al. (2021) and calculate three metrics that capture the behavior of inflation expectations to construct the central bank credibility index:

Metric #1 measures the deviation of long-term mean inflation forecasts from the target. We use a rolling window approach and take the root-mean-square deviation of the mean inflation forecast at horizon h from the inflation target at h end-of-period years ahead for each day t over each rolling window ω.

$$\sqrt{\frac{1}{T}\sum_{t=1}^{T}\left(\pi_t^{e,h}-\pi^{*,h}\right)^2},\ \text{with } h=3,4,5; t\in\omega$$

in which $\pi^{*,h}$ is the BCB's inflation target for h end-of-period years ahead.

Metric #2 measures the dispersion of long-term forecasts among individual forecasters. It is calculated by taking the standard deviation of h end-of-period years ahead inflation forecasts of individual forecasters at each period t over each rolling window ω.

$$\frac{1}{T}\sum_{t=1}^{T}\left[\sqrt{\frac{1}{J-1}\sum_{j=1}^{J}\left(\pi_{j,t}^{e,h}-\pi_t^{e,h}\right)^2}\right],\ \text{with } h=3,4,5; t\in\omega$$

in which $\pi_{j,t}^{e,h}$ denotes the inflation forecast of forecaster j at time t for horizon h and $\pi_t^{e,h}$ is the average across forecasters for day t.

Metric #3 measures the variability of mean long-term inflation forecasts. The standard deviation of the mean inflation forecast at horizon h over each rolling window ω is given

by:

$$\sqrt{\frac{1}{T-1}\sum_{t=1}^{T}\left(\pi_t^{e,h}-\overline{\pi^{e,h}}\right)^2},\ \text{with } h=3,4,5; t\in\omega$$

in which $\overline{\pi^{e,h}}$ is the average of mean inflation forecasts over each rolling window ω.

Then, we standardized values with a mean of zero and a standard deviation of one. After multiplying each metric by minus one, a higher (lower) value of each metric indicates a better (worse) BCB's credibility. Finally we take the simple average between the three metrics to produce the final BCB's credibility index.

B.2 BCGG Index Modified

To construct the central bank credibility index, we follow Bems et al. (2021), but, for robustness, we exclude Metric #3 used in Section B.1. Specifically, we compute the following two metrics that capture the behavior of inflation expectations:

Metric #1 measures the deviation of long-term mean inflation forecasts from the target. We use a rolling window approach and take the root-mean-square deviation of the mean inflation forecast at horizon h from the inflation target at h end-of-period years ahead for each day t over each rolling window ω.

$$\sqrt{\frac{1}{T}\sum_{t=1}^{T}\left(\pi_t^{e,h}-\pi^{*,h}\right)^2},\ \text{with } h=3,4,5; t\in\omega$$

in which $\pi^{*,h}$ is the BCB's inflation target for h end-of-period years ahead.

Metric #2 measures the dispersion of long-term forecasts among individual forecasters. It is calculated by taking the standard deviation of h end-of-period years ahead inflation forecasts of individual forecasters at each period t over each rolling window ω.

$$\frac{1}{T}\sum_{t=1}^{T}\left[\sqrt{\frac{1}{J-1}\sum_{j=1}^{J}\left(\pi_{j,t}^{e,h}-\pi_{t}^{e,h}\right)^{2}}\right], \text{ with } h=3,4,5; t\in\omega$$

in which $\pi_{j,t}^{e,h}$ denotes the inflation forecast of forecaster j at time t for horizon h and $\pi_{t}^{e,h}$ is the average across forecasters for day t.

Then, we standardized values with a mean of zero and a standard deviation of one. After multiplying each metric by minus one, a higher (lower) value of each metric indicates a better (worse) BCB's credibility. Finally we take the simple average between the two metrics to produce the final BCB's credibility index.

