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Brazil – Inflation

Inflation: How Low and for How Long?

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- **Inflation has seen a significant deceleration since 2016. While the cycle has had its role, we believe this low-inflation regime was only made possible by the enhancement of fiscal and monetary policy credibility.**
- **We expect inflation to moderate even further in the short term and remain subdued in the coming years, as the COVID-19 pandemic will have a significant impact on economic activity, expanding the output gap even further into negative territory.**
- **After a -0.31% IPCA change in April and -0.38% in May, we forecast readings of +0.16% in June, +0.29% in July, and +0.10% in August. For 2020, we forecast the official CPI index at 1.40%, then gradually accelerating to 2.90% in 2021 (3.75% target) and 3.50% (at the target midpoint) in 2022.**
- **This low-inflation environment will only materialize in the medium term if the reformist agenda (especially the fiscal adjustment) continues in the coming years, in our view. While the timing is uncertain, we believe a different scenario (with no reforms) could see inflation rise to above-target in 2021 and accelerate to levels above the upper bound of the tolerance band in 2022.**

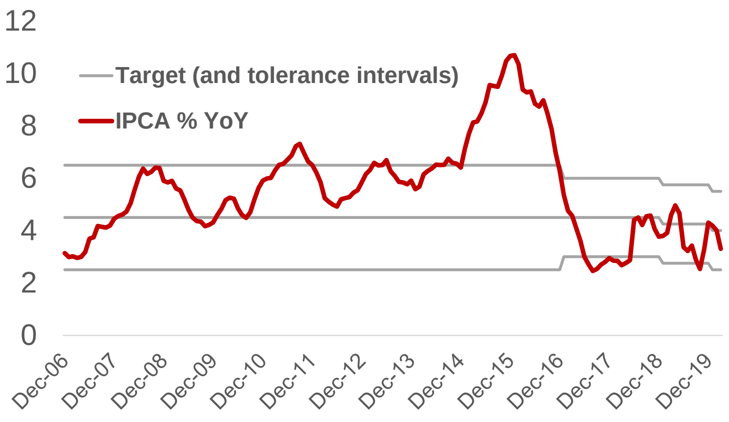
Introduction

Inflation has undergone a major deceleration since 2016. The macroeconomic cycle has had its role, but its effects were only possible due to two structural changes: the enhancement of fiscal and monetary credibility. Given this recently improved economic framework, we believe inflation should decelerate even more in the short term and continue to be muted in the coming years, as COVID-19 will have a significant impact on economic activity, turning the output gap even more negative. In this study we present this scenario and highlight the underlying risks, particularly the importance of not only maintaining, but also increasing, the compromise with fiscal balance, in our view, in order to support the low-inflation environment.

Structural view: the low inflation environment

During 2011-2015 annual inflation was 7.1% on average, with a peak of 10.7% in 2015. From 2016 to 2019, inflation decelerated to 4.3% on average, with a trough of 3.0% in 2017. We note that cyclical factors were important drivers of the deceleration. Namely, economic activity started to weaken in 2012 until the output gap turned negative in early 2015 – and it remains negative. Moreover, food prices suffered a shock that resulted in deflation approaching 2% in 2017. However, in our view, the deceleration process and the resulting low inflation scenario would not be possible if two structural changes had not taken place: the enhancement of fiscal and monetary credibility.

IPCA inflation % YoY



Source: IBGE.

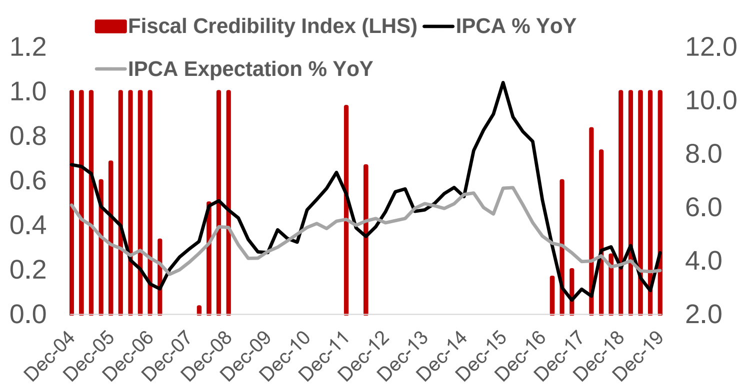
The relationship between fiscal policy and inflation is well documented, and the main conclusion is that "in the case where the government is not committed to fiscal balance, the result is a pressure on inflation due to the risk of using an expansionary monetary policy to finance the public debt"[1]. Therefore, fiscal responsibility is particularly important in an inflation-targeting regime, where the Central Bank has to manage inflation expectations to keep inflation on target – as a result, fiscal credibility also has a close relationship with Central Bank credibility. If market participants do not believe the government will maintain tight fiscal discipline, they may come to believe that monetary policy will lose its active power to control inflation, and consider that it may be used to monetize government debt, resulting in rising inflation expectations, de-anchoring from the target, which may finally result in higher current inflation.

