Abrupt Monetary Policy Change and Unanchoring of Inflation Expectations*

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Abstract

Inflation expectations can quickly become unanchored if the central bank undermines its commitment to the inflation target. This paper exploits an abrupt change in monetary policy by the Brazilian Central Bank in 2011 and microdata from a daily survey of professional forecasters to establish support for this claim. Reanchoring came only years later, after a regime shift that included a change of government. A simple model with a well-defined concept of (un)anchored inflation expectations makes sense of and offers a structural interpretation of our empirical findings.

JEL Classification: E53, E65.
Keywords: Inflation expectations, monetary policy, anchored expectations, unanchored expectations, monetary policy shifts, Brazil.

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> "Long-run inflation expectations do vary over time. That is, they are not perfectly anchored in real economies; moreover, the extent to which they are anchored can change, depending on economic developments and (most important) the current and past conduct of monetary policy." – Bernanke (2007)

1 Introduction

Central bankers believe anchored inflation expectations are critical for the pursuit of price stability at the smallest possible cost in terms of output fluctuations.[1] Cost-push shocks drive inflation and output in opposite directions, and the central bank has to "trade-off" how it allows their effects to materialize – more stable inflation at the expense of more volatile output or vice versa. Anchored expectations render inflation less sensitive to shocks, allowing the central bank to deliver smaller fluctuations and, hence, smaller welfare losses.

When put in those terms, anchored inflation expectations may appear to be a free lunch for central banks. Yet, as the opening quote by Bernanke (2007) alludes to, central banks cannot take the anchoring of expectations for granted. It may depend on how the central bank itself conducts monetary policy. It can also depend on fiscal policy and other factors that may constrain monetary policy.

While the literature has documented and studied episodes of poorly anchored inflation expectations and proposed ways to measure the degree of unanchoring, there is scarcely any literature on identification of the specific factors *causing* the unanchoring. This is an extremely challenging endeavor, as it requires both: i) clearly identified, exogenous changes in possible determinants of the state of inflation expectations and; ii) expectations data that allow analyzing their response to the identified shocks at a suitable frequency. Most historical unanchoring episodes build slowly, over many years. During such long windows, many things can contribute to unanchoring, such as possible monetary policy mistakes, the incidence of large shocks, and unsustainable fiscal policy. As a result, identifying whether unanchoring was caused by a specific factor becomes a fool's errand.

In this paper, we show that a change in monetary policy perceived to signal weaker central bank commitment to its inflation target can *cause* the immediate unanchoring of inflation expectations. To that end, we exploit an "abrupt U-turn" in monetary policy by the Banco Central do Brasil (BCB) in 2011,[2] when it shifted gears from tightening to easing monetary policy literally from one policy meeting to the next. We leverage microdata from the survey of professional forecasters maintained by the BCB, which allows participants to update their forecasts daily. Hence, we can study the high-frequency response of expectations to the abrupt monetary policy shift. Reanchoring took place five years later in response to a regime shift that included a presidential impeachment and a complete change of the economic team and in the direction of economic policies.[3]

We assess how anchored inflation expectations are according to several characterizations proposed in the literature and a novel one we offer. We also present a simple model that shows those measures are indeed informative of whether and to what extent expectations are unanchored. Agents are imperfectly informed about the inflation target and revise their beliefs in response to realized inflation, monetary policy actions, and central bank communication. The model provides a characterization of the degree of expectations anchoring that formalizes

[1] Our basic characterization of anchored inflation expectations is that, for long enough horizons, they should be consistent with the central bank's target (e.g. Kumar, Afrouzi, Coibion, and Gorodnichenko, 2015; Carvalho, Eusepi, Moench, and Preston, 2023). The definition of "long run" that matters here is a horizon beyond the so-called "relevant horizon" for monetary policy. That is, a horizon that is long enough for the central bank to respond to shocks as it deems appropriate, possibly allowing inflation to deviate temporarily from its goal before driving it back to target. Whenever we mention anchoring of expectations without specifying a horizon (which we often do, for brevity), we mean long-run expectations in that specific sense.

[2] Formally, monetary policy decisions in Brazil are made by a committee within the BCB, called "COPOM". For ease of exposition, we often refer to the BCB instead.

[3] For an account of the episode, see Carvalho and Nechio (2023).

and coherently integrates our empirical analysis and other empirical approaches employed in the literature. We calibrate it to Brazilian data and find it can rationalize most of our empirical findings.

We find short- and long-run inflation expectations and their dispersion increased immediately after the abrupt U-turn. This happened alongside a reduction in policy rate forecasts for all horizons. While it may seem obvious expectations can become unmoored in response to central bank action that is perceived to weaken its commitment to the inflation target, to the best of our knowledge, this paper is the first to provide empirical evidence of such causal effect.

Moreover, all characterizations of the state of long-run expectations we entertain consistently indicate they became unanchored thereafter. Besides deviations from target[4] and increased cross-sectional dispersion[5], we also show long-run expectations were more sensitive to short-run factors[6], responded more strongly to monetary policy surprises[7], were more volatile[8], and were revised more frequently[9]. Finally, after reanchoring, long-run expectations quickly responded to the surprise announcement of a new (lower) inflation target – a novel characterization we contribute to the literature.

Identifying the causal effects of a monetary policy action requires it to be exogenous to the relevant economic conditions at the time. The high-frequency nature of our identification naturally dismisses many alternative explanations for the unanchoring. Nevertheless, the reader should wonder why the BCB decided to undertake the abrupt policy turn. It justified the shift as a response to disinflationary shocks originating in the global economy. In contrast, reactions that appeared in the press – including by many former BCB chairmen and governors – reveal a different perception. Namely, that the BCB had weakened its commitment to – or even abandoned – its inflation target, possibly having caved in to political pressure for loose monetary policy. Importantly, our results do not depend on the true driver of the abrupt policy shift but rather on how it was perceived by agents. In addition to the reactions of former policymakers portrayed by the press, we provide evidence the episode was perceived by survey participants as a change in the BCB's reaction function or policy goal. We also provide evidence that dismisses global factors or fiscal policy concerns as potential causes of the unanchoring.

In addition to the aforementioned empirical literature on (un)anchored expectations, our work also relates to papers that study specific monetary policy episodes. Sturzenegger (2019), for example, provides an account of macroeconomic policies in Argentina between 2016 and 2019. As part thereof, he studies the effects of the government's decision to increase the inflation target for 2018 in the end of 2017, which was followed by unexpected policy rate reductions by the central bank. Average inflation expectations deteriorated sharply thereafter. Sturzenegger argues the change to the target was driven mostly by fiscal policy considerations, causing a substantial increase in both one-year-ahead inflation expectations and Argentinian sovereign risk. This contrasts with the purely monetary policy shift we study. Moreover, annual inflation rates in Argentina exceeded 20% at the time, and inflation expectations were well above target, indicating they were already unanchored before the new target announcement.

Gürkaynak, Kisacikoglu, and Lee (2023) study Turkey's neo-fisherian experiment, which they show coincidentally also began in 2011. While the authors forcefully dismiss any role for fiscal policy, they show the effects of the change in the monetary policy regime materialized very gradually and were accompanied by a progressive

[4] Levin, Natalucci, and Piger (2004), Kumar, Afrouzi, Coibion, and Gorodnichenko (2015).
[5] Capistrán and Ramos-Francia (2010), Beechey, Johannsen, and Levin (2011), Kumar, Afrouzi, Coibion, and Gorodnichenko (2015), and Reis (2021).
[6] Levin, Natalucci, and Piger (2004), Kumar, Afrouzi, Coibion, and Gorodnichenko (2015), Bems, Caselli, Grigoli, and Gruss (2021), Ehrmann (2015), Carvalho, Eusepi, Moench, and Preston (2023), Patzelt and Reis (2024).
[7] Gürkaynak, Sack, and Swanson (2005).
[8] Levin, Natalucci, and Piger (2004), Kumar, Afrouzi, Coibion, and Gorodnichenko (2015).
[9] Dräger and Lamla (2017).

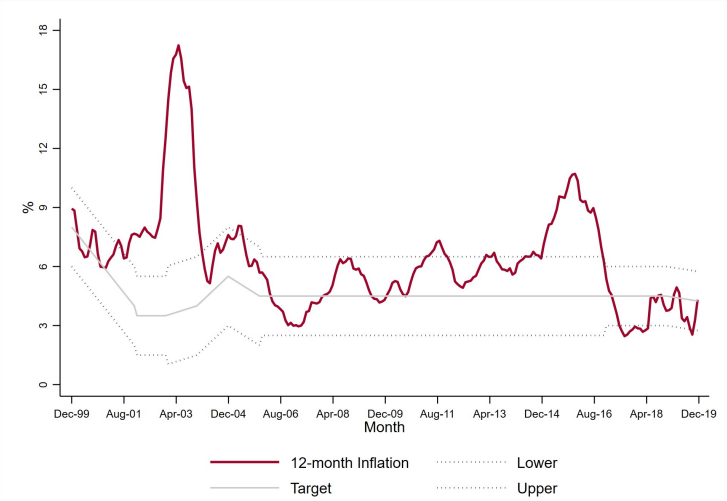
deterioration in institutional quality. This is in contrast to the episode we study, where one extraordinary monetary policy decision led to essentially immediate unanchoring of inflation expectations. The authors show how inflation dynamics changed under the new regime, in line with the predictions of a New Keynesian model with an upper bound on the policy rate – a stand-in for political pressure. Their empirical analysis does not include inflation expectations.

Other papers have also studied changes in monetary policy and in the state of inflation expectations in Brazil around 2011. For example, Reis (2021) exploits variation in higher moments of the cross-sectional distribution of household expectations to characterize the unanchoring of expectations between 2011 and 2016, while Cortes and Paiva (2017) estimate a shift in a Taylor rule around 2011. Closer to our work, Oliveira and Simon (2023) investigate how central bank credibility affects the response of one-year-ahead inflation expectations to monetary policy shocks. These papers focus on one-year-ahead inflation expectations. Our paper delves into what caused the unanchoring of inflation expectations and provides an extensive characterization of the state of expectations during the unanchored regime. To that end, we exploit the high frequency and panel structure of the BCB's survey of professional forecasters. Importantly, we study the dynamics of inflation expectations at horizons beyond what the BCB deems relevant for the conduct of monetary policy in Brazil. This is an important difference, as shorter-lived deviations of expectations from target need not imply unanchoring.

On the theoretical front, we follow Carvalho, Eusepi, Moench, and Preston (2023) (CEMP) in articulating a model with a precise definition of (un)anchored expectations. In CEMP, agents are uncertain about the long-run mean of inflation and continuously update their beliefs in response to new information. The forecasting model agents use depends on their confidence in the central banks's long-run objectives. If they are confident about a constant inflation target (anchored expectations), their long-term inflation expectations respond little to short-term forecast errors. Conversely, if agents come to believe the inflation target might be shifting over time, long-term forecast revisions start to respond aggressively to recent forecast errors, as agents attempt to track recent changes to the inflation target. This is the case of unanchored inflation expectations. Crucially, expectations feed back into inflation dynamics, owing to forward-looking price-setting decisions. The choice between forecasting models depends on economic developments: large and persistent forecast errors lead agents to lose faith in a constant inflation target, de-anchoring inflation expectations. Monetary policy also shapes the sensitivity of long-run expectations to new information. The model predicts the behavior of long-term inflation expectations in the US and other countries. Our model builds on but departs from the CEMP framework in two ways. On the one hand, as in Erceg and Levin (2003), we assume the degree of (un)anchoring is exogenous and agents learn about an exogenous inflation trend (the target). On the other hand, we extend these two papers to include central bank communication about the target. This delivers a simple framework that allows a coherent analytical characterization of various measures of unanchoring employed in the empirical literature. We also calibrate our model to Brazilian data and show it can broadly account for our empirical findings.

After a brief history of Brazil's inflation-targeting regime and a description of the BCB's survey of professional forecasters, Section 2 describes the abrupt monetary policy U-turn episode. It also provides evidence agents interpreted it as a change in monetary policy goals, which led to essentially the immediate unanchoring of expectations. Section 3 exploits a range of measures to establish that expectations were indeed unanchored in the period between the abrupt U-turn in policy and the regime change that took place five years later, after a presidential impeachment. Before concluding the paper, in Section 4 we present a simple model with a well-defined notion of (un)anchoring, which allows a coherent analytical characterization of various measures of unanchoring analyzed in the empirical literature and accounts well for our empirical findings.

Figure 1: **Inflation, targets, and tolerance bands**



Note: 12-month inflation (dark red line), inflation target (solid grey line), and the tolerance bands (dashed grey lines) from 1999 until 2019.

2 Abrupt monetary policy U-turn: an unanchoring quasi-experiment

2.1 A brief history of Brazil's inflation-targeting regime

The inflation-targeting regime in Brazil was established in March 1999. It followed a balance of payment crisis in the beginning of that year that forced the BCB to abandon its managed exchange rate regime and to float the currency. As dictated by a presidential decree since then, calendar year targets for a consumer price index (IPCA) and a tolerance interval (or "band") around it have to be defined by the National Monetary Council (NMC), which currently consists of two ministers from the executive branch and the governor of the BCB. If 12-month inflation at the end of a calendar year is outside the tolerance interval, the BCB chairman must write an open letter to the finance minister, explaining the reasons for having missed the target, the measures taken to ensure inflation will converge to within the tolerance interval, and the horizon for convergence.

Until 2017, target and tolerance bands had to be defined until June of each year for the second calendar year ahead.[10] For example, in June 2016, the NMC set the inflation target for calendar year 2018 to 4.5% with a 3%–6% tolerance interval. The procedure changed in 2017 with an unexpected presidential decree that instructed the NMC to set the target for 2019 and 2020, and established that from then onward, the target had to be defined (by June of each year) for the third calendar year ahead. Since 2017, announced inflation targets effectively produced a declining path whereby the target was reduced by 0.25% each year, from 4.5% (target for 2018) to 3% (target for 2024, 2025, and 2026).[11]

Figure 1 shows the evolution of target and tolerance bands from the beginning of the regime until the onset of the COVID-19 pandemic, together with 12-month IPCA inflation.[12] In our account of the abrupt monetary policy U-turn in Section 2.3, we combine a narrative approach with data from the BCB's survey of professional forecasters. Thus, before turning to the description of that episode, we introduce the survey.

[10] Historically, however, targets were revised a few times in the early years of the regime, in response to sizable shocks that rendered the original targets incredible.

[11] In June 2023, the NMC communicated a decision to retire the system with calendar year targets and to adopt a "continuous" 3% target. At the time of writing, the required presidential decree and details of the new system had yet to be published.

[12] The history of NMC decisions and IPCA inflation can be found at https://www.bcb.gov.br/en/monetarypolicy/historicalpath.

2.2 The Focus Survey

The expectations data we use in this paper are from the survey of professional forecasters maintained by the BCB, known as the "Focus Survey". It contains forecasts for the main inflation indices, the policy rate ("Selic"), as well as for economic activity, labor market, fiscal, and balance-of-payments variables. Currently, forecasts are provided by about 140 institutions, consisting mainly of banks and asset management firms.

Accredited institutions can update their forecasts at any time through the *Market Expectation System* (the "Focus system"), and the BCB compiles them every working day. Forecast updates are not mandatory, but the BCB provides incentives for participating institutions to update their forecasts frequently. First, it sets a few "contest days" every month, in which economic forecasts are collected to be compared to the actual outcomes upon release. It then publishes a ranking with the five most accurate forecasting institutions, according to the absolute forecast error.[13] Second, every Monday, the BCB publishes the *Focus Market Readout* containing a summary of forecasts, restricting the sample to those forecasts that were updated within the last 30 days. Finally, an institution that does not update its forecasts within six months is excluded from the survey and needs to file a formal request to resume participating. Gaglianone, Giacomini, Issler, and Skreta (2020) study how often and when participants update their forecasts, and find significant effects of these incentives. They also find "seasonal patterns", with higher frequency of forecast updating on Mondays and Fridays. While forecasts are updated frequently overall, the possibility of selection effects is an interesting topic left for future research.

We focus on forecasts of IPCA inflation and of the Selic policy rate. For IPCA, participants can report monthly inflation forecasts for each of the next 24 months and annual inflation rates for the current year and each of the following four calendar years.[14] Beyond two years ahead, we construct fixed-horizon forecasts by taking weighted averages of two adjacent calendar-year forecasts, with weights given by the share of the forecast window that falls in each calendar year.[15] We interpolate inflation targets (and tolerance bands) in the same way. For horizons for which targets were yet to be announced, we assumed the same value as that of the most distant horizon for which an official target had already been announced. This is consistent with the historical pattern of forecasts in the survey. For the Selic rate, participants report their forecasts of the BCB decision for each of the regular monetary policy meetings to take place in the next 24 months, as well as the end-of-period and annual average policy rate for the current year and each of the following four calendar years.

While we provide empirical results for various fixed and calendar year horizons, our main focus is on expectations for the 12-month period ending 48 months from any given forecast date (*i.e.*, forecasts for 36-48 months ahead), which is the longest available. This horizon is significantly beyond the BCB's relevant horizon for conducting monetary policy.[16] We denote fixed-horizon forecasts by months that define the relevant 12-month window (*e.g.*, 24-36 months ahead, 36-48 months ahead, and so forth). For calendar years, we use 1y to denote the subsequent calendar year, 2y to denote the second calendar year ahead, and so forth.

We use the dataset the BCB had made available until recently. It includes individual forecasts of all participants that had authorized inclusion in the dataset, identified by a "fake id." At the time when the authorizations were granted, they represented more than 90% of all survey participants.

[13] This contest is deemed valuable, as top-five forecasters and their institutions often advertise their accomplishments. For a detailed description of the contest, see Gaglianone, Giacomini, Issler, and Skreta (2020) and the BCB's website.

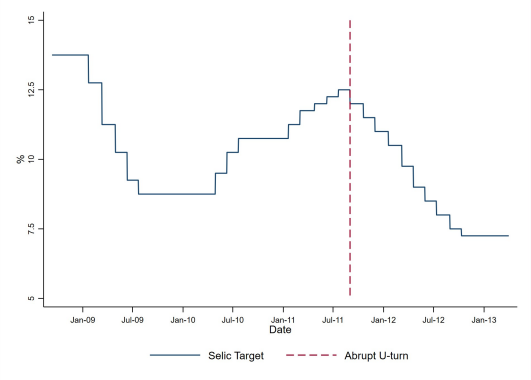
[14] Initially, the longest monthly horizon was 12 months. It was later extended to 18 months and to 24 months more recently.

[15] Although this approach does not account for seasonality, this is not a concern because in our econometric analyses we always work with cumulative inflation over 12-month windows.

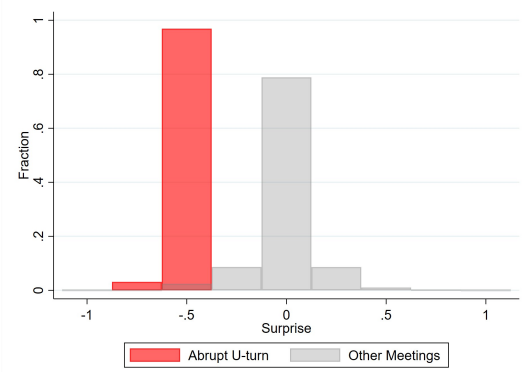
[16] Historically, the BCB's relevant horizon was considered to be somewhere between 12 and 18 months ahead. Since early 2020, it started emphasizing the latter and communicating it more explicitly – *e.g.*, https://www.bcb.gov.br/en/pressdetail/2456/nota.

Figure 2: **Abrupt U-turn in monetary policy**

(a) Policy rate



(b) Distribution of individual interest rate surprises



Note: Left panel shows the Selic policy rate (solid line) from 2008 to 2013. The vertical dashed line indicates the August 31, 2011 monetary policy meeting, which marked the abrupt policy U-turn. Right panel shows the distribution of individual forecasters' interest rate surprises (in percentage points) for all monetary policy meetings from July 2008 to December 2019. Surprise is the difference between the announced interest rate and the individual's forecast for the rate decision. Dark (red) histogram corresponds to the abrupt U-turn meeting (August 31, 2011). Light (grey) histogram covers all other policy meetings in our sample.

2.3 The abrupt U-turn

A tightening cycle had started in April 2010, after the policy rate had been taken to historical lows in response to the global financial crisis. The economy was growing strongly – GDP grew by 7.5% in 2010 – and inflation was slightly above the 4.5% target. At that time, the BCB was perceived to be somewhat behind the curve for having delayed the beginning of the tightening cycle in early 2010. After two additional hikes in June and July of that year, the central bank paused and held its policy rate constant until the end of 2010.

President Dilma Rousseff was elected in October 2010 and took office in January 2011. At the time, the BCB lacked legal independence in all dimensions, including lack of mandates for its board members, who could be removed from office at the president's will.[17] She appointed a new BCB chair, who also took office in January 2011. By then, inflation had reached 6%, widening the gap with respect to the 4.5% target, and the BCB resumed tightening. It increased the policy rate in five consecutive meetings, taking it from 10.75% to 12.50% after its July 28, 2011, meeting. In that meeting, the BCB increased its policy rate by 0.25% and issued a laconic statement: "Assessing the prospective scenario and the balance of risks for inflation, the COPOM unanimously decided, at the moment, to increase the Selic target to 12.50 percent."[18]

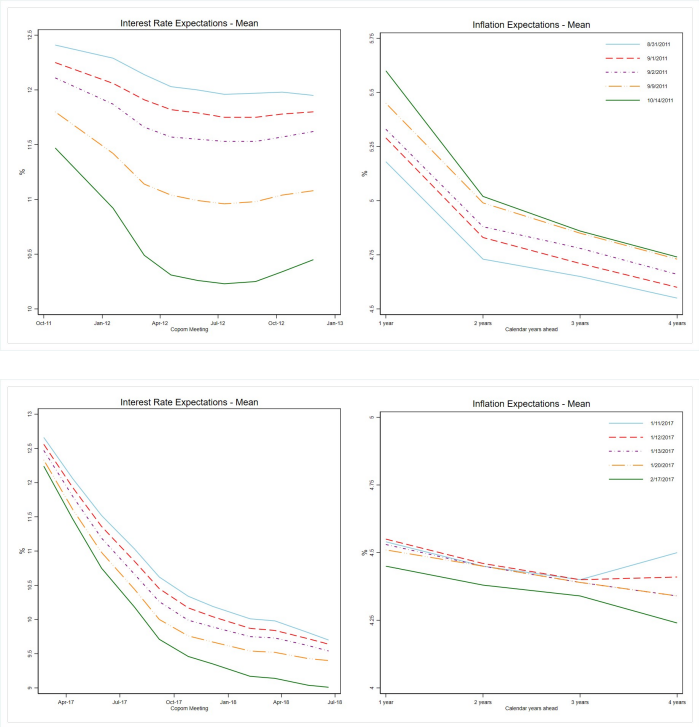
In its subsequent meeting, on August 31, 2011, the BCB not only interrupted the ongoing tightening cycle but also started an easing cycle by cutting the policy rate by 0.50% (Figure 2a), in a rare split decision. As Figure 2b makes clear using Focus microdata, all available forecasts failed to anticipate that decision. In contrast, a vast majority of participants typically forecast the correct outcome in other policy meetings. The ensuing easing cycle lasted for 12 policy meetings, after which the policy rate reached a then-historical low of 7.25%, despite persistent above-target inflation and unmoored expectations, as we show.

In communicating its August 31 decision, the BCB referred to a "generalized and significant reduction in growth projections for the main economic blocks," so that "the international scenario shows disinflationary bias in the relevant forecast period." The minutes of that meeting confirmed this diagnosis. Quite curiously, they also provided extensive evidence of persistent and widespread above-target inflation, robust economic growth, and a

[17] To join the BCB board, candidates had to be nominated by the president and approved by the Senate. In 2021, the Brazilian Congress approved a law granting some autonomy to the BCB, which includes mandates for its board members.

[18] The statement can be found here: https://www.bcb.gov.br/en/pressdetail/2159/nota.

Figure 3: **Joint policy rate and inflation forecasts: August 2011 and January 2017 meetings**



Note: Top panels show interest rate (top left) and inflation forecasts (top right) on August 31, 2011, and after that monetary policy meeting. Bottom panels show analogous forecasts around the January 11, 2017, monetary policy meeting. Each line corresponds to a different date. In the left panels, the horizontal axis lists the future monetary policy meetings for which the forecasts were made. In the right panels, the horizontal axis lists different horizons for inflation expectations.

record-low unemployment rate.[19] While the decision to ease policy rate was not unanimous (two out of seven board members voted to keep the policy rate on hold), the minutes indicate all members agreed the international scenario could affect the future performance of the Brazilian economy, and could justify an eventual easing of policy. The two dissenting members thought, however, conditions did not clear the bar for such a policy reversal.

The joint response of inflation and interest rate forecasts in the Focus survey suggests agents perceived the decision as reflecting new policy objectives or a new reaction function by the BCB.[20] The lack of a convincing justification for easing policy likely played a role. Although neither the statement nor the minutes of the August 2011 meeting gave indications about subsequent policy decisions, survey participants promptly lowered their policy rate forecasts for all horizons – top left panel of Figure 3. At the same time, they raised their inflation forecast for all horizons, including the long-run (top right panel of Figure 3). In contrast, after expectations had been reanchored (see Section 2.4), another surprising interest rate cut – in the monetary policy meeting of January 11, 2017 – led to a downward revision of both interest rates and inflation forecasts, as the BCB was perceived to react to lower inflation forecasts (bottom panel of Figure 3).

Additional (anecdotal) evidence on how the abrupt policy shift was perceived can be obtained from newspaper articles. Major outlets published pieces on how former policymakers reacted to the decision. A few articles in the Appendix illustrate how former BCB chairmen and board members perceived that decision as either a shift in monetary policy goals or a result of political pressure. It also shows editorials from a major newspaper that articulates the view the BCB had caved in to political pressure.

[19] Statement: www.bcb.gov.br/en/pressdetail/2160/nota; minutes: www.bcb.gov.br/en/publications/COPOMminutes/14082011.
[20] See Cortes and Paiva (2017) for time-series evidence the BCB's reaction function changed at that point in time.

The stark movements of inflation and policy rate forecasts in the aftermath of abrupt U-turn are hard to square with alternative explanations. While in theory those movements could be consistent with global developments or fiscal policy concerns, in the Appendix we show these factors can be dismissed given our high-frequency identification. Furthermore, whenever pertinent, we show our claim of causality receives empirical support even after we control for *any* other aggregate factor whose time variation may be deemed to have caused the unanchoring.

2.4 Reanchoring

Reanchoring took place around mid-2016, amid a regime change. Toward the end of President Rousseff's first term (2011-2014), it had become increasingly clear Brazil had been pursuing unsustainable macroeconomic policies. Monetary policy has led to the unanchoring of inflation expectations since mid-2011. In its turn, fiscal policy had become a source of concern after Rousseff's first years in office – a time during which fiscal policy had been perceived as sound (see Figure 13 in the Appendix).

During a brief period in the beginning of her second term, which had started in January 2015, President Rousseff flirted with a new direction for macroeconomic policy. She did not persevere on that route, however. Toward the end of that year the economy was in a deep crisis, facing a large recession, a depreciating currency, and double-digit inflation coupled with still unanchored inflation expectations, despite high real interest rates. A political crisis ensued and culminated in Rousseff's impeachment – a process that formally started in December 2015 and was finalized in August 2016.

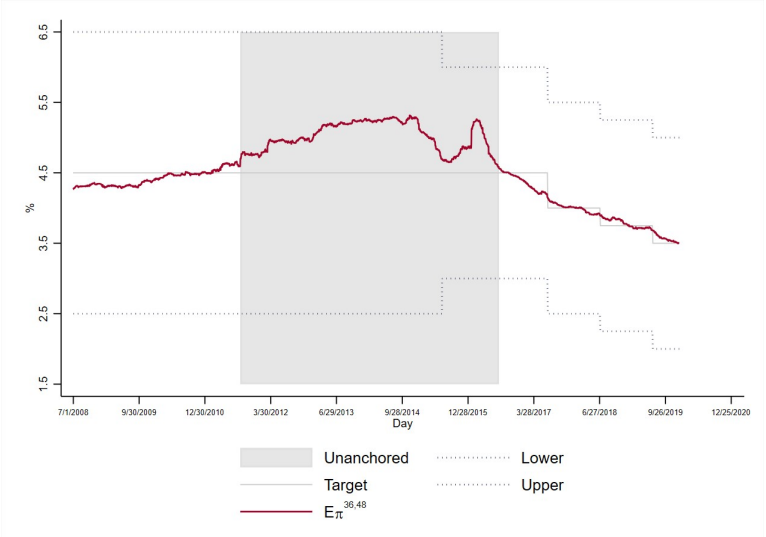
As part of the impeachment process, then vice president Michel Temer took office. He appointed a new economic team that included both a new finance minister and a new BCB chair, signaling a radical change in the direction of economic policies, including an ambitious reform agenda (Carvalho and Nechio, 2023).