B.3 DM Index

The DM index is proposed by Mendonça and Souza (2007). This index follows the same idea as Levieuge, Lucotte, and Ringuedé (2018) to measure credibility based on the deviation of inflation expectations from the central bank's inflation target. The following indicator is then suggested by the authors:

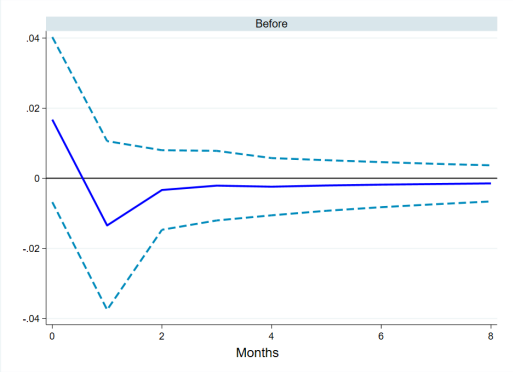
$$\text{DM Index} = \begin{cases} 1 & \text{if } E(\pi) = \overline{\pi} \\ 1 - \frac{1}{\pi^*_{t\,Max} - \overline{\pi}} \left[E(\pi) - \overline{\pi} \right] & \text{if } \pi^*_{t\,Max} \geq E(\pi) > \overline{\pi} \\ 1 - \frac{1}{\overline{\pi} - \pi^*_{t\,Min}} \left[E(\pi) - \overline{\pi} \right] & \text{if } \overline{\pi} > E(\pi) \geq \pi^*_{t\,Min} \\ 0 & \text{if } E(\pi) > \pi^*_{t\,Max} \text{ or } E(\pi) < \pi^*_{t\,Min} \, . \end{cases} \tag{3}$$

where $\overline{\pi}$ is the inflation target, $\pi^*_{t\,Max}$ is the upper bound and $\pi^*_{t\,Min}$ is the lower bound of the target.

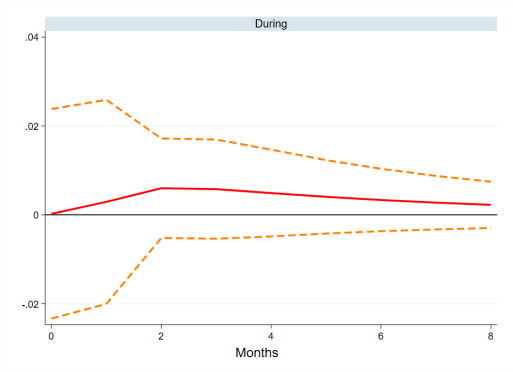
In this index, if inflation expectations are outside the central bank tolerance interval, the credibility index is equal to zero (no credibility). The central bank has full credibility if inflation expectations are exactly equal to the inflation target. The absolute deviations from the inflation target penalize the central bank's credibility symmetrically and linearly when expectations are inside the tolerance interval.

C Expected Inflation Gap

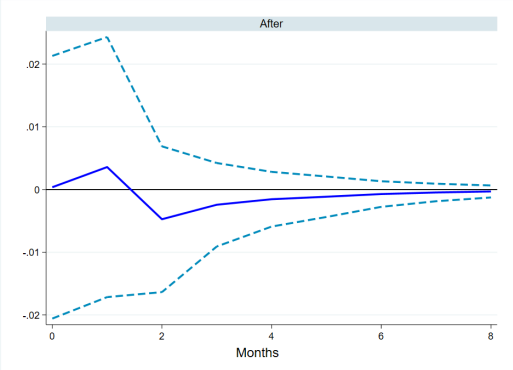
We estimate the impulse-response functions of monetary policy surprises to a Cholesky shock on the expected inflation gap. Inflation gap is defined as inflation expectations twelve months ahead minus the inflation target twelve months ahead. Figure C.1 provides significant evidence that the monetary policy surprise is not a BCB response to the expected inflation gap in both periods (low and high credibility).