This issue is especially important for Brazil, where there is evidence from the past that the country's inflation has been driven by loose fiscal policy in different periods[2], resulting, one way or another, in some type/degree of fiscal dominance regime. There is reasonable agreement among various observers that the most recent period was from 2011 to 2016. During that period, Brazil seemed to have abandoned the "Macroeconomic Tripod" framework – based on inflation targeting, primary surpluses, and a floating exchange rate – replacing it with a weaker inflation-targeting regime (empirically aiming more toward the upper bound of the target tolerance interval), massive fiscal stimulus, and a more active exchange-rate policy.

Since 2016, however, Brazil returned to the "Macroeconomic Tripod" framework. As achieving positive fiscal primary results in the short run (the fiscal anchor of the "Macroeconomic Tripod") would demand substantial social sacrifice, the Congress decided to approve the "spending cap" rule in 2016, and also to use it as a fiscal anchor for the medium term (at least until 2026). Moreover, social security reform (estimated to save about R$1 trillion in ten years) was approved in 2019, making the spending-cap rule even more feasible. That measure resulted in a taming of expectations for the debt-to-GDP ratio, converging at reasonable levels in the medium run. Through those efforts, Brazil was able to strengthen its fiscal credibility.

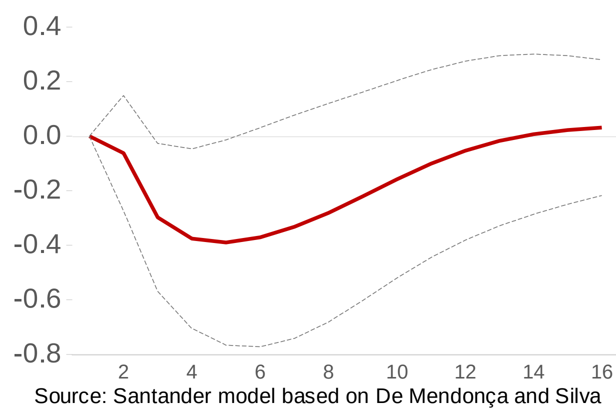
The figure below shows a simple fiscal credibility index[3] (measured by the difference between the announced primary fiscal inflation target and market expectations for inflation) and its correlation with inflation dynamics. It is clear that periods with low credibility (2009-2016) coincide with higher and/or accelerating inflation, whereas periods of high fiscal credibility are correlated with low/decelerating inflation. Note that since 2016, the index has risen and inflation has come down and remained low. The second figure shows the impact on inflation of a shock in the fiscal credibility index. An increase of one standard deviation in the fiscal credibility index results in a decrease in annual inflation of around 0.40%, with statistical significance, after three quarters.

Inflation, Inflation Expectations, and Fiscal Credibility



Sources: IBGE, BCB and De Mendonça and Silva 2016 (footnote 1)

Response of Inflation to a One Standard-Deviation Shock on the Fiscal Credibility Index²



Source: Santander model based on De Mendonça and Silva 2016 (footnote 1)

Moreover, the fiscal adjustment also has a more direct/mechanical effect on inflation. As government demand has plummeted – and is expected to remain weak for a long period, as the adjustment is projected to last many years – the output gap is expected to be negatively pressured in the medium/long run. The figure on the left below shows that since 2016, government spending has not been expanded as in other recessions, acting to boost demand. On the contrary, it has

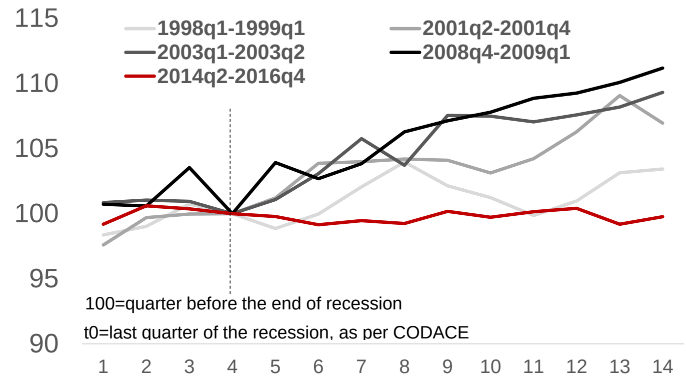
[1] "Observing the influence of fiscal credibility on inflation: Evidence from an emerging economy", *Economics Bulletin*, De Mendonça and Silva, 2016

[2] See *"A crise fiscal e monetária brasileira: três episódios"*, Pastore (2018), in *"De Belíndia ao Real"*, org. Carvalho et al. (2018) for a brief but rich analysis or *"Inflação e Crises: o Papel da Moeda"*, Pastore (2015) for a deeper explanation.

[3] Reference same as in note 1. However, we made a small change to the index, to allow expectations above the target to also be seen as a sign of high credibility.