Owing to the deep recession and high real interest rates, in June 2016 there was a heated debate about the possible merits of changing the inflation targets for 2016 and 2017. Many actors, including two former BCB chairmen and at least three other former board members, publicly defended raising the inflation target for 2016 and 2017 to allow the BCB to lower the policy rate and cushion the recessionary shocks to the economy.[21] In response to those pressures, in brief – but important – remarks during a press conference associated with publication of the June 2016 Inflation Report, the new BCB chairman reaffirmed the resolve to pursue the original targets, which he characterized as "ambitious and credible."[22]

The timing of reanchoring is not as clear-cut as that of the unanchoring that was triggered by the abrupt policy U-turn. It can arguably be dated to different points in the period between April or May and August 2016. We settle for August 2016, for a few reasons. First, by then the new BCB chair had reaffirmed the BCB's commitment to the prevailing inflation targets and the new BCB board had taken office and kept a tight monetary policy stance amid criticism due to its output costs. Second, it was the moment when deviations of inflation expectations from target reverted back to the levels seen prior to the abrupt U-turn. Finally, we deem it the "conservative" choice given our focus and our findings.[23] Based on the narrative and empirical evidence we provide in this section, our classification of anchored/unanchored regimes is depicted in Figure 4, together with the time series of expected inflation for 36-48 months ahead.

[21] A translation of newspaper articles reporting on the debate can be found in the Appendix.
[22] A translation of a newspaper article commenting on those remarks can be found in the Appendix.
[23] If expectations were indeed already reanchored prior to August 2016, including that period in the unanchored window should make it harder to establish empirically that expectations had been unanchored.

Figure 4: **Expected inflation between months 36-48, target, and tolerance bands**



Note: Cross-sectional mean of inflation expectations for 36-48 months ahead (red bold line), inflation target (solid grey line) and tolerance bands (dashed grey lines), from July 2008 to December 2019. Shaded region indicates unanchored regime.

3 Empirical evidence of anchored and unanchored expectations

In this section, we use individual forecast data from the Focus Survey, from July 2008 to December 2019, to provide a variety of evidence on expectations unanchoring and reanchoring in Brazil. They support the conclusion that inflation expectations became unhinged after the abrupt monetary policy U-turn, and remained poorly anchored during the window we define as the unanchored regime. In that regime, we show evidence that i) long-run expectations deviate meaningfully from target; ii) disagreement about long-run inflation increases; iii) long-run inflation expectations become sensitive to short-run inflation expectations; iv) critically, they also start responding to monetary policy surprises; v) individual forecasts become more volatile; and vi) forecasts are updated more frequently. After reanchoring, vii) a surprise announcement of a lower inflation target leads to a quick adjustment of expectations toward the new target. Before providing econometric evidence on the behavior of expectations across regimes, we provide high-frequency evidence expectations responded quickly to the abrupt U-turn.

3.1 High-frequency evidence unanchoring was caused by monetary policy

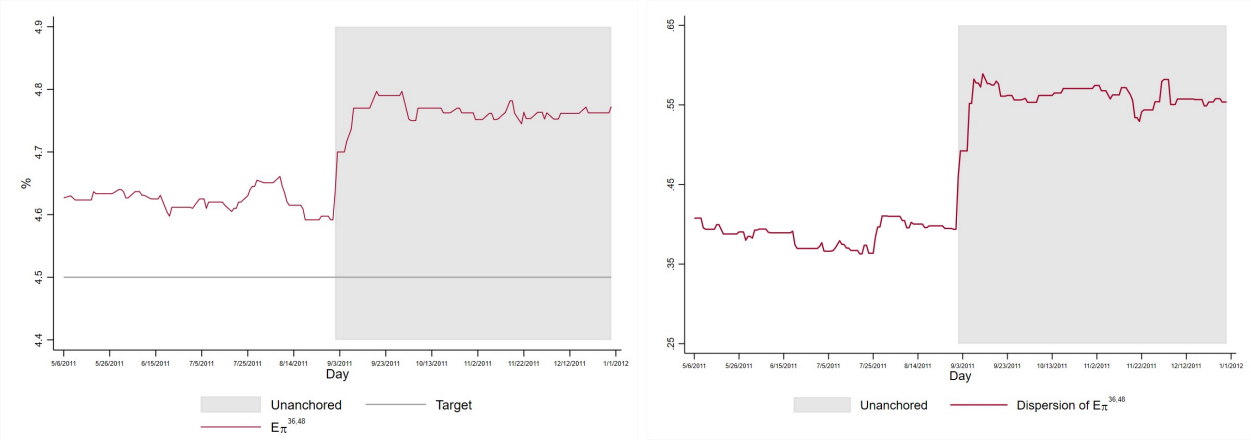
High-frequency Focus data show the abrupt monetary policy U-turn quickly unanchored expectations. Consensus long-run inflation forecasts rose immediately after the meeting (Figure 5, panel (a)), setting off a process that would last for as many as five years. Figure 5, panel (b) shows the cross-sectional dispersion of such forecasts also spiked markedly.[24] Individual expectations data complement the picture, as the distributions of inflation forecasts for all horizons shifted to the right soon after the abrupt policy reversal (Figure 6, and also Figure 9 in the Appendix).[25] As also shown in that figure, this contrasts sharply with the typical pattern for the vast majority of policy meetings, after which the distribution of inflation expectations moves little.

[24] In computing the cross-sectional dispersion of forecasts, we follow the BCB and repeat the most recent forecast for up to 30 days. After that, unconfirmed forecasts are dropped from the calculation.

[25] In the Appendix we also show results for two-day changes, because monetary policy meetings take place on Wednesdays and updates in the Focus survey exhibit a "seasonal" pattern, with more action on Fridays (see Gaglianone, Giacomini, Issler, and Skreta, 2020). Results are quite similar.

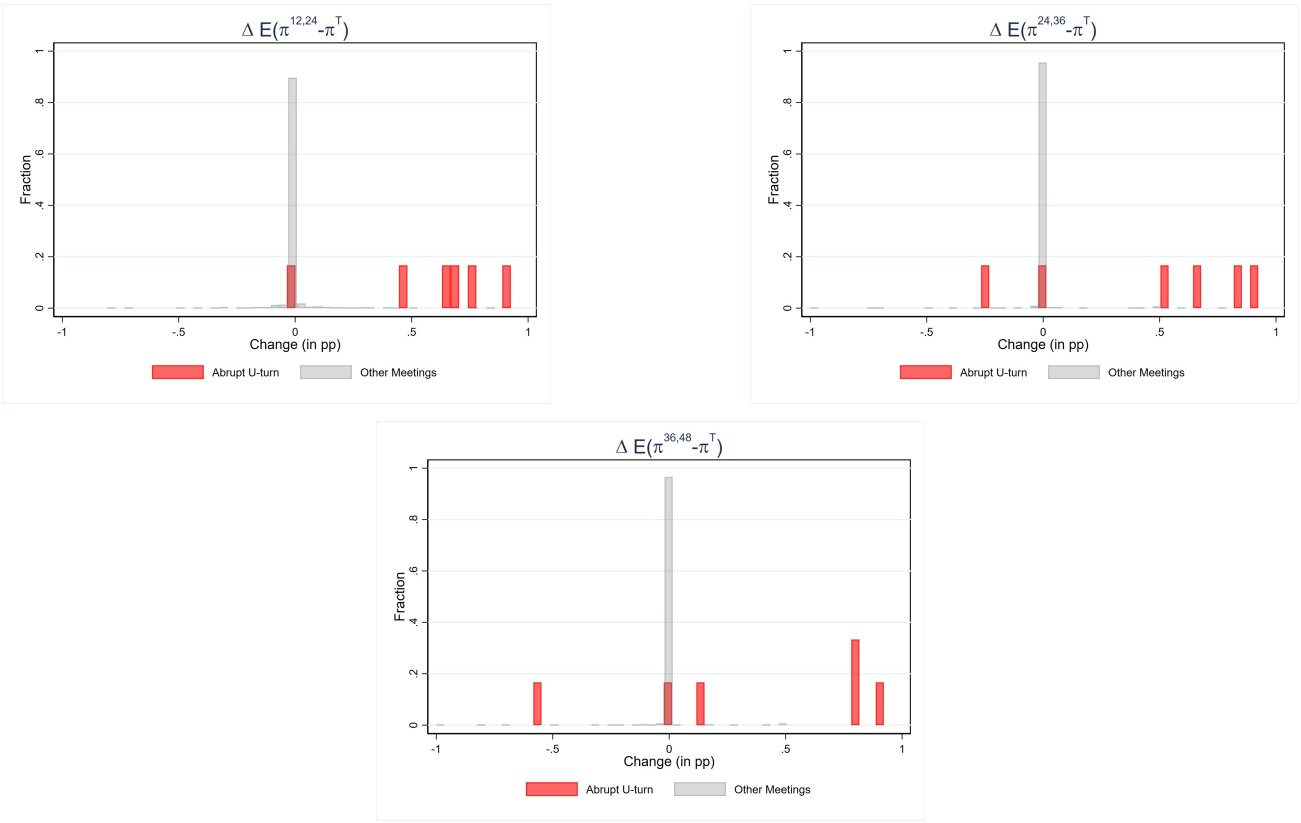
Figure 5: **High-frequency evidence unanchoring was caused by the abrupt U-turn**

(a) Daily mean inflation forecasts for 36-48 months ahead (b) Daily cross-sectional dispersion for 36-48 months ahead



Note: Left panel: Daily cross-sectional mean of inflation expectations for 36-48 months ahead (solid red line) and the inflation target (horizontal light grey line). Right panel: Daily cross-sectional dispersion of 36-48 month ahead inflation forecasts. Shaded region indicates unanchored regime.

Figure 6: **One-day change in inflation expectations: fixed horizons**



Note: Distributions of inflation forecast revisions (in percentage points) for all monetary policy meetings from 2008 to 2019. Changes in inflation expectations are obtained by subtracting the most recent forecast posted or confirmed prior to a policy meeting from forecasts posted or confirmed one day after that meeting. The dark (red) histogram is for the abrupt U-turn meeting (August 31, 2011). The light (grey) histogram is for all other meetings in our sample.

Table 1: **Deviation of inflation expectations from target across regimes**

Dependent variable	$E\left[\pi_{12-24}-\pi^T\right]$	$E\left[\pi_{24-36}-\pi^T\right]$	$E\left[\pi_{36-48}-\pi^T\right]$
$\mathbb{1}_t^{Unanch}$	1.033***	0.677***	0.532***
	(0.006)	(0.006)	(0.007)
$\left(1-\mathbb{1}_t^{Unanch}\right)$	0.0356***	0.0156***	-0.0379***
	(0.003)	(0.002)	(0.003)
Observations	23,111	20,950	16,218
Adjusted R^2	0.709	0.536	0.387
p-value of H0: $\beta_{Unanch}=\beta_{Anch}$	0	0	0
Estimation method	Pooled OLS	Pooled OLS	Pooled OLS

Note: Heteroskedasticity-robust standard errors in parentheses. Coefficients followed by ***,**, or * are statistically significant at the 1%, 5%, or 10% levels, respectively.

3.2 Expectations deviate meaningfully from target

In this subsection, we show long-run expectations deviate meaningfully from target in the unanchored regime, whereas they closely align with the target during anchored periods. To exploit these differences across regimes, we estimate the following pooled regression by ordinary least square (OLS):

$$E_{it}\left(\pi_{t+\tau}-\pi_{t+\tau}^T\right)=\beta_{Unanch}\mathbb{1}_t^{Unanch}+\beta_{Anch}\left(1-\mathbb{1}_t^{Unanch}\right)+\varepsilon_{it}, \tag{1}$$

where $E_{it}\left(\pi_{t+\tau}-\pi_{t+\tau}^T\right)$ is the deviation from target of forecaster i's inflation expectation for horizon $\tau\in\{12-24, 24-36, 36-48\}$; $\mathbb{1}_t^{Unanch}$ is a dummy variable that indicates the unanchored regime; and t represents the day, from July 2008 to December 2019, when each inflation forecast was posted in the Focus system.

Table 1 reports our estimates of β_{Unanch} and β_{Anch} for different fixed horizons. In the unanchored regime, mean long-term (36-48 months ahead) inflation expectations exceed the target by more than 0.5 percentage point ("pp"). For the shorter horizon (12-24 months), the mean deviation from target exceeds 1 pp. In contrast, in the anchored regime average expectations are close to target. Results for calendar year forecasts are similar (Appendix, Table 8). Since our sample is unbalanced, systematic differences across forecasters could affect our pooled estimates, due to composition effects. To investigate that possibility, in the Appendix (Table 9) we present panel estimates with forecaster fixed effects. Results are consistent with the coefficients in Table 1, suggesting any composition effect has a negligible impact on our estimates.

3.3 Cross-sectional dispersion of inflation expectations ("disagreement") increases

Cross-sectional dispersion of long-run inflation expectations ("disagreement") is higher when expectations are unanchored. Reis (2021) argues higher moments of the cross-sectional distribution of expectations contain useful information about the inflation anchor. He shows the dispersion of inflation expectations increases at the onset of several unanchoring episodes. Figure 5(b) shows disagreement about long-run inflation rises sharply after the abrupt policy U-turn, providing another early symptom of the loss of anchor, as emphasized by Reis (2021).

To account for the differences in the dispersion of inflation expectations across regimes, we estimate the following equation by OLS:

$$\sigma_t\left(E_i\pi_{t+\tau}\right)=\beta_{Unanch}\mathbb{1}_t^{Unanch}+\beta_{Anch}\left(1-\mathbb{1}_t^{Unanch}\right)+\varepsilon_t, \tag{2}$$

Table 2: **Dispersion of inflation expectations**

Dependent variable	$\sigma_t\left(E_i\pi_{12-24}\right)$	$\sigma_t\left(E_i\pi_{24-36}\right)$	$\sigma_t\left(E_i\pi_{36-48}\right)$
$\mathbb{1}_t^{Unanch}$	0.450***	0.478***	0.496***
	(0.00314)	(0.00304)	(0.00279)
$\left(1-\mathbb{1}_t^{Unanch}\right)$	0.236***	0.226***	0.278***
	(0.00163)	(0.00112)	(0.00106)
Observations	4,201	4,201	4,103
Adjusted R^2	0.914	0.935	0.953
p-value of H0: $\beta_{Unanch}=\beta_{Anch}$	0	0	0
Estimation method	Time-series OLS	Time-series OLS	Time-series OLS

Note: Heteroskedasticity-robust standard errors in parentheses. Coefficients followed by ***,**, or * are statistically significant at the 1%, 5%, or 10% levels, respectively.

where $\sigma_t\left(E_i\pi_{t+\tau}\right)$ is the daily cross-sectional dispersion of inflation expectations for horizon $\tau \in \{12-24, 24-36, 36-48\}$; and t represents the day, from July 2008 to December 2019, when each inflation forecast was posted in the Focus system.

Table 2 shows the estimates for the average level of cross-sectional dispersion in each regime. Dispersion in the unanchored regime is approximately twice as high as in the anchored regime. Results for calendar years, available in the Appendix (Table 11), are similar.

3.4 Heightened sensitivity of long- to short-run expectations

Next, we offer evidence long-run inflation expectations become more sensitive to short-run inflation expectations in the unanchored regime. We rely on Focus contest dates since, on those days, institutions have stronger incentives to update their forecasts in the Focus system. We calculate changes in expectations between monthly reference days and estimate panel regressions with forecaster fixed effects to evaluate how pass-through of changes in short-run expectations into changes in longer-run expectations varies across regimes:

$$\Delta E_{it}\left(\pi_{t+\tau}-\pi^T_{t+\tau}\right)=\alpha_i+\beta_{Unanch}\Delta E_{it}\left[\pi_{1-12}-\pi^T_{t+\tau}\right]\times\mathbb{1}_t{}^{Unanch}+\beta_{Anch}\Delta E_{it}\left[\pi_{1-12}-\pi^T_{t+\tau}\right]\times\left(1-\mathbb{1}_t^{Unanch}\right)+\varepsilon_{it}, \tag{3}$$

where $\Delta E_{it}\left(\pi_{t+\tau}-\pi^T_{t+\tau}\right)$ represents the change in inflation expectations (in deviation from target) for horizon $\tau \in \{24-36, 36-48\}$ between reference dates t; $\Delta E_{it}\left[\pi_{1-12}-\pi^T\right]$ denotes the change in inflation expectations (in deviation from target) for the 12-month horizon. The α_i's are forecaster fixed effects, which are restricted to sum to zero. The model also includes a constant.[26]

Table 3 shows in the anchored regime there is essentially no pass-through from changes in 12-month expectations into changes in 24-36 or 36-48 month expectations. In contrast, in the unanchored regime, changes in 12-month expectations pass-through at a rate of 17-23% into changes in 24-36 or 36-48 month expectations.

Conclusions are robust to adding time-fixed effects (Table 12, in the Appendix). In that case, the sensitivity of longer-run expectations to short-term expectations during the unanchored regime is two to three times higher than in the anchored regime.[27] Time-fixed effects control for any aggregate factor whose time variation may be deemed to have caused the unanchoring.

[26] Since $\sum_i \alpha_i = 0$, the constant captures the mean of the dependent variable when independent variables are zero. This applies to all panel regressions in which we include individual fixed effects.

[27] In the Appendix (Tables 13 and 14) we provide yet additional specifications using expectations revisions and find qualitatively similar results.

Table 3: **Expectations pass-through regressions: changes between Focus contest dates**

Dependent variable	$\Delta E_i\left[\pi_{24-36}-\pi^T\right]$	$\Delta E_i\left[\pi_{36-48}-\pi^T\right]$
$\Delta E_i\left[\pi_{1-12}-\pi^T\right]\times \mathbb{1}_t^{Unanch}$	0.228***	0.175***
	(0.0399)	(0.0345)
$\Delta E_i\left[\pi_{1-12}-\pi^T\right]\times\left(1-\mathbb{1}_t^{Unanch}\right)$	0.0214	0.0151
	(0.0169)	(0.0220)
Constant	-0.00172	-0.00215
	(0.00371)	(0.00370)
Observations	2,841	2,461
Adjusted R^2	0.0457	0.0242
Estimation method	Fixed effects	Fixed effects
Individual fixed effects	Yes	Yes
Time-fixed effects	No	No

Note: Heteroskedasticity-robust standard errors are reported in parentheses. Coefficients followed by ***, **, or * are statistically significant at the 1%, 5%, or 10% levels, respectively.

3.5 Sensitivity of inflation expectations to interest rate surprises

Inflation expectations become more sensitive to monetary policy surprises when expectations are unanchored. To establish this result, we estimate panel regressions of changes in individual inflation expectations on individual monetary policy surprises. We separate policy meetings into three groups: the abrupt U-turn meeting, policy meetings during the anchored periods, and policy meetings during the unanchored period. To calculate the policy surprise for each forecaster i and meeting t, we subtract his/her most recent forecast posted prior to that meeting from the Selic rate set by the BCB:

$$Surprise_t^i = Selic_t - E_{t-k_i}^i[Selic_t], \tag{4}$$

where t is a COPOM meeting date and k_i is the number of days since forecaster i last posted a forecast. We measure the volatility of these monetary surprises for each forecaster.[28]

The change in inflation expectations – in deviations from target – is given by the difference between the first forecast posted after the meeting ($E_{t+a_i}^i[\pi^f]$) and the most recent forecast posted prior to the meeting ($E_{t-b_i}^i[\pi^f]$):

$$\Delta(E_t^i\pi^f - \pi_t^T) = (E_{t+a_i}^i[\pi^f] - \pi_{t+a_i}^T) - (E_{t-b_i}^i[\pi^f] - \pi_{t-b_i}^T), \tag{5}$$

where t is the COPOM meeting date; a_i is the number of days until the first forecast update after the meeting; b_i is the number of days since the most recent forecast update prior to the meeting;[29] π^T is the inflation target, and $f \in \{12-24, 24-36, 36-48\}$ is the (fixed) forecast horizon. We are interested in a narrow window around COPOM meetings, and hence we limit our analyses to changes in forecasts up to two days after each meeting. We then estimate the following panel regressions:

$$\Delta(E_t^i\pi^f - \pi_t^T) = \alpha_i + \beta_1\, U\text{-}turn\ surprise + \beta_2\, Other\ surpr.\times \mathbb{1}_t^{Unanch} + \beta_3\, Other\ surpr.\times\left(1-\mathbb{1}_t^{Unanch}\right) + \varepsilon_{it}. \tag{6}$$

[28] The average (across forecasters) of the standard deviation of individual surprises is 0.14. We use this number in the calibration of the model we present in Section 4.

[29] In general, forecasts are updated between 12 and 5 days before each meeting.

Table 4: **Response of inflation expectations to monetary policy surprises**

	One day after policy meetings		
Dependent variable	$\Delta E_i\left[\pi_{12-24}-\pi^T\right]$	$\Delta E_i\left[\pi_{24-36}-\pi^T\right]$	$\Delta E_i\left[\pi_{36-48}-\pi^T\right]$
Abrupt U-turn surprise	-0.939***	-0.852**	-0.637
	(0.184)	(0.363)	(0.498)
Other surprises $\times\ \mathbb{1}_t^{Unanch}$	-0.640***	-0.531***	-0.308*
	(0.161)	(0.152)	(0.173)
Other surprises $\times\left(1-\mathbb{1}_t^{Unanch}\right)$	-0.0822	-0.0300	-0.0413
	(0.0547)	(0.0506)	(0.0955)
Constant	0.0203**	0.0155*	0.0120
	(0.00794)	(0.00812)	(0.0112)
Observations	509	471	333
Adjusted R^2	0.208	0.149	0.00974
Estimation method	Fixed effects	Fixed effects	Fixed effects
Individual fixed effects	Yes	Yes	Yes
Time-fixed effects	No	No	No

	Two days after policy meetings		
Dependent variable	$\Delta E_i\left[\pi_{12-24}-\pi^T\right]$	$\Delta E_i\left[\pi_{24-36}-\pi^T\right]$	$\Delta E_i\left[\pi_{36-48}-\pi^T\right]$
Abrupt U-turn surprise	-0.797***	-0.751***	-0.700**
	(0.154)	(0.257)	(0.325)
Other surprises $\times\ \mathbb{1}_t^{Unanch}$	-0.518***	-0.445***	-0.247*
	(0.133)	(0.122)	(0.140)
Other surprises $\times\left(1-\mathbb{1}_t^{Unanch}\right)$	-0.0942***	-0.0349	-0.0559
	(0.0359)	(0.0349)	(0.0496)
Constant	0.0116**	0.00893*	0.00199
	(0.00472)	(0.00501)	(0.00619)
Observations	992	902	680
Adjusted R^2	0.193	0.145	0.0947
Estimation method	Fixed effects	Fixed effects	Fixed Effectss
Individual fixed effects	Yes	Yes	Yes
Time-fixed effects	No	No	No

Note: Heteroskedasticity-robust standard errors are reported in parentheses. Coefficients followed by ***, **, or * are statistically significant at the 1%, 5%, or 10% levels, respectively.

The top panel in Table 4 presents results for one-day windows, and the bottom panel does so for two-day windows.[30] The prevalence of negative coefficients indicates that the bigger the downward policy surprise is, the more the forecaster revises up his/her inflation forecasts. Changes around policy meetings in the anchored periods, however, are small and statistically insignificant in most cases. In contrast, changes when expectations are unanchored – and especially right after the abrupt policy U-turn – are statistically significant and large. For instance, for two-day windows and the 36-48 month horizon, a differential one percentage point interest rate surprise leads to a differential 0.247 percentage point change in inflation expectations, in the opposite direction. For the abrupt policy turn, that coefficient is much larger in magnitude: -0.7.

When we further saturate the regressions with time-fixed effects, estimates for other surprises in the unanchored regime become insignificant, but results for the abrupt U-turn meeting remain quite similar or become even stronger (Appendix Tables 16 and 17). It is worth repeating that time-fixed effects control for any aggregate factor whose time variation may be deemed to have caused the unanchoring.

[30] Estimation results for calendar years are available in the Appendix (Table 15).

Table 5: **Volatility of inflation expectations across regimes**

Dependent variable	$\sigma_{iJ}\left(E\pi_{1-12}-\pi^T\right)$	$\sigma_{iJ}\left(E\pi_{12-24}-\pi^T\right)$	$\sigma_{iJ}\left(E\pi_{24-36}-\pi^T\right)$	$\sigma_{iJ}\left(E\pi_{36-48}-\pi^T\right)$
$\mathbb{1}_t^{Unanch}$	0.533***	0.429***	0.398***	0.363***
	(0.0194)	(0.0187)	(0.0228)	(0.0241)
$\left(1-\mathbb{1}_t^{Unanch}\right)$	0.423***	0.190***	0.138***	0.155***
	(0.0129)	(0.00844)	(0.00771)	(0.00888)
Observations	276	287	277	265
Adjusted R^2	0.870	0.808	0.737	0.692
p-value of H0: $\beta_{Unanch}=\beta_{Anch}$	0	0	0	0
Estimation	Pooled OLS	Pooled OLS	Pooled OLS	Pooled OLS

Note: Heteroskedasticity-robust standard errors are reported in parentheses. Coefficients followed by ***, **, or * are statistically significant at the 1%, 5%, or 10% levels, respectively.

3.6 Expectations become more volatile

Long-run expectations are more volatile in the unanchored regime. To provide this evidence, we compute volatilities of individual inflation expectations in three windows in our sample: the unanchored window and the two anchored windows (before and after the unanchored regime). This yields a panel with individual forecast volatilities in 3 time "periods", which we then regress on the unanchored and anchored dummies:

$$\sigma_{iJ}\left(E_i\pi_{t+\tau}-\pi^T\right)=\beta_{Unanch}\mathbb{1}_t^{Unanch}+\beta_{Anch}\left(1-\mathbb{1}_t^{Unanch}\right)+\varepsilon_{it}, \tag{7}$$

where $\sigma_{iJ}\left(E_i\pi_{t+\tau}-\pi^T\right)$ is the standard deviation of individual i's inflation expectations (in deviations from target) for (fixed) horizon $\tau\in\{$1-12, 12-24, 24-36, 36-48$\}$ in window $J=1,2,3$; t indexes months within those windows. Coefficients provide estimates of the average standard deviation of expectations in each regime.

Results are presented in Table 5. The volatility of expectations is substantially higher in the unanchored regime – around twice that of the anchored regime. Volatilities are higher for shorter horizons. Estimates remain very similar when we include forecaster fixed effects (Table 19, in the Appendix).[31]

3.7 Expectations are updated more frequently

We now show that, when unanchored, long-run expectations are updated more frequently. To establish this result, we estimate pooled OLS regressions of the duration of time spells between changes in individual calendar year forecasts on dummies for the anchored and unanchored regimes:

$$Duration_{it}^{\tau}=\beta_{Unanch}\mathbb{1}_t^{Unanch}+\beta_{Anch}\left(1-\mathbb{1}_t^{Unanch}\right)+\varepsilon_{it}, \tag{8}$$

where $Duration_{it}^{\tau}$ is the time (in days) since forecaster i last changed his/her calendar year forecast for horizon $\tau\in\{1y,2y,3y,4y\}$, and t are the dates from July 2008 to December 2019 when expectations are revised.

Table 6 shows the average duration of spells between forecast updates is shorter in the unanchored regime. It is estimated to be shorter by 2.1, 12.1, 12.9, and 6.4 days, for the 1, 2, 3, and 4 calendar years ahead, respectively. The differences are statistically significant at the 1% level for all horizons, except for 4y, which is close to significant at the 10% level. Conclusions go through when controlling for forecaster fixed effects (Table 25, in the Appendix).

[31] Estimation results for calendar years are available in the Appendix (Tables 18 and 20). Additionally, Tables 21, 23, 22, and 24 show estimation results when we pool the two anchored windows.

Table 6: **Duration of inflation expectations across regimes: calendar years**

	Duration of forecast spells (days)			
Dependent variable	$E\left(\pi^{1y}\right)$	$E\left(\pi^{2y}\right)$	$E\left(\pi^{3y}\right)$	$E\left(\pi^{4y}\right)$
$\mathbb{1}_t^{Unanch}$	34.39***	74.50***	98.02***	92.86***
	(0.575)	(2.187)	(3.461)	(3.002)
$\left(1-\mathbb{1}_t^{Unanch}\right)$	36.47***	86.59***	110.9***	99.25***
	(0.575)	(2.503)	(3.516)	(2.595)
Observations	8,640	3,175	2,143	1,848
Adjusted R^2	0.465	0.421	0.455	0.361
p-value of H0: $\beta_{Unanch} = \beta_{Anch}$	0.0104	0.0003	0.0093	0.1075
Estimation method	Pooled OLS	Pooled OLS	Pooled OLS	Pooled OLS

Note: Heteroskedasticity-robust standard errors are reported in parentheses. Coefficients followed by ***, **, or * are statistically significant at the 1%, 5%, or 10% levels, respectively.

