Brazil — Monetary Policy

"De-Jaboticabizing" Brazil, Part I: End of TJLP is a First Step Toward More Rational Credit Market

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- **At the end of March, the government announced a new market-based rate (TLP) will replace the discretionarily-set TJLP as a benchmark for loans granted by the BNDES. We argue that this may be the first step toward eliminating abnormal aspects of Brazilian markets that are commonly referred to as "jaboticabas".**
- **The economic implications of this announcement are threefold: (i) increased monetary policy efficiency; (ii) reduced fiscal cost associated with BNDES operations; and (iii) an environment more conducive to long-term loans granted by private banks and/or via capital market operations.**
- **In this piece, we look at the differences between the old TJLP and the new TLP, and explore scenarios for both rates over the coming years. In our view, new cuts to the TJLP would require additional improvement in country risk and/or reductions in the inflation target. Meanwhile, we expect the TLP to gradually converge toward the sovereign cost of funding until 2023, eventually standing above the target overnight rate.**
- **Under our base-case scenario, the TJLP stabilizes at 6.5% and the TLP converges to 8.5% at the end of the transition period. Potential improvements in the policymaking front could enable lower levels for both rates. Under theses alternative scenarios, the gap between the Selic and these rates is expected to be at least as low as in the base-case scenario.**

Jaboticabas are sweet, round, black and juicy fruits believed to exist only in Brazilian soil, which is why many local economists refer to the peculiarities of Brazil's economy as "jaboticabas". Examples are plentiful and, as in the chicken or the egg dilemma, it is hard to pinpoint what is cause and what is consequence as one seems to reinforce the other. Part of the job of putting Brazil "back on track" involves eliminating such specificities that are detrimental to economic efficiency: in this and forthcoming papers, we call this process "de-jaboticabizing" Brazil (pardon our neologism, and no offense to the fruit, which is highly appreciated by locals).

To begin with, Brazil has long lived with an excessively high basic interest rate; as a response to that, a variety of instruments, many unique to the country, have been created over the years as a way to insulate some specific credit modalities from the effects of monetary policy. This is the particular case of the so-called "earmarked credit", which is funded by specific instruments that are not responsive to changes in the Selic. The growing relevance of earmarked credit in the country, in turn, impairs the efficiency of monetary policy and therefore requires sharper increases in the Selic to achieve the same result in terms of inflation control, hence reinforcing the atypically high basic interest rates. Therefore, eliminating earmarked credit or at least increasing its responsiveness to monetary policy is, in our view, at the same time a condition for, and a consequence of, bringing the Selic to more reasonable levels.

A first and important step in that direction was taken by the government at the end of March, with the announcement of the replacement of TJLP by a new rate, TLP, as the reference rate in loans granted by the state-owned development bank BNDES. In this piece, we explain the reasoning of the new rate, draw some scenarios for TJLP and TLP (which will coexist for a number of years) and explore some potential economic implications of this very welcome measure.

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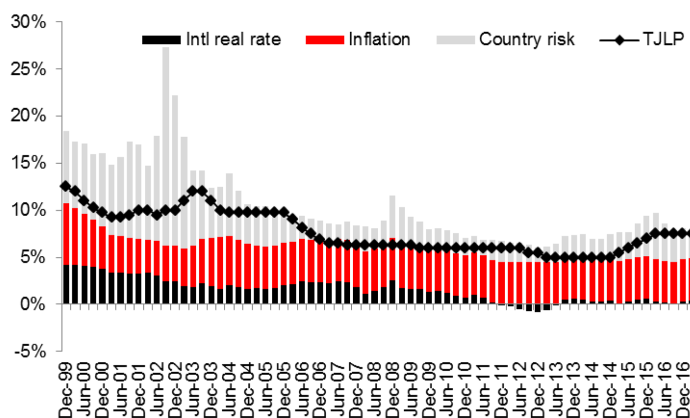
Why is the TJLP considered a "jaboticaba"?