(A) Sep/2005 - Dez/2010



(B) Jan/2011 - Aug/2016



(C) Sep/2016 - Dez/2019

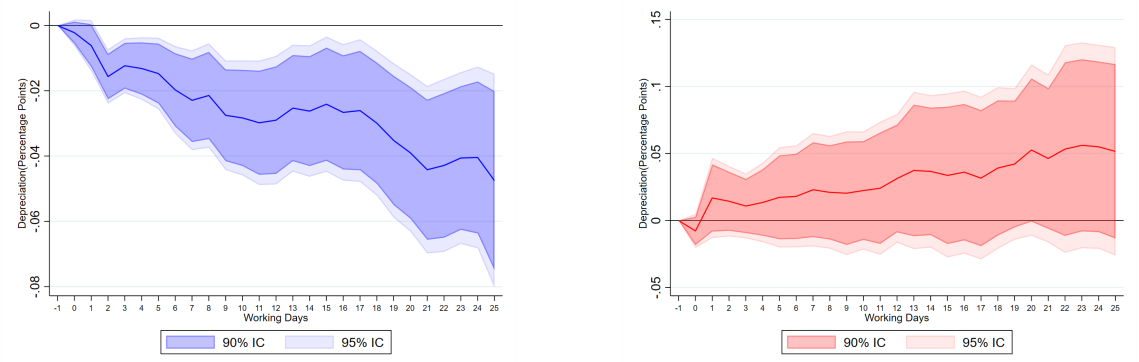
Appendix Figure C.1: Impulse-response functions (IRF) of MPS to a cholesky shock on expected inflation gap

Notes: The figures show MPS's impulse-response functions (IRF) to a Cholesky shock on the expected inflation gap. We use a 95% confidence interval (dashed lines). Before is the period Sep/2005 - Dez/2010, During is Jan/2011 - Aug/2016, and After is Sep/2016 - Dez/2019. Panel A shows MPS's IRF (blue line) in the period before the administration of President Dilma Rousseff. Panel B shows MPS's IRF (red line) during the Dilma Rousseff period. Panel C shows MPS's IRF (blue line) in the post-Dilma Rousseff period.

D Additional Robustness

D.1 Exchange Rates Expectations

We show our findings in Section 6 are robust to alternative credibility indexes, and to a specification with no control variables. To define the probability of BCB being in a high credibility regime, Figures D.1 and D.2 use the BCGG modified and the BCGG (Bems et al., 2021) indexes, respectively. Figure D.3 shows the dynamic response of exchange rate expectations to monetary surprises without including the vector of controls, X_t. As pointed out in Section 8, our results remain qualitatively the same.

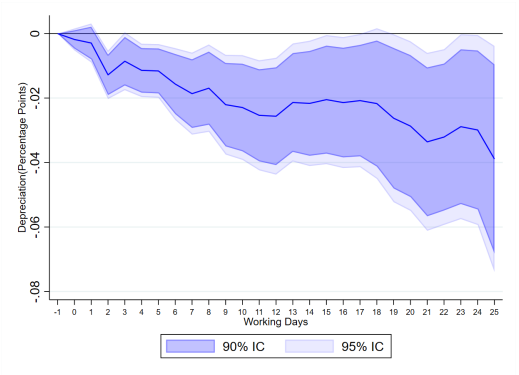


(A) High Credibility

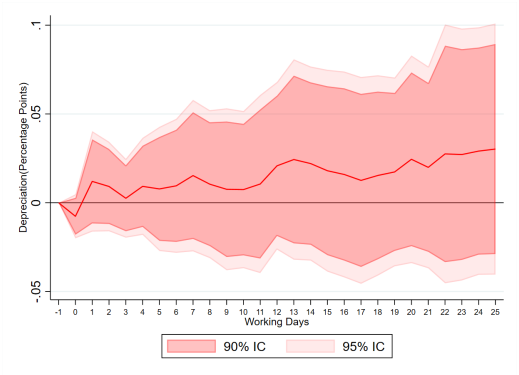
(B) Low Credibility

Appendix Figure D.1: BCGG Modified Index: Dynamic Response of Exchange Rate Expectations: High vs. Low Credibility.

Notes: This figure shows Impulse Response Functions (IRFs) for the response of exchange rate expectations 12 months ahead to a 100 basis points monetary policy surprise under high credibility (A) and low credibility (B) using the baseline specification (Equation (2)). We use the BCGG Modified Index to define $F(z_{t-1})$. The light and dark areas display 95% and 90% confidence intervals, respectively. We use Newey–West standard errors for each horizon i, assuming the error structure is heteroskedastic and autocorrelated up to i lags.