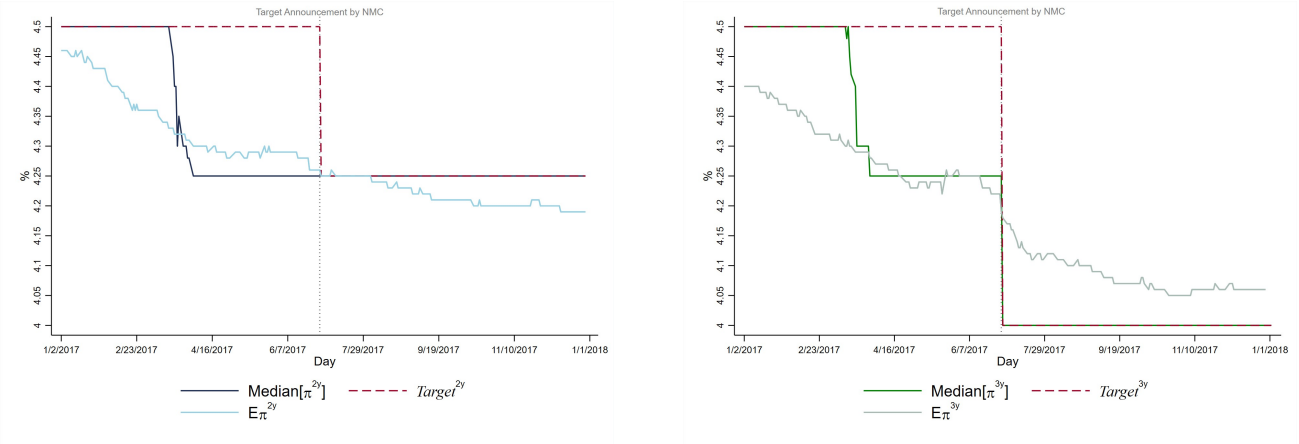
3.8 Reanchored: the response of expectations to a surprise target announcement

In this section, we exploit a surprise announcement in June 2017 of a lower inflation target for 2020 to show that, when expectations are anchored, the inflation target is a powerful nominal anchor for long-term inflation expectations. As described in Section 2.1, until 2017 target and tolerance bands had to be defined until June of each year for the second calendar year ahead. The procedure changed unexpectedly in 2017, as a new presidential decree instructed the National Monetary Council (NMC) to set the target for 2019 and 2020, and established that from then onward the target had to be defined (by June of each year) for the third calendar year ahead.

In June 2016, the target for 2018 had been set to 4.5%. In June 2017, the NMC announced a target of 4.25% for 2019 and, unexpectedly, also announced a 4.00% target for 2020. This surprise announcement of a lower inflation target for 2020 allows us to analyze how expectations responded.

Figure 7 shows how expectations responded. The left panel suggests agents anticipated a lower target for 2019 – this was consistent with communication provided over time by the Finance Minister and by the BCB chair that a 3% target seemed appropriate in the long run. The gradual drop of expectations in the first part of the right panel corroborates that assessment. Upon the surprise announcement, however, expectations for 2020 quickly moved lower – the median expectation, in particular, jumped immediately to the new target.

Figure 7: Response of expectations to unexpected announcement of a lower inflation target



Note: Left panel displays median (dark-blue solid line) and mean inflation expectations (light-blue solid line) for 2019. Right panel shows median (dark-green solid line) and mean inflation expectations (light-green solid line) for 2020. Dashed lines indicate the inflation target and vertical dotted lines mark the day of the NMC announcement of new targets.

4 (Un)Anchored expectations: a simple organizing framework

In this section, we present a simple model with a well-defined notion of (un)anchoring that ties together the characterizations we analyze empirically in Section 3, as well as others available in the literature. The model builds on Carvalho, Eusepi, Moench, and Preston (2023), Erceg and Levin (2003), and Eusepi, Giannoni, and Preston (2023), all of which study a similar expectations formation mechanism in a general equilibrium New Keynesian model.

Agents have imperfect knowledge about the long-run mean of inflation, and this affects their expectations regarding both the policy rate and inflation. The estimate of the inflation mean is constantly revised in response to recent short-term forecast errors. Their outlook about long-run inflation is shaped by three factors. First, *central bank communication* about its long-run objectives plays a key role. If a central bank is perfectly credible, this is all that is needed to ensure long-run inflation expectations remain perfectly anchored to the target. As suggested by the opening quote by Ben Bernanke, however, even the most effective monetary authority enjoys, at best, an imperfect degree of credibility. For this reason, agents carefully monitor *monetary policy actions* and how they align with their expectations: a policy surprise indicates a possible stealth change in the inflation target. Finally, while policy decisions may reflect policymakers' commitment to the announced target, *policy outcomes* – as reflected in the behavior of realized inflation – ultimately reveal their effectiveness.

To capture this multidimensional learning process, we assume market participants forecast inflation (π_t) and the short-term interest rate (R_t) jointly according to the following model:

$$\begin{aligned} \pi_t &= \alpha\bar{\pi}_t + (1-\alpha)\pi_{t-1} + \sigma_\pi \epsilon_t^\pi \\ R_t &= r + \bar{\pi}_t + \phi\left(\pi_t - \sigma^\pi \epsilon_t^\pi - \bar{\pi}_t\right) + \sigma_R e_t^R \\ \bar{\pi}_t &= \rho_{\bar{\pi}}\bar{\pi}_{t-1} + \sigma_{\bar{\pi}}\epsilon_t^{\bar{\pi}}, \end{aligned}$$

where $\bar{\pi}_t$ denotes the (possibly) time-varying inflation target, modeled as a slow-moving near-random walk ($\rho_{\bar{\pi}} \approx 1$) to capture changes that are small and gradual; r is the steady-state real interest rate; ϵ_t^π and e_t^R are inflation and monetary policy shocks, respectively. All innovations (e_t, ϵ_t) are i.i.d. zero-mean Gaussian with standard deviation given by σ_j, $j = \pi, R, \bar{\pi}$.[32] Finally, $\alpha \in (0,1)$ measures the degree of inertia in the inflation process. As shown in the Appendix A, this model approximates a simple New Keynesian economy with inflation inertia, where the central bank follows a Taylor-type policy rule with reaction coefficient $\phi > 1$. Notice the monetary authority responds to a measure of *underlying inflation* – that is, inflation stripped of its short-term component ϵ_t^π.

Agents do not observe the exogenous shocks buffeting the economy, including shocks to $\bar{\pi}_t$, and must infer the inflation target from processing the following three signals: central bank communication as reflected in the noisy signal of the inflation target, $\tilde{\pi}_t^i = \bar{\pi}_t + \sigma_\eta e_t^{\eta,i}$; the current inflation rate; and interest rate decisions. These signals are collected in the vector $s_t^i = \begin{pmatrix} \pi_t & R_t & \tilde{\pi}_t^i \end{pmatrix}'$. For simplicity, the only source of disagreement among forecasters stems from the signal about $\bar{\pi}_t$.[33] The precision of the signal from central bank communication, $1/\sigma_\eta$, captures the degree of central bank credibility. To gain intuition, think of two regimes, summarized by $\sigma_\eta \in (\sigma_\eta^{\text{Anch}}, \sigma_\eta^{\text{Unanch}})$, with $\sigma_\eta^{\text{Unanch}} >> \sigma_\eta^{\text{Anch}}$. That is, when a central bank lacks credibility, agents perceive policy announcements largely as noise.

[32] In the Appendix we introduce a persistent shock to the inflation process and derive more general results. This more general model leaves both theoretical and quantitative implications unchanged.

[33] The model could be easily modified to include more agent-specific signals.

For simplicity, the degree of central bank credibility is assumed to be exogenous. In practice, however, it is affected by the same three factors described above. As an example, the increase in the Federal Reserve's transparency and communication about its policy decision process observed in the 1990s has been associated with increased interest rate predictability and better anchoring of inflation expectations in the late 1990s.[34] Policy actions also affect the degree of anchoring: large policy surprises can lead market participants to doubt the central bank's commitment to the inflation target and, therefore, discount the informativeness of policy announcements. Lastly, policy outcomes also contribute to shaping credibility: a period of large and persistent inflation surprises can also signal the inflation target has changed or that the central bank is unable to achieve it.[35]

Mirroring the empirical analysis presented in the previous section, we study how the behavior of inflation expectations is affected by central bank credibility. We proceed in two steps. We first discuss simple analytical results for the limit cases where the central bank is either fully credible or not credible at all (for brevity, derivations are presented in the Appendix). We then offer a calibrated version of the model addressing intermediate cases.

4.1 Analytical results

Inference about $\bar{\pi}_t$ and long-run beliefs. Inflation expectations at horizon $T > t$ take the form

$$E_t \pi_T = \alpha^{T-t} \pi_t + \left(1 - \alpha^{T-t}\right) \bar{\pi}_{t|t},$$

where we omit individual agent subscripts i for convenience. For a sufficiently long horizon $T > T_\alpha$ such that $\alpha^{T-t} \approx 0$, expectations can be approximated by agents' current estimate of the inflation target: $E_t \pi_T \approx \bar{\pi}_{t|t}$. Using the (steady-state) Kalman filter, agents revise their estimates of the inflation target according to

$$\bar{\pi}_{t|t} = \bar{\pi}_{t|t-1} + g_{\bar{\pi}} \left(\tilde{\pi}_t - \bar{\pi}_{t|t-1}\right) + (1 - g_{\bar{\pi}}) \left[g_R \left(R_t - E_{t-1} R_t\right) + g_\pi \left(\pi_t - E_{t-1} \pi_t\right)\right],$$

where $g_{\bar{\pi}} > 0$; $g_\pi > 0; g_R < 0$. The last inequality holds provided $\phi > 1/(1-\alpha)$, which we assume throughout. The updating mechanism delivers a weighted combination of a noisy signal on $\bar{\pi}_t$ and the inflation and interest rate "surprises". The weights depend on the degree of central bank credibility $(1/\sigma_\eta)$. Imperfect credibility implies unanchoring, in the sense that long-run inflation expectations respond to short-term inflation and interest rate forecast errors ($\lim_{\sigma_\eta \to \infty} g_{\bar{\pi}} = 0$). Conversely, a highly credible central bank ($\sigma_\eta \approx 0$) delivers $g_{\bar{\pi}} \approx 1$: long-run expectations become insensitive to recent data. With imperfect credibility, positive inflation surprises always lead to upward revisions to long-run inflation expectations as they provide a noisy signal of $\bar{\pi}_t$. Conversely, given current inflation, a positive interest rate surprise leads to a downward revision in long-run inflation expectations: a surprise increase in the rate of interest is associated with a lower inflation target.

A straightforward implication of this updating mechanism is that deviations of long-term inflation expectations from the official target are minimal under anchored expectations:

$$\lim_{\sigma_\eta \to 0} E\left(\bar{\pi}_{t|t} - \bar{\pi}_t\right)^2 = 0 \; < \lim_{\sigma_\eta \to \infty} E\left(\bar{\pi}_{t|t} - \bar{\pi}_t\right)^2,$$

where we use $E_t \pi_T \approx \bar{\pi}_{t|t}$ for $T > T_\alpha$. Additionally, when expectations are anchored, agents revise their long-run

[34] See Swanson (2006) and Carvalho, Eusepi, Moench, and Preston (2023).
[35] See Carvalho, Eusepi, Moench, and Preston (2023).

inflation forecasts only in response to announced changes to the official target.[36] As a result, provided the official inflation target does not change often, credibility implies infrequent revisions of longer-term inflation forecasts. In addition, the credible announcement of a new target should prompt an immediate revision of expectations toward that target.

Pass-through regressions. For forecasting horizons $T > T_\alpha$, an OLS regression of revisions in long-run inflation expectations (in deviation from the official target) on inflation surprises yields the coefficient

$$\beta^P = \frac{COV\left(E_t(\pi_T - \bar{\pi}_t) - E_{t-1}(\pi_T - \bar{\pi}_t), E_t\pi_t - E_{t-1}\pi_t\right)}{V\left(E_t\pi_t - E_{t-1}\pi_t\right)} \geq 0,$$

where $V(\cdot)$ denotes the unconditional variance and $E_t\pi_t = \pi_t$. Under our assumption that the target is a near-random walk, $E_t^{\text{CB}}\bar{\pi}_T \equiv \bar{\pi}_{T|t}^{CB} \approx \bar{\pi}_t$, where E_t^{CB} denotes the central bank official – and rational – forecast. Furthermore,

$$\lim_{\sigma_\eta \to \infty} \beta^P > \lim_{\sigma_\eta \to 0} \beta^P = 0,$$

so that pass-through is higher under unanchored expectations. The positive coefficient is consistent with changes in $\bar{\pi}_t$ affecting both short-term and long-term inflation expectations in the same direction. Lower credibility induces higher comovement, because longer-term expectations become more responsive to cyclical shocks:

$$E\left[\left(\bar{\pi}_{t|t} - \bar{\pi}_{t|t-1}\right)\epsilon_{t|t}^{\pi}\right] > 0.$$

Monetary surprises. Consider how inflation expectations are updated just before and after policy meetings. Assuming no inflation releases occur around the monetary policy decision, agents only observe the interest rate decision and any other form of central bank communication that might signal changes to the inflation target (*i.e.*, the signal is reduced to $s_t^i = \begin{pmatrix} R_t & \tilde{\pi}_t^i \end{pmatrix}'$).

The policy rate might signal a shift in the inflation target. The learning process is impaired by monetary policy shocks ϵ_t^R, which produce temporary deviations from the policy rule. Under our assumed parameter restriction $\phi > 1/(1-\alpha)$, $E\left[\left(\tilde{\pi}_t - \bar{\pi}_{t|t-1}\right)\left(R_t - E_{t-1}R_t\right)\right] \leq 0$, so that a negative interest rate surprise $R_t - E_{t-1}R_t$ is a signal of a higher inflation target. A regression of long-run expectations revisions (in deviation from the official target) on monetary policy surprises yields

$$\beta^S = \frac{COV\left(E_t(\pi_T - \bar{\pi}_t) - E_{t-1}(\pi_T - \bar{\pi}_t)), R_t - E_{t-1}R_t\right)}{V\left(R_t - E_{t-1}R_t\right)} \leq 0.$$

Moreover, when expectations are unanchored, monetary policy surprises affect perceptions of the inflation target:

$$\lim_{\sigma_\eta \to \infty} \beta^S < \lim_{\sigma_\eta \to 0} \beta^S = 0.$$

Forecast disagreement. When the central bank is not fully credible, central bank communication is subject to interpretation, and market participants are likely to process it differently. This is captured by the central bank signal being agent-specific. This simple assumption results in disagreement among forecasters about the long-run inflation outlook, as their estimates of cyclical factors and of the inflation target are dispersed. An increase in

[36] An additional implication of our model is that agents are more confident in their forecasts when expectations are anchored, as $\lim_{\sigma_\eta \to 0} E(\bar{\pi}_t - \bar{\pi}_{t|t-1})^2 = \sigma_{\bar{\pi}} < \lim_{\sigma_\eta \to \infty} E(\bar{\pi}_t - \bar{\pi}_{t|t-1})^2$. Because of the lack of density forecast data in the Focus Survey, however, we did not explore this implication empirically.

credibility leads to a decrease in the cross-sectional dispersion of long-term expectations. In fact, under perfect credibility, everyone shares the same forecasts, and disagreement vanishes. This stark implication does not depend on the source of disagreement. Suppose agents receive idiosyncratic signals about cyclical factors ϵ_t^{π}. Under an imperfectly credible central bank, this would create belief dispersion in both short- and long-run expectations, as the latter responds to short-run developments. When a central bank is fully credible, however, cyclical factors do not affect long-term inflation forecasts: dispersion in long-term beliefs is nil.

4.2 A calibration exercise

The simple model we propose has a few limitations. In practice, we do not often observe expectations about the very long-run horizon, but only observe professional forecasts for "longer" horizons, such as three or five years ahead. Also, the empirical results presented previously do not use short-term inflation surprises but changes in 12-month ahead inflation forecasts in deviations from the official central bank target. More importantly, while it is nearly impossible to find a fully credible central bank, many central banks enjoy some degree of credibility. It is, hence, useful to understand how model predictions vary with the precision of the signal tied to central bank communication. In addition, it is useful to investigate whether the simple model we propose can emulate the empirical results presented in Section 3 for the Brazilian economy.

With this in mind, we calibrate this simple model to our empirical findings. We set the six model parameters, summarized in the vector $\Theta \equiv \left(\phi, \alpha, \sigma^{\pi}, \sigma^{\bar{\pi}}, \sigma^{R}, \rho_{\bar{\pi}}\right)$, to match 16 statistics from the empirical analysis in the previous sections, for both the anchored and unanchored regimes.[37] These include: i) the observed volatilities of inflation forecasts at long and short horizons; ii) the regression coefficients from both pass-through regressions and responses to monetary policy surprises; and iii) the volatility of monetary surprises. We set the degree of credibility as $1/\sigma_{\eta}^{\text{Unanch}} = 0.1$ and $1/\sigma_{\eta}^{\text{Anch}} = 14$ for the unanchored and anchored regimes, respectively. The calibration results are not meaningfully sensitive to alternative values for these two parameters.[38]

The model is simulated at the monthly frequency. Consistent with the empirical analysis, we consider inflation expectations for the one- ($T = 12$), three- ($T = 36$) and four-year ($T = 48$) horizons. In keeping with notation used throughout the paper, four-year ahead forecasts (in deviation from target), for example, are given by

$$E_t\pi_{36-48} \equiv \frac{1}{12}\left(\sum_{i=37}^{48}\left(\pi_{t+i|t} - \bar{\pi}_{t+i|t}^{\text{CB}}\right)\right),$$

where $\bar{\pi}_{t+i|t}^{\text{CB}}$ is the central bank's (rational) forecast for the inflation target.

Table 7 compares the model-implied volatilities of inflation expectations at different horizons and policy surprises with their empirical counterparts. Figure 8 shows the relationship between the degree of anchoring (credibility), measured by $1/\sigma_{\eta}$, and the regression coefficients β^P and β^S. It also shows how they compare to the empirical estimates. Following the regression analysis in Section , the regression coefficient β^P measures the comovement between changes in longer-run, $(\Delta E_t\pi_{24-36}, \Delta E_t\pi_{36-48})$, and changes in 12-month forecasts $\Delta E_t\pi_{1-12}$, where

$$E_t\pi_{1-12} \equiv \frac{1}{12}\left(\sum_{i=1}^{12}\pi_{t+i|t} - \bar{\pi}_{t+i|t}^{\text{CB}}\right).$$

[37] The set of parameters is restricted to be a 'plausible' range such that $1 < \phi < 3; 0 < \alpha < 1; 0 < \sigma^{\bar{\pi}} < 0.4\sigma^{\pi}; 0.95 < \rho_{\bar{\pi}} < 1$. The objective function gives the same weight to all moments, with the exception of the regression coefficients in the anchored regime (because they are an order of magnitude smaller than the other statistics).

[38] To put this in context, setting $1/\sigma_{\eta}^{\text{Anch}} = 20$ approximates a perfectly credible central bank.

Table 7: **Calibration exercise – volatilities**

	$E(\pi_{1-12} - \bar{\pi})$	$E(\pi_{24-36} - \bar{\pi})$	$E(\pi_{36-48} - \bar{\pi})$	$R_t - E_{t-1}R_t$
Unanchored				
Data	0.51	0.40	0.36	0.14
Model	0.55	0.37	0.36	0.16
Anchored				
Data	0.43	0.14	0.16	0.14
Model	0.41	0.05	0.05	0.15

Note: Model-implied volatilities of inflation expectations at various horizons and of policy surprises, and their empirical counterparts. Calibrated parameters: $\phi = 1.43; \alpha = 0.27; \sigma_\pi = 0.93; \sigma_R = 0.15; \sigma_{\bar{\pi}} = 0.07$; and $\rho_{\bar{\pi}} = 0.998$.

Overall, model predictions are broadly consistent with the data. Figure 8 shows the unanchored regime produces regression coefficients approximately in the range of estimated values. With higher credibility, the regression coefficients are driven close to zero, again near the range of estimated values. Of note, the model predicts that even a small amount of credibility can drastically lower the regression coefficient β^S, suggesting a sudden increase in the sensitivity of longer-term inflation expectations to monetary policy surprises indicates a serious drop in central bank credibility. Conversely, the pass-through regression coefficient β^P declines more gradually. Only a highly credible central bank can sever the link between changes in short- and long-term inflation expectations. This suggests the Brazilian Central Bank enjoyed a high degree of credibility in the anchored regime (i.e., prior to the abrupt policy U-turn in 2011 and after reanchoring took place in mid-2016).

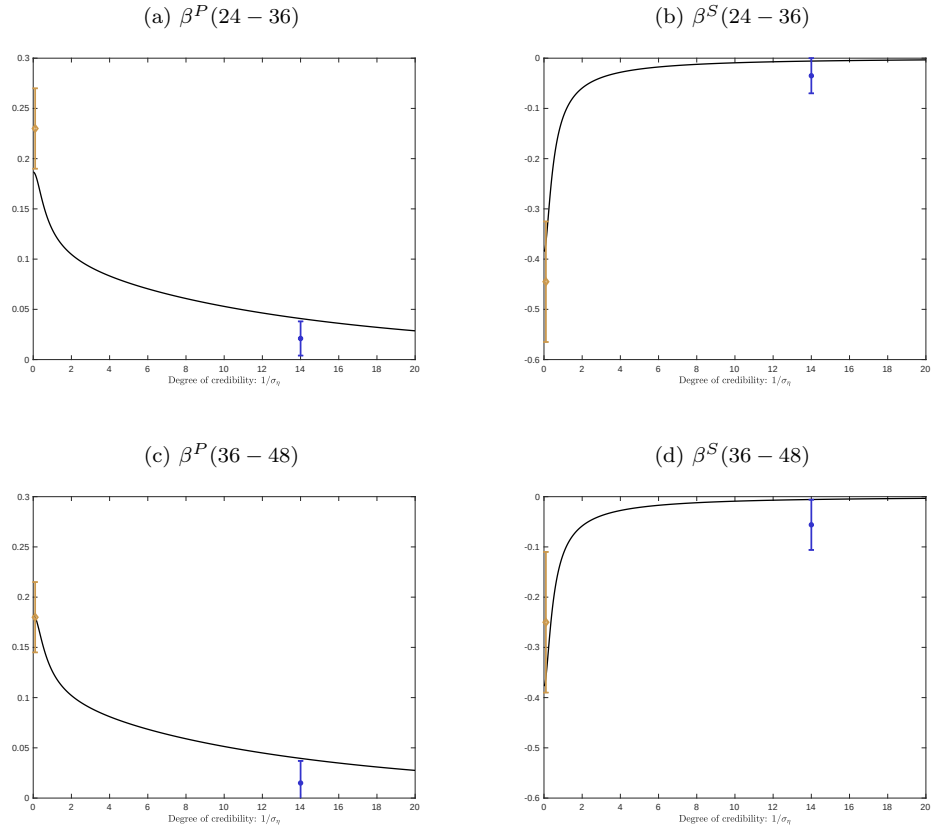
As shown in Table 7, the model falls short of capturing the volatility of longer-term inflation expectations in the anchored regime. Survey data are substantially more volatile than model predictions for that regime. This finding is perhaps less than surprising given the tight connection between short- and long-term expectations implied by the model. Increasing the volatility of expectations leads to outsized regression coefficients, suggesting that survey forecasts are also driven by other shocks.

5 Conclusion

Inflation expectations can become unanchored immediately in response to central bank action that is clearly perceived to weaken its commitment to the inflation target. To establish that causal evidence, we exploit an abrupt U-turn in monetary policy by the BCB in 2011, when it shifted gears from tightening to easing monetary policy literally from one policy meeting to the next. We leverage microdata from the survey of professional forecasters maintained by the BCB, which allows participants to update their forecasts daily. Hence, we can study the high-frequency response of expectations to the abrupt monetary policy shift.

Several characterizations of unanchoring consistently show expectations became unmoored after the abrupt U-turn. Reanchoring took place after a regime shift that included a presidential impeachment and a radical change in the direction of economic policy. In that context, the unexpected announcement of a lower inflation target allows us to introduce a novel characterization of anchored inflation expectations. We also present a simple model with a well-defined concept of unanchoring and show it coherently integrates characterizations of (un)anchored expectations available in the literature.

Figure 8: **Calibration exercise – degree of (un)anchoring and central bank credibility**



Note: Panels in left column show model-implied regression coefficients of changes in longer-run expectations on changes in 12-month expectations as a function of central bank credibility – measured by $1/\sigma_\eta$. Panels in right column show model-implied regression coefficients of changes in longer-run expectations on monetary surprises as a function of central bank credibility – measured by $1/\sigma_\eta$. Top panels report results for three-year-ahead expectations, and bottom panels focus on four-year-ahead expectations. Light/yellow (dark/blue) vertical line segments depict the one-standard-deviation confidence intervals around empirical estimates in the anchored (unanchored) regime. Stars (diamonds) show point estimates in the anchored (unanchored) regime. Empirical estimates are from Tables 3 and 4.

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Appendix

A Model

Transmission mechanism

To fix ideas, consider the simple New Keynesian model describing inflation, interest rate, and output gap (π_t, R_t, x_t) as

$$\begin{aligned} x_t &= -\left(R_t - E_t\pi_{t+1} - r_t^n\right) + E_t x_{t+1} \\ \pi_t &= \pi_{t-1} + \kappa x_t + \beta E_t\left(\pi_{t+1} - \pi_t\right) + \hat{\sigma}_\pi \epsilon_t^\pi \\ R_t &= \bar{\pi}_t + \phi\left(\pi_t - \gamma_\pi \hat{\sigma}_\pi \epsilon_t^\pi - \bar{\pi}_t\right) + \sigma_R e_t^R \\ r_t^n &= \rho r_{t-1}^n + \sigma_r \epsilon_t^r \\ \bar{\pi}_t &= \rho_{\bar{\pi}} \bar{\pi}_{t-1} + \sigma_{\bar{\pi}} \epsilon_t^{\bar{\pi}}, \end{aligned}$$

where r_t^n denotes the natural rate of interest and $\bar{\pi}_t$ is the inflation target: $0 \leq \rho < \rho_{\bar{\pi}} < 1$; $\epsilon_t^\pi, \epsilon_t^R, e_t^r, e_t^{\bar{\pi}}$ are i.i.d. Gaussian innovations with zero mean and unit variance. For $\rho_{\bar{\pi}} \approx 1$, the solution under full information implies inflation and the interest rate evolve according to

$$\begin{aligned} \pi_t &= \alpha\bar{\pi}_t + (1-\alpha)\,\pi_{t-1} + \gamma_r r_t^n + \sigma_\pi \epsilon_t^\pi \\ R_t &= \bar{\pi}_t + \phi\left(\pi_t - \sigma_\pi \epsilon_t^\pi - \bar{\pi}_t\right) + \sigma_R e_t^R, \end{aligned}$$

where $0 \leq \alpha < 1$ is a function of the model's underlying parameters: the policy response to inflation (ϕ), the slope of the Phillips curve (κ) and the discount rate β, and $\sigma_\pi = \gamma_\pi \hat{\sigma}_\pi$. In order to highlight the monetary transmission mechanism, consider the response of inflation and interest rate to a negative policy shock (e_t^R) to an increase in the inflation target ($e_t^{\bar{\pi}}$), for a sufficiently high response ϕ. We (or, at least, the agents using the model to forecast) ignore the effect of the monetary shock on inflation as we assume that it is "small" compared to other shocks in ϵ_t^π. Alternatively, we assume the shock ϵ_t^π includes monetary policy shocks, but the overall (perceived) correlation between ϵ_t^π and e_t^R is near zero.

Filtering problem

Consider now market participants forming expectations with the forecasting model above. In our baseline exercise, we set $r_t^n = 0$ to simplify the analysis. Since they cannot observe the underlying processes driving inflation and the interest rate, participants obtain estimates using the Kalman filter. In addition, they receive a signal about the inflation target from the central bank: $\tilde{\pi}_t^i = \bar{\pi}_t + \sigma_\eta e_t^\eta$.