TJLP (*Taxa de Juros de Longo Prazo*) was created nearly two decades ago to serve as a benchmark rate charged in long-term credit operations, in particular those conducted by BNDES. At first, the TJLP was meant to translate to the Brazilian reality the level of long-term interest rates prevailing internationally: the National Monetary Council (CMN, comprised of the Central Bank governor and the ministers of Finance and Planning) set the TJLP on a quarterly basis by compounding measures of long-term international real interest rate, domestic inflation and a Brazil's country risk. From the beginning, the rate composition insulated long-term credit from short-term changes in monetary policy, but some connection remained through the structural components: if the force driving a monetary tightening was a structural shift in country risk, inflation, or in international conditions, there would also be some effect (albeit muted) on the TJLP.

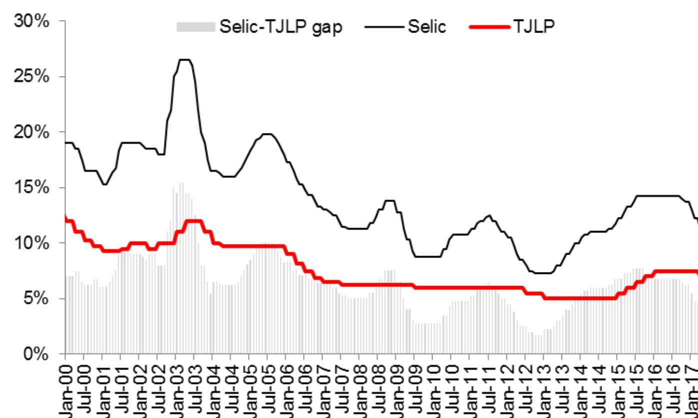
Over time, however, tweaks in the interpretation of this rule left the door ajar for a high degree of discretion, and such discretion was normally used to set the TJLP lower than what the rule predicted (Figure 1) and with an increasing gap from the Selic (Figure 2), which was justified as an effort to boost investments via cheaper long-term credit. At the same time, BNDES' loan portfolio rose sharply in a relatively short period of time (Figure 3), reaching R$638.4 billion (11.0% of GDP) by year-end 2014 from R$155 billion (5.7% of GDP) just seven years before, at year-end 2007.

Figure 1. TJLP: "Rule" vs Observed



% pa. For the rule estimate, inputs are international real interest rates (represented by 10-year US TIPS), local inflation (weighted average of inflation targets for the 12 months ahead) and country risk (EMBI Brazil).
Sources: CMN, BCB, Bloomberg and Santander.

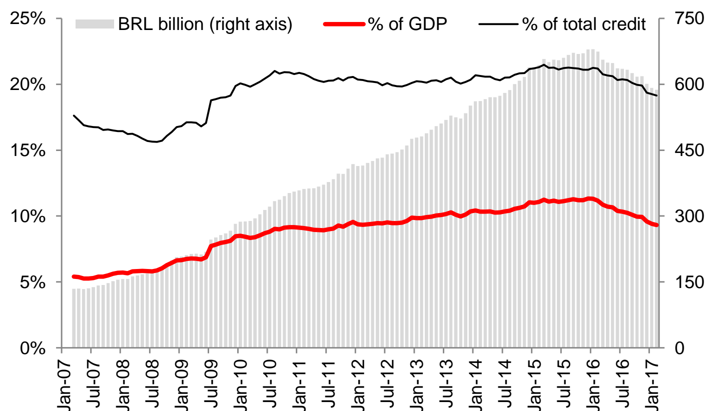
Figure 2. Selic-TJLP Gap



In % pa. Sources: CMN, BCB and Santander.

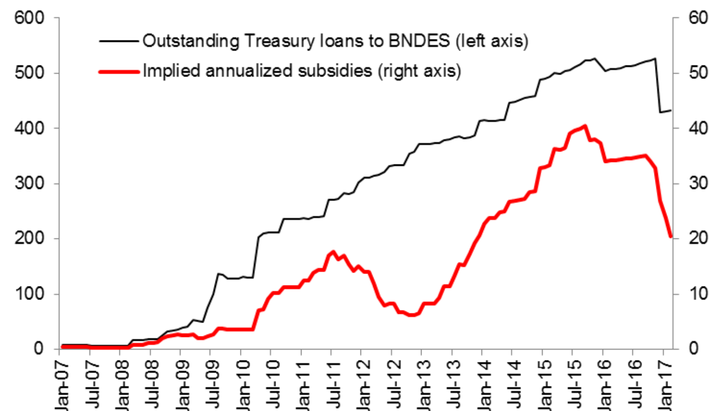
Such a strategy, however, implied significant costs on at least three fronts: First, the disconnect between the Selic and the TJLP implied a strong subsidy on a rising volume of BNDES loans, with mounting fiscal costs (Figure 4). Second, as mentioned before, the same factors severely impaired the efficiency of monetary policy by insulating a significant share of outstanding credit from its effects. Finally, the abundance of cheap financing from a state-owned bank was detrimental to the local market for long-term loans (via private sector banks or capital market operations), regardless of the abundant international liquidity at the time.