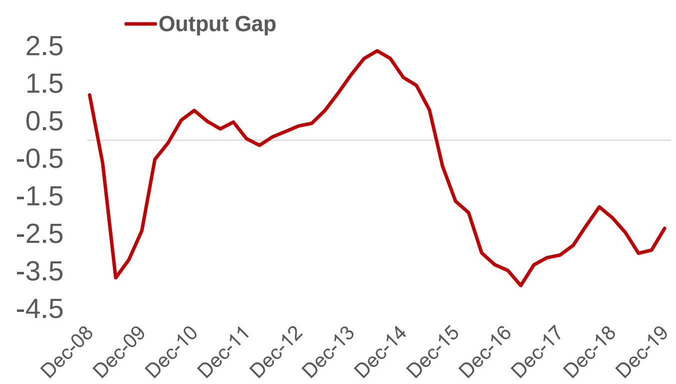
remained fairly constant (it is not shown here, but the other components of demand recovered in a similar fashion as after other recessions), contributing to an output gap that has remained negative and wide.

Government Spending During Recessions



Source: Santander, based on data of IBGE

Output Gap



Source: Santander models, based on IBGE data

On the monetary side, we have already discussed how the Central Bank's credibility is linked to fiscal credibility; hence, when fiscal credibility improved, it also allowed monetary policy to be more credible. Moreover, the Central Bank took measures to enhance its communication process, making it more transparent, and reinforced its compromise with the inflation-targeting regime. Empirically, it once again started to aim for the midpoint of the target interval, rather than the upper bound.

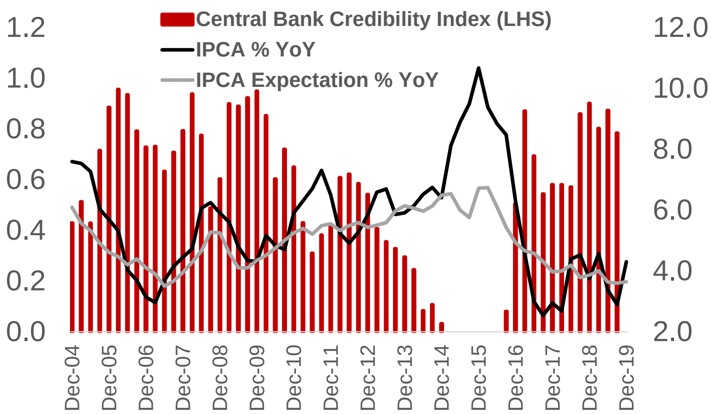
The relationship between Central Bank (CB) credibility and inflation is even better understood. Former Fed Vice Chairman Alan Blinder concluded that a credible CB "makes disinflation less costly, helps hold down inflation once it is low, makes it easier to defend the currency when necessary"[4]. Going further, we agree with the notion that a credible CB is able to anchor inflation expectations at the desired target, turning the price-formation process more forward-looking and reducing the importance of the backward-looking component. This is important because unexpected shocks are less likely to have long-lasting effects on inflation. As a result, Central Bank credibility helps to explain how Brazilian inflation was tamed and has continued to stay at low levels.

The figure on the left below shows the correlation between Central Bank credibility[5] (measured in a similar way as the fiscal credibility index) and inflation. Here we see that once credibility started to increase, inflation started to decelerate. Using that credibility index as an explanatory variable for inflation in a VAR model, it is possible to estimate the impact of credibility on inflation. The figure at right below shows that the impact of an increase of one standard deviation in credibility results in 0.40% less inflation per annum after three quarters.

[4] "Central-Bank Credibility: Why Do We Care? How Do We Build It?" *American Economic Review*, Blinder (1999)

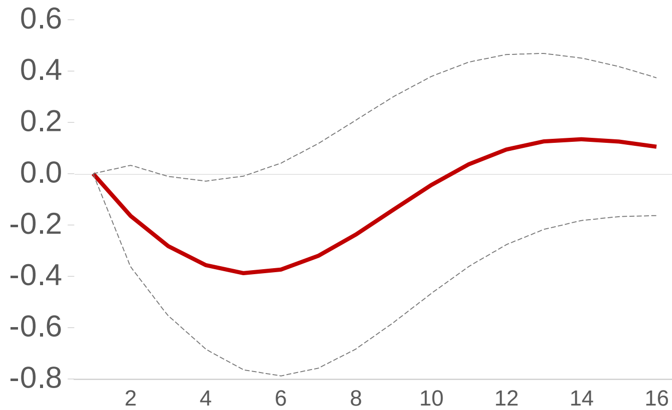
[5] "Credibilidade do regime de metas para inflação no Brasil", *Pesquisa e Planejamento Econômico*, De Mendonça and Souza (2007)

Inflation, Inflation Expectations and Central Bank Credibility



Sources: IBGE, BCB and De Mendonça and Souza 2007 (footnote 4)

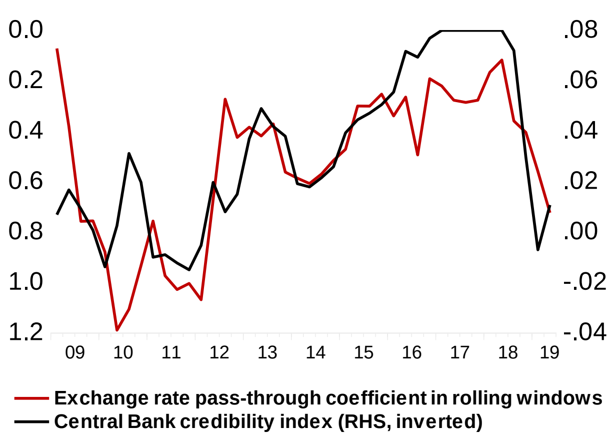
Response of Inflation Expectations to a Shock of One Standard Deviation on the Central Bank Credibility Index



Source: Santander based on the CB credibility index in De Mendonça and Souza 2007 (footnote 4)

It is also important to highlight the role of exchange pass-through in that context. Research[6] has concluded that credibility also helps to reduce the pass-through from international prices to domestic inflation. On top of that effect, short-/medium-term drivers act to reduce the pass-through even more. Namely, according to the BCB's estimates[7], for each 1% of widening of the negative output gap, pass-through can be reduced by 2-9 p.p.