Their observation equation is then

$$\begin{aligned}\begin{pmatrix}\pi_t\\ R_t\\ \tilde{\pi}_t^i\end{pmatrix} &= \begin{bmatrix}\alpha & 1\\ 1+\phi(\alpha-1) & 0\\ 1 & 0\end{bmatrix}\begin{pmatrix}\bar{\pi}_t\\ \epsilon_t^{\pi}\end{pmatrix}+\begin{bmatrix}1-\alpha\\ \phi(1-\alpha)\\ 0\end{bmatrix}\pi_{t-1}+\\ &\quad+\begin{bmatrix}0 & 0\\ 1 & 0\\ 0 & 1\end{bmatrix}\begin{pmatrix}\sigma_R e_t^R\\ \sigma_\eta e_t^\eta\end{pmatrix}\\ y_t &= H_\xi\xi_t + A\pi_{t-1} + e_t\\ \xi_t &= G_\xi\xi_{t-1}+\epsilon_t\end{aligned}$$

The estimates of the two unobserved components are then

$$\xi_{t|t} = \xi_{t|t-1} + PH_\xi'\left(H_\xi PH_\xi' + C\Sigma_e C'\right)^{-1}\left(y_t - H_\xi\xi_{t|t-1} - A\pi_{t-1}\right),$$

where $C = \begin{bmatrix}0 & 0\\ 1 & 0\\ 0 & 1\end{bmatrix}$ and where P solves

$$P = G_\xi\left[P - PH_\xi'\left(H_\xi PH_\xi' + C\Sigma_e C'\right)^{-1}H_\xi P\right]G_\xi + \Sigma_\epsilon.$$

Given our assumptions about exogenous shocks, we have

$$P \equiv E\left(\xi_t - \xi_{t|t-1}\right)\left(\xi_t - \xi_{t|t-1}\right)' = \begin{bmatrix}p_{\bar{\pi}} & 0\\ 0 & \sigma_\pi^2\end{bmatrix} > 0.$$

We can then write the updating of the inflation target's estimate:

$$\begin{aligned}\bar{\pi}_{t|t}^i &= \bar{\pi}_{t|t-1}^i + g_{\bar{\pi}}\left(\tilde{\pi}_t^i - \bar{\pi}_{t|t-1}^i\right)+\\ &\quad+(1-g_{\bar{\pi}})\left[g_R\left(R_t - E_{t-1}^i R_t\right) + g_\pi\left(\pi_t^i - E_{t-1}^i\pi_t\right)\right],\end{aligned}$$

where

$$g_{\bar{\pi}} = \frac{p_{\bar{\pi}}\sigma_\pi^2\sigma_R^2}{\left[\left(\left(1-\phi(1-\alpha)\right)^2 p_{\bar{\pi}} + \sigma_R^2\right)\sigma_\pi^2 + p_{\bar{\pi}}\sigma_R^2\alpha^2\right]\sigma_\eta^2 + p_{\bar{\pi}}\sigma_\pi^2\sigma_R^2} > 0$$

and

$$g_\pi = \frac{\alpha p_{\bar{\pi}}\sigma_R^2}{\left(1-\phi(1-\alpha)\right)^2 p_{\bar{\pi}}\sigma_\pi^2 + \sigma_\pi^2\sigma_R^2 + p_{\bar{\pi}}\sigma_R^2\alpha^2} > 0$$

$$g_R = \frac{p_{\bar{\pi}}\sigma_\pi^2(1-\phi(1-\alpha))}{(1-\phi(1-\alpha))^2 p_{\bar{\pi}}\sigma_\pi^2 + \sigma_\pi^2\sigma_R^2 + p_{\bar{\pi}}\sigma_R^2\alpha^2} < 0,$$

provided $1-\phi(1-\alpha) < 0$, which we assume. It is then immediate that

$$\begin{aligned}\lim_{\sigma_\eta \to 0} g_{\bar{\pi}} &= 1 \\ \lim_{\sigma_\eta \to \infty} g_{\bar{\pi}} &= 0.\end{aligned}$$

Pass-through regressions

Our goal is to compute the regression coefficient

$$\begin{aligned}\beta^P &= \frac{COV\left(E_t^i(\pi_T - \bar{\pi}_t) - E_{t-1}^i(\pi_T - \bar{\pi}_{t-1}), E_t^i\pi_t - E_{t-1}^i\pi_t\right)}{V\left(E_t^i\pi_t - E_{t-1}^i\pi_t\right)} \\ &\approx \frac{COV\left(\bar{\pi}_{t|t}^i - \bar{\pi}_{t|t-1}^i, \alpha\left(\bar{\pi}_{t|t} - \bar{\pi}_{t|t-1}\right) + \epsilon_{t|t}^\pi\right) + COV\left(-\sigma_{\bar{\pi}}\epsilon_t^{\bar{\pi}}, \alpha\sigma_{\bar{\pi}}\epsilon_t^{\bar{\pi}}\right)}{V\left(\alpha\left(\bar{\pi}_{t|t} - \bar{\pi}_{t|t-1}\right) + \epsilon_{t|t}^\pi\right)} \\ &= \frac{\alpha V\left(\bar{\pi}_{t|t}^i - \bar{\pi}_{t|t-1}^i\right) + COV\left(\bar{\pi}_{t|t}^i - \bar{\pi}_{t|t-1}^i, \epsilon_{t|t}^\pi\right) - \alpha\sigma_{\bar{\pi}}^2}{\alpha^2 V\left(\bar{\pi}_{t|t}^i - \bar{\pi}_{t|t-1}^i\right), +V\left(\epsilon_{t|t}^\pi\right) + 2\alpha COV\left(\bar{\pi}_{t|t}^i - \bar{\pi}_{t|t-1}^i, \epsilon_{t|t}^\pi\right)},\end{aligned}$$

where $T > T_\alpha$ so that $E_t^i\pi_T \approx \bar{\pi}_{t|t}^i$. Also her,e we have $E_t^i\pi_t = \pi_t$. From the steady-state Kalman filter, we have

$$\xi_{t|t} - \xi_{t|t-1} \sim N(0, \Sigma_\xi),$$

where

$$\Sigma_\xi = PH_\xi'\left(H_\xi P H_\xi' + V\Sigma_e V'\right)^{-1} H_\xi' P.$$

We can then rewrite

$$\beta^P = \frac{\Sigma_\xi(1,2)}{\alpha^2\sigma_{\bar{\pi}}^2 + \Sigma_\xi(2,2) + 2\alpha\Sigma_\xi(1,2)},$$

where assuming $\bar{\pi}_t$ is a random walk, we have $\Sigma_\xi(1,1) \equiv V\left(\bar{\pi}_{t|t}^i - \bar{\pi}_{t|t-1}^i\right) = \sigma_{\bar{\pi}}^2$. We also have that

$$\begin{aligned}\Sigma_\xi(1,2) &\equiv COV\left(\bar{\pi}_{t|t}^i - \bar{\pi}_{t|t-1}^i, \epsilon_{t|t}^\pi\right) \\ &= \sigma_\eta^2 \frac{\alpha p_{\bar{\pi}}\sigma_\pi^2\sigma_R^2}{\left[\left((1-\phi(1-\alpha))^2 p_{\bar{\pi}} + \sigma_R\right)\sigma_\pi^2 + p_{\bar{\pi}}\sigma_R^2\alpha^2\right]\sigma_\eta^2 + p_{\bar{\pi}}\sigma_\pi^2\sigma_R^2} \geq 0,\end{aligned}$$

so that the pass-through coefficient $\beta^P \geq 0$. We now consider how this coefficient changes with the precision in the central bank signal. Consider a central banker with no credibility:

$$\lim_{\sigma_\eta \to \infty} \beta^P = \frac{\psi}{\alpha^2 + \alpha\psi + 1} > 0,$$

where

$$\psi = \frac{\alpha p_{\bar{\pi}} \sigma_R^2}{\left(\left(1-\phi\left(1-\alpha\right)\right)^2 p_{\bar{\pi}} + \sigma_R^2\right)\sigma_\pi^2 + p_{\bar{\pi}}\sigma_R^2\alpha^2},$$

and where

$$\lim_{\sigma_\eta \to \infty} V\left(c_{t|t}^i - c_{t|t-1}^i\right) + 2\alpha\Psi\left(\sigma_{\bar{\pi}}\right) = \sigma_\pi^2\left(1+\alpha\psi\right).$$

On the other hand, under a perfectly credible central bank,

$$\lim_{\sigma_\eta \to 0} \beta^P = 0$$

given that $\lim_{\sigma_\eta \to 0} \Sigma_\xi(1,2) = 0$. So we have

$$\lim_{\sigma_\eta \to \infty} \beta^P - \lim_{\sigma_\eta \to 0} \beta^P > 0.$$

Monetary policy surprises regressions

We assume no inflation releases, occur during the days around the monetary policy decision. The observation equation then includes only two variables:

$$\begin{aligned}\begin{pmatrix} R_t \\ \tilde{\pi}_t^i \end{pmatrix} &= \begin{bmatrix} 1+\phi\left(\alpha-1\right) \\ 1 \end{bmatrix}\bar{\pi}_t + \begin{bmatrix} \phi\left(1-\alpha\right) \\ 0 \end{bmatrix}\pi_{t-1} + \begin{pmatrix} \sigma_R e_t^R \\ \sigma_\eta e_t^\eta \end{pmatrix} \\ &= H^R\xi_t + A^R\pi_{t-1} + e_t,\end{aligned}$$

so that around the meeting, agents update their estimates of the inflation target according to

$$\bar{\pi}_{t|t} - \bar{\pi}_{t|t-1} = \left(1-\tilde{g}_{\bar{\pi}}\right)\tilde{g}_R\left(R_t - E_{t-1}^i R_t\right) + \tilde{g}_{\bar{\pi}}\left(\tilde{\pi}_t^i - \bar{\pi}_{t|t-1}\right).$$

The regression coefficient on long-term expectations on the policy surprise is then

$$\begin{aligned}\beta^S &= \frac{COV_i\left(E_t^i\left(\pi_T - \bar{\pi}_t\right) - E_{t-1}^i\left(\pi_T - \bar{\pi}_{t-1}\right), R_t - E_{t-1}^i R_t\right)}{V\left(R_t - E_{t-1}^i R_t\right)} \\ &= \tilde{g}_i \frac{COV\left(\left(\tilde{\pi}_t^i - \bar{\pi}_{t|t-1}^i\right)\left(R_t - E_{t-1}^i R_t\right)\right)}{V\left(R_t - E_{t-1}^i R_t\right)} + \left(1-\tilde{g}_i\right)\tilde{g}_R - \frac{\left(1-\phi\left(1-\alpha\right)\right)\sigma_{\bar{\pi}}^2}{V\left(R_t - E_{t-1}^i R_t\right)}.\end{aligned}$$

Now consider

$$\begin{aligned}\Sigma_y \equiv E\left(\begin{pmatrix} R_t - R_{t|t-1} \\ \tilde{\pi}_t^i - \bar{\pi}_{t|t-1}^i \end{pmatrix}\begin{pmatrix} R_t - R_{t|t-1} \\ \tilde{\pi}_t^i - \bar{\pi}_{t|t-1}^i \end{pmatrix}'\right) &= H_R P_R H_R' + \Sigma_e^R \\ \Sigma_y(1,2) \equiv COV\left(\left(\tilde{\pi}_t^i - \bar{\pi}_{t|t-1}^i\right)\left(R_t - E_{t-1}^i R_t\right)\right) &= p_{\bar{\pi}}^R\left(1-\phi\left(1-\alpha\right)\right) < 0 \\ \Sigma_y(1,1) \equiv V\left(R_t - E_{t-1}^i R_t\right) &= \sigma_R^2 + p_{\bar{\pi}}^R\left(1-\phi\left(1-\alpha\right)\right)^2.\end{aligned}$$

Recall

$$P^R \equiv E\left(\xi_t - \xi_{t|t-1}\right)\left(\xi_t - \xi_{t|t-1}\right)' = \begin{bmatrix} p_{\bar{\pi}}^R & 0 \\ 0 & \sigma_\pi^2 \end{bmatrix} > 0.$$

We can also show that

$$\tilde{g}_{\bar{\pi}} = \frac{p_{\bar{\pi}}^R \sigma_R^2}{\left[\left(1-\phi\left(1-\alpha\right)\right)^2 p_{\bar{\pi}}^R + \sigma_R^2\right]\sigma_\eta^2 + p_{\bar{\pi}}^R \sigma_R^2} \geq 0$$

and

$$\tilde{g}_R = \frac{p_{\bar{\pi}}^R\left(1-\phi\left(1-\alpha\right)\right)}{\left(1-\phi\left(1-\alpha\right)\right)^2 p_{\bar{\pi}}^R + \sigma_R^2} < 0.$$

The last two inequalities hold provided $1-\phi\left(1-\alpha\right) < 0$, which we assume.

Now express the coefficient

$$\beta^S = \frac{p_{\bar{\pi}}^R \sigma_R^2}{\left[\left(1-\phi\left(1-\alpha\right)\right)^2 p_{\bar{\pi}}^R + \sigma_R^2\right]\sigma_\eta^2 + p_{\bar{\pi}}^R \sigma_R^2} \frac{p_{\bar{\pi}}^R\left(1-\phi\left(1-\alpha\right)\right)}{\sigma_R^2 + p_{\bar{\pi}}^R\left(1-\phi\left(1-\alpha\right)\right)^2} + \left(1-\tilde{g}_{\bar{\pi}}\right)\tilde{g}_R - \frac{\left(1-\phi\left(1-\alpha\right)\right)\sigma_{\bar{\pi}}^2}{\sigma_R^2 + p_{\bar{\pi}}^R\left(1-\phi\left(1-\alpha\right)\right)^2}.$$

Now consider $\sigma_\eta \to 0$. Since $\lim_{\sigma_\eta \to 0} \tilde{g}_i = 1$, the regression coefficient becomes

$$\lim_{\sigma_\eta \to 0} \beta^S = \frac{\left(p_{\bar{\pi}}^R - \sigma_{\bar{\pi}}^2\right)\left(1-\phi\left(1-\alpha\right)\right)}{\sigma_R^2 + p_{\bar{\pi}}^R\left(1-\phi\left(1-\alpha\right)\right)^2} = 0$$

given that $\lim_{\sigma_\eta \to 0} p_{\bar{\pi}}^R = \sigma_{\bar{\pi}}^2$. Conversely,

$$\lim_{\sigma_\eta \to \infty} \beta^S = \tilde{g}_R - \frac{\left(1-\phi\left(1-\alpha\right)\right)\sigma_{\bar{\pi}}^2}{\sigma_R^2 + p_{\bar{\pi}}^R\left(1-\phi\left(1-\alpha\right)\right)^2} < 0.$$

Quantitative evaluation

For our calibration exercise, we consider an intermediate degree of signal precision (credibility), so that $\sigma_\eta \in (0, \infty)$. Also, infinite-horizon expectations are not available, so we compute expectations for horizons available in the BCB's Focus survey.

Consider the full model:

$$\begin{aligned}
\pi_t &= \alpha\bar{\pi}_t + (1-\alpha)\pi_{t-1} + c_t + \sigma^\pi e_t^\pi \\
R_t &= r + \bar{\pi}_t + \phi\left(\alpha\bar{\pi}_t + c_t + (1-\alpha)\pi_{t-1} - \bar{\pi}_t\right) + \sigma^R e_t^R \\
c_t &= \rho_c c_{t-1} + \sigma_c \epsilon_t^c \\
\bar{\pi}_t &= \rho_{\bar{\pi}}\bar{\pi}_{t-1} + \sigma_{\bar{\pi}}\epsilon_t^{\bar{\pi}} \\
\tilde{\pi}_t^i &= \bar{\pi}_t + \sigma_\eta e_t^\eta,
\end{aligned}$$

where $c_t \equiv \gamma_r r_t^n$. The calibration exercise assumes $r_t^n = 0$. Adding this variable is shown not to improve on the calibration. Nevertheless, here we show the derivation for the more general model. Now, we can express the

model and $t+n$ forecasts as

$$f_t = Gf_{t-1} + V_\epsilon \epsilon_t + V_e e_t$$

$$f_{t+n|t} = \begin{pmatrix} \bar{\pi}_{t+n|t} \\ c_{t+n|t} \\ \pi_{t+n|t} \\ R_{t+1|t} \end{pmatrix} = G^n \begin{pmatrix} \bar{\pi}_{t|t} \\ c_{t|t} \\ \pi_t \\ R_t \end{pmatrix}$$

$$f_{t+n|t-1} = \begin{pmatrix} \bar{\pi}_{t+n|t-1} \\ c_{t+n|t-1} \\ \pi_{t+n|t-1} \\ R_{t+1|t-1} \end{pmatrix} = G^{n+1} \begin{pmatrix} \bar{\pi}_{t-1|t-1} \\ c_{t-1|t-1} \\ \pi_{t-1} \\ R_{t-1} \end{pmatrix},$$

where

$$G = \begin{bmatrix} \rho_{\bar{\pi}} & 0 & 0 & 0 \\ 0 & \rho_c & 0 & 0 \\ \alpha\rho_{\bar{\pi}} & \rho_c & (1-\alpha) & 0 \\ 1+\phi(\alpha-1)\rho_{\bar{\pi}} & \phi\rho_c & \phi(1-\alpha) & 0 \end{bmatrix}$$

$$V_\epsilon = \begin{bmatrix} \sigma_{\bar{\pi}} & 0 \\ 0 & \sigma_c \\ \alpha\sigma_{\bar{\pi}} & \sigma_c \\ (1-\phi(1-\alpha))\sigma_{\bar{\pi}} & \phi\sigma_c \end{bmatrix}$$

$$V_e = \begin{bmatrix} 0 & 0 & 0 \\ 0 & 0 & 0 \\ \sigma_\pi & 0 & 0 \\ 0 & \sigma_R & 0 \end{bmatrix}.$$

Here we consider the forecast as the yearly average inflation between months m_1, m_2 of the form

$$\begin{aligned} \frac{1}{12}\sum_{i=m_1}^{m_2} f_{t+i|t} &= \frac{1}{12}\sum_{i=m_1}^{m_2} G^{i-1} f_{t|t}. \\ &= \frac{1}{12}(I-G)^{-1}\left(I-G^{12}\right)G^{m_2-m_1} f_{t|t} \\ &= G_{m_2} f_{t|t}. \end{aligned}$$

Moreover, define the forecast revision as

$$\begin{aligned}\frac{1}{12}\left(\sum_{i=m_1}^{m_2} f_{t+i|t} - \sum_{i=m_1}^{m_2} f_{t+i|t-1}\right) &= \frac{1}{12}\left(\sum_{i=25}^{36} G^{i-1} f_{t|t} - \sum_{i=25}^{36} G^{i-1} G f_{t-1|t-1}\right) \\ &= G_{m_2} G_0 \begin{pmatrix} f_{t|t} \\ f_{t-1|t-1} \end{pmatrix}. \\ &= \tilde{G}_{m_2} \begin{pmatrix} \xi_{t|t} \\ y_t \\ \xi_{t-1|t-1} \\ y_{t-1} \end{pmatrix},\end{aligned}$$

where $m_2 > 0$ and

$$G_0 = \begin{bmatrix} I_4 & -G \end{bmatrix}.$$

Also, forecast "surprises" can be written as $f_t - f_{t|t-1} = G_0 \begin{pmatrix} f_t & f_{t-1|t-1} \end{pmatrix}'$.

The law of motion of all variables is described by the equations

$$\begin{aligned}\xi_t &= G^{\xi}\xi_{t-1} + V_{\epsilon}^{\xi}\epsilon_t \\ Y_t &= H_{\xi}\xi_t + A\pi_{t-1} + V_e^Y e_t \\ \xi_{t|t} &= (I - \Omega H_{\xi})\, G^{\xi}\xi_{t-1|t-1} + \Omega H_{\xi} G^{\xi}\xi_{t-1} + \Omega H_{\xi} V_{\epsilon}^{\xi}\epsilon_t + \Omega V_e^Y e_t,\end{aligned}$$

where

$$\begin{aligned}Y_t &= \begin{pmatrix} \pi_t \\ R_t \\ \tilde{\pi}_t^i \end{pmatrix} \\ V_e^Y &= \begin{bmatrix} \sigma_{\pi} & 0 & 0 \\ 0 & \sigma_R & 0 \\ 0 & 0 & \sigma_{\eta} \end{bmatrix} \\ \Sigma_e &= V_e^Y V_e^Y,\end{aligned}$$

so $f_{t|t} = \begin{pmatrix} \xi_{t|t} & \pi_t & R_t \end{pmatrix}'$ and where

$$\Omega = PH_{\xi}' \left(H_{\xi} P H_{\xi}' + \Sigma_e\right)^{-1}.$$

When simulating monetary policy regressions, we eliminate inflation from the measurement equation. The full state space is then described as

$$Z_t = \Phi Z_{t-1} + S_C u_t,$$

where

$$Z_t = \begin{pmatrix} \xi_{t|t} \\ \pi_t \\ R_t \\ \xi_{t-1|t-1} \\ \pi_{t-1} \\ R_{t-1} \\ \xi_t \end{pmatrix} = \begin{bmatrix} (I - \Omega H_\xi) G^\xi & 0 & 0 & 0 & \Omega H_\xi G^\xi \\ 0 & G^{yy} & 0 & 0 & G^{y\xi} \\ I_2 & 0 & 0 & 0 & 0 \\ 0 & I_2 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & G^\xi \end{bmatrix} \begin{pmatrix} \xi_{t-1|t-1} \\ y_{t-1} \\ \xi_{t-2|t-2} \\ y_{t-2} \\ \xi_{t-1} \end{pmatrix} = \begin{pmatrix} f_{t-1|t-1} \\ f_{t-2|t-2} \\ \xi_{t-1} \end{pmatrix}$$

and

$$\Phi = \begin{bmatrix} (I - \Omega H_\xi) G^\xi & 0 & 0 & 0 & \Omega H_\xi G^\xi \\ 0 & G^{yy} & 0 & 0 & G^{y\xi} \\ I_2 & 0 & 0 & 0 & 0 \\ 0 & I_2 & 0 & 0 & 0 \\ 0 & 0 & 0 & 0 & G^\xi \end{bmatrix}$$

$$S_C = \begin{bmatrix} \Omega H_\xi V_\epsilon^\xi & \Omega V_e^Y \\ V_\epsilon^y & V_e^y \\ 0 & 0 \\ 0 & 0 \\ V_\epsilon^\xi & 0 \end{bmatrix}.$$

Let us now go to the observation equation

$$\mathcal{Y}_t = \begin{pmatrix} \pi_t \\ R_t \\ \pi_{t-1} \\ R_{t-1} \\ \pi_t - \pi_{t|t-1} \\ R_t - R_{t|t-1} \\ \frac{1}{12}\left(\sum_{i=1}^{12}\left(\pi_{t+i|t} - \bar{\pi}^{CB}_{t+i|t}\right) - \sum_{i=1}^{12}\left(\pi_{t+i-1|t-1} - \bar{\pi}^{CB}_{t+i-1|t-1}\right)\right) \\ \frac{1}{12}\left(\sum_{i=13}^{24}\left(\pi_{t+i|t} - \bar{\pi}^{CB}_{t+i|t}\right) - \sum_{i=13}^{24}\left(\pi_{t+i-1|t-1} - \bar{\pi}^{CB}_{t+i-1|t-1}\right)\right) \\ \frac{1}{12}\left(\sum_{i=25}^{36}\left(\pi_{t+i|t} - \bar{\pi}^{CB}_{t+i|t}\right) - \sum_{i=25}^{36}\left(\pi_{t+i-1|t-1} - \bar{\pi}^{CB}_{t+i-1|t-1}\right)\right) \\ \frac{1}{12}\left(\sum_{i=37}^{48}\left(\pi_{t+i|t} - \bar{\pi}^{CB}_{t+i|t}\right) - \sum_{i=37}^{48}\left(\pi_{t+i-1|t-1} - \bar{\pi}^{CB}_{t+i-1|t-1}\right)\right) \\ \frac{1}{12}\sum_{i=1}^{12}\left(\pi_{t+i|t} - \bar{\pi}^{CB}_{t+i|t}\right) \\ \frac{1}{12}\sum_{i=25}^{36}\left(\pi_{t+i|t} - \bar{\pi}^{CB}_{t+i|t}\right) \\ \frac{1}{12}\sum_{i=37}^{48}\left(\pi_{t+i|t} - \bar{\pi}^{CB}_{t+i|t}\right) \end{pmatrix}.$$

We can then use the model to define the matrix D such that

$$\mathcal{Y}_t = DZ_t.$$

Finally, we have

$$\Sigma_{\mathcal{Y}_t} = D\Sigma_Z D',$$

which allows us to compute all the statistics described in Figure 8.

Analytical results with $\rho_c = 0, \sigma^\pi = 0$

In this case, the central bank responds to inflation shocks. This is the main difference compared with the benchmark model. Agents' observation equation is then

$$\begin{pmatrix} \pi_t \\ R_t \\ \tilde{\pi}_t^i \end{pmatrix} = \begin{bmatrix} \alpha & 1 \\ 1+\phi(\alpha-1) & \phi \\ 1 & 0 \end{bmatrix} \begin{pmatrix} \bar{\pi}_t \\ c_t \end{pmatrix} + \begin{bmatrix} 1-\alpha \\ \phi(1-\alpha) \\ 0 \end{bmatrix} \pi_{t-1} + \begin{pmatrix} \sigma_\pi e_t^\pi \\ \sigma_R e_t^R \\ \sigma_\eta e_t^\eta \end{pmatrix}.$$

$$y_t = H_\xi \xi_t + A\pi_{t-1} + e_t.$$

$$\xi_t = G_\xi \xi_{t-1} + \epsilon_t.$$

The estimates of the two unobserved components are then

$$\xi_{t|t} = \xi_{t|t-1} + PH_\xi' \left(H_\xi P H_\xi' + \Sigma_e\right)^{-1} \left(y_t - H_\xi \xi_{t|t-1} - A\pi_{t-1}\right),$$

where P solves

$$P = G_\xi \left[P - PH_\xi' \left(H_\xi P H_\xi' + \Sigma_e\right)^{-1} H_\xi P\right] G_\xi + \Sigma_\epsilon.$$

Given the maintained assumption that c_t is an i.i.d process, we have

$$P \equiv E\left(\xi_t - \xi_{t|t-1}\right)\left(\xi_t - \xi_{t|t-1}\right)' = \begin{bmatrix} p_{\bar{\pi}} & 0 \\ 0 & \sigma_c^2 \end{bmatrix}.$$

We can then write the updating of the inflation target's estimate as

$$\bar{\pi}_{t|t}^i = \bar{\pi}_{t|t-1}^i + g_{\bar{\pi}} \left(\tilde{\pi}_t^i - \bar{\pi}_{t|t-1}^i\right) +$$

$$+ (1 - g_{\bar{\pi}}) \left[g_R \left(R_t - E_{t-1}^i R_t\right) + g_\pi \left(\pi_t^i - E_{t-1}^i \pi_t\right)\right],$$

where

$$g_{\bar{\pi}} = \frac{p_{\bar{\pi}} \sigma_c^2 \sigma_R^2}{\left(p_{\bar{\pi}} \sigma_R^2 \alpha^2 + p_{\bar{\pi}} \sigma_c^2 (\phi - 1)^2 + \sigma_c^2 \sigma_R^2\right) \sigma_\eta^2 + p_{\bar{\pi}} \sigma_c^2 \sigma_R^2}$$

and

$$g_R = -\frac{p_{\bar{\pi}}\sigma_c^2(\phi-1)}{p_{\bar{\pi}}\sigma_R^2\alpha^2 + p_{\bar{\pi}}\sigma_c^2(\phi-1)^2 + \sigma_c^2\sigma_R^2} < 0$$

and

$$g_\pi = \frac{p_{\bar{\pi}}\left(\sigma_c^2\phi(\phi-1) + \alpha\sigma_R^2\right)}{p_{\bar{\pi}}\sigma_R^2\alpha^2 + p_{\bar{\pi}}\sigma_c^2(\phi-1)^2 + \sigma_c^2\sigma_R^2} > 0$$

$$g_\pi + g_R > 0.$$

It is then immediate that

$$\lim_{\sigma_\eta \to 0} g_{\bar{\pi}} = 1$$
$$\lim_{\sigma_\eta \to \infty} g_{\bar{\pi}} = 0.$$