Figure 3. BNDES: Outstanding Loans



Includes BNDES loans benchmarked to rates other than TJLP. Source: BCB.

Figure 4. Treasury Loans to BNDES and Estimated Cost



Implicit annualized subsidies estimated by the product between outstanding Treasury loans to BNDES and the gap between the Selic (proxy for the cost of Treasury funding) and the TJLP (proxy for the rate charged by the Treasury on loans to BNDES), in % pa. Sources: BCB and Santander.

This situation began to reverse by the end of 2014, when BNDES lending slowed down and the TJLP started an ascending trend, reaching 7.5% pa, level at which it remained until the latest CMN meeting — when the committee opted to reduce it to 7% pa, and to simultaneously announce that the rate will be phased out and replaced by a new rate, the TLP (Long-Term Rate).

How is the new TLP different from the old TJLP?

Although the two rates have very similar acronyms and serve the same purpose, they are essentially different in two aspects: First, whereas the TJLP aimed (at least in theory) at synthetizing an international rate adjusted to the country-specific risk, the TLP is based on a domestically set interest rate for a longer-term horizon. Such a change in approach is only possible, of course, because we seem to be entering a new phase for domestic markets, in which country risk is perceived as more stable and long-term markets are expected to deepen. The second difference comes from the mechanism to set the rate: whereas the TJLP is set by the CMN on a quarterly basis (reflecting the committee's own judgment on the rate's main drivers), the TLP will be calculated monthly by the Brazilian Central Bank, considering market-based, observable parameters. Both aspects combined render the TLP more transparent and more responsive to economic policy and fundamentals than the TJLP has ever been. Figure 5 summarizes the differences between the TJLP and TLP.

Figure 5. TJLP and TLP – A Summary

	TJLP	TLP
Frequency	Set on a quarterly basis by the National Monetary Council (CMN, comprising the Central Bank Governor and the ministers of Finance and Planning)	Announced on a monthly basis by the Central Bank, based on a pre-defined formula
Formula	TJLP = international interest rate in real terms + country risk + inflation, all evaluated from a long-term perspective	TLP = 5-year sovereign inflation linker (NTN-B) yield x smoothing factor + 12-month IPCA
Nature of BNDES loans	Fully floating rate – loans benchmarked on TJLP will have their cost oscillating according to changes in TJLP over the duration of the loan	Hybrid rate – loans benchmarked on TLP will have their cost defined by two components: a real rate component (fixed for the duration of the loan at the level prevailing at the moment when the loan was granted), brought to nominal terms according to accumulated inflation over the lifetime of the loan
Validity	All life of loans granted by BNDES up to December 31, 2017	All loans granted by BNDES from Jan 1, 2018 on

Source: CMN data, Santande.

Why is the transition to the fully market-based TLP so slow?

Although this is an important change in many aspects, the government's economic team was careful to assure a smooth transition between TJLP and TLP. TLP will not come into effect until January 1, 2018 – meaning that all loans granted by BNDES up to December 31, 2017 will still be benchmarked (for their entire tenor) to the TJLP. This includes the loans eventually granted during the upcoming rounds of infrastructure concession auctioned over the remainder of this year. In practical terms, this means that the TJLP and the TLP will coexist for some time, as the TJLP will still be calculated for as long as there are residual payments on loans granted until the end of this year (which could mean a good number of years).