Exchange-Rate Pass-Through and Central Bank Credibility



Source: Santander models and De Mendonça and Souza 2007 (footnote 4)

Estimates (p.p.) of the Effects of Determinants of Pass-Through – Average Coefficient of Several Different Models*

Negative output gap	De-anchor of inflation expectations
5.60	4.10
Size of the currency depreciation	**Companies operational margin**
0.15	0.95

Source: BCB (footnote 7)

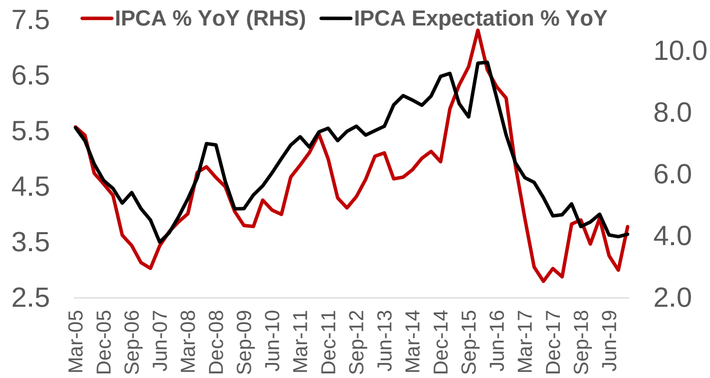
*Should be read as how much 1% of change in each variable impacts the coefficient of the pass-through in p.p.

To summarize, the enhancement in fiscal and monetary credibility reduced and anchored inflation expectations, and lowered the exchange rate pass-through, paving the way for the low-inflation regime in recent years, which has also been supported by wide economic slack (i.e., below-potential activity). Inflation expectations (18 months ahead) were tamed, falling from 6.5% in late 2016 to around 3.6% at the beginning of 2019, and current inflation decelerated from 11% in 2015 to 3-4% currently. Therefore, provided those institutional improvements are maintained, we believe the low-inflation environment should continue. Although not the focus of this report, it is also important to note that fiscal discipline generates other positive

[6] "Effect of credibility and exchange rate pass-through on inflation: An assessment for developing countries", *International Review of Economics and Finance*. De Mendonça e Tiberto (2017).
[7] "Repasse *cambial sob a ótica de um modelo semiestrutural*", BCB (Inflation Report - September 2018).

effects, such as allowing interest rates to fall given the low-inflation scenario. More important, since it also generates a reduction of the natural interest rate, nominal rates can be allowed to fall even further in order to stimulate the economy.

Inflation and Inflation Expectations

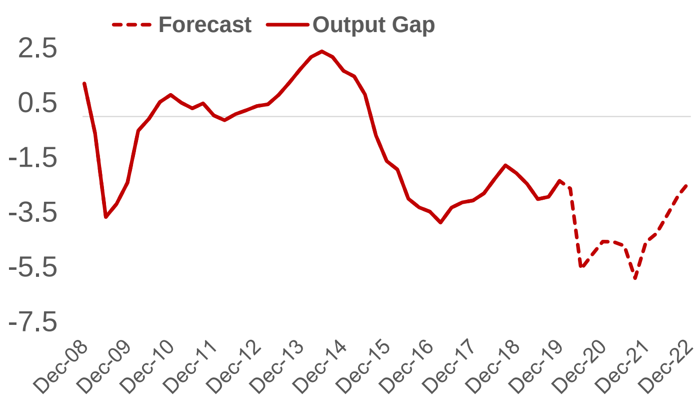


Sources: IBGE and BCB.

Short-Term Dynamics: the COVID-19 Impact

Considering that recently-improved macroeconomic framework, we expect COVID-19's impact on the economy to bring inflation to new lows in the short run. The quarantine process necessitated by the spread of COVID-19 caused a sudden reduction in economic activity and has made demand fall sharply. As such, we forecast GDP will decline sharply, becoming more distant from its potential than it already is – we estimate that the output gap will widen from -2.3% in 4Q19 to -5.6% in 2Q20. We expect this to generate considerable downward pressure on inflation, since inflation expectations remain fairly well anchored.