Pass-through regressions

We aim at evaluating the regression coefficient

$$\begin{aligned}
\beta^P &= \frac{COV\left(E_t^i(\pi_T - \bar{\pi}_t) - E_{t-1}^i(\pi_T - \bar{\pi}_{t-1}), E_t^i\pi_t - E_{t-1}^i\pi_t\right)}{V\left(E_t^i\pi_t - E_{t-1}^i\pi_t\right)} \\
&\approx \frac{COV\left(\bar{\pi}_{t|t}^i - \bar{\pi}_{t|t-1}^i, \alpha\left(\bar{\pi}_{t|t} - \bar{\pi}_{t|t-1}\right) + c_{t|t} - c_{t|t-1}\right) - \alpha\sigma_{\bar{\pi}}^2}{V\left(\alpha\left(\bar{\pi}_{t|t} - \bar{\pi}_{t|t-1}\right) + c_{t|t} - c_{t|t-1}\right)} \\
&= \frac{\alpha V\left(\bar{\pi}_{t|t}^i - \bar{\pi}_{t|t-1}^i\right) + COV\left(\bar{\pi}_{t|t}^i - \bar{\pi}_{t|t-1}^i, c_{t|t}^i - c_{t|t-1}^i\right) - \alpha\sigma_{\bar{\pi}}^2}{\alpha^2 V\left(\bar{\pi}_{t|t}^i - \bar{\pi}_{t|t-1}^i\right) + V\left(c_{t|t}^i - c_{t|t-1}^i\right) + 2\alpha COV\left(\bar{\pi}_{t|t}^i - \bar{\pi}_{t|t-1}^i, c_{t|t}^i - c_{t|t-1}^i\right)},
\end{aligned}$$

where $T > \bar{T}$ so that $E_t^i\pi_T \approx \bar{\pi}_{t|t}^i$. Also here, we have $E_t^i\pi_t = \pi_t$. From the steady-state Kalman filter, we have

$$\xi_{t|t} - \xi_{t|t-1} \sim N(0, \Sigma_\xi),$$

where

$$\Sigma_\xi = PH\left(H'PH + \Sigma_e\right)^{-1}H'P.$$

We can then rewrite

$$\beta^P = \frac{\Sigma_\xi(1,2)}{\alpha^2\sigma_{\bar{\pi}}^2 + \Sigma_\xi(2,2) + 2\alpha\Sigma_\xi(1,2)},$$

where, assuming $\bar{\pi}_t$ is a random walk, we have $\Sigma_\xi(1,1) \equiv V\left(\bar{\pi}_{t|t}^i - \bar{\pi}_{t|t-1}^i\right) = \sigma_{\bar{\pi}}^2$. We also have that

$$\Sigma_\xi(1,2) \equiv COV\left(\bar{\pi}_{t|t}^i - \bar{\pi}_{t|t-1}^i, c_{t|t}^i - c_{t|t-1}^i\right) = \sigma_\eta^2\frac{\alpha p_{\bar{\pi}}\sigma_c^2\sigma_R^2}{\left(p_{\bar{\pi}}\sigma_R^2\alpha^2 + p_{\bar{\pi}}\sigma_c^2(\phi-1)^2 + \sigma_c^2\sigma_R^2\right)\sigma_\eta^2 + p_{\bar{\pi}}\sigma_c^2\sigma_R^2} \geq 0$$

so that the pass-through coefficient $\beta^P \geq 0$. We now consider how this coefficient changes with the precision in the central bank signal. Consider a central banker with no credibility:

$$\lim_{\sigma_\eta \to \infty} \beta^P = \frac{\sigma_c^2 \psi}{\alpha^2 \sigma_{\bar{\pi}}^2 + \alpha \sigma_c^2 \psi + \sigma_c^2} > 0,$$

where

$$\psi = \frac{\alpha p_{\bar{\pi}} \sigma_R^2}{p_{\bar{\pi}} \sigma_R^2 \alpha^2 + p_{\bar{\pi}} \sigma_c^2 (\phi - 1)^2 + \sigma_c^2 \sigma_R^2} > 0.$$

On the other hand,

$$\lim_{\sigma_\eta \to 0} \beta^P = 0$$

given that $\lim_{\sigma_\eta \to 0} \Sigma_\xi(1,2) = 0$. So we have

$$\lim_{\sigma_\eta \to \infty} \beta^P - \lim_{\sigma_\eta \to 0} \beta^P > 0.$$

Monetary policy surprise regressions

We assume no inflation releases occur during the days around the monetary policy decision. The observation equation then includes only two variables:

$$\begin{aligned} \begin{pmatrix} R_t \\ \tilde{\pi}_t^i \end{pmatrix} &= \begin{bmatrix} 1 + \phi(\alpha - 1) & \phi \\ 1 & 0 \end{bmatrix} \begin{pmatrix} \bar{\pi}_t \\ c_t \end{pmatrix} + \begin{bmatrix} \phi(1 - \alpha) \\ 0 \end{bmatrix} \pi_{t-1} + \begin{pmatrix} \sigma_R e_t^R \\ \sigma_\eta e_t^\eta \end{pmatrix} \\ &= H^R \xi_t + A^R \pi_{t-1} + e_t^R, \end{aligned}$$

so that around the meeting, agents update their estimates of the inflation target according to

$$\bar{\pi}_{t|t} - \bar{\pi}_{t|t-1} = (1 - \tilde{g}_{\bar{\pi}}) \tilde{g}_R \left(R_t - E_{t-1}^i R_t\right) + \tilde{g}_{\bar{\pi}} \left(\tilde{\pi}_t^i - \bar{\pi}_{t|t-1}\right).$$

The regression coefficient on long-term expectations on the policy surprise is then

$$\begin{aligned} \beta^S &= \frac{COV_i\left(E_t^i(\pi_T - \bar{\pi}_t) - E_{t-1}^i(\pi_T - \bar{\pi}_{t-1}), R_t - E_{t-1}^i R_t\right)}{V\left(R_t - E_{t-1}^i R_t\right)} \\ &= \frac{COV\left(\tilde{g}_i\left(\tilde{\pi}_t^i - \bar{\pi}_{t|t-1}^i\right) + (1 - \tilde{g}_i)\tilde{g}_R\left(R_t - E_{t-1}^i R_t\right), R_t - E_{t-1}^i R_t\right)}{V\left(R_t - E_{t-1}^i R_t\right)} - \frac{(1 - \phi(1 - \alpha))\sigma_{\bar{\pi}}^2}{V\left(R_t - E_{t-1}^i R_t\right)} \\ &= \tilde{g}_i \frac{COV\left(\left(\tilde{\pi}_t^i - \bar{\pi}_{t|t-1}^i\right)\left(R_t - E_{t-1}^i R_t\right)\right)}{V\left(R_t - E_{t-1}^i R_t\right)} + (1 - \tilde{g}_i)\tilde{g}_R - \frac{(1 - \phi(1 - \alpha))\sigma_{\bar{\pi}}^2}{V\left(R_t - E_{t-1}^i R_t\right)}. \end{aligned}$$

Now consider

$$\Sigma_y \equiv E\left(\begin{pmatrix} R_t - R_{t|t-1} \\ \tilde{\pi}_t^i - \bar{\pi}_{t|t-1}^i \end{pmatrix}\begin{pmatrix} R_t - R_{t|t-1} \\ \tilde{\pi}_t^i - \bar{\pi}_{t|t-1}^i \end{pmatrix}'\right) = H_R P_R H_R' + \Sigma_e^R$$

$$\Sigma_y(1,2) \equiv COV\left(\left(\tilde{\pi}_t^i - \bar{\pi}_{t|t-1}^i\right)\left(R_t - E_{t-1}^i R_t\right)\right) = p_{\bar{\pi}}^R\left(1-\phi\left(1-\alpha\right)\right) < 0$$

$$\Sigma_y(1,1) \equiv V\left(R_t - E_{t-1}^i R_t\right) = \sigma_R^2 + p_{\bar{\pi}}^R\left(1-\phi\left(1-\alpha\right)\right)^2 + \sigma_c^2\phi^2.$$

Recall

$$P^R \equiv E\left(\xi_t - \xi_{t|t-1}\right)\left(\xi_t - \xi_{t|t-1}\right)' = \begin{bmatrix} p_{\bar{\pi}}^R & 0 \\ 0 & \sigma_c^2 \end{bmatrix}.$$

We can also show

$$\tilde{g}_{\bar{\pi}} = \frac{p_{\bar{\pi}}^R(\sigma_R^2 + \sigma_c^2\phi^2)}{p_{\bar{\pi}}^R\left(\sigma_R^2\sigma_c^2\phi^2\right) + \sigma_\eta^2\left(\sigma_R^2 + \sigma_c^2\phi^2 + \left(1-\phi\left(1-\alpha\right)\right)^2 p_{\bar{\pi}}^R\right)} \geq 0,$$

where

$$\tilde{g}_R = \frac{p_{\bar{\pi}}^R\left(1-\phi\left(1-\alpha\right)\right)}{\left(1-\phi\left(1-\alpha\right)\right)^2 p_{\bar{\pi}}^R + \sigma_R^2 + \phi^2\sigma_c^2} < 0.$$

The last two inequalities hold provided $1-\phi\left(1-\alpha\right) < 0$, which we assume holds.

Now consider $\sigma_\eta \to 0$. Since $\lim_{\sigma_\eta \to 0} \tilde{g}_i = 1$ the regression coefficient becomes

$$\lim_{\sigma_\eta \to 0} \beta^S = \frac{\left(p_{\bar{\pi}}^R - \sigma_{\bar{\pi}}^2\right)\left(1-\phi\left(1-\alpha\right)\right)}{\sigma_R^2 + p_{\bar{\pi}}^R\left(1-\phi\left(1-\alpha\right)\right)^2 + \sigma_c^2\phi^2} = 0$$

given that $\lim_{\sigma_\eta \to 0} p_{\bar{\pi}}^R = \sigma_{\bar{\pi}}^2$. Conversely,

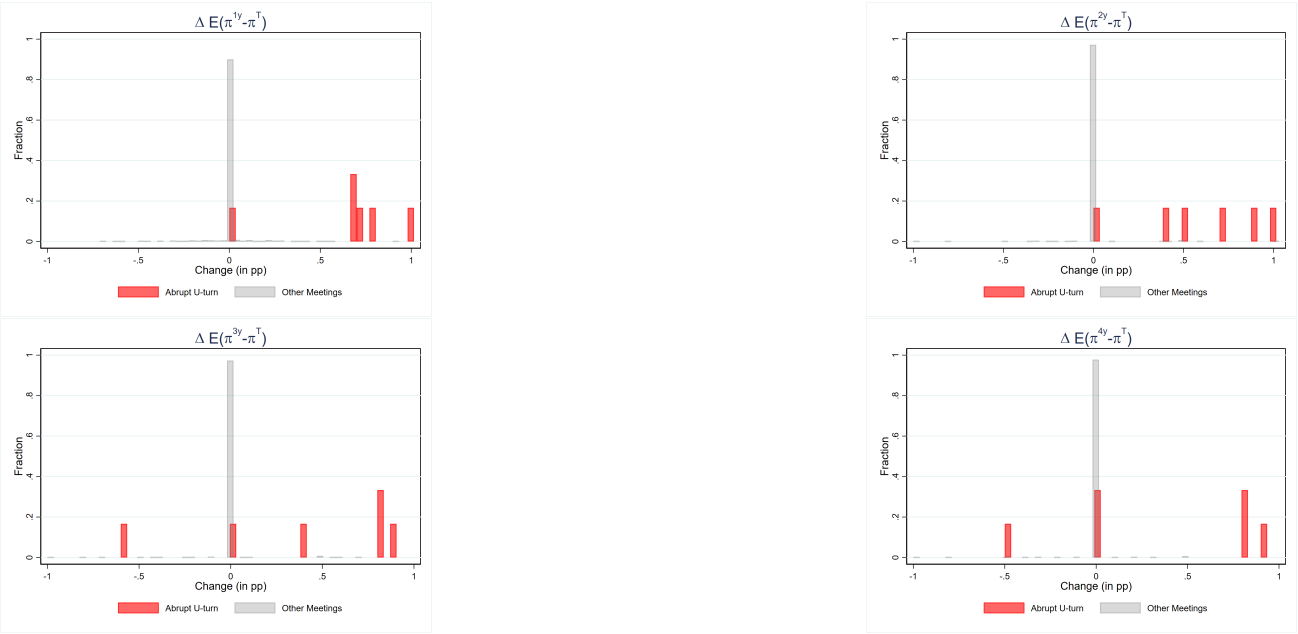
$$\lim_{\sigma_\eta \to \infty} \beta^S = \frac{\left(p_{\bar{\pi}}^R - \sigma_{\bar{\pi}}^2\right)\left(1-\phi\left(1-\alpha\right)\right)}{\left(1-\phi\left(1-\alpha\right)\right)^2 p_{\bar{\pi}}^R + \sigma_R^2 + \phi^2\sigma_c^2} < 0$$

given $p_{\bar{\pi}}^R\left(\sigma_\eta \to \infty\right) > p_{\bar{\pi}}^R\left(\sigma_\eta \to 0\right) \equiv \sigma_{\bar{\pi}}^2$.

B Additional empirical results

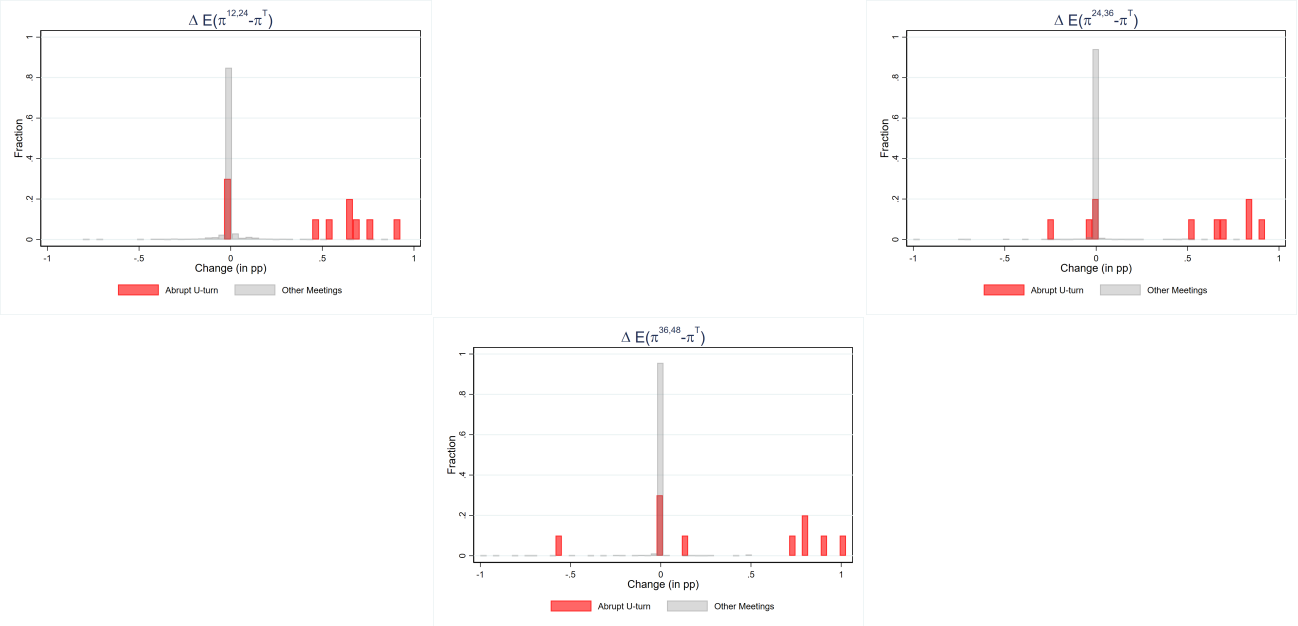
B.1 Abrupt U-turn histograms

Figure 9: **One-day change in inflation expectations: calendar years**



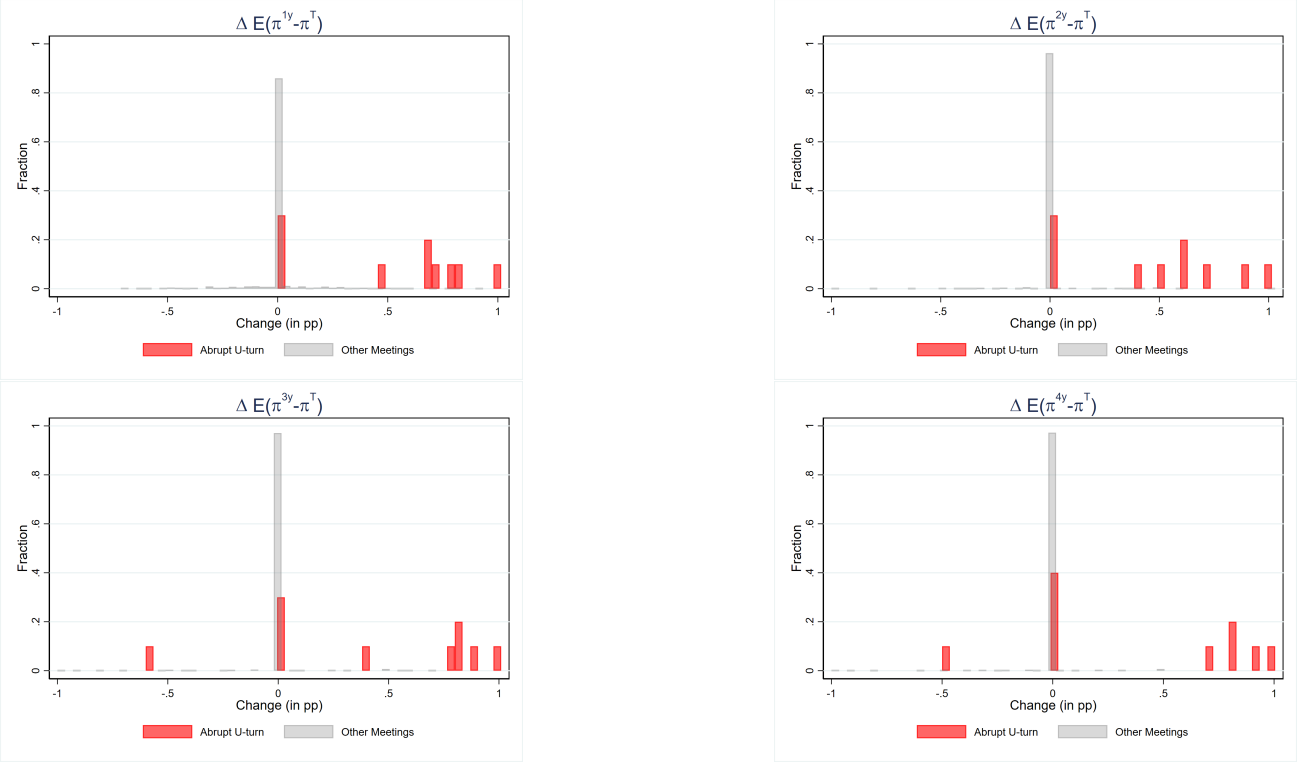
Note: Distributions of inflation forecast revisions (in percentage points) for all monetary policy meetings from 2008 to 2019. Changes in inflation expectations are obtained by subtracting the most recent forecast posted or confirmed prior to a policy meeting from forecasts posted or confirmed one day after that meeting. The dark (red) histogram is for the abrupt U-turn meeting (August 31, 2011). The light (grey) histogram is for all other meetings in our sample.

Figure 10: **Two-day change in inflation expectations: fixed horizons**



Note: Distributions of inflation forecast revisions (in percentage points) for all monetary policy meetings from 2008 to 2019. Changes in inflation expectations are obtained by subtracting the most recent forecast posted or confirmed prior to a policy meeting from forecasts posted or confirmed up to two days after that meeting. The dark (red) histogram is for the abrupt U-turn meeting (August 31, 2011). The light (grey) histogram is for all other meetings in our sample.

Figure 11: **Two-day change in inflation expectations: calendar years**



Note: Distributions of inflation forecast revisions (in percentage points) for all monetary policy meetings from 2008 to 2019. Changes in inflation expectations are obtained by subtracting the most recent forecast posted or confirmed prior to a policy meeting from forecasts posted or confirmed up to two days after that meeting. The dark (red) histogram is for the abrupt U-turn meeting (August 31, 2011). The light (grey) histogram is for all other meetings in our sample.

B.2 Expectations deviate meaningfully from target

Table 8 presents pooled OLS regression results for calendar years. As with fixed horizons, during the unanchored regime inflation expectations deviate meaningfully from target. For the third calendar year ahead, expectations in unanchored periods are, on average, 0.58 pp above target, and for the fourth calendar year, they are about 0.5 pp higher than target. In the anchored regime, long-run inflation expectations are essentially on target.

Tables 9 and 10 present results for panel regressions with forecaster fixed effects:

$$E_{it}\left[\pi_{t+\tau} - \pi^T\right] = \alpha_i + \beta_{Unanch}\mathbb{1}_t^{Unanch} + \varepsilon_{it}, \tag{9}$$

where $E_{it}\left[\pi_{t+\tau} - \pi^T\right]$ is the deviation from target of individual inflation expectation for horizon τ (fixed horizon or calendar year); $\mathbb{1}_t^{Unanch}$ is the unanchored regime dummy, and t represents the day, from July 2008 to December 2019, when forecasts were posted in the Focus system. The α_i's are forecaster fixed effects, which are restricted to sum to zero. The model also includes a constant, which captures deviations in the anchored regime.[39]

For ease of comparison with the pooled OLS regressions, in Tables 9 and 10 we relabel the constant as $\left(1 - \mathbb{1}_t^{Unanch}\right)$ and use $Constant + \beta_{Unanch}$ to estimate and make inference on the mean deviation in the unanchored regime. Results are in line with the pooled OLS estimates. On average, for longer horizons (24-36 and 36-48), inflation expectations deviate from target by more than 0.5 percentage points in the unanchored regime and remain very close to target during anchored periods.

[39] Recall that $\sum_i \alpha_i = 0$ implies the constant captures the mean of the dependent variable when independent variables are at zero.

Table 8: **Deviation of inflation expectations from target: calendar years**

Dependent variable	$E\left[\pi^{1y}-\pi^{T}\right]$	$E\left[\pi^{2y}-\pi^{T}\right]$	$E\left[\pi^{3y}-\pi^{T}\right]$	$E\left[\pi^{4y}-\pi^{T}\right]$
$\mathbb{1}_t^{Unanch}$	1.293***	0.792***	0.585***	0.484***
	(0.006)	(0.006)	(0.006)	(0.007)
$\left(1-\mathbb{1}_t^{Unanch}\right)$	0.0511***	0.0231***	-0.00573**	-0.0625***
	(0.004)	(0.002)	(0.003)	(0.004)
Observations	26,593	23,180	20,998	16,221
Adjusted R^2	0.703	0.585	0.456	0.331
p-value of H0: $\beta_{Unanch}=\beta_{Anch}$	0	0	0	0
Estimation	Pooled OLS	Pooled OLS	Pooled OLS	Pooled OLS

Note: Heteroskedasticity-robust standard errors are reported in parentheses. Coefficients followed by ***,**, or * are statistically significant at the 1%, 5%, or 10% levels, respectively.

Table 9: **Deviation of inflation expectations from target: fixed horizons, with forecaster fixed effects**

Dependent variable	$E\left[\pi_{12-24}-\pi^{T}\right]$	$E\left[\pi_{24-36}-\pi^{T}\right]$	$E\left[\pi_{36-48}-\pi^{T}\right]$
$\mathbb{1}_t^{Unanch}$	1.022 ***	0.673***	0.518***
	(0.005)	(0.005)	(0.006)
$\left(1-\mathbb{1}_t^{Unanch}\right)$	0.0440***	0.0184***	-0.0284***
	(0.003)	(0.003)	(0.003)
Observations	23,111	20,950	16,218
Adjusted R^2	0.646	0.508	0.454
p-value of H0: $\beta_{Unanch}=\beta_{Anch}$	0	0	0
Estimation method	Fixed effects	Fixed effects	Fixed effects
Individual fixed effects	Yes	Yes	Yes
Time-fixed effects	No	No	No

Note: Heteroskedasticity-robust standard errors are reported in parentheses. Coefficients followed by ***,**, or * are statistically significant at the 1%, 5%, or 10% levels, respectively.

Table 10: **Deviation of inflation expectations from target: calendar years, with forecaster fixed effects**

Dependent variable	$E\left[\pi^{1y}-\pi^{T}\right]$	$E\left[\pi^{2y}-\pi^{T}\right]$	$E\left[\pi^{3y}-\pi^{T}\right]$	$E\left[\pi^{4y}-\pi^{T}\right]$
$\mathbb{1}_t^{Unanch}$	1.278***	0.784***	0.580***	0.467***
	(0.005)	(0.005)	(0.005)	(0.006)
$\left(1-\mathbb{1}_t^{Unanch}\right)$	0.0621***	0.0287***	-0.00225	-0.0513***
	(0.004)	(0.003)	(0.003)	(0.004)
Observations	26,593	23,180	20,998	16,221
Adjusted R^2	0.607	0.535	0.470	0.438
p-value of H0: $\beta_{Unanch}=\beta_{Anch}$	0	0	0	0
Estimation method	Fixed effects	Fixed effects	Fixed effects	Fixed effects
Individual fixed effects	Yes	Yes	Yes	Yes
Time-fixed effects	No	No	No	No

Note: Heteroskedasticity-robust standard errors are reported in parentheses. Coefficients followed by ***,**, or * are statistically significant at the 1%, 5%, or 10% levels, respectively.

Table 11: **Dispersion of inflation expectations: calendar years**

Dependent variable	$\sigma_t\left(E_i\pi^{1y}\right)$	$\sigma_t\left(E_i\pi^{2y}\right)$	$\sigma_t\left(E_i\pi^{3y}\right)$	$\sigma\left(E_i\pi^{4y}\right)$
$\mathbb{1}_t^{Unanch}$	0.452***	0.501***	0.494***	0.508***
	(0.00306)	(0.00325)	(0.00227)	(0.00264))
$\left(1-\mathbb{1}_t^{Unanch}\right)$	0.299***	0.231***	0.255***	0.311***
	(0.00188)	(0.00147)	(0.00101)	(0.00123)
Observations	4,201	4,201	4,201	4,103
Adjusted R^2	0.920	0.926	0.964	0.958
p-value of H0: $\beta_{Unanch}=\beta_{Anch}$	0	0	0	0
Estimation method	Time-series OLS	Time-series OLS	Time-series OLS	Time-series OLS

Note: Heteroskedasticity-robust standard errors are reported in parentheses. Coefficients followed by ***,**, or * are statistically significant at the 1%, 5%, or 10% levels, respectively.

B.3 Cross-sectional dispersion of inflation expectations increases

Table 11 summarizes the results for calendar years of OLS estimations for cross-sectional dispersion in inflation expectations. The findings are very similar to the case of fixed horizons; on average, dispersion during unanchored periods is almost twice as large as dispersion in an anchored regime. The cross-sectional standard deviation of inflation expectations is, on average, 0.5 in the unanchored regime and between 0.23 and 0.31 in anchored periods.

B.4 Sensitivity of long- to short-run expectations increases

Table 12 shows the estimation of panel regressions including time-fixed effects:

$$\Delta E_{it}\left(\pi_{t+\tau}-\pi_{t+\tau}^T\right)=\alpha_i+\theta_t+\beta_{Unanch}\Delta E_{it}\left[\pi_{1-12}-\pi_{t+\tau}^T\right]\times\mathbb{1}_t{}^{Unanch}+\beta_{Anch}\Delta E_{it}\left[\pi_{1-12}-\pi_{t+\tau}^T\right]\times\left(1-\mathbb{1}_t^{Unanch}\right)+\varepsilon_{it}, \tag{10}$$

where $\Delta E_{it}\left[\pi_{t+\tau}-\pi^T\right]$ represents the change in inflation expectations (in deviation from target) for horizon $\tau\in\{24-36,36-48\}$ between reference dates t; $\Delta E_{it}\left[\pi_{1-12}-\pi^T\right]$ denotes the change in inflation expectation (in deviation from target) for the 12-month horizon. The α_i's are forecaster fixed effects, and θ_t accounts for time-fixed effects.

The results are qualitatively the same as before (Table 3); in the unanchored regime, forecasters increase their expectations of inflation for 36 to 48 months ahead on average by 0.14 pp in response to a 1pp change in short-term expectations. During anchored periods, the sensitivity of long- to short-term forecasts is now significant, but less than half than in the unanchored regime.

Tables 13 and 14 show results for inflation forecast revisions. For each forecaster, we subtract from the last fixed-horizon inflation forecast ($E_{it}\left[\pi_{t+\tau}\right]$) posted in a given month (t), the last forecast for the same event posted in the previous month ($E_{it-1}\left[\pi_{t+\tau}\right]$):

$$\left[E_{it}-E_{it-1}\right]\left[\pi_{t+\tau}-\pi_{t+\tau}^T\right]\equiv E_{it}\left[\pi_{t+\tau}-\pi_{t+\tau}^T\right]-E_{it-1}\left[\pi_{t+\tau}-\pi_{t+\tau}^T\right]. \tag{11}$$

We then estimate panel regressions analogous to the ones in Tables 3 and 12.

As in previous results, we find a positive relationship between revisions in short-term inflation expectations and revisions in long-term forecasts during the unanchored regime. Specifically in Table 13, a 1 pp revision in 12-month expectations, on average, results in a 0.2 pp increase in the deviation from target for inflation expectations in the 24- to 36-month forecasts during periods of unanchored expectations. In contrast, during anchored periods,

Table 12: **Expectations pass-through regressions with time-fixed effects**

Dependent variable	$\Delta E_i\left[\pi_{24-36}-\pi^T\right]$	$\Delta E_i\left[\pi_{36-48}-\pi^T\right]$
$\Delta E_i\left[\pi_{1-12}-\pi^T\right]\times \mathbb{1}_t^{Unanch}$	0.192***	0.136***
	(0.0469)	(0.0406)
$\Delta E_i\left[\pi_{1-12}-\pi^T\right]\times\left(1-\mathbb{1}_t^{Unanch}\right)$	0.0536***	0.0558**
	(0.0195)	(0.0259)
Constant	-0.0477*	-0.0140
	(0.0287)	(0.00989)
Observations	2,841	2,461
Adjusted R^2	0.157	0.162
Estimation method	Fixed effects	Fixed effects
Individual fixed effects	Yes	Yes
Time-fixed effects	Yes	Yes

Note: Heteroskedasticity-robust standard errors are reported in parentheses. Coefficients followed by ***, **, or * are statistically significant at the 1%, 5%, or 10% levels, respectively.

this revision leads to an increase of only 0.06 pp. In the case of the longest horizon, the differences are even bigger, with the sensitivity of long- to short-term inflation being more than four times greater in unanchored relative to anchored regimes. When we also include time-fixed effects (Table 14), the findings for 24-36 horizon are very similar. For 36-48 months, sensitivity becomes lower, but it is still three times higher in the unanchored regime.