Another step to ensure no disruption is that at the January 2018 outset, the TLP will be exactly at the level of the prevailing TJLP, by means of a smoothing factor that will be automatically adjusted every year so to linearly converge to 1 at the end of a five-year transition period (Figure 6). In other words, the transition from heavy subsidies to market-based costs in BNDES loans will be very gradual, taking five years to complete. In our view, such a gradual schedule aims at (and will likely succeed on) two fronts. First, it will help prevent a rush to TJLP-based loans until the end of this year, which would be distortive and counterproductive. Second, it will reduce incentives for firms to postpone investment decisions for fear of locking in a relatively high TLP in their cost of funding: recall that the real component of the rate will be pre-fixed for the duration of the loan, and this real component – which reflects the prevailing perception of fundamentals (through the synthetic 5-year NTN-B yield) – is expected to decline over the coming years due to reforms, productivity gains and improved economic policymaking.

Figure 6. TLP Smoothing Factor: Some Scenarios

	Exercise 1	Exercise 2	Exercise 3	Exercise 4
TJLP at end-2017	7%	7%	6.5%	6.5%
5-year NTN-B yield at end-2017	5%	4.5%	4.5%	4%
Inflation at end-2017	4.2%	4%	4%	3.5%
Smoothing factor for 2018	(7%-4.2%)/5% = 0.55	(7%-4%)/4.5% = 0.67	(6.5%-4%)/4.5% = 0.56	(6.5%-3.5%)/4% = 0.75
Smoothing factor for 2019	0.64	0.73	0.64	0.80
Smoothing factor for 2020	0.73	0.80	0.73	0.85
Smoothing factor for 2021	0.82	0.87	0.82	0.90
Smoothing factor for 2022	0.91	0.93	0.91	0.95
Smoothing factor from 2023 on	1.00	1.00	1.00	1.00

Scenarios depicted here represent exercises considering different combinations of TJLP, NTN-B yield and inflation by end-2017. The smoothing factor for the first year (2018) will be given by the ratio between the prevailing TJLP in real terms (i.e. discounting inflation) and the real yield of the synthetic 5-year NTN-B. The smoothing factor for the following years will derive automatically from the first-year factor, as whatever the starting point set for 2018 is, they will linearly converge to 1 in 2023, completing the convergence to a fully market-based rate. The TLP for loans contracted at one specific month will be given by a real component calculated by the product of the prevailing real yield for the synthetic NTN-B and the smoothing factor prevailing at the moment the loan was contracted, brought to nominal values by adding inflation (as measured by the IPCA). These exercises are based on information on the computation of TLP available as of April 20. Source: Santander.

What are the economic implications of the introduction of the TLP?

The main implications of the demise of TJLP and its replacement with the TLP are threefold:

- **Increased monetary policy efficiency**: Although the TLP is not perfectly correlated with monetary policy movements (due not only to the smoothing factor but also to the longer-term nature of the rate), it does bear a closer relationship to Brazilian fundamentals than the TJLP. Also, as it does not leave room for discretion in its setting, the TLP greatly reduces the scope for politically motivated initiatives to "offset" an eventual monetary tightening.
- **Fiscal cost reduction for BNDES operations:** As the TLP converges to the sovereign cost of funding, the implicit subsidy in BNDES loans will gradually decline until it eventually zeroes at the end of the five-year transition period. Note, however, that the actual fiscal cost is related not to the BNDES loans per se, but to the funding supplied by the Treasury to BNDES: over the last years, the Treasury lent billions of reais to BNDES at a TJLP-based cost so that the bank could lend at TJLP-based rates to firms. With BNDES loans from 2018 based on TLP, should the BNDES need additional funding, it could borrow from the Treasury at a TLP-based rate (implied a lower subsidy) as well. Eventually, when the TLP approaches the five-year NTN-B yield, the Treasury can be relieved from its role of providing cheap funding and the BNDES could fund its operations by tapping the market directly instead.
- **Strengthened local market with respect to longer-term credit and capital market operations**: As monetary policy heads to neutral (and disregarding the eventual, natural temporary changes in monetary stance), the yield curve tends to be positively inclined, implying that the TLP (when converged to the five-year rate) tends to be, most of the time, higher than the Selic – even if by a small difference. Be it because Selic-based operations will become competitive or (more likely) because markets will shift their focus from the Selic to the longer-term rate as the relevant reference rate, operations mediated by non-BNDES market participants tend to increase over time.