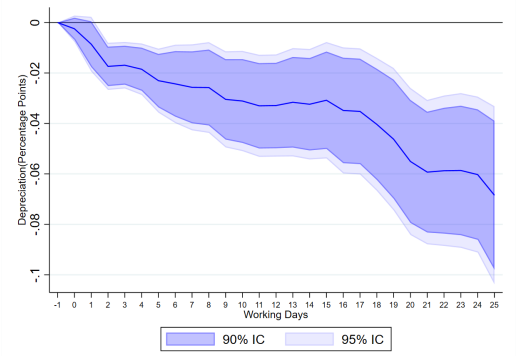
(A) High Credibility



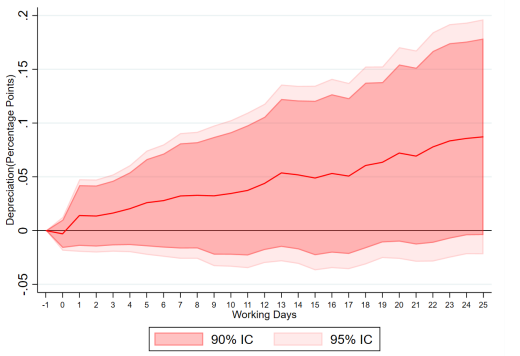
(B) Low Credibility

Appendix Figure D.2: BCGG Index: Dynamic Response of Exchange Rate Expectations: High vs. Low Credibility.

Notes: This figure shows Impulse Response Functions (IRFs) for the response of exchange rate expectations 12 months ahead to a 100 basis points monetary policy surprise under high credibility (A) and low credibility (B) using the baseline specification (Equation (2)). We use the BCGG Index to define $F(z_{t-1})$. The light and dark areas display 95% and 90% confidence intervals, respectively. We use Newey–West standard errors for each horizon i, assuming the error structure is heteroskedastic and autocorrelated up to i lags.



(A) High Credibility



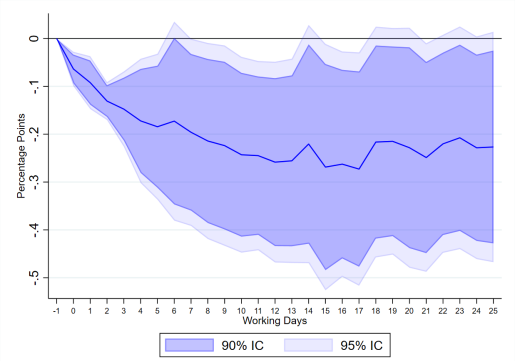
(B) Low Credibility

Appendix Figure D.3: Dynamic Response of Exchange Rate Expectations Without Controls

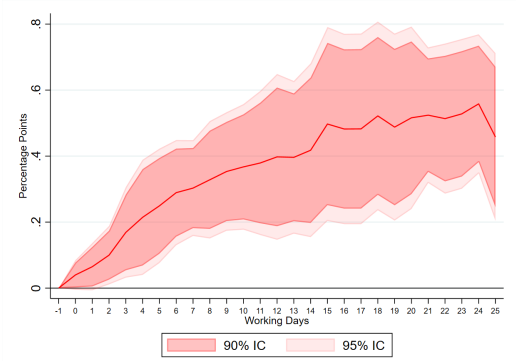
Notes: This figure shows Impulse Response Functions (IRFs) for the response of exchange rate expectations 12 months ahead to a 100 basis points monetary policy surprise under high credibility (A) and low credibility (B) using the baseline specification (Equation (2)). We don't add the vector of control variables, X_t. The light and dark areas display 95% and 90% confidence intervals, respectively. We use Newey–West standard errors for each horizon i, assuming the error structure is heteroskedastic and autocorrelated up to i lags.

D.2 Inflation Expectations

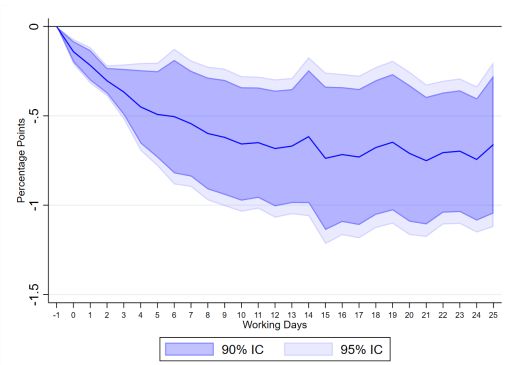
Figure D.4 tests the sensitivity of our results to the value of the parameter θ. Similarly to the exchange rates expectations, the effects remain statistically significant. Figures D.5, D.6, D.7, and D.8 plots the results for the DM Index, BCGG Modified Index, BCGG Index, and using dummies for the credibility measure, respectively. Figure D.9 is the dynamic response of inflation expectations adding a fiscal policy variable (primary surplus). Figure D.10 controls for the Economy Policy Uncertainty Index (Baker, Bloom, and Davis, 2016), and Figure D.11 excludes the vector of controls, X_t. Finally, Figure D.12 presents estimated IFRs using market-based measures of inflation expectations and monetary policy surprises.