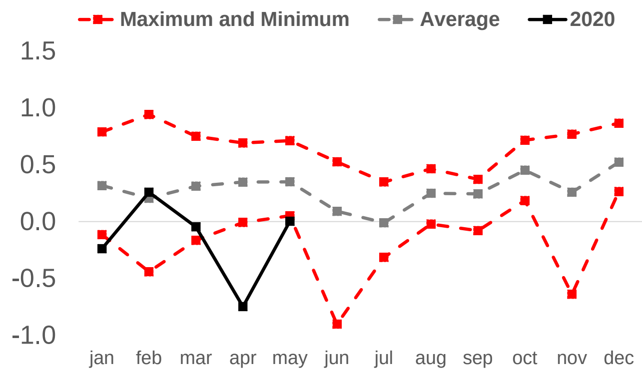
Output Gap and Forecast



Source: Santander models based on data from IBGE

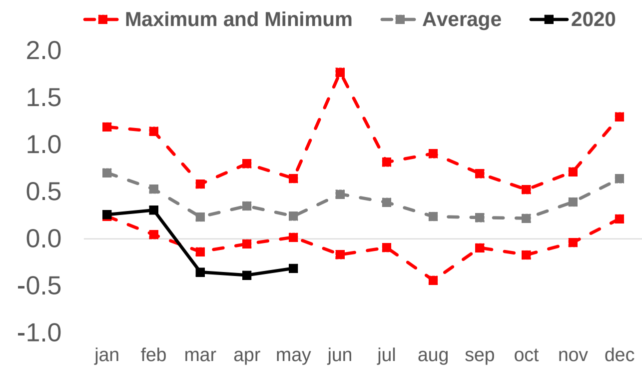
The latest IPCA readings have already shown a clear trend of disinflation, and even deflation in some industrial goods and services closely linked to economic activity. The figures below show the seasonal pattern for those groups, and the impact of COVID-19 is clear. We estimate industrial goods will account for -16 bps from April to August, while services will account for -26 bps.

Inflation of Industrial Goods % MoM



Source: IBGE

Inflation of Services Linked to Economic Activity % MoM

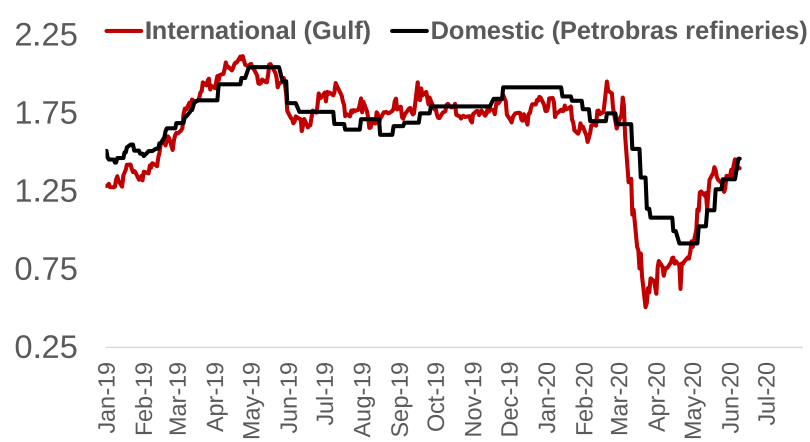


Source: IBGE

It is also important to account for "imported" inflation. So far, the BRL has depreciated approximately 20% year-to-date, which should pressure tradable goods, but as we have shown, the net impact on industrial goods is likely to be negative. Two things are worth pointing out: (i) as already shown in the previous section, the BCB's credibility keeps the FX pass-through low structurally, and (ii) the new shock on the output gap reduces the FX pass-through even more in the short/medium term. That is why we do not see pressure coming from industrial/tradable goods.

Analyzing administered prices, gasoline is an important source of pass-through, as fuel costs are directly and frequently adjusted considering the international price of the commodity and the variation of the exchange rate. On that matter, despite the currency depreciation (16% in March), the international price of oil/gasoline plummeted (-67% in March), more than offsetting the weakening of the BRL during the first period of the epidemic. From April onward, gasoline prices recovered strongly (89% between April and May), but there was no big move in the BRL (-2.7%). All in all, we believe the net impact from April to August will be disinflationary (-23 bps during that period). Therefore, rather than a source of pressure, we believe gasoline will also contribute to lower inflation in the short run.

Gasoline Prices (R$/L): International x Domestic

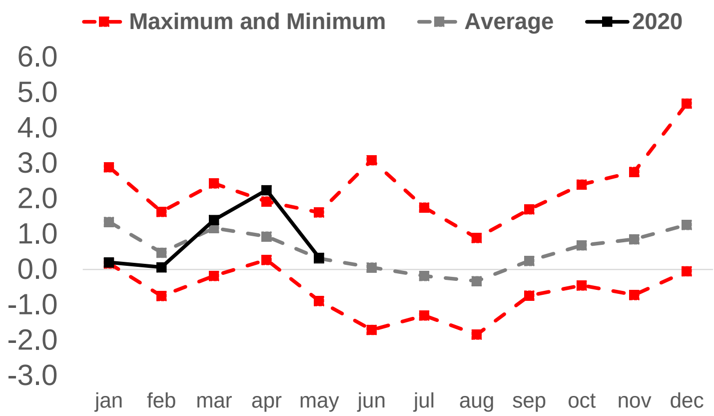


Sources: Bloomberg and Petrobras.