What is a likely trajectory for the TJLP and the TLP in the coming years?

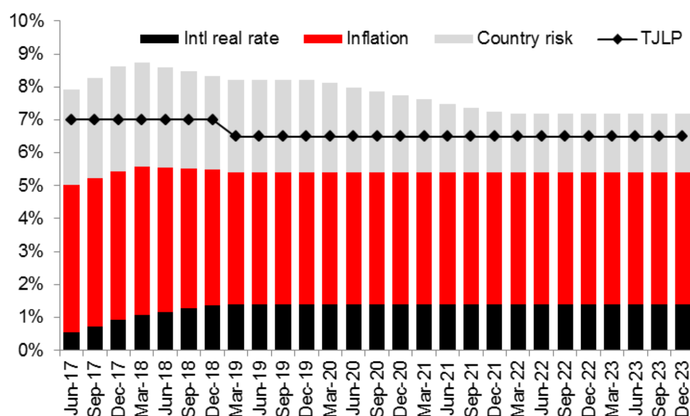
In order to outline a trajectory for both rates, we need to make assumptions for a number of variables:

- **International real interest rate (relevant for TJLP):** We take the 10-year US TIPS as a proxy and assume it will rise gradually, until stabilizing at 1.4% pa at year-end 2018, following the expected normalization of U.S. monetary policy.
- **Country risk (relevant for TJLP):** We assume a slow decline in country risk over the course of the coming years, in line with the gradual improvement in fiscal accounts and the ensuing slow revision in sovereign rating. We see country risk (as measured by EMBI) declining 100 bps from year-end 2019 to year-end 2023.
- **5-year NTN-B yield (relevant for TLP):** Assuming a neutral interest rate of around 4% pa (in real terms), and a slight positive slope in the yield curve for the five-year tenor, we outline a gradual decline from a little more than 5% at present to 4.5% by year-end 2019, stabilizing at that level.
- **Inflation (relevant for both TLP and TJLP):** We consider inflation around the target, and anticipate a cut in the target to 4% from 2019 onward.

Under this set of (rather conservative) assumptions:

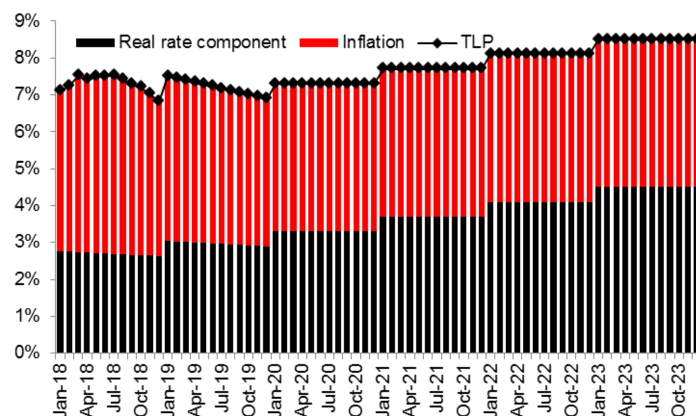
- **TJLP could be cut again at early 2019, to 6.5%, stabilizing at that level:** In our view, the CMN's decision to cut the TJLP to 7% already incorporates their assessment of a fair level for the rate under the currently prevailing levels of the rate's components -- including country risk, which plunged more than 200 bps since the TJLP was first set at 7.5% in early 2016. Therefore, new changes in the TJLP will likely follow the shifts in its components at the margin. An additional, underlying assumption is that the economic teams of this and the next administration will not use discretion to increase implicit subsidies to loans granted up to December 2017: in fact, they would simply keep the Selic-TJLP gap relatively stable. With the assumed decline in country risk being offset by the expected rise in international rates, we see the cut in the inflation target as the most likely driver of a mild cut in the TJLP.
- **TLP would follow a non-linear path from 7% at the onset to 8.5% at the end of the transition period in 2023**: Rising smoothing factors (as depicted in exercise 1 of Figure 6), applied over a gradually declining NTN-B yield and added to our inflation assumptions, would result in a non-linear trend: the rate would decline slightly at a first moment, given the assumed decline in the NTN-B yield, but would rise afterward, in line with the rise in the smoothing factor, before converging to the full NTN-B yield in nominal terms in 2023.