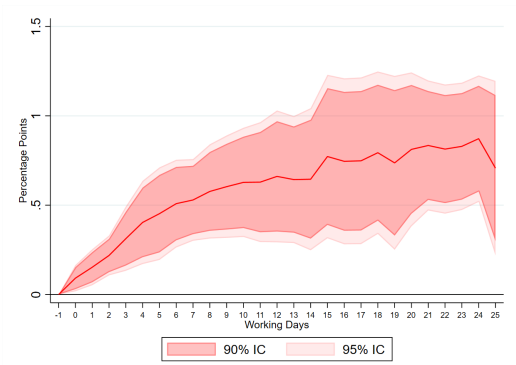
(A) High Credibility, $\theta = 5$



(B) Low Credibility, $\theta = 5$



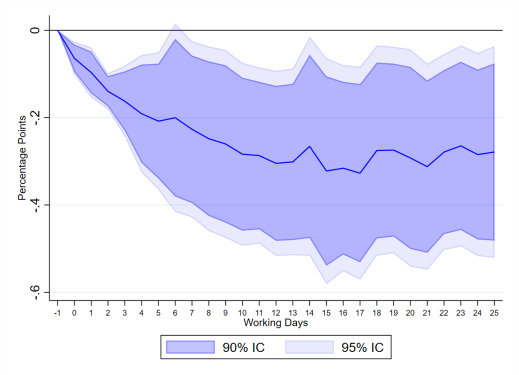
(C) High Credibility, $\theta = 1$



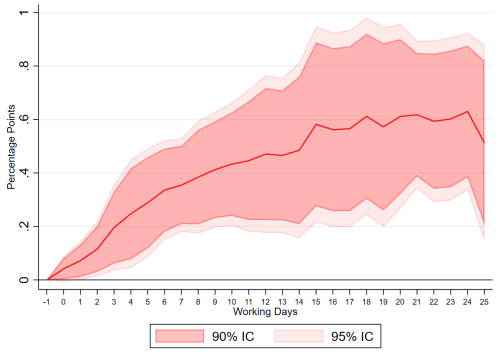
(D) Low Credibility, $\theta = 1$

Appendix Figure D.4: Dynamic Response of Inflation Expectations: High vs. Low Credibility for Different θ values.

Notes: This figure shows Impulse Response Functions (IRFs) for the response of inflation expectations 12 months ahead to a 100 basis points monetary policy surprise under high and low credibility for different values of θ using the baseline specification (Equation (2)). The light and dark areas display 95% and 90% confidence intervals, respectively. We use Newey–West standard errors for each horizon i, assuming the error structure is heteroskedastic and autocorrelated up to i lags.



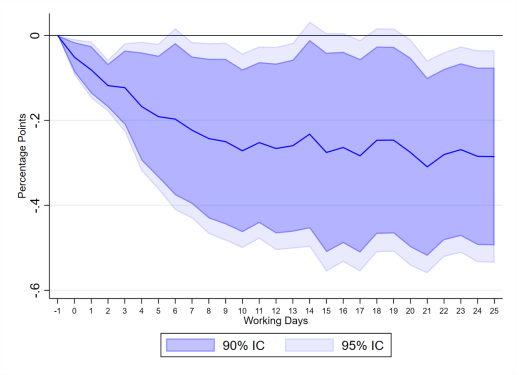
(A) High Credibility



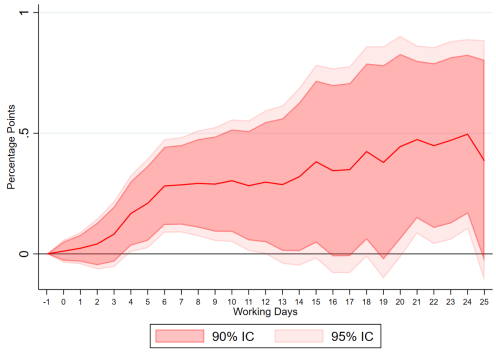
(B) Low Credibility

Appendix Figure D.5: DM Index: Dynamic Response of Inflation Expectations: High vs. Low Credibility.