Also, with respect to administered prices, the government is postponing for a few months many readjustments (water and sewage, bus tariffs, pharmaceutical drugs, etc.), but we expect those readjustments to be made in the second half of 2020 (hence, not affecting year-end forecasts). In particular, we highlight electrical energy prices, where the tariff-flag system was suspended for 2020 and tariff revisions scheduled for the second quarter were all postponed to July – those two measures alone contributed -18 bps between April and July.

Finally, in food prices, we are noticing a pattern similar to what happened overseas: an initial period (from mid-March to late April) of upward pressure as households stocked up on food at the beginning of the quarantine, followed by "de-pressuring" after they realized there were no supply shortages. That deceleration in Brazil is likely to be helped, in our view, by favorable seasonality for food prices during the middle of the year. So, after contributing 54 bps to inflation from March to May, we forecast food prices to contribute -6 bps from June to August.

Inflation of Food-at-Home % MoM



Source: IBGE.

Summary of Our Short-Term Forecasts

	Jun-20	Jul-20	Aug-20
IPCA % MoM	0.16	0.29	0.10
Food and beverage	0.05	-0.06	-0.20
Food-at-home	0.09	-0.13	-0.37
Food service	-0.05	0.10	0.20
Housing	0.10	0.60	0.51
Electrical energy	-0.01	1.76	0.33
Household articles	0.13	0.29	0.44
Apparel	-0.20	-0.37	0.08
Transportation	0.33	1.21	0.42
Airline tickets	-20.00	3.33	0.00
Gasoline	4.00	4.50	1.00
Health and personal care	0.46	-0.33	0.45
Personal spending	0.08	0.14	0.18
Education	0.03	-0.02	-1.89
Communication	-0.01	0.01	-0.03
Administered prices	0.99	1.05	0.74
Free prices	-0.13	0.03	-0.12
Food-at-home	0.09	-0.13	-0.37
Industrial goods	-0.03	-0.05	0.12
Services	-0.27	0.13	-0.17
EX3 core	-0.01	0.00	0.11
Average of 7 cores	-0.03	0.06	0.10

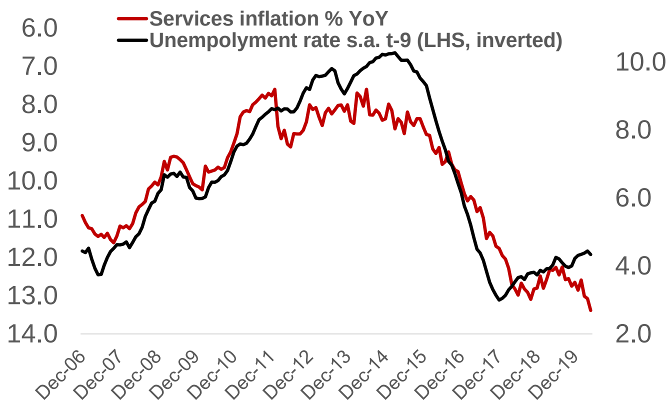
Source: Santander estimates.

We believe the balance of risks for inflation points to the upside in the short run. On the upside, we are monitoring the possibility of gasoline prices continuing to recover, a lessening of the de-pressuring trend on food prices (or even a trend of higher prices), possibly stronger recovery of airline ticket prices, perhaps a higher pass-through on durable goods (there is some evidence of an exchange rate impact on car sales, for example), and no further postponement of readjustments to administered prices for health insurance and pharmaceutical drugs. If all those risks materialize (which is not likely, in our view), they could add up to +45 bps of risk from June to August. On the downside, we are monitoring possible further postponements of energy price readjustments, a possible stronger de-pressuring effect on food prices (mainly fresh foods), or a weakening of gasoline prices (if the global economic rebound weakens), adding risk of -30 bps from June to August.

Medium-/Long-Term Dynamics: the After-COVID-19-Shock Scenario

Before the COVID-19 shock, the Brazilian economy's recovery was gradual and fragile, so even with a substantial stimulus package (even on an international comparison), we believe that a rise in unemployment and decline in income are inevitable. As a result, our economic activity scenario considers long-lasting effects of the COVID-19 shock on the output gap. We believe there will be little space for cyclical-related prices to accelerate, even after the end of the quarantine. The figure below is a simple way to explain our view. It shows the tight relationship between services prices and unemployment, strongly suggesting that it will be difficult for those prices to accelerate when unemployment reaches almost 20% in the coming months as we expect.

Services Inflation and Unemployment Rate



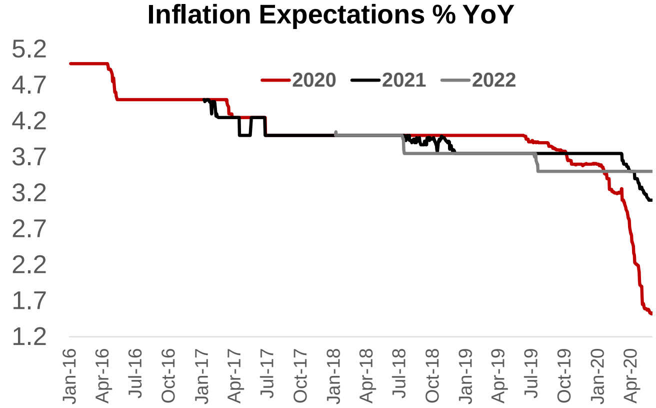
Source: IBGE.