Figure 7. TJLP: Rule vs. Forecast



Under our basic set of assumptions, as described in the text. Source: Santander.

Figure 8. TLP: Components vs. Forecast



Under our basic set of assumptions, as described in the text. Note that the real component reflects not only the NTN-B yield (expect to decline slightly) but also the gradually rising smoothing factor. Source: Santander.

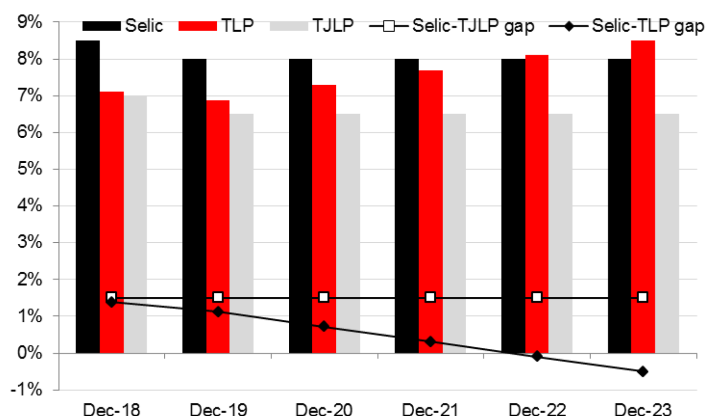
What are the risks to these forecasts?

Visibility on the main drivers of both rates is relatively low, as they are heavily influenced by the assumptions made on global economy and the quality of policymaking over a relatively large time horizon. In that sense, it seems useful to consider potential upside and downside risks to these forecasts:

- **Speed and end-point of U.S. monetary normalization:** Our base-case assumes an approximate 100-bp increase in 10-year TIPS but, should FOMC members reassess their long-term view on interest rates, or should markets revise their expectations for the speed of the normalization process, the international component of the TJLP would be affected. We do not see this as a clear or major risk for the forecast.
- **Policymaking in Brazil:** The time horizon for these forecasts spans over three presidential mandates (President Temer's mandate ends in December 2018; the following mandate is 2019-2022, and the one after that is 2023-2026). We assume no major change in policymaking over that time horizon, with neither reversal of the ongoing accomplishments, nor major additional advance. In other words, the fiscal adjustment is assumed to proceed at the gradual pace predicted by the spending cap (i.e., with no additional measures on the revenue side); the inflation target is assumed to stabilize at 4% from 2019 onward, and the process of "de-jaboticabizing" Brazil will proceed at a slow pace. With no major additional micro or macroeconomic improvement that could boost either monetary policy efficiency or potential output, the neutral interest rate is expected to stabilize around the current level (which we see at 4%), and country risk would take a long time to converge to investment-grade levels. However, we envisage room for a potential positive surprise: while there is no much leeway for a faster fiscal adjustment (and consequently for a speedier convergence to lower country risk levels), there is room for the economic teams to push a more ambitious agenda, eliminating other "jaboticabas" and setting a timetable to reduce the inflation target to 3% over time.

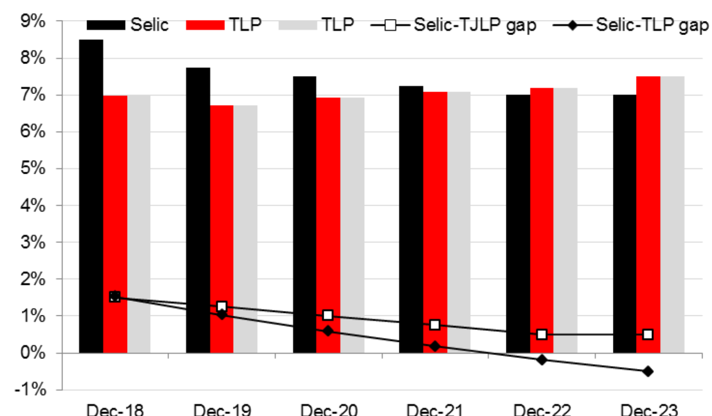
Figures 9 to 12 depict the TLP and TJLP under alternative scenarios, which is helpful to understand how the quality of policymaking could affect both rates. In all scenarios, global conditions and country risk evolution are assumed to be the same – for country risk, we understand that sovereign rating is the most important driver, and as said before, we do not see much room for additional improvement in the fiscal policy to the point of inducing earlier sovereign upgrades. One interesting point to note is that, by several mechanisms, the same variables that could potentially drive lower levels of TLP and TJLP would also drive a similar reduction in the Selic. Therefore, under these alternative scenarios, **the gap between the Selic and these rates is never wider than in the base-case scenario**; in the particular case of the Selic-TJLP gap, it converges to much lower levels than seen recently or even currently. One exception, of course, would be in the (unlikely) case of severe deterioration of policymaking: in that case, the possibility of heavy use of discretion in the setting of all three rates renders a numeric exercise meaningless.