Table 13: **Expectations pass-through regressions: expectations revisions**

Dependent variable	$[E_{it}-E_{it-1}]\left[\pi_{24-36}-\pi^T\right]$	$[E_{it}-E_{it-1}]\left[\pi_{36-48}-\pi^T\right]$
$[E_{it}-E_{it-1}]\left[\pi_{1-12}-\pi^T\right]\times \mathbb{1}_t^{Unanch}$	0.200***	0.129***
	(0.0361)	(0.0257)
$[E_{it}-E_{it-1}]\left[\pi_{1-12}-\pi^T\right]\times\left(1-\mathbb{1}_t^{Unanch}\right)$	0.0613***	0.0291*
	(0.0155)	(0.0154)
Constant	0.00337	0.00242
	(0.00268)	(0.00268)
Observations	5,848	4,971
Adjusted R^2	0.0357	0.00663
Estimation method	Fixed effects	Fixed effects
Individual fixed effects	Yes	Yes
Time-fixed effects	No	No

Note: Heteroskedasticity-robust standard errors are reported in parentheses. Coefficients followed by ***, **, or * are statistically significant at the 1%, 5%, or 10% levels, respectively.

Table 14: **Expectations pass-through regressions: expectations revisions, with time-fixed effects**

Dependent variable	$[E_{it} - E_{it-1}]\left[\pi_{24-36} - \pi^T\right]$	$[E_{it} - E_{it-1}]\left[\pi_{36-48} - \pi^T\right]$
$[E_{it} - E_{it-1}]\left[\pi_{1-12} - \pi^T\right] \times \mathbb{1}_t^{Unanch}$	0.180***	0.0994***
	(0.0401)	(0.0276)
$[E_{it} - E_{it-1}]\left[\pi_{1-12} - \pi^T\right] \times \left(1 - \mathbb{1}_t^{Unanch}\right)$	0.0686***	0.0354**
	(0.0166)	(0.0162)
Constant	-0.0286*	0.0392
	(0.0151)	(0.0493)
Observations	5,848	4,971
Adjusted R^2	0.130	0.122
Estimation	Fixed effects	Fixed effects
Individual fixed effects	Yes	Yes
Time-fixed effects	Yes	Yes

Note: Heteroskedasticity-robust standard errors are reported in parentheses. Coefficients followed by ***, **, or * are statistically significant at the 1%, 5%, or 10% levels, respectively.

B.5 Sensitivity of inflation expectations to interest rate surprises

Table 15 shows panel regression for calendar-year forecasts, which are very similar to those presented in Table 4. Tables 16 and 17 show results for panel regressions with time-fixed effects:

$$\Delta(E_t^i \pi^f - \pi_t^T) = \alpha_i + \theta_t + \beta_1 \, U\text{-}turn \ surprise + \beta_2 \, Other \ surpr. \times \mathbb{1}_t^{Unanch} + \beta_3 \, Other \ surpr. \times \left(1 - \mathbb{1}_t^{Unanch}\right) + \varepsilon_{it}. \tag{12}$$

Although the sensitivity of expectations in response to other surprises is no longer statistically different from zero in most cases, results for the abrupt U-turn become even stronger.

B.6 Expectations become more volatile

Table 18 presents results of pooled OLS regressions for calendar years, which are very similar to those for fixed horizons (Table 5). Tables 19 and 20 show results for panel regressions with forecaster fixed effects:

$$\sigma_{iJ}\left(E_i \pi_{t+\tau} - \pi^T\right) = \alpha_i + \beta_{Unanch} \mathbb{1}_t^{Unanch} + \varepsilon_{it}, \tag{13}$$

where $\sigma_{iJ}\left(E_i \pi_{t+\tau} - \pi^T\right)$ is the standard deviation of individual i's inflation expectations (in deviations from target) for horizon τ (calendar year or fixed horizon) in window $J = 1, 2, 3$; t indexes months within those windows. The dummy coefficients provide estimates of the average standard deviation of expectations in each regime. The α_i's are forecaster fixed effects.

For ease of comparison with the pooled OLS regressions, in Tables 19 and 20 we relabel the constant as $\left(1 - \mathbb{1}_t^{Unanch}\right)$ and use the linear combination $Constant + \beta_{Unanch}$ to estimate and make inference. Conclusions are qualitatively the same as before: in an unanchored regime, the volatility of inflation expectations is, on average, about twice the volatility during anchored periods.

Tables 21, 22, 23, and 24 summarize the results obtained when pooling the two anchored windows for calculating the standard deviations for each forecaster. Findings are qualitatively similar to the previous cases.[40]

[40] An exception is that, when accounting for forecaster fixed effects, the volatility of expectations for the 12-month horizon is not statistically different across regimes at the 10% level.

Table 15: **Response of inflation expectations to monetary surprises: calendar years**

	One day after COPOM Meeting			
Dependent variable	$\Delta E_i\left[\pi^{1y}-\pi^T\right]$	$\Delta E_i\left[\pi^{2y}-\pi^T\right]$	$\Delta E_i\left[\pi^{3y}-\pi^T\right]$	$\Delta E_i\left[\pi^{4y}-\pi^T\right]$
Abrupt U-turn surprise	-0.972***	-0.998***	-0.773*	-0.655
	(0.174)	(0.285)	(0.403)	(0.481)
Other surprises$\times\mathbb{1}_t^{Unanch}$	-0.638***	-0.501***	-0.389***	-0.176
	(0.161)	(0.143)	(0.120)	(0.136)
Other surprises$\times\left(1-\mathbb{1}_t^{Unanch}\right)$	-0.111*	-0.0469	-0.00391	-0.0209
	(0.0620)	(0.0477)	(0.0497)	(0.0937)
Constant	0.0115*	0.0173**	0.00785	0.0124
	(0.00688)	(0.00776)	(0.00848)	(0.0110)
Observations	562	510	474	333
Adjusted R^2	0.201	0.193	0.0810	0.00203
Estimation method	Fixed effects	Fixed effects	Fixed effects	Fixed effects
Individual fixed effects	Yes	Yes	Yes	Yes
Time-fixed effects	No	No	No	No
	Two days after COPOM Meeting			
Dependent variable	$\Delta E_i\left[\pi^{1y}-\pi^T\right]$	$\Delta E_i\left[\pi^{2y}-\pi^T\right]$	$\Delta E_i\left[\pi^{3y}-\pi^T\right]$	$\Delta E_i\left[\pi^{4y}-\pi^T\right]$
Abrupt U-turn surprise	-0.915***	-0.813***	-0.747***	-0.705**
	(0.139)	(0.210)	(0.285)	(0.315)
Other surprises$\times\mathbb{1}_t^{Unanch}$	-0.492***	-0.423***	-0.320***	-0.167
	(0.127)	(0.116)	(0.100)	(0.124)
Other surprises$\times\left(1-\mathbb{1}_t^{Unanch}\right)$	-0.113***	-0.0408	-0.0101	-0.0413
	(0.0410)	(0.0329)	(0.0331)	(0.0495)
Constant	0.00585	0.00989**	0.00305	0.00179
	(0.00433)	(0.00482)	(0.00518)	(0.00612)
Observations	1,139	994	908	680
Adjusted R^2	0.203	0.169	0.0937	0.0875
Estimation method	Fixed effects	Fixed effects	Fixed effects	Fixed effects
Individual fixed effects	Yes	Yes	Yes	Yes
Time-fixed effects	No	No	No	No

Note: Heteroskedasticity-robust standard errors are reported in parentheses. Coefficients followed by ***, **, or * are statistically significant at the 1%, 5%, or 10% levels, respectively.

B.7 Expectations are updated more frequently

Table 25 presents the results for panel regression estimations with forecaster fixed effects for the mean duration of inflation expectations in each regime:

$$Duration_{it}^{\tau}=\alpha_i+\beta_{Unanch}\mathbb{1}_t^{Unanch}+\varepsilon_{it}, \tag{14}$$

where $Duration_{it}^{\tau}$ is the time (in days) since forecaster i last changed his/her calendar year forecast for horizon $\tau\in\{1y,2y,3y,4y\}$; α_i's are forecaster fixed effects, and t are the dates from July 2008 to December 2019 when expectations are revised.

For ease of comparison with the pooled OLS regressions, in Table 25 we relabel the constant as $\left(1-\mathbb{1}_t^{Unanch}\right)$ and use the linear combination $Constant+\beta_{Unanch}$ to obtain the estimation and inference for $\mathbb{1}_t^{Unanch}$. Our conclusions are qualitatively the same as before: in the unanchored regime, forecasters revise their expectations more frequently than in anchored periods. For most cases, the differences between duration means are statistically significant at the 1% level for all horizons, except for the fourth calendar year, which is significant at 5.5%.

Table 16: **Response of inflation expectations to monetary surprises, with time-fixed effects**

	One day after COPOM Meeting		
Dependent variable	$\Delta E_i\left[\pi_{12-24}-\pi^T\right]$	$\Delta E_i\left[\pi_{24-36}-\pi^T\right]$	$\Delta E_i\left[\pi_{36-48}-\pi^T\right]$
Abrupt U-turn surprise	-0.883***	-0.865**	-0.602
	(0.249)	(0.408)	(0.572)
Other surprises$\times\mathbb{1}_t^{Unanch}$	-0.00386	0.0904	-0.0234
	(0.240)	(0.207)	(0.231)
Other surprises$\times\left(1-\mathbb{1}_t^{Unanch}\right)$	-0.107	-0.0163	0.00633
	(0.0868)	(0.0811)	(0.155)
Constant	0.0396	0.00618	0.0283
	(0.0483)	(0.0470)	(0.0732)
Observations	509	471	333
Adjusted R-squared	0.172	0.0903	-0.121
Estimation method	Fixed effects	Fixed effects	Fixed effects
Individual fixed effects	Yes	Yes	Yes
Time-fixed effects	Yes	Yes	Yes

	Two days after COPOM Meeting		
Dependent variable	$\Delta E_i\left[\pi_{12-24}-\pi^T\right]$	$\Delta E_i\left[\pi_{24-36}-\pi^T\right]$	$\Delta E_i\left[\pi_{36-48}-\pi^T\right]$
Abrupt U-turn surprise	-0.973***	-0.967***	-1.064**
	(0.225)	(0.355)	(0.495)
Other surprises$\times\mathbb{1}_t^{Unanch}$	-0.0939	-0.0396	-0.0737
	(0.154)	(0.146)	(0.160)
Other surprises$\times\left(1-\mathbb{1}_t^{Unanch}\right)$	-0.0912	-0.0328	-0.0817
	(0.0573)	(0.0574)	(0.0787)
Constant	-0.0768	-0.0982	-0.178
	(0.0758)	(0.114)	(0.177)
Observations	992	902	680
Adjusted R-squared	0.209	0.133	0.0374
Estimation method	Fixed effects	Fixed effects	Fixed effects
Individual fixed effects	Yes	Yes	Yes
Time-fixed effects	Yes	Yes	Yes

Note: Heteroskedasticity-robust standard errors are reported in parentheses. Coefficients followed by ***, **, or * are statistically significant at the 1%, 5%, or 10% levels, respectively.

Table 17: **Response of inflation expectations to monetary surprises: calendar years, with time-fixed effects**

	One day after COPOM Meeting			
Dependent variable	$\Delta E_i\left[\pi^{1y}-\pi^T\right]$	$\Delta E_i\left[\pi^{2y}-\pi^T\right]$	$\Delta E_i\left[\pi^{3y}-\pi^T\right]$	$\Delta E_i\left[\pi^{4y}-\pi^T\right]$
Abrupt U-turn surprise	-0.939***	-0.997***	-0.753*	-0.656
	(0.222)	(0.336)	(0.448)	(0.559)
Other surprises$\times\mathbb{1}_t^{Unanch}$	0.00178	0.0348	0.126	0.00962
	(0.234)	(0.194)	(0.176)	(0.213)
Other surprises$\times\left(1-\mathbb{1}_t^{Unanch}\right)$	-0.0912	-0.1000	0.00468	0.0583
	(0.0877)	(0.0873)	(0.0739)	(0.148)
Constant	0.0240	0.0142	0.0138	0.00377
	(0.0537)	(0.0496)	(0.0498)	(0.0688)
Observations	562	510	474	333
Adjusted R-squared	0.204	0.151	0.00955	-0.127
Estimation method	Fixed effects	Fixed effects	Fixed effects	Fixed effects
Individual fixed effects	Yes	Yes	Yes	Yes
Time-fixed effects	Yes	Yes	Yes	Yes
	Two days after COPOM Meeting			
Dependent variable	$\Delta E_i\left[\pi^{1y}-\pi^T\right]$	$\Delta E_i\left[\pi^{2y}-\pi^T\right]$	$\Delta E_i\left[\pi^{3y}-\pi^T\right]$	$\Delta E_i\left[\pi^{4y}-\pi^T\right]$
Abrupt U-turn surprise	-0.912***	-1.036***	-0.959***	-0.994**
	(0.162)	(0.290)	(0.365)	(0.443)
Other surprises$\times\mathbb{1}_t^{Unanch}$	-0.109	-0.0646	0.000940	-0.0291
	(0.143)	(0.132)	(0.124)	(0.152)
Other surprises$\times\left(1-\mathbb{1}_t^{Unanch}\right)$	-0.118*	-0.0490	-0.0101	-0.0716
	(0.0635)	(0.0585)	(0.0528)	(0.0852)
Constant	0.00527	-0.101	-0.102	-0.140
	(0.0366)	(0.0924)	(0.106)	(0.143)
Observations	1,139	994	908	680
Adjusted R-squared	0.236	0.168	0.0757	0.0264
Estimation method	Fixed effects	Fixed effects	Fixed effects	Fixed effects
Individual fixed effects	Yes	Yes	Yes	Yes
Time-fixed effects	Yes	Yes	Yes	Yes

Note: Heteroskedasticity-robust standard errors are reported in parentheses. Coefficients followed by ***, **, or * are statistically significant at the 1%, 5%, or 10% levels, respectively.

Table 18: **Volatility of inflation expectations: calendar years**

Dependent variable	$\sigma_{iJ}\left(E\pi^{1y}-\pi^T\right)$	$\sigma_{iJ}\left(E\pi^{2y}-\pi^T\right)$	$\sigma_{iJ}\left(E\pi^{3y}-\pi^T\right)$	$\sigma_{iJ}\left(E\pi^{4y}-\pi^T\right)$
$\mathbb{1}_t^{Unanch}$	0.528***	0.445***	0.374***	0.354***
	(0.0184)	(0.0224)	(0.0207)	(0.0231)
$\left(1-\mathbb{1}_t^{Unanch}\right)$	0.333***	0.153***	0.161***	0.165***
	(0.0102)	(0.00848)	(0.00849)	(0.00972)
Observations	308	287	277	265
Adjusted R^2	0.866	0.765	0.743	0.689
p-value of H0: $\beta_{Unanch}=\beta_{Anch}$	0	0	0	0
Estimation	Pooled OLS	Pooled OLS	Pooled OLS	Pooled OLS

Note: Heteroskedasticity-robust standard errors are reported in parentheses. Coefficients followed by ***,**, or * are statistically significant at the 1%, 5%, or 10% levels, respectively.

Table 19: **Volatility of inflation expectations: fixed horions, with individual fixed effects**

Dependent variable	$\sigma_{iJ}\left(E\pi_{1-12}-\pi^T\right)$	$\sigma_{iJ}\left(E\pi_{12-24}-\pi^T\right)$	$\sigma_{iJ}\left(E\pi_{24-36}-\pi^T\right)$	$\sigma_{iJ}\left(E\pi_{36-48}-\pi^T\right)$
$\mathbb{1}_t^{Unanch}$	0.510***	0.420***	0.396***	0.364***
	(0.0164)	(0.0157)	(0.0180)	(0.0204)
$\left(1-\mathbb{1}_t^{Unanch}\right)$	0.434***	0.194***	0.139***	0.155***
	(0.0132)	(0.00642)	(0.00739)	(0.00842)
Observations	276	287	277	265
Adjusted R^2	0.243	0.479	0.519	0.382
p-value of H0: $\beta_{Unanch}=\beta_{Anch}$	0.001	0	0	0
Estimation method	Fixed effects	Fixed effects	Fixed effects	Fixed effects
Individual fixed effects	Yes	Yes	Yes	Yes
Time-fixed effects	No	No	No	No

Note: Heteroskedasticity-robust standard errors are reported in parentheses. Coefficients followed by ***,**, or * are statistically significant at the 1%, 5%, or 10% levels, respectively.

Table 20: **Volatility of inflation expectations: calendar years, with individual fixed effects**

Dependent variable	$\sigma_{iJ}\left(E\pi^{1y}-\pi^T\right)$	$\sigma_{iJ}\left(E\pi^{2y}-\pi^T\right)$	$\sigma_{iJ}\left(E\pi^{3y}-\pi^T\right)$	$\sigma_{iJ}\left(E\pi^{4y}-\pi^T\right)$
$\mathbb{1}_t^{Unanch}$	0.510***	0.442***	0.375***	0.354***
	(0.0154)	(0.0186)	(0.0175)	(0.0202)
$\left(1-\mathbb{1}_t^{Unanch}\right)$	0.342***	0.155***	0.160***	0.165***
	(0.00613)	(0.00753)	(0.00698)	(0.00828)
Observations	308	287	277	265
Adjusted R^2	0.300	0.546	0.449	0.334
p-value of H0: $\beta_{Unanch}=\beta_{Anch}$	0	0	0	0
Estimation method	Fixed effects	Fixed effects	Fixed effects	Fixed effects
Individual fixed effects	Yes	Yes	Yes	Yes
Time-fixed effects	No	No	No	No

Note: Heteroskedasticity-robust standard errors are reported in parentheses. Coefficients followed by ***,**, or * are statistically significant at the 1%, 5%, or 10% levels, respectively.

Table 21: **Volatility of inflation expectations: pooling anchored periods**

Dependent variable	$\sigma_{iJ}\left(E\pi_{1-12}-\pi^T\right)$	$\sigma_{iJ}\left(E\pi_{12-24}-\pi^T\right)$	$\sigma_{iJ}\left(E\pi_{24-36}-\pi^T\right)$	$\sigma_{iJ}\left(E\pi_{36-48}-\pi^T\right)$
$\mathbb{1}_t^{Unanch}$	0.533***	0.429***	0.398***	0.363***
	(0.019)	(0.019)	(0.023)	(0.024)
$\left(1-\mathbb{1}_t^{Unanch}\right)$	0.469***	0.215***	0.157***	0.181***
	(0.017)	(0.011)	(0.009)	(0.011)
Observations	217	223	218	211
Adjusted R^2	0.873	0.822	0.757	0.714
p-value of H0: $\beta_{Unanch}=\beta_{Anch}$	0.015	0	0	0
Estimation	Pooled OLS	Pooled OLS	Pooled OLS	Pooled OLS

Note: Heteroskedasticity-robust standard errors are reported in parentheses. Coefficients followed by ***,**, or * are statistically significant at the 1%, 5%, or 10% levels, respectively.

Table 22: **Volatility of inflation expectations: calendar years, pooling anchored periods**

Dependent variable	$\sigma_{iJ}\left(E\pi^{1y}-\pi^{T}\right)$	$\sigma_{iJ}\left(E\pi^{2y}-\pi^{T}\right)$	$\sigma_{iJ}\left(E\pi^{3y}-\pi^{T}\right)$	$\sigma_{iJ}\left(E\pi^{4y}-\pi^{T}\right)$
$\mathbb{1}_t^{Unanch}$	0.528***	0.445***	0.374***	0.354***
	(0.018)	(0.022)	(0.021)	(0.023)
$\left(1-\mathbb{1}_t^{Unanch}\right)$	0.369***	0.172***	0.187***	0.194***
	(0.013)	(0.010)	(0.010)	(0.012)
Observations	238	223	218	211
Adjusted R^2	0.874	0.789	0.771	0.715
p-value of H0: $\beta_{Unanch}=\beta_{Anch}$	0	0	0	0
Estimation	Pooled OLS	Pooled OLS	Pooled OLS	Pooled OLS

Note: Heteroskedasticity-robust standard errors are reported in parentheses. Coefficients followed by ***,**, or * are statistically significant at the 1%, 5%, or 10% levels, respectively.

Table 23: **Volatility of inflation expectations: pooling anchored periods, with individual fixed effects**

Dependent variable	$\sigma_{iJ}\left(E\pi_{1-12}-\pi^{T}\right)$	$\sigma_{iJ}\left(E\pi_{12-24}-\pi^{T}\right)$	$\sigma_{iJ}\left(E\pi_{24-36}-\pi^{T}\right)$	$\sigma_{iJ}\left(E\pi_{36-48}-\pi^{T}\right)$
$\mathbb{1}_t^{Unanch}$	0.494***	0.409***	0.385***	0.350***
	(0.0195)	(0.0166)	(0.0191)	(0.0206)
$\left(1-\mathbb{1}_t^{Unanch}\right)$	0.497***	0.229***	0.167***	0.190***
	(0.0159)	(0.0140)	(0.0159)	(0.0173)
Observations	217	223	218	211
Adjusted R^2	0.274	0.376	0.339	0.218
p-value of H0: $\beta_{Unanch}=\beta_{Anch}$	0.910	0	0	0
Estimation method	Fixed effects	Fixed effects	Fixed effects	Fixed effects
Individual fixed effects	Yes	Yes	Yes	Yes
Time-fixed effects	No	No	No	No

Note: Heteroskedasticity-robust standard errors are reported in parentheses. Coefficients followed by ***,**, or * are statistically significant at the 1%, 5%, or 10% levels, respectively.

Table 24: **Volatility of inflation expectations: pooling anchored periods, calendar years, with individual fixed effects**

Dependent variable	$\sigma_{iJ}\left(E\pi^{1y}-\pi^{T}\right)$	$\sigma_{iJ}\left(E\pi^{2y}-\pi^{T}\right)$	$\sigma_{iJ}\left(E\pi^{3y}-\pi^{T}\right)$	$\sigma_{iJ}\left(E\pi^{4y}-\pi^{T}\right)$
$\mathbb{1}_t^{Unanch}$	0.497***	0.430***	0.362***	0.339***
	(0.0162)	(0.0184)	(0.0167)	(0.0200)
$\left(1-\mathbb{1}_t^{Unanch}\right)$	0.391***	0.183***	0.195***	0.205***
	(0.0134)	(0.0154)	(0.0139)	(0.0167)
Observations	238	223	218	211
Adjusted R^2	0.386	0.432	0.366	0.229
p-value of H0: $\beta_{Unanch}=\beta_{Anch}$	0	0	0	0
Estimation method	Fixed effects	Fixed effects	Fixed effects	Fixed effects
Individual fixed effects	Yes	Yes	Yes	Yes
Time-fixed effects	No	No	No	No

Note: Heteroskedasticity-robust standard errors are reported in parentheses. Coefficients followed by ***,**, or * are statistically significant at the 1%, 5%, or 10% levels, respectively.

Table 25: **Duration of inflation expectations across regimes: calendar years**

	Duration of forecast spells (days)			
Dependent variable	$E\left(\pi^{1y}\right)$	$E\left(\pi^{2y}\right)$	$E\left(\pi^{3y}\right)$	$E\left(\pi^{4y}\right)$
$\mathbb{1}_t^{Unanch}$	34.10***	70.47***	95.20***	91.80***
	(0.579)	(2.212)	(3.456)	(3.075)
$\left(1-\mathbb{1}_t^{Unanch}\right)$	36.69***	89.84***	113.0***	99.93***
	(0.568)	(2.547)	(3.590)	(2.546)
Observations	8,640	3,175	2,143	1,848
Adjusted R^2	0.111	0.148	0.158	0.131
p-value of H0: $\beta_{Unanch} = \beta_{Anch}$	0.002	0	0.001	0.055
Estimation method	Fixed effects	Fixed effects	Fixed effects	Fixed effects
Individual fixed effects	Yes	Yes	Yes	Yes
Time-fixed effects	No	No	No	No

Note: Heteroskedasticity-robust standard errors are reported in parentheses. Coefficients followed by ***,**, or * are statistically significant at the 1%, 5%, or 10% levels, respectively.

C Global factors and fiscal policy concerns

We investigate whether global factors or fiscal policy concerns may have caused the unanchoring. Given our high-frequency identification, this requires the coincidence that they move on the day of, or on the day immediately after the abrupt U-turn policy meeting – and that the move be substantial. We show this is not the case.

Most currencies vary against the dollar in response to shifts in global developments and can thus be a useful measure of such conditions. We construct an equally weighted basket of emerging market currencies as a proxy for global factors. The basket does not include the Brazilian currency, as it is affected by BCB decisions.

We define the daily change in the equally-weighted currency basket as:

$$\Delta S_t = \frac{\left(\sum_{k=1}^{8} \Delta s_{kt}\right)}{8}, \tag{15}$$

where s_{kt} is the log-change of emerging market currency k between days $t-1$ and t, and the 8 countries are Colombia, Mexico, Peru, Chile, Russia, China, India, and South Africa. We then compound the daily changes to obtain the time series of (the level of) our currency basket, which is depicted in Figure 12.

Figure 12, panel (a) shows how the currency basket evolved during our sample period. Panel (b) zooms in around the abrupt U-turn policy meeting while keeping the same vertical scale. It becomes clear there were no major developments around the abrupt U-turn meeting.

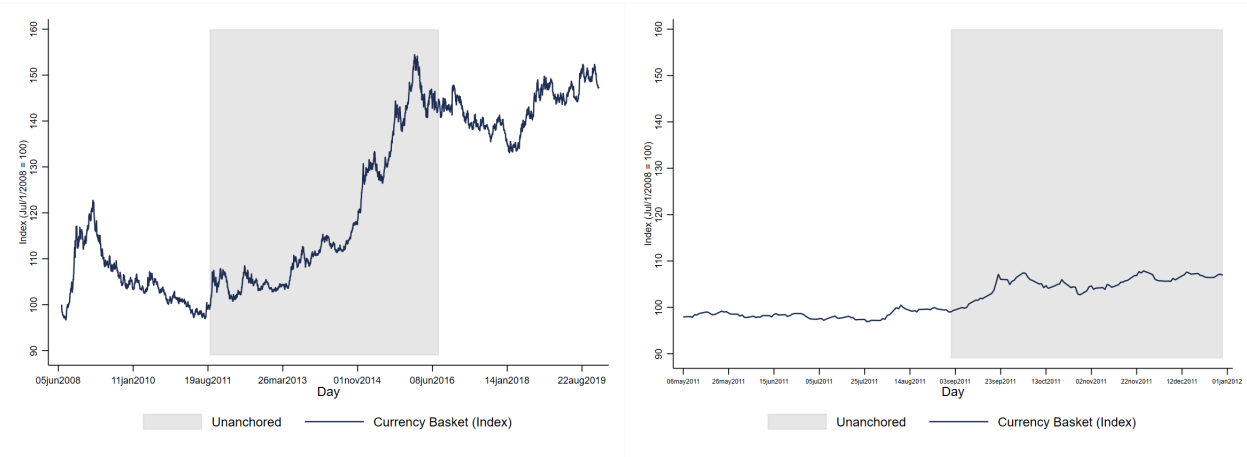
We now turn to fiscal policy, exploiting forecasts for the government's primary surplus, from the Focus survey. Figure 13 shows the time series of the cross-sectional mean of expectations for the primary surplus for the subsequent and for the second calendar year ahead during our sample period. Note that forecasters expected sizable fiscal *surpluses* for a good part of our sample. Panel (b) zooms in around the abrupt U-turn policy meeting while keeping the same vertical scale. It becomes clear agents' expectations of fiscal developments barely moved around the U-turn episode. As mentioned in Section 2.3, fiscal policy only became a concern later in President Dilma Rousseff's first mandate.