Notes: This figure shows Impulse Response Functions (IRFs) for the response of inflation expectations 12 months ahead to a 100 basis points monetary policy surprise under high credibility (A) and low credibility (B) using the baseline specification (Equation (2)). We use the DM Index to define $F(z_{t-1})$. The light and dark areas display 95% and 90% confidence intervals, respectively. We use Newey–West standard errors for each horizon i, assuming the error structure is heteroskedastic and autocorrelated up to i lags.



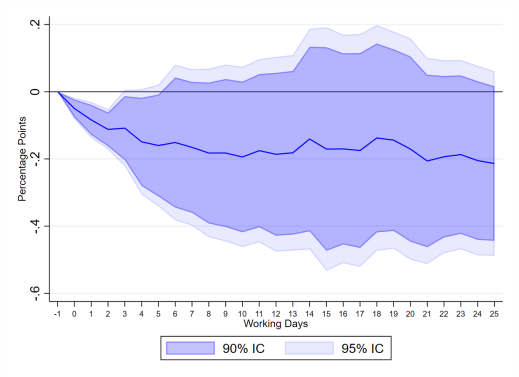
(A) High Credibility



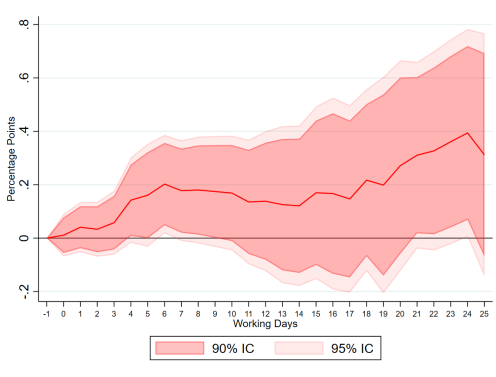
(B) Low Credibility

Appendix Figure D.6: BCGG Modified Index: Dynamic Response of Inflation Expectations: High vs. Low Credibility.

Notes: This figure shows Impulse Response Functions (IRFs) for the response of inflation expectations 12 months ahead to a 100 basis points monetary policy surprise under high credibility (A) and low credibility (B) using the baseline specification (Equation (2)). We use the BCGG Modified Index to define $F(z_{t-1})$. The light and dark areas display 95% and 90% confidence intervals, respectively. We use Newey–West standard errors for each horizon i, assuming the error structure is heteroskedastic and autocorrelated up to i lags.



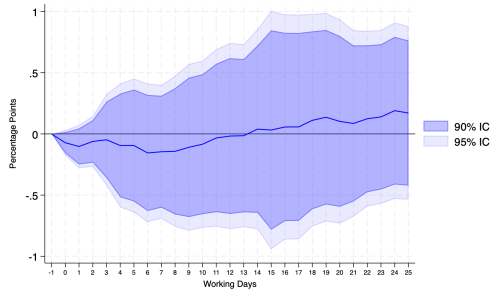
(A) High Credibility



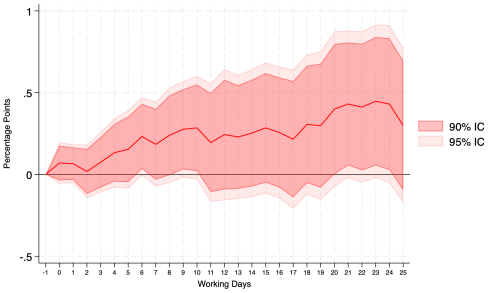
(B) Low Credibility

Appendix Figure D.7: BCGG Index: Dynamic Response of Inflation Expectations: High vs. Low Credibility.