One could argue that some items will also suffer from a supply adjustment, such as airline tickets or restaurants, which are likely to raise prices, in our view. This may be true for some specific items and could create specific pressures, but we believe that the decline in demand will determine general prices in the foreseeable future.

For industrial goods, our models also point to the likelihood that the widening of the output gap should keep prices low. It is important to note that this scenario considers the BRL at 5.8 at year-end 2020, so it is implicit that pass-through will remain low based on the BCB's credibility and a negative output gap.

Finally, inertia and expectations also point to low inflation. As inflation was already running low (hovering around 3-4% YoY until March 2020), that dynamic should tend to prevail in the future, in our view. As for expectations, the market's[8] projected inflation for 2020 was already below the target in March, but has fallen even further since then, reaching 1.6% in June, also helping to bring current inflation down. Moreover, the expectation for 2021 – more important to monetary policy each time the BCB considers its decisions – fell from 3.75% in March to 3.0% in June.

Inflation Expectations % YoY



Source: BCB – Focus survey.

[8] BCB's Focus Survey

Considering that short-/medium-term scenario, the structural framework, and the hypothesis below, our models point to 1.4% IPCA inflation in 2020. That is, after staying at around 0.0% in the first half of the year, we forecast that inflation should gradually accelerate to 1.4% in the second half, mainly on the heels of a gradual economic recovery and readjustments to administered prices that were postponed in the first half of the year.

Inflation Forecast % YoY

	2018	2019	2020	2021	2022
IPCA	3.8	4.3	1.4	2.9	3.5
Administered	6.2	5.5	0.8	4.5	3.8
Free	2.9	3.9	1.6	2.4	3.4
Services	3.4	3.5	2.1	2.6	3.4
Industrial goods	1.1	1.7	-0.8	0.9	2.1
Food-at-home	4.5	7.8	4.5	4.5	5.2
EX3 core	2.2	2.9	1.7	2.7	3.3

Source: IBGE, and Santander estimates for 2020-2022.

Hypothesis for the Inflation Forecast

	2020	2021	2022
Electrical energy inflation (% YoY)	3.2	6.0	6.0
Gasoline inflation* (% YoY)	-6.2	8.0	4.0
FX (USD/BRL eop)	5.8	5.5	5.3
Output gap (%)	-4.6	-4.6	-2.4
Fiscal primary result (% of GDP)	-11.7	-3.5	-2.7
Interest rate (% p.a. eop)	2.3	3.0	6.0

*Equivalent to brent oil (USD/barrel) at around 40 in the end of 2020, 43 in 2021 and 45 in 2022
Source: Santander estimates.

We believe there is upside risk from volatile prices such as gasoline and food. For gasoline, its international price could rise further if the global economy recovers faster than expected or if supply suffers a greater adjustment. For food, the depreciated BRL is stimulating exports, especially of proteins, as the swine fever is still pressuring global demand. This could affect domestic food prices even with weak internal demand. However, even if those risks materialize, we believe the probability of IPCA inflation exceeding 2.0% in 2020 is quite low, meaning inflation should remain well below the target (and even below the lower bound of the tolerance interval). On the other hand, we also see considerable downside risk from the demand shock, as the decline in GDP could be even worse than expected. In that case, we believe inflation could end the year closer to 1.0%, or even a bit lower.

More important, as upside risks come from volatile prices and downside risks are linked to the business cycle, we believe core measures – more relevant to monetary policy – should stay very low in any case. We estimate the EX3 core at 1.7% in 2020.

For 2021, we forecast headline IPCA at 2.9% (below the 3.75% target), on the heels of still weak demand recovering at a notably gradual pace. It is important to note that this number could be lower if it were not for gasoline and electricity prices. For the former, we believe prices will rise considerably (7.0%) due to the base effect of ending 2020 at a low level, as well as the expected recovery of the global economy. For electricity, the sector will receive financial aid from the government to smooth the impact of COVID-19, and consumers will pay for it. Estimates are still rough, because the size and duration of the loan has not yet been determined, but we forecast a +6.0% adjustment for energy.

Again, despite the usual possible risks coming from volatile prices (making it possible for inflation slightly above 3.0%), in our view the weak demand scenario will prevail and continue to impose major disinflationary pressures. As result, we project core measures to stay very low – EX3 at 2.7% in 2021 – allowing monetary policy to continue to stimulate the economy, with nominal interest rates at never-before-seen levels.