Figure 9. TJLP, TLP and Selic: Base-Case Scenario



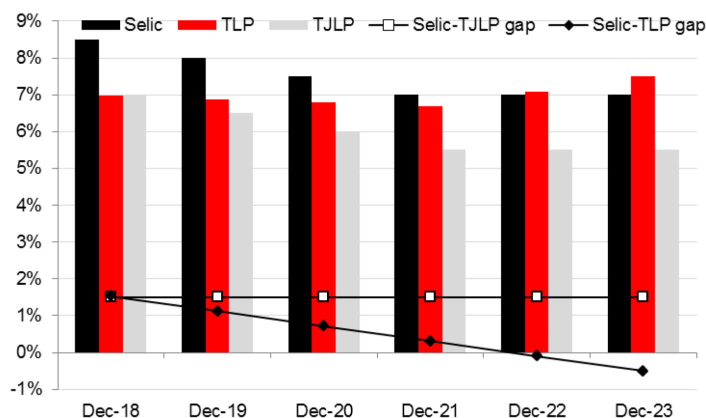
Under our basic set of assumptions, as described in the text. Source: Santander.

Figure 10. TJLP, TLP and Selic: Lower Neutral Interest Rate



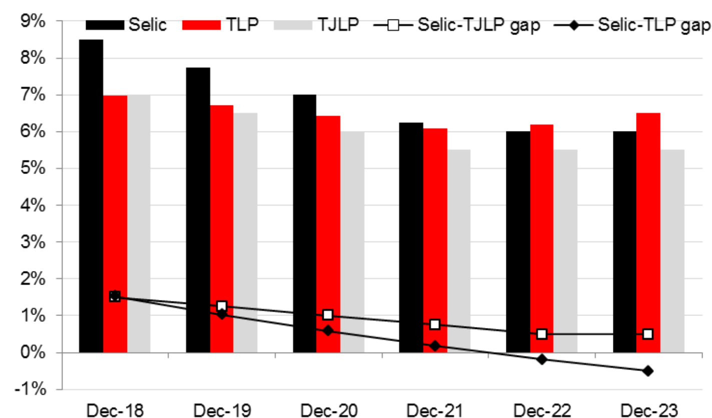
Under our basic set of assumptions, except for the neutral interest rate, assumed to gradually converge to 3% by means of increased monetary policy efficiency and/or higher potential output. Source: Santander.

Figure 11. TJLP, TLP and Selic: lower inflation target



Under our basic set of assumptions, except for the inflation target, assumed to gradually converge to 3%. Source: Santander.

Figure 12. TJLP, TLP and Selic: lower neutral interest rate and lower inflation target



Assuming both neutral interest rate and inflation target converging to 3%. Source: Santander.

Conclusion

While from the distance the TLP might seem only yet another rate in Brazil's maze for acronyms, rates and indices, we do believe that its creation might be a hallmark of a deeper transformation in the Brazilian economy. As such, we greatly welcome the TLP and look forward to further advances in the direction of making economic policy more predictable, less subject to political interference and more responsive to fundamentals. With many other "jaboticabas" scattered around the floor, we see plenty of room for such advances, and believe that gradualism – as adopted in the TLP case, in the spending cap and in the social security reform – may be the best strategy to structurally transform Brazil, one step at a time.

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