Notes: This figure shows Impulse Response Functions (IRFs) for the response of inflation expectations 12 months ahead to a 100 basis points monetary policy surprise under high credibility (A) and low credibility (B) using the baseline specification (Equation (2)). We use the BCGG Index to define $F(z_{t-1})$. The light and dark areas display 95% and 90% confidence intervals, respectively. We use Newey–West standard errors for each horizon i, assuming the error structure is heteroskedastic and autocorrelated up to i lags.



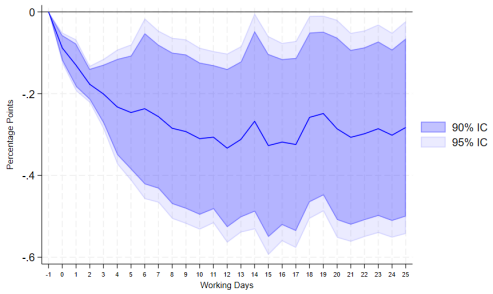
(A) High Credibility



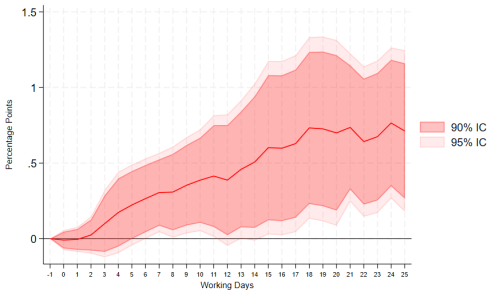
(B) Low Credibility

Appendix Figure D.8: Dummy for Credibility Dynamic Response of Inflation Expectations: High vs. Low Credibility.

Notes: This figure shows Impulse Response Functions (IRFs) for the response of inflation expectations 12 months ahead to a 100 basis points monetary policy surprise under high credibility (A) and low credibility (B) using the baseline specification (Equation (2)). We construct indicator variables to classify periods with and without credibility. We define NoCRED as a dummy variable equal to one for periods of low credibility (between the first COPOM meeting after the monetary surprise of August 31, 2011, and the last COPOM meeting before the impeachment). The dummy for the credibility period, CRED, is defined analogously, covering all periods in our sample except those classified as low-credibility. The light and dark areas display 95% and 90% confidence intervals, respectively. We use Newey–West standard errors for each horizon i, assuming the error structure is heteroskedastic and autocorrelated up to i lags.



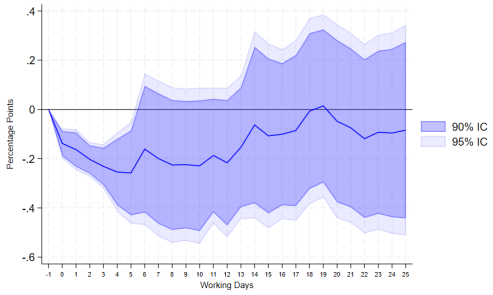
(A) High Credibility



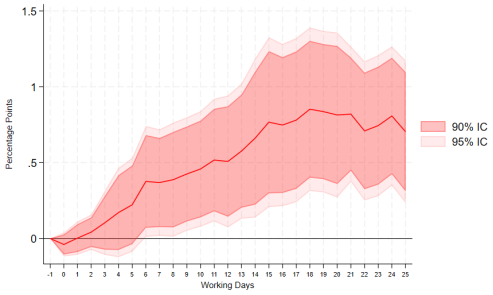
(B) Low Credibility

Appendix Figure D.9: Dynamic Response of Inflation Expectations: Controlling for Fiscal Situation.

Notes: This figure shows Impulse Response Functions (IRFs) for the response of inflation expectations 12 months ahead to a 100 basis points monetary policy surprise under high credibility (A) and low credibility (B) using the baseline specification (Equation (2)). We add the the primary surplus as controls and the interaction of this variable with MPS. The light and dark areas display 95% and 90% confidence intervals, respectively. We use Newey–West standard errors for each horizon i, assuming the error structure is heteroskedastic and autocorrelated up to i lags.