The Importance of Continuing Reformist Agenda

The scenario presented so far has a crucial hypothesis: it considers that the current economic framework will be maintained. The government had to increase spending in order to fight COVID-19's effects on public health and on the economy, and, as a consequence, the debt-to-GDP ratio is expected to rise sharply[9]. Nevertheless, we believe the debt-to-GDP ratio should resume its convergence dynamic – although it will demand a major effort by the government, provided those measures are temporary and the reformist agenda is taken up again once the epidemic is controlled. In other words, Brazil would still have a credible fiscal policy, and would still be seen as solvent in the long term. This is our (and the market's) base case, so the low-inflation environment's foundations – fiscal discipline and the BCB's credibility – should remain intact, in our view.

However, the uncertainty generated by COVID-19 alongside political frictions poses a risk to the fiscal adjustment and the reformist agenda in general. In a scenario where the fiscal adjustment agenda is weakened or abandoned, we believe

[9] For more details, see our fiscal report: *Fiscal Policy During the COVID-19 Crisis: New Challenges, More Risks and the Same Long-Term Goals,* April 22, 2020.

inflation could accelerate even in the context of wide output gap. This is the fiscal dominance risk that we discussed in the first section of this report.

In our view, a clear possible trigger for that scenario would be the abandoning of the "spending cap," or major amendments easing the cap. That could pave the way for the approval of new permanent expenditures, such as a pay raise for public servants or the creation of a national minimum-income program, which would mean that expected compliance with the "spending cap" might not be viewed as credible to the markets even if the cap is still in effect. In our view, the only way to have a stronger social program in Brazil and respect the fiscal constraints is to restructure the current social budget so as to make it more effective and fair. Finally, another possibility would be that the government would not approve measures to foster investment, boost productivity, and therefore increase potential GDP, which would lead the market to believe (again) that even with the "spending cap" in effect, the government's compliance with it lacks credibility.

The channels through which inflation would accelerate in that scenario are two-fold, in our view: (i) de-anchoring of inflation expectations, and (ii) further depreciation of the BRL. We have already stated that both theory and empirical evidence show that when there is no fiscal discipline, the inflation-targeting regime is weakened, as markets would start to believe that the Central Bank will have to loosen monetary policy (losing monetary credibility), monetizing the debt. In that case, where the Central Bank's key target is to provide funding for the Treasury, inflation expectations start to de-anchor and accelerate to above target, and as a result, through that expectation channel, current inflation starts to accelerate. The timing of the de-anchoring is uncertain; it might not necessarily happen strictly after a relaxation of the fiscal framework, especially because the output gap would still be negative. One trigger could be a shock, of oil or meat prices, for example, which in that scenario would be incorporated into medium-/long-term expectations, instead of just raising short-term inflation and then dissipating, because markets would already be concluding that the central bank was unable to use monetary policy to act on that shock, if necessary (second-order effects). Moreover, that scenario implies a rise in country risk, which has a negative effect on the currency. Considering that, Central Bank credibility would be lower and pass-through would be higher, so domestic prices could suffer upward pressure even with a lack of demand. Currency depreciation could also have the indirect effect of raising expectations and, subsequently, current inflation.

Estimates regarding that hypothetical scenario have high uncertainty, as traditional models do not capture that dynamic accurately, but we believe the recent similar scenario can provide a fair base of comparison. Earlier in this report, we noted that there is considerable agreement among economists (see footnote 2, for example) that Brazil was on the verge of getting into some sort of fiscal dominance scenario from 2011 to 2016. During that period, especially after 2014, inflation increased from 4-6% YoY to a peak of almost 11% YoY in 2015-16, even with a steep decline in GDP in 2015. This was driven[10] in part by higher inflation expectations that de-anchored from the BCB's target – rising from 4.3% in June 2009 to 6.4% in 2016 (18 months ahead). Also, during the most critical period, from 2014 to 2015, the nominal exchange rate depreciated 70%, while the currencies of its peers weakened only 23%.

Considering a similar pattern of de-anchoring expectations and the BRL's path toward 6.5 in 2020 and 7.5 in 2021 and 2022 (per our projections), we believe inflation could rise to 4.4% in 2021 (still between tolerance intervals, but already above target) and 6.5% in 2022 (well above the target and its upper bound).

Alternative Scenario – Inflation Forecast and Hypothesis

	2020	2021	2022
IPCA (% YoY)	1.6	4.4	6.5
FX (USD/BRL eop)	6.5	7.5	7.5
Output gap (%)	-9.2	-8.0	-5.7
Fiscal primary result (% of GDP)	-16.3	-7.9	-7.0
Interest rate (% p.a. eop)	2.0	6.0	9.0

Source: Santander estimates.

Therefore, we believe that fiscal responsibility is the cornerstone of the low-inflation scenario, especially in Brazil. In turn, the low-inflation scenario allows monetary policy to retain its power, staying at low levels so as to stimulate the economy whenever necessary – as it is now. Moreover, fiscal discipline is also essential, in our view, to keep the natural interest rate low, which allows for even lower nominal rates. Hence, we believe it is essential to resume implementation of the reformist agenda as soon as COVID-19 is controlled, in order to maintain the recently improved Brazilian macroeconomic framework.

[10] Inflation also accelerated due to adjustment of administered prices that were previously held artificially low. Nevertheless, it does not change the conclusion, as free prices reached 9.2% YoY in Aug. 2016 and decelerated to around 1.0% in 2017.

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