Further evidence supporting our claim that global and fiscal factors were not the drivers of unanchoring is provided in Figure 14. We present scatter plots of changes in individual inflation forecasts for the 36-48 month horizon against interest rate surprises, changes in the currency basket, and changes in mean expectations of the

Figure 12: **Basket of emerging market currencies**

(a) Basket of emerging market currencies

(b) Zooming in

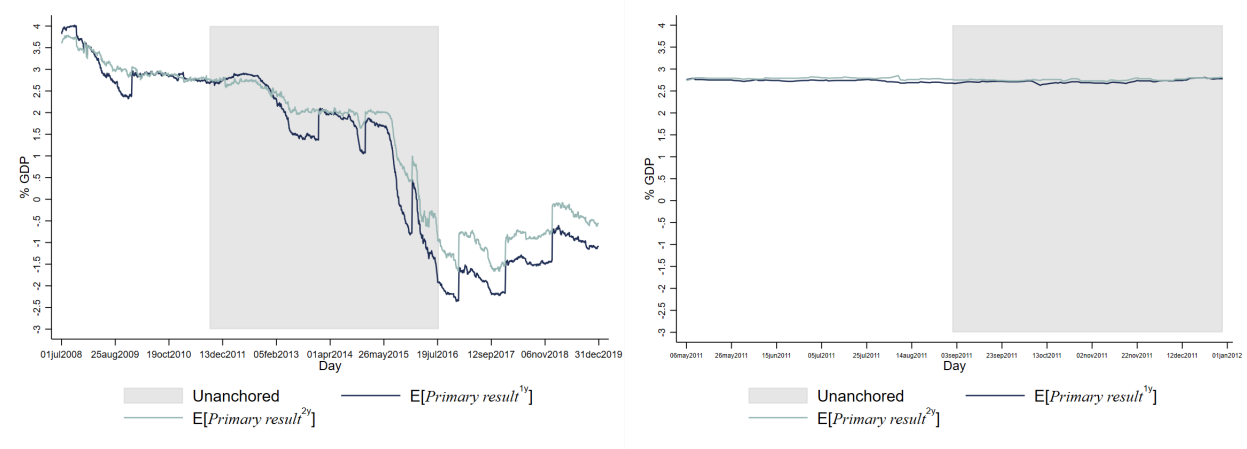


Note: Panel (a) shows the evolution of the equally-weighted basket of emerging market currencies (solid line). Panel (b) zooms in around the abrupt U-turn episode. Shaded region indicates unanchored regime.

Figure 13: **Expectations of primary result**

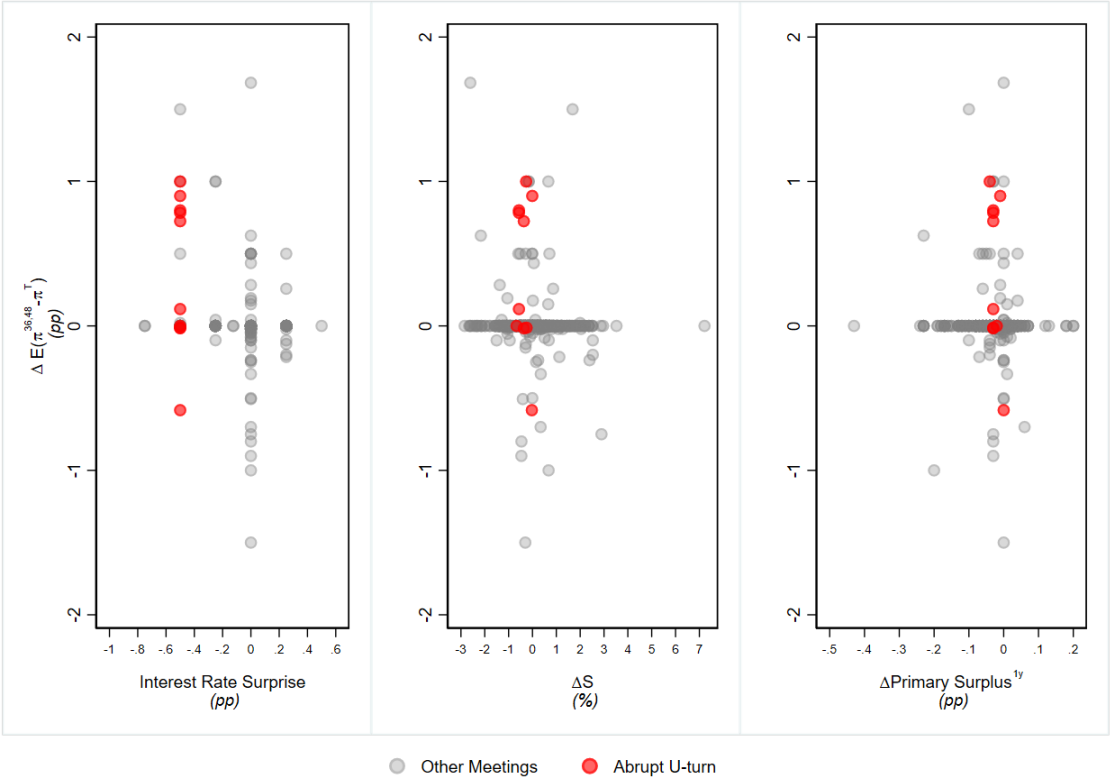
(a) Cross-sectional mean expectations of primary surplus

(b) Zooming in



Note: Panel (a) shows mean expectation for primary result in subsequent calendar year (solid dark line) and for second calendar year ahead (teal line). Panel (b) zooms in around the abrupt U-turn episode. Shaded region indicates unanchored regime.

Figure 14: **Two-day changes in inflation expectations around monetary policy meetings**



Note: Changes in inflation expectations around monetary policy meeting plotted against: i) interest rate surprises; ii) changes in the currency basket; iii) changes in primary surplus expectations for the first calendar year ahead. Dark (red) dots correspond to the abrupt U-turn meeting (August 31, 2011). Light (grey) dots correspond to all other meetings in our sample.

primary surplus for the subsequent calendar year, all taken around monetary policy meetings. Changes in inflation expectations around each policy meeting are calculated as in Section 3.5: forecasts posted or confirmed up to two days after a COPOM meeting minus the most recent forecast posted or confirmed prior to that meeting. For each such spell, we compute changes in the currency basket and in the mean forecast for primary surplus by taking analogous differences using those exact same days. Observations associated with the abrupt U-turn meeting are displayed as dark (red) dots, whereas observations for all other meetings are displayed as light (grey) dots.

The left panel in Figure 14 shows the rise in inflation expectations following the abrupt U-turn meeting, associated with an out-sized interest rate surprise of -0.5pp. In contrast, the middle and right panels show there were minimal movements in the currency basket and in the mean expectation of primary surpluses during the spells between individual inflation forecast updates. In visual terms, in the middle and right panels, the dark (red) dots corresponding to the abrupt U-turn meeting are horizontally concentrated around zero change in the currency basket and zero change in the mean expectation for primary surpluses.

D Anecdotal evidence from newspaper articles - English

This section provides translations of (and links to) newspaper articles mentioned in the paper. Translations used Google Translate and Bard language model from Google AI. The original articles are in Portuguese and can be accessed through the hyperlinks in the titles. They are also included at the end of the Appendix.

"For Loyola, BCB credibility is in check".[41]

According to the former president of the BCB, the "big question" now is whether the institution has monetary autonomy

The former president of the Central Bank (BCB), Gustavo Loyola, stated this Thursday, 1st, that the decision by the Monetary Policy Committee (COPOM) yesterday to reduce the economy's basic interest rate from 12.50% per year to 12% a year was "mistaken" and showed a certain recklessness on the part of the BCB board. "The big question today is whether the Central Bank has autonomy in monetary policy," he commented, referring to the COPOM's possible capitulation to political pressure coming from the Planalto Palace and the Ministry of Finance so that a reduction cycle of the Selic could be started immediately. "The BCB's credibility is in check," he said. For Loyola, the pure inflation targeting system, which pursues a central objective, is apparently shaken. "Nobody knows what the inflation target is anymore, whether it is 4.5% or more," he said. "It only exists on paper." According to him, Tendências Consultoria Integrada, of which he is a partner, predicts that the Broad Consumer Price Index (IPCA) will reach 6.6% this year and 5.4% in 2012, but with the unexpected reduction in interest rates, he believes that the rate will certainly rise. "Inflation could now reach 6% in 2012", he said. For Loyola, the president of the BCB, Alexandre Tombini, certainly has a privileged view of the international crisis scenario, mainly because he participated in the meeting of BCB presidents held last week in Jackson Hole, USA. However, he considered that it would be more appropriate for the Brazilian monetary authority to have used communication mechanisms to inform economic agents that a global recession is inevitable in the short term and this will generate disinflationary effects at a global level, which would be incorporated in Brazil soon."The BCB was not convinced. There is no evidence that the world will enter a recession so quickly. Furthermore, inflation is above the target, and expectations for next year indicate that it is also far from 4.5%", said Loyola. According to the Focus survey, the median forecast for the Broad Consumer Price Index (IPCA) in 2012 was 5.3% a month ago and is now 5.2%. According to Loyola, it would be more opportune for the BCB to keep interest rates stable at the meeting that ended yesterday and prepare the market over the next six weeks to eventually reduce the Selic with greater certainty in October."The BCB's decision was hasty. The BCB's decision was hasty. Many people may, from now on, be left with the assessment that non-objective and technical factors, or hidden forces, influenced the fall in interest rates," he said.

"The inflation target was abandoned, says former BCB Chair consulting firm".[42]

For ACPastore & Associados, the new objective of monetary policy is to stimulate GDP growth

In a report sent to clients this Thursday, September 1, consultancy ACPastore & Associados, directed by former BCB president Affonso Celso Pastore, decrees: "The inflation target has been abandoned, and the new objective of monetary policy is to stimulate the growth of GDP." The text has the self-explanatory title "Inflation Targets: Recquiescat in Pacem," which in a free translation from Latin means "Rest in Peace." According to

[41] Source: https://economia.estadao.com.br/noticias/negocios,para-loyola-credibilidade-do-banco-central-esta-em-xeque.
[42] Source: https://economia.estadao.com.br/noticias/negocios,meta-da-inflacao-foi-abandonada-diz-consultoria-de-ex-bc.

the report, the degree of independence of the BCB has been discussed for some time. The text highlights that, although there is no legal autonomy, given that its directors do not have a mandate with fixed terms - they are "dismissible ad nutum" - since the creation of the inflation targeting regime, the Central Bank has been, in fact, independent. "With yesterday's decision, the Central Bank showed a surprising degree of docility," highlights the consultancy's statement. "The world will not end. However, inflation in Brazil will be persistently higher", says the text. According to the AC Pastore e Associados document, "the specter of a (global) contraction similar to that which occurred in 2008 was used to justify the decision to "timely mitigate" the effects of this international crisis". Economists point out that the probability of "a tail event" occurring, capable of causing effects similar to those of the crisis recorded three years ago, is not zero. "But this catastrophe has not yet occurred, which does not justify reacting prematurely," highlights the statement. According to the text, with the current rate of slowdown in Brazil's economy, inflation would tend to fall, "but it would be well above the target of 4.5% at the end of 2012". In line with the special report, President Dilma Rousseff's government assesses that the slowdown in the activity level "is not acceptable", as it "wants growth above 4.5% per year, although it does not know exactly how to achieve this goal". The document points out that "in recent weeks pressure has grown for the Central Bank to immediately begin a cycle of reducing the Selic rate." The consultancy pointed out that in recent days, the government "rehearsed" fiscal policy announcements and the Central Bank appeared "concerned" with the developments of the international crisis. These steps began when the government announced an increase of R$10 billion in this year's primary surplus, from R$117.89 billion to R$127.89 billion. The text highlighted that these extra savings arose from non-recurring revenue and that the Executive Branch, with this, mentioned that it would be creating the conditions for reducing the interest rate, as expressed on Monday by the Minister of Finance, Guido Mantega. "But soon after, the government stumbled on its promise by announcing the proposal for a Budget Guidelines Law in which, in fact, it increases expenses in proportion to GDP, emphasizing that it will keep its entire investment program intact," points out the text. According to the text, this official statement was made based on a revenue projection that assumes the hypothesis of GDP growth of 5% in 2012. The consultancy's special report points out that the steps rehearsed by the BCB in this kind of duet with the Treasury began with an "extremely pessimistic" analysis of the developments of the external crisis on the Brazilian economy. "For some time now, monetary authorities have been justifying their reluctance to raise the Selic rate at a faster rate, even in the face of growing inflation, by stating that the slowdown in the international economy would be much greater." In the same way as in 2008, the consultancy points out, there would be a greater slowdown in Brazil through various transmission channels, such as "the reduction in the flow of trade, moderation in the flow of investments, more restrictive credit conditions and worsening consumer sentiment and entrepreneurs," says the text, citing an excerpt from the statement released yesterday by the BCB after the announcement of the drop in interest rates from 12.50% to 12%. However, the consultancy points out that this "catastrophe" has not yet occurred and, therefore, there is no reason for COPOM to act so early.

"BCB will have problems with inflation expectations, says Schwartsman".[43]

Former director of the Central Bank thinks that the COPOM's decision to reduce interest rates by 0.5 percentage points was "wrong" and should increase future interest curves; "credibility was damaged'

Former director of the Central Bank Alexandre Schwartsman stated this Thursday, 1st, that the decision

[43]Source: https://economia.estadao.com.br/noticias/negocios,bc-tera-problemas-com-expectativas-da-inflacao-diz-schwartsman,82505e.

taken yesterday by the Monetary Policy Committee (COPOM) to reduce interest rates by 0.5 percentage points was "wrong" and should cause the future interest rate curve becomes "steep" in the coming days. "Credibility has been scratched," he commented. "The BCB will have problems coordinating inflation expectations from now on," he said, highlighting the short-term. "Just by praying, I give it to God," he said.

This Thursday, the former president of the Central Bank, Carlos Langoni, called the Central Bank COPOM's decision a "bold" one. Another former institution president, Gustavo Loyola, said the decision was "wrong" and showed a certain recklessness on the part of the BCB collegiate. The two economists share Schwartsman's opinion that the BCB's credibility is now at stake.

"There is a risk of the IPCA exceeding the 6.5% ceiling this year," he stated. According to Schwartsman, economic agents' projections for the inflation rate should certainly rise in the coming days. Before the BCB meeting that ended yesterday, it calculated that the IPCA would rise 5.3% in 2012, with the interest rate between 12.50% and 12.75% by the end of next year. Nevertheless, now, with this "monetary impulse" that could be below two percentage points, he estimates that the index should be between 5.5% and 6% next year.

According to Schwartsman, the drop in interest rates adopted by the BCB is based on a scenario of external "collapse," with a global recession stronger or greater than that recorded in 2008. In his assessment, there is no objective evidence of economic data that indicates that the global economy will enter such a vigorous period of contraction in the short term. He made an allusion that the Central Bank is acting like a casino gambler who bets on the black number when there are two options, that one and the red number. "If it comes out black, that is fine. However, if it comes out red, things will get ugly," he said. For the former director of the Central Bank, it is increasingly clear that the BCB "wants to maintain growth more than inflation on target." According to him, this does not mean that the target system has been abandoned, but there is a clear perception that the monetary authority is very attentive to the performance of the activity level. Authorities from the Ministry of Finance, such as Minister Guido Mantega and Secretary of Economic Policy Márcio Holland, defend controlling inflation within the target but always highlight that growth from this year until 2014 is fully capable of reaching an average level of at least 4%. Schwartsman was curious to see the details of the reference scenario for the IPCA in 2012 in the next inflation report, which should be published by September 30. In the previous document, published in June, the BCB projected a rate of 4.8% for the fourth quarter of next year, with interest at 12.25% per year. In Schwartsman's assessment, another notable factor was that the BCB "bought" before seeing the more substantial fiscal tightening announced by the Executive Branch. "An additional saving of R$10 billion was announced for this year, but only from extraordinary revenues did the government collect R$ 14 billion. What adjustment is this?" he asked. According to him, there are no apparent signs of how the federal authorities will find ways to face fiscal challenges for 2012, such as the increase in the minimum wage to R$ 619.21, which should impact the Treasury accounts of R$21.5 billion.

Newspaper editorial: "BCB under political pressure".[44]

Under strong pressure to lower interest rates, the Monetary Policy Committee (COPOM) will announce early this evening whether it is ready to ease anti-inflationary policy and, if the response is positive, whether it remains committed to driving inflation to the target of 4.5% by the end of 2012. Prices rose again after a decline in the middle of the year. Furthermore, the accumulated increase in 12 months remains well above the official target and outside the tolerance margin. That is the technical aspect of the problem. If interest rates fall prematurely, correcting the error could be very costly. However, there is also a political aspect. Given the evident pressure from

[44]Source: https://opiniao.estadao.com.br/noticias/geral,bc-sob-pressao-politica-imp-,766365.

the Executive, doubts about who is in charge of the Central Bank (BCB) are inevitable: Is there anything left, after all, of the autonomy exercised until 2010? Both issues are delicate and become especially important at this time. There are severe uncertainties on the economic front because of stagnation and fiscal problems in the United States, Europe, and Japan. If the American central bank throws more dollars into the market, there could be more speculation in the commodities market and new price increases, at least as long as Chinese demand remains strong. It is difficult, at this moment, to assess with any certainty the upcoming impacts of the international crisis on the Brazilian economy. There are also internal factors of insecurity, both economic and political. Despite the announced intention to save an additional R$10 billion this year, the Executive remains subject to pressure from a spending Congress and will be in a more vulnerable position in 2012 due to the municipal elections. The Minister of Finance, Guido Mantega, has drawn attention to signs of cooling in the Brazilian economy. According to him, they are proof of the correctness of the official policy. With the reduction in growth to a level between 4% and 4.5% this year, inflation risk decreases, and conditions are created for a fall in interest rates. The picture is completed with the plan to contain the increase in spending. However, the economic scenario is more complex and less reassuring than the minister indicates. Industrial production has lost momentum, although it continues to expand. In July, the Activity Level Indicator (INA) of the Sao Paulo industry was 0.3%, higher than in June, discounting seasonal factors. It was the slightest variation for July since 2006, as noted by the director of the Economics Department of the Federation of Industries of the State of Sao Paulo, Paulo Francini. Nevertheless, it would also be necessary to emphasize another fact: the occupancy of installed capacity rose from 82.2% to 82.7% and remained high. Furthermore, domestic demand remains strong, and consumption indicators remain very good. In the first half of the year, retail sales were 9.2% higher than a year earlier. Purchasing power has been supported by both credit and wage increases. More than 80% of the agreements concluded by unions in the first half of the year provided adjustments above inflation. Until last month, loans continued to expand, albeit at a more moderate pace. One cannot correctly assess the evolution of the national economy without taking this contrast into account: demand remains vigorous while industrial production loses momentum. Domestic demand will also be fueled by the expansion of public spending this year and next because the government's intention, according to the Minister of Finance, is only to limit the increase in funding without preventing, however, the expansion of total spending. The brief mid-year deflation is over. The General Market Price Index (IGP-M) rose 0.44% in August, driven, again, by wholesale prices. Raw raw material prices increased by 1.51%. The IGP-M, with an increase of 8% in 12 months, may affect rents and other indexed prices. The IPCA-15, the version of the official index measured between July 14 and August 12, rose 0.27%, double the previous month's rate. The accumulated result in 12 months reached 7.1%, well above the tolerance limit of 6.5%. Is it time to ease interest rate policy?

Newspaper editorial: "BCB caves in to pressure".[45]

With the interest rate cut announced this Wednesday, the directors of the Central Bank (BCB) erased the institution's image of autonomy, which had already been very blurred in the last eight months. They would leave at least a reasonable doubt in their favor if they pushed the decision to October 18th and 19th, the dates scheduled for the next meeting of the Monetary Policy Committee (COPOM). By then, they would have much more precise information about the evolution of the international crisis, the cooling of the Brazilian economy, and the trend of internal inflation. There are plenty of reasons, at this point, to consider the relaxation of anti-inflationary policy to be hasty. However, the most serious fact is the loss of credibility of the BCB president, Alexandre Tombini,

[45]Source: https://opiniao.estadao.com.br/noticias/geral,o-bc-cede-a-pressao-imp-,767330.

and, in general, of the institution itself. Forming expectations is one of the most important functions of the monetary authority. No one can exercise it satisfactorily when the audience's trust is lost. If a senior official accepts a demotion in status, in whose name will he be addressing his audience? If a senior official accepts a demotion, who will he address? The interest rate cut from 12.5% to 12% was surprising. The reduction was broad and came before the moment considered propitious by renowned economists. At least some effort was expected to maintain appearances after explicit pressure from the President of the Republic and several ministers. The decision particularly surprised those who still expected a minimum of prudence. Inflation rose again after a brief respite in the middle of the year. The IPC-S, a consumer price index updated weekly by Fundação Getúlio Vargas, rose 0.4% in August and 4.17% in the year. The accumulated result in 12 months reached 7.1%, an index equal to that calculated for the IPCA-15 by the Brazilian Institute of Geography and Statistics (IBGE). Last week, economists from the financial market and independent consultancies still projected an increase of 6.31% in 2011 for the IPCA, the official indicator. For 2012, the estimate was 5.2%. These calculations essentially confirm the trend pointed out by COPOM itself in the minutes of its last meeting in July: inflation at target, probably only in the first half of 2013. Interest rates of 12.5% and an exchange rate of R$ 1.60 per dollar were referenced for this projection. Would the BCB have renounced the task of taking inflation to the center of the target even in 2013? This question is justifiable for more than one reason. The first is the evolution of the indices themselves. Another critical factor is the internal economic situation. Industrial production has lost momentum, but demand remains vigorous, supported by rising real wages and credit that is still expanding, albeit at a decreasing pace. This semester's salary agreements and the increase in the minimum wage - 13.6%, according to the budget proposal - should keep consumers excited for a long time. The COPOM issued a much longer note than the previous ones to explain its decision. The text highlights concerns about the worsening of the international situation and points to the possible deflationary effect of a new economic downturn. This trend, however, is not yet visible in the markets. There is only a brief reference to "moderation of domestic activity." But, the most notable detail is the line about "reviewing the outlook for fiscal policy," a profession of faith in the government's austerity promise. On the same day, however, the Executive presented the 2012 budget proposal - an expansionist project with an estimated economic growth of 5% and a projected primary surplus lower than this year's. The Gross Domestic Product (GDP) for the second quarter should be released today. It will come with signs of containment in industrial activity, explained in part by the appreciation of the exchange rate and the increase in imports. Nevertheless, demand, as seen daily, remains firm and affects prices. By bending the back of the BCB, President Dilma Rousseff rejected one of the few blessed legacies of the Lula era - the de facto autonomy of the monetary authority, which the former president made a point of giving prestige even on the eve of important elections for his projects to keep the PT in power.

"Former BCB board members approve the idea of a longer period to meet the 4.5% target".[46]

Financial market economists consider the idea of extending the deadline for meeting the inflation target by the Central Bank, defended by former BCB president Armínio Fraga, to be positive. For the analysts consulted, many of whom had served on the monetary authority's board of directors, this would be a way of reinforcing credibility in the inflation targeting system, by offering the market a more realistic scenario. What still raises doubts is the appropriate time to make this change and also whether the measure should precede a reduction in the inflation target later on.

[46]Source: https://valor.globo.com/financas/noticia/2016/06/13/ex-bcs-aprovam-ideia-de-mais-prazo-para-cumprir-meta-de-45.ghtml.

For the head of the Center for Monetary Studies at the Brazilian Institute of Economics at Fundação Getulio Vargas (Ibre-FGV), José Júlio Senna, meeting the inflation target is the BCB's main objective, but not at any cost. That is why the philosophy practiced around the world is the regime of flexible goals, as there are times when the activity is in such a bad state that it is not justified to maintain the goal within a certain time. So, in the name of transparency, an adjustment to the target is promoted.

According to Senna, what the different models point out is that in order to try to reach the target of 4.5% in 2017, the Selic rate would have to be maintained at the current 14.25% for a long period of time or even increased, which would impose an excessive burden on economic activity and society. That is why the regime allows this flexibility.

"Being flexible is exactly taking into account what is happening in the real world. Average unemployment for the year will be 12%, GDP per capita will fall by 10% in two years. If this is not a situation that justifies privileging any activity, another will be", he says.

For the former director of monetary policy at the BCB and partner at Mauá Capital, Luiz Fernando Figueiredo, it is necessary to work with more realistic goals, exactly like what was done with fiscal, so that confidence can be restored. Therefore, he considers that "it makes perfect sense" to assume that inflation should be close to 5% or 5.5% in 2017 and indicate that it will reach 4.5% the following year.

"The economy is so bad, falling 6% at the margin, that it would be necessary to impose a very large sacrifice for this disinflation to occur in a shorter period of time", he says. Communication of this change must occur soon, argues Figueiredo. "It could be at the next COPOM meeting, through an interview and communication with market agents." But, in his opinion, the ideal is for the National Monetary Council (CMN) to maintain the target of 4.5% for both 2017 and 2018, with the narrowest tolerance range, of one percentage point up or down. The CMN meets at the end of the month to confirm the 2017 target and define the 2018 target.

The former director of economic policy at the BCB and current advisor to the presidency of Fundação Getulio Vargas, Sérgio Werlang, says that the definition of an adjusted target for 2016 and 2017 is appropriate, in line with what was already done in 2003. At the time, the then president of the BCB, Henrique Meirelles, set a higher target, of 8.5% for that year and 5.5% for the following, in order to accommodate pressures coming from administered prices. "It was a successful experiment, which could be repeated now."

What should not happen, he assesses, is that this adjustment in the target is followed by a reduction in targets for the following years. "We know that inflation helps solve fiscal problems, since some costs are fixed in nominal terms", he says, citing the example of salaries.

For the former director of monetary policy at the BCB and current chief economist at the National Trade Confederation (CNC), Thadeu de Freitas, there is no point in the BCB working with a "romantic" inflation target, inconsistent with current fiscal expansionism, weakening the power of monetary policy. Therefore, it would be better to set a target higher than the current one for 2017, so as to be better able to meet the target of 4.5% in 2018. "The BCB has to be realistic. There is no point in thinking that it will reach the center of goal when the rest are not allowing it", he says.

MCM economist Mauro Schneider says that an adjustment to the deadline for target convergence would not damage the BCB's credibility. But, he says, the time is not yet right for this change. A more attractive opportunity, he claims, could be the end of this year, when it will be possible to assess the evolution of fiscal efforts to correct public accounts.

"For a change [de goal] not to cause noise, it is necessary to have more conviction that the entire economic policy mix is better tied, more consistent, with advances in medium and long-term fiscal policy and also in the

credit policy of the public banks", he states.

Former BCB president Gustavo Loyola also believes that the country needs to have more "definitions", especially regarding the perspective for fiscal policy, so that an adjusted target can be defined. "I would proceed with great caution in this discussion. There is no point in making a very tight commitment, generating expectations and then frustrating them", he says. Initially, the BCB could work with an adjusted target for next year. However, this adjusted target needs to send a message that the effort throughout this year to bring inflation to the target within the stipulated period will continue to be made.

"Inflation target of 4.5% for 2017 is ambitious and credible, says BCB president".[47]

Goldfajn ruled out the possibility of the BCB having to "work alone" to combat inflation and that the entire team is working to get the economy out of recession

BRASILIA - In his first press conference, the Central Bank (BCB) president, Ilan Goldfajn, ruled out any possibility of the institution adopting an adjustment to next year's inflation target. He repeated excerpts from his inauguration speech to clarify that he had not considered this possibility and emphasized that the BCB's objective is to reach the center of the 4.5% inflation target in 2017. According to the president, the center of goal in 2017 is "ambitious and credible at the same time".

Goldfajn emphasized that the target is ambitious because the country is experiencing inflation of almost 11% in 2015, more than double the target. "We can reach the center of the target in 2017, in 18 months", he guaranteed. He said there was much talk in the last few days about adjusted goals. "We have adopted them in the past, and they have been useful in providing transparency, as well as helping to anchor expectations, but this does not appear to be the case at the moment," he said.

The president said that the BCB's expectations for inflation are around the target in 2017. He considered that some analysts believe it could be slightly above that. "Even in this case, the magnitude of the deviation does not need to adjust the target. To be clear: the 4.5% target in 2017 is our objective."

He ruled out the possibility of the institution having to "work alone", as a journalist asked, to combat high inflation. "I do not believe it (that the BCB will be alone again). There is coherence in the economic team, everyone is working to recover confidence so the economy can come out of recession. Everyone is working in the same direction," he said.

The BCB president said that there is a change underway. "If you look at the perception of the indicators and the market, this is already built in. It is clear that better expectations are going forward", he compared.

According to Goldfajn, it is essential to change society's perception of tax accounts and the situation of the economy. "In the case of the BCB, it means that, if this changes, if it removes the uncertainty, the risk, this will reduce inflation projections and will lead to lower costs and faster disinflation", he considered.

External scenery. Goldfajn once again said he believes the global scenario is challenging, as described in the Quarterly Inflation Report (RTI). He especially cited the United Kingdom's decision to leave the European Union after a referendum last Friday, in the so-called "Brexit". "I believe the global scenario is challenging. We will face volatility and shocks over the next few years," he said.

According to him, Brexit will have implications for the global economy, mainly for trade and growth in activity in the world, with repercussions in Brazil. "The consequences for the future have not yet been completely mapped, which produces uncertainties for the future that we will have to live with. We know that it is an impact that

[47] Source: https://www.estadao.com.br/economia/presidente-do-bc-descarta-meta-ajustada.

should somehow reduce global growth and should influence growth in Brazil, but we do not know the magnitude," he added.