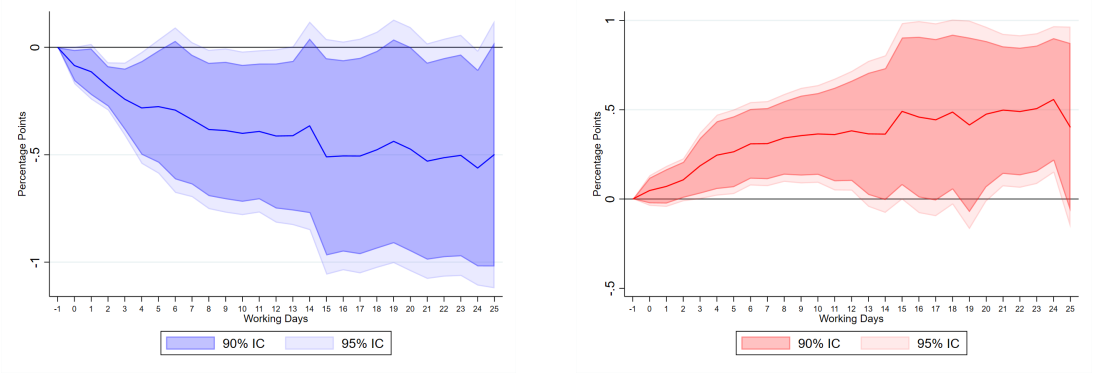
(A) High Credibility



(B) Low Credibility

Appendix Figure D.10: Dynamic Response of Inflation Expectations: Controlling for Economic Policy Uncertainty.

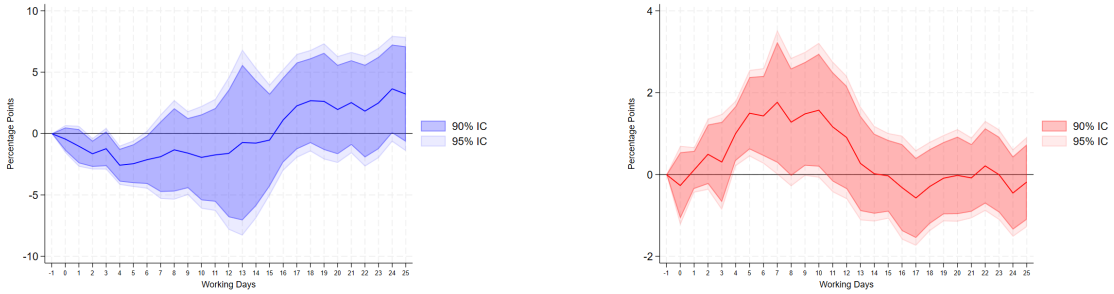
Notes: This figure shows Impulse Response Functions (IRFs) for the response of inflation expectations 12 months ahead to a 100 basis points monetary policy surprise under high credibility (A) and low credibility (B) using the baseline specification (Equation (2)). We add economic uncertainty in Brazil (Baker, Bloom, and Davis, 2016) as a control and the interaction of this variable with MPS. The light and dark areas display 95% and 90% confidence intervals, respectively. We use Newey–West standard errors for each horizon i, assuming the error structure is heteroskedastic and autocorrelated up to i lags.



(A) High Credibility (B) Low Credibility

Appendix Figure D.11: Dynamic Response of Inflation Expectations Without Controls

Notes: This figure shows Impulse Response Functions (IRFs) for the response of inflation expectations 12 months ahead to a 100 basis points monetary policy surprise under high credibility (A) and low credibility (B) using the baseline specification (Equation (2)). We don't include the vector of controls, X_t. The light and dark areas display 95% and 90% confidence intervals, respectively. We use Newey–West standard errors for each horizon i, assuming the error structure is heteroskedastic and autocorrelated up to i lags.



(A) High Credibility (B) Low Credibility

Appendix Figure D.12: Dynamic Response of Inflation Expectations: Market-Based Expectations and Monetary Policy Surprise.

Notes: This figure shows Impulse Response Functions (IRFs) for the response of inflation expectations 12 months ahead to a 100 basis points monetary policy surprise under high credibility (A) and low credibility (B) using the baseline specification (Equation (2)). Inflation expectations is the 1-year break even inflation from Bloomberg and monetary policy surprises are the daily changes on nominal yields (swap rates) of 1-month maturity on the next day of the COPOM meeting. The light and dark areas display 95% and 90% confidence intervals, respectively. We use Newey–West standard errors for each horizon i, assuming the error structure is heteroskedastic and autocorrelated up to i lags.