Goldfajn reinforced that, if necessary, the BCB will adopt appropriate measures for the proper functioning of the country's financial market. He recalled that Brazil has the conditions to face this volatility, such as the balance of international reserves, the floating exchange rate regime, and a solid financial system position with low international exposure. "I believe that the short-term impact (of Brexit) is being contained; we will see medium and long-term impacts in the world and Brazil," he concluded.

E Anecdotal evidence from newspaper articles - in Portuguese

"Para Loyola, credibilidade do Banco Central está em xeque".[48]

Segundo o ex-presidente do BC, a "grande dúvida" agora é saber se a instituição tem autonomia monetária

O ex-presidente do Banco Central (BC) Gustavo Loyola afirmou nesta quinta-feira, 1º, que a decisão do Comitê de Política Monetária (COPOM) de ontem de reduzir o juro básico da economia de 12,50% ao ano para 12% ao ano foi "equivocada" e mostrou certa imprudência do colegiado do BC. "A grande dúvida hoje é saber se o Banco Central tem autonomia na política monetária", comentou, referindo-se a eventual capitulação do COPOM a pressões políticas vindas do Palácio do Planalto e do Ministério da Fazenda para que fosse iniciado imediatamente um ciclo de redução da taxa Selic."A credibilidade do BC está em xeque", afirmou. Para Loyola, o sistema de metas de inflação puro, que persegue um objetivo central, aparentemente está abalado. "Ninguém sabe mais qual é a meta de inflação, se é 4,5% ou mais", afirmou. "Ela existe apenas no papel." Segundo ele, a Tendências Consultoria Integrada, da qual é sócio, prevê que o Índice de Preços ao Consumidor Amplo (IPCA) chegará a 6,6% este ano e a 5,4% em 2012, mas com a redução inesperada dos juros ele acredita que certamente a taxa subirá. "A inflação pode agora chegar a 6% em 2012", disse. Para Loyola, o presidente do BC, Alexandre Tombini, seguramente tem uma visão privilegiada sobre o cenário de crise internacional, até porque participou do encontro de presidentes de BCs realizado na semana passada em Jackson Hole, EUA. Contudo, ele ponderou que seria mais adequado que a autoridade monetária brasileira tivesse utilizado mecanismos de comunicação para informar aos agentes econômicos que uma recessão mundial é inevitável no curto prazo e isso gerará efeitos desinflacionários em nível global, que seriam incorporados no Brasil em breve."O BC não convenceu. Não há evidências de que o mundo vai entrar em recessão tão rapidamente. Além disso, a inflação está acima da meta e as expectativas para o próximo ano apontam que ela também está distante dos 4,5%", afirmou Loyola. De acordo com a pesquisa Focus, a mediana das previsões para o Índice de Preços ao Consumidor Amplo (IPCA) em 2012 estava em 5,3% há um mês e agora está em 5,2%. Segundo Loyola, seria mais oportuno que o BC mantivesse os juros estáveis na reunião encerrada ontem e preparasse o mercado nas próximas seis semanas para eventualmente reduzir a Selic com maior segurança em outubro."A decisão do BC foi precipitada. Muita gente poderá, a partir de agora, ficar com a avaliação segundo a qual fatores não objetivos e técnicos, ou forças ocultas, influenciaram a queda dos juros", afirmou.

[48] Fonte: https://economia.estadao.com.br/noticias/negocios,para-loyola-credibilidade-do-banco-central-esta-em-xeque.

"Meta da inflação foi abandonada, diz consultoria de ex-BC".[49]

F Para a A.C.Pastore & Associados, com novo objetivo da política monetária é estimular o crescimento do PIB

Em informe enviado a clientes nesta quinta-feira, 1º, a consultoria A.C.Pastore & Associados, dirigida pelo ex-presidente do BC Affonso Celso Pastore, decreta: "A meta de inflação foi abandonada, e o novo objetivo da política monetária é estimular o crescimento do PIB." O texto tem o título autoexplicativo"Metas de inflação: Recquiescat in Pacem", que numa tradução livre do latim significa "Descanse em Paz." Segundo o informe, há algum tempo vem sendo discutido qual seria o grau de independência do BC. O texto destaca que, embora não exista autonomia legal, dado que seus diretores não têm mandato com prazos fixos - são "demissíveis ad nutum" -, desde a criação do regime de metas de inflação o Banco Central foi de fato independente. "Com a decisão de ontem, o Banco Central mostrou um grau de docilidade surpreendente", destaca o comunicado da consultoria. "O mundo não vai acabar. Mas a inflação no Brasil será persistentemente mais elevada", diz o texto. De acordo com o documento da A. C. Pastore e Associados, "o fantasma de uma contração (mundial) semelhante à ocorrida em 2008 foi usado para justificar a decisão de 'tempestivamente mitigar' os efeitos dessa crise internacional". Os economistas apontam que não é nula a probabilidade de ocorrer "um evento de cauda", capaz de provocar efeitos parecidos com os da crise registrada há três anos. "Mas essa catástrofe ainda não ocorreu, o que não justifica reagir a ela precocemente", destaca o comunicado. Segundo o texto, com o atual ritmo de desaquecimento da economia do Brasil a inflação tenderia a baixar, "mas se situaria bem acima da meta de 4,5% ao final de 2012". De acordo com o informe especial, o governo da presidente Dilma Rousseff avalia que a desaceleração do nível de atividade "não é aceitável", pois "quer um crescimento acima de 4,5% ao ano, se bem que não saiba bem como atingir esse objetivo". O documento aponta que "nas últimas semanas cresceram as pressões para que o Banco Central iniciasse imediatamente um ciclo de redução da taxa Selic." A consultoria apontou que nos últimos dias, o governo "ensaiou" anúncios de política fiscal e o Banco Central mostrou-se "preocupado" com os desdobramentos da crise internacional. Esses passos começaram quando o governo anunciou um aumento de R$ 10 bilhões no superávit primário deste ano, de R$ 117,89 bilhões para R$ 127,89 bilhões. O texto destacou que esta poupança extra surgiu de arrecadação não recorrente e que o Poder Executivo, com isso, mencionou que estaria criando as condições para a redução da taxa de juros, como foi manifestado na segunda-feira pelo ministro da Fazenda, Guido Mantega. "Mas logo em seguida o governo tropeçou na sua própria promessa ao anunciar a proposta de uma Lei de Diretrizes Orçamentárias na qual, de fato, eleva as despesas em proporção ao PIB, enfatizando que manterá intacto todo o seu programa de investimentos", aponta o texto. E, de acordo com o texto, tal manifestação oficial foi feita tendo como base uma projeção de receita que assume a hipótese de um crescimento do PIB de 5% em 2012. O informe especial da consultoria aponta que os passos ensaiados pelo BC, nesta espécie de dueto com a Fazenda, começaram com uma análise "extremamente pessimista" dos desdobramentos da crise externa sobre a economia brasileira. "Há algum tempo, as autoridades monetárias vêm justificando a sua relutância em elevar a taxa Selic em uma velocidade maior, mesmo diante de uma inflação em crescimento, na afirmação de que a desaceleração da economia internacional seria muito maior." Do mesmo modo como em 2008, aponta a consultoria, ocorreria um desaquecimento maior do Brasil através de vários canais de transmissão, como "a redução da corrente de comércio, moderação do fluxo de investimentos, condições de crédito mais restritivas e piora no sentimento de consumidores e empresários", diz o texto, citando trecho do comunicado divulgado ontem pelo BC após o anúncio da queda dos juros de 12,50% para 12%. No entanto, a consultoria

[49] Fonte: https://economia.estadao.com.br/noticias/negocios,meta-da-inflacao-foi-abandonada-diz-consultoria-de-ex-bc.

aponta que esta "catástrofe" ainda não ocorreu e, portanto, não há razão para o COPOM atuar de forma tão antecipada.

"BC terá problemas com expectativas da inflação, diz Schwartsman".[50]

Ex-diretor do Banco Central acha que a decisão do COPOM de reduzir os juros em 0,5 ponto percentual foi 'errada' e deve empinar curva de juros futuros; 'credibilidade foi arranhada'

O ex-diretor do Banco Central Alexandre Schwartsman afirmou nesta quinta-feira, 1º, que a decisão tomada ontem pelo Comitê de Política Monetária (COPOM) de reduzir os juros em 0,5 ponto porcentual foi "errada" e deve fazer com que a curva de juros futuros fique "empinada" nos próximos dias. "A credibilidade foi arranhada", comentou. "O BC terá problemas para coordenar expectativas de inflação de agora em diante", disse, destacando o curto prazo. "Só rezando, entrega para Deus", afirmou.

Nesta quinta, o ex-presidente do Banco Central, Carlos Langoni, classificou de "ousada" decisão do COPOM do Banco Central.Outro ex-presidente da instituição, Gustavo Loyola disse que decisão foi "equivocada" e mostrou certa imprudência do colegiado do BC. Os dois economistas compartilham a opinião de Schwartsman, de que, agora, a credibilidade do BC está em jogo.

"Há risco de o IPCA superar o teto de 6,5% neste ano", afirmou. Segundo Schwartsman, certamente as projeções de agentes econômicos para o índice de inflação devem subir nos próximos dias. Antes da reunião do BC encerrada ontem, ele calculava que o IPCA subiria 5,3% em 2012, com a taxa de juros entre 12,50% e 12,75% até o fim do próximo ano. Mas agora, com este "impulso monetário" que poderá ficar abaixo de dois pontos porcentuais, ele estima que o índice deve ficar entre 5,5% e 6% no ano que vem.

Segundo Schwartsman, a queda dos juros adotada pelo BC baseia-se num cenário de "colapso" externo, com uma recessão mundial tão forte ou maior do que a registrada em 2008. Na avaliação dele, não há evidências objetivas de dados econômicos que indiquem que a economia global vai entrar num período de retração tão vigoroso no curto prazo. Ele fez uma alusão de que o Banco Central está atuando como um apostador de cassino que aposta no número preto, quando há duas opções, aquela e o número vermelho. "Se der preto, tudo bem. Mas, se der vermelho, a coisa vai ficar feia", disse. Para o ex-diretor do Banco Central, está cada vez mais claro que o BC "quer mais manter crescimento do que a inflação na meta." Segundo ele, não significa que o sistema de metas foi abandonado, mas há uma percepção clara de que a autoridade monetária está muito atenta ao desempenho do nível de atividade. Autoridades do Ministério da Fazenda, como o ministro Guido Mantega e o secretário de Política Econômica, Márcio Holland, defendem o controle da inflação na meta, mas sempre destacam que o crescimento deste ano até 2014 tem plenas condições de atingir um patamar médio de pelo menos 4%. Schwartsman mostrou-se curioso para ver os detalhes do cenário de referência para o IPCA em 2012 no próximo relatório de inflação, que deve ser publicado até o dia 30 de setembro. No documento anterior, publicado em junho, o BC projetava taxa de 4,8% para o quarto trimestre do próximo ano, com juros a 12,25% ao ano. Na avaliação de Schwartsman, um outro fator de destaque foi que o BC "comprou", antes de ver, o aperto fiscal mais forte anunciado pelo Poder Executivo. "Foi anunciada uma economia de R$ 10 bilhões adicionais para este ano, mas somente de receitas extraordinárias o governo arrecadou R$ 14 bilhões. Que ajuste é este?", questionou. Segundo ele, não há sinais claros de como as autoridades federais vão encontrar saídas para enfrentar desafios fiscais para 2012, como a alta do salário mínimo para R$ 619,21, que deve provocar um impacto nas contas do Tesouro de R$ 21,5 bilhões.

[50] Fonte: https://economia.estadao.com.br/noticias/negocios,bc-tera-problemas-com-expectativas-da-inflacao-diz-schwartsman,82505e.

Opinião do Estadão: "BC sob pressão política".[51]

Sob forte pressão para baixar os juros, o Comitê de Política Monetária (COPOM) anunciará no começo da noite se já está preparado para afrouxar a política anti-inflacionária e, se a resposta for positiva, se continua empenhado em conduzir a inflação à meta de 4,5% até o fim de 2012. Os preços voltaram a subir, depois de um recuo no meio do ano. Além disso, o aumento acumulado em 12 meses continua bem acima da meta oficial e fora da margem de tolerância. Esse é o aspecto técnico do problema. Se os juros caírem antes da hora, a correção do erro poderá ser muito custosa. Mas há também um aspecto político. Diante das evidentes pressões do Executivo, são inevitáveis as dúvidas sobre quem manda no Banco Central (BC): resta algo, afinal, da autonomia de fato exercida até 2010? As duas questões são delicadas e tornam-se especialmente importantes neste momento. Há graves incertezas no front econômico, por causa da estagnação e dos problemas fiscais nos Estados Unidos, na Europa e no Japão. Se o banco central americano jogar mais dólares no mercado, poderá haver mais especulação no mercado de matérias-primas e novas altas de preços, pelo menos enquanto a demanda chinesa continuar aquecida. É difícil, neste momento, avaliar com alguma segurança os próximos impactos da crise internacional na economia brasileira.Também há fatores internos de insegurança, tanto econômicos quanto políticos. Apesar da anunciada intenção de economizar R$ 10 bilhões adicionais neste ano, o Executivo continua sujeito a pressões de um Congresso gastador e ficará em posição mais vulnerável em 2012, por causa das eleições municipais. O ministro da Fazenda, Guido Mantega, tem chamado a atenção para sinais de esfriamento da economia brasileira. São comprovações, segundo ele, do acerto da política oficial. Com a redução do crescimento para algo entre 4% e 4,5% neste ano, o risco de inflação diminui e criam-se condições para a queda dos juros básicos. O quadro se completa com o plano de contenção do aumento de gastos. Mas a cena econômica é mais complexa e menos tranquilizadora do que indica o ministro. A produção industrial de fato perde impulso, embora continue em expansão. Em julho, o Indicador de Nível de Atividade (INA) da indústria paulista foi 0,3%, maior do que em junho, descontados os fatores sazonais. Foi a menor variação para um mês de julho desde 2006, como observou o diretor do Departamento de Economia da Federação das Indústrias do Estado de São Paulo, Paulo Francini. Mas seria preciso acentuar também outro dado: a ocupação da capacidade instalada subiu de 82,2% para 82,7% e se manteve elevada. Além disso, a demanda interna continua forte e os indicadores de consumo permanecem muito bons. No primeiro semestre as vendas no varejo foram 9,2% maiores que as de um ano antes. O poder de compra tem sido sustentado tanto pelo crédito quanto pelos aumentos salariais. Mais de 80% dos acordos concluídos pelos sindicatos na primeira metade do ano proporcionaram ajustes acima da inflação. Até o mês passado os empréstimos continuaram em expansão, embora em ritmo mais moderado. Não se pode avaliar corretamente a evolução da economia nacional sem levar em conta esse contraste: a demanda permanece vigorosa, enquanto a produção industrial perde impulso. A demanda interna será ainda alimentada pela expansão do gasto público neste e no próximo ano, porque a intenção do governo, segundo o ministro da Fazenda, é apenas limitar o aumento do custeio, sem impedir, no entanto, a expansão da despesa total. A breve deflação do meio do ano acabou. O Índice Geral de Preços de Mercado (IGP-M) subiu 0,44% em agosto, puxado, de novo, pelos preços por atacado. Os preços das matérias-primas brutas aumentaram 1,51%. O IGP-M, com alta de 8% em 12 meses, deverá realimentar os aluguéis e outros preços indexados. O IPCA-15, versão do índice oficial medido entre 14 de julho e 12 de agosto, subiu 0,27%, o dobro da taxa do mês anterior. O acumulado em 12 meses chegou a 7,1%, muito acima do limite de tolerância, de 6,5%. Será hora de afrouxar a política de juros?

[51] Fonte: https://opiniao.estadao.com.br/noticias/geral,bc-sob-pressao-politica-imp-,766365.

Opinião do Estadão: "O BC cede à pressão".[52]

Com o corte de juros anunciado nesta quarta-feira, os diretores do Banco Central (BC) apagaram a imagem de autonomia da instituição, já muito embaçada nos últimos oito meses. Deixariam pelo menos uma dúvida razoável, a seu favor, se empurrassem a decisão para os dias 18 e 19 de outubro, datas previstas para a próxima reunião do Comitê de Política Monetária (COPOM). Até lá, teriam informações muito mais claras sobre a evolução da crise internacional, o esfriamento da economia brasileira e a tendência da inflação interna. Sobram razões, neste momento, para considerar precipitado o afrouxamento da política anti-inflacionária. Mas o fato mais grave é a perda de credibilidade do presidente do BC, Alexandre Tombini, e, de modo geral, da própria instituição. Formar expectativas é uma das funções mais importantes da autoridade monetária. Ninguém pode exercê-la de forma satisfatória, quando se perde a confiança do auditório. Se um alto funcionário aceita um rebaixamento de status, em nome de quem estará se dirigindo à sua plateia? O corte dos juros de 12,5% para 12% surpreendeu. A redução foi ampla e veio antes do momento considerado propício por renomados economistas. Esperava-se pelo menos algum esforço para manter as aparências, depois das pressões explícitas da presidente da República e de vários ministros. A decisão espantou principalmente quem ainda esperava um mínimo de prudência. A inflação voltou a subir, depois de uma breve trégua no meio do ano. O IPC-S, um índice de preços ao consumidor atualizado semanalmente pela Fundação Getúlio Vargas, subiu 0,4% em agosto e 4,17% no ano. O acumulado em 12 meses chegou a 7,1%, índice igual ao apurado para o IPCA-15 pelo Instituto Brasileiro de Geografia e Estatística (IBGE). Na semana passada, economistas do mercado financeiro e de consultorias independentes ainda projetaram uma alta de 6,31% em 2011 para o IPCA, o indicador oficial. Para 2012 a estimativa ficou em 5,2%. Esses cálculos confirmam, no essencial, a tendência apontada pelo próprio COPOM na ata de sua última reunião, em julho: inflação na meta, provavelmente só no primeiro semestre de 2013. Juros de 12,5% e câmbio de R$ 1,60 por dólar foram tomados como referências para essa projeção. Teria o BC renunciado à tarefa de levar a inflação ao centro do alvo até mesmo em 2013? Essa pergunta é justificável por mais de uma razão. A primeira é a própria evolução dos índices. Outro fator importante é o quadro econômico interno. A produção industrial tem perdido impulso, mas a demanda continua vigorosa, sustentada pelo aumento real dos salários e pelo crédito ainda em expansão, embora em ritmo decrescente. Os acordos salariais deste semestre e o aumento do mínimo - 13,6%, segundo a proposta orçamentária - deverão manter o consumidor animado ainda por um bom tempo. O COPOM emitiu uma nota muito mais longa do que as anteriores para explicar sua decisão. O texto realça as preocupações com a piora do quadro internacional e aponta o possível efeito deflacionário de uma nova retração econômica. Essa tendência, no entanto, ainda não é visível nos mercados. Há apenas uma curta referência à "moderação da atividade doméstica". Mas o detalhe mais notável é a frase sobre a "revisão do cenário para a política fiscal", uma profissão de fé na promessa de austeridade do governo. No mesmo dia, porém, o Executivo apresentava a proposta orçamentária para 2012 - um projeto expansionista, com estimativa de crescimento econômico de 5% e projeção de superávit primário menor que o deste ano. Deve sair hoje o Produto Interno Bruto (PIB) do segundo trimestre. Virá com sinais de contenção da atividade industrial, explicável em parte pela valorização do câmbio e pelo aumento de importações. Mas a demanda, como se verifica diariamente, continua firme e afetando os preços.Ao dobrar a espinha do BC, a presidente Dilma Rousseff rejeitou uma das poucas heranças benditas da era Lula - a autonomia de fato da autoridade monetária, que o ex-presidente fez questão de prestigiar mesmo às vésperas de eleições importantes para seus projetos de permanência do PT no poder.

[52] Fonte: https://opiniao.estadao.com.br/noticias/geral,o-bc-cede-a-pressao-imp-,767330.

"Ex-BCs aprovam ideia de mais prazo para cumprir meta de 4,5%".[53]

Economistas do mercado financeiro consideram positiva a ideia de estender o prazo para o cumprimento da meta de inflação pelo Banco Central, defendida pelo ex-presidente do BC Armínio Fraga. Para os analistas consultados, muitos com passagem pela diretoria da autoridade monetária, essa seria uma forma de reforçar a credibilidade no sistema de metas de inflação, por oferecer ao mercado um cenário mais realista. O que ainda gera dúvidas é qual o momento adequado para fazer essa alteração e também se a medida deve preceder uma redução da meta de inflação mais à frente.

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Para o chefe do Centro de Estudos Monetários do Instituto Brasileiro de Economia da Fundação Getulio Vargas (Ibre-FGV), José Júlio Senna, cumprir a meta de inflação é o objetivo principal do BC, mas não a qualquer custo. Por isso a filosofia que se pratica no mundo é o regime de metas flexíveis, pois há momentos em que a atividade está em estado tão ruim que não se justifica manter o cumprimento da meta em determinado tempo. Então, em nome da transparência, se promove um ajuste na meta.

De acordo com Senna, o que os diferentes modelos apontam é que para se tentar chegar à meta de 4,5% em 2017 a taxa Selic teria de ser mantida nos atuais 14,25% por longo período de tempo ou mesmo elevada, o que acarretaria um ônus grande demais para a atividade econômica e para a sociedade. Por isso mesmo que o regime permite essa flexibilidade.

"Ser flexível é exatamente levar em conta o que está acontecendo no mundo real. O desemprego médio do ano vai ficar em 12%, o PIB per capta cai 10% em dois anos. Se essa não é uma situação que justifique privilegiar a atividade nenhuma outra será", diz.

Para o ex-diretor de política monetária do BC e sócio da Mauá Capital, Luiz Fernando Figueiredo, é preciso trabalhar com metas mais realistas, exatamente como o que foi feito com a fiscal, para que se retome a confiança. Assim, ele considera que "faz todo o sentido" assumir que a inflação deve ficar perto de 5% ou 5,5% em 2017 e indicar que chegará a 4,5% no ano seguinte.

"A economia está tão ruim, caindo 6% na margem, que seria preciso impor um sacrifício muito grande para que essa desinflação ocorresse num prazo mais curto", diz. A comunicação dessa alteração deve ocorrer logo, defende Figueiredo. "Pode ser na próxima reunião do COPOM, por meio de uma entrevista e na comunicação com os agentes de mercado." Mas, na sua opinião, o ideal é que o Conselho Monetário Nacional (CMN) mantenha o alvo de 4,5% tanto para 2017 quanto para 2018, com o intervalo de tolerância mais estreito, de um ponto percentual para cima ou para baixo. O CMN se reúne no fim do mês para confirmar a meta de 2017 e definir a de 2018.

O ex-diretor de política econômica do BC e atual assessor da presidência da Fundação Getulio Vargas, Sérgio Werlang, diz ser adequada a definição de meta ajustada para 2016 e 2017, em linha com o que já foi feito em 2003. À época, o então presidente do BC, Henrique Meirelles, definiu um alvo mais elevado, de 8,5% para aquele ano e de 5,5% para o seguinte, de forma a acomodar pressões vindas dos preços administrados. "Foi uma experiência bem-sucedida, que poderia ser repetida agora."

[53] Fonte: https://valor.globo.com/financas/noticia/2016/06/13/ex-bcs-aprovam-ideia-de-mais-prazo-para-cumprir-meta-de-45.ghtml.

O que não deveria ocorrer, avalia, é que esse ajuste na meta seja sucedido por uma redução dos alvos para os anos seguintes. "A gente sabe que a inflação ajuda a resolver problemas fiscais, uma vez que alguns custos são engessados em termos nominais", afirma, citando o exemplo dos salários.

Para o ex-diretor de política monetária do BC e atual economista-chefe da Confederação Nacional do Comércio (CNC), Thadeu de Freitas, não adianta o BC trabalhar com uma meta "romântica" de inflação, incoerente com o atual expansionismo fiscal, enfraquecendo o poder da política monetária. Por isso, seria melhor definir para 2017 uma meta acima da atual, para, então, ter mais condições de cumprir o alvo de 4,5% em 2018. "O BC tem que ser realista. Não adianta achar que vai atingir o centro da meta quando o restante não está permitindo", diz.

O economista da MCM Mauro Schneider diz que um ajuste no prazo para a convergência da meta não arranharia a credibilidade do BC. Mas, diz, o momento ainda não é adequado para essa alteração. Uma oportunidade mais atraente, afirma, poderia ser o fim deste ano, quando já será possível avaliar a evolução de esforços fiscais para corrigir as contas públicas.

"Para uma mudança [de meta] não causar ruídos é necessário que se tenha mais convicção de que todo o mix de política econômica está mais bem amarrado, mais consistente, com avanços na política fiscal de médio e longo prazos e também na política creditícia dos bancos públicos", afirma.

O ex-presidente do BC Gustavo Loyola também acredita que é preciso que o país tenha mais "definições", sobretudo com relação à perspectiva para a política fiscal, para que haja a definição de uma meta ajustada. "Eu procederia com bastante cautela nessa discussão. Não adianta você assumir um compromisso muito apertado, gerar uma expectativa e depois frustrá-la", afirma. Num primeiro momento, o BC poderia trabalhar com uma meta ajustada para o ano que vem. Mas essa meta ajustada precisa enviar mensagem de que o esforço ao longo deste ano para colocar a inflação na meta no período estipulado continuará sendo feito.

"Meta de inflação de 4,5% para 2017 é ambiciosa e crível, diz presidente do BC".[54]

Goldfajn descartou a possibilidade de o BC ter de 'trabalhar sozinho' para combater a inflação e que toda a equipe está trabalhando para a economia sair da recessão

BRASÍLIA - Em sua primeira entrevista coletiva, o presidente do Banco Central (BC), Ilan Goldfajn, descartou qualquer possibilidade de a instituição adotar um ajuste da meta de inflação do ano que vem. Ele repetiu trechos de seu discurso de posse para deixar claro que não havia cogitado essa possibilidade e fez questão de enfatizar que o objetivo do BC é atingir o centro da meta de inflação de 4,5% em 2017. Segundo o presidente, o centro da meta em 2017 é "ambicioso e crível ao mesmo tempo".

Goldfajn enfatizou que a meta é ambiciosa porque o País vem de uma inflação de quase 11% em 2015, mais do que o dobro da meta. "Temos condições de atingir o centro da meta em 2017, em 18 meses", garantiu. Ele disse que muito se falou os últimos dias de metas ajustadas. "No passado, já as adotamos, e foram úteis para dar transparência, além de ajudar a ancorar as expectativas, mas não parece ser neste caso no momento", declarou.

O presidente disse que as expectativas do BC para a inflação estão em torno da meta em 2017. Ele considerou que alguns analistas consideram que pode ser um pouco acima disso. "Mesmo neste caso, a magnitude do desvio não necessita ajustar a meta. Para deixar claro: a meta de 4,5% em 2017 é o nosso objetivo."

Ele descartou a possibilidade de a instituição ter de "trabalhar sozinha", conforme questionou um jornalista, para combater a alta da inflação. "Não acredito nisso (que o BC vai ficar sozinho de novo). Há coerência da equipe econômica, todos estão trabalhando para recuperação da confiança para que economia saia de recessão. Todos estão trabalhando na mesma direção", afirmou.

[54] Fonte: https://www.estadao.com.br/economia/presidente-do-bc-descarta-meta-ajustada.

O presidente do BC disse que há uma mudança em curso. “Se você olhar a percepção dos indicadores e do mercado, isso já está embutido. Fica claro que há uma expectativa melhor para a frente”, comparou.

Segundo Goldfajn, é importante mudar a percepção da sociedade sobre as contas fiscais e sobre a situação da economia. “No caso do BC, significa que, se isso mudar, se tirar a incerteza, o risco, isso vai reduzir as projeções da inflação e vai levar a um menor custo e a uma desinflação mais rápida”, considerou.

Cenário externo. Goldfajn voltou a dizer acreditar que o cenário global é desafiador, conforme descrito no Relatório Trimestral de Inflação (RTI). Ele citou especialmente a decisão do Reino Unido em deixar a União Europeia após referendo na última sexta-feira, no chamado “Brexit”. “Acredito que o cenário global é desafiador. Vamos enfrentar volatilidade e choques ao longo dos próximos anos”, afirmou.

Segundo ele, o Brexit terá implicações para a economia global, principalmente para o comércio e crescimento da atividade no mundo, com reflexos no Brasil. “Ainda não estão completamente mapeadas as consequências para o futuro, o que produz incertezas para frente com as quais vamos ter que conviver. Sabemos que é um impacto que deve reduzir de alguma forma o crescimento global e deve influenciar o crescimento no Brasil, mas não sabemos a magnitude”, acrescentou.

Goldfajn reforçou que, caso seja necessário, o BC adotará medidas adequadas para o bom funcionamento do mercado financeiro no País. Ele lembrou que o Brasil tem condições para enfrentar essa volatilidade, como o saldo das reservas internacionais, o regime de câmbio flutuante e um sistema financeiro sólido e com baixa exposição internacional. “Acredito que impacto de curto prazo (do Brexit) está sendo contido, vamos observar impactos de médio e longo prazos no mundo e no Brasil”, concluiu.