ECONOMICS

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Brazil - Monetary Policy

Adriana Dupita*
adupita@santander.com.br
5511-3012-5726

TJLP: Less Discretion, More Volatility?

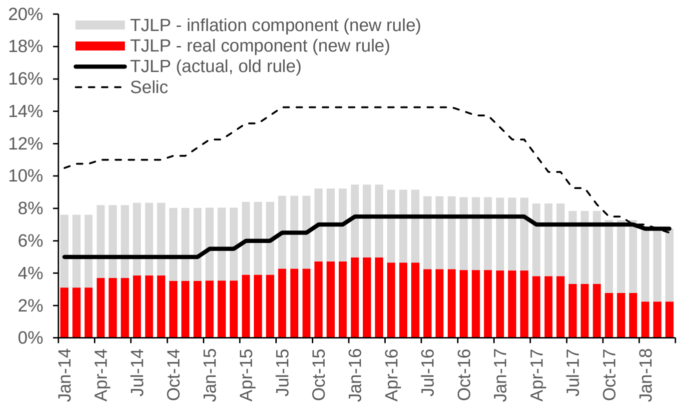
- **The CMN recently announced a change to the way the TJLP is set. Recall that the TJLP is the rate used on past BNDES loans granted until Dec 2017; from Jan 2018, the new loans will be indexed to the new TLP.**
- **With this change, the rate becomes more market-based, in a rationale similar to the new TLP. Also, its setting becomes more insulated from political pressures to increase off-budget subsidies to past loans. The other side of this coin is that the new formula reduces the scope for the CMN to force the convergence of the TJLP to the Selic, a convergence that could be helpful in fiscal terms.**
- **In this new formula, there is an embedded subsidy of up to 2pp in comparison to market rates, and under our base-case scenario the rate could stabilize around 6.5% pa. However, the fact that the rate is somewhat market-based will increase its sensitivity to market conditions – although the rule attempts to mitigate part of this potential volatility, an eventual shift in sentiment regarding economic policy in the years ahead could imply risk of a higher TJLP.**

The new formula: how it works

On March 16, the CMN (National Monetary Council) announced a change in the way the TJLP is calculated. Recall that the TJLP is the rate to which BNDES loans granted until December 2017 are indexed; since early 2018, the new loans are indexed to a different rate, called TLP[1]. However, the TJLP still holds some relevance, for its impact on the financials of past BNDES borrowers and for the incentives it carries for prepayment of those loans.

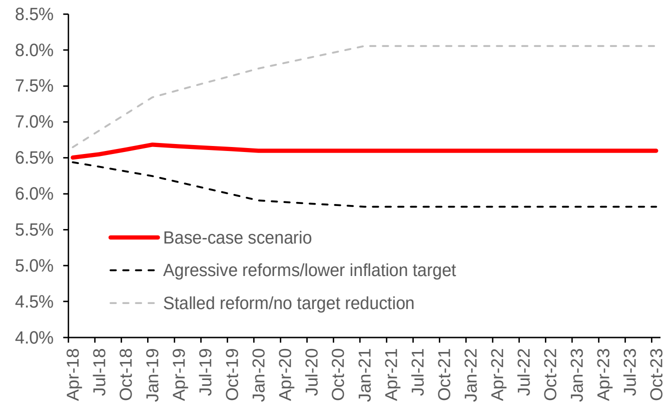
In recent years, even though the rate in theory follows a rule, in practice the rate has been set arbitrarily by the National Monetary Council[2] on a quarterly basis. From now on, the rate will be set on a quarterly basis as well, but automatically, following a rule established last Friday: **a market-based gauge of real interest rate + average inflation target for the following 12 months**.

Figure 1. TJLP: old versus new rule



Sources: CMN, Bloomberg, Santander.

Figure 2. TJLP: scenarios



Base-case scenario: neutral rate at 4%, inflation target stable at 4% from 2020 on. Aggressive reform/lower inflation target scenario: neutral rate declining to 3%, inflation target reduced to 3% by 2023. Stalled reform/no target reduction scenario: neutral rate reverting to 2010-2018 average (5.4%), inflation target stable at 4% from 2020 on. In all exercises, the 3-year term premium is assumed as 0.5%. Source: Santander.

[1] Infrastructure projects approved until Dec 31, 2017 can apply for TJLP-based loans this year, according to the rules.
[2] For some background on the TJLP rules and its recent history, please refer to our reports *TJLP: Rules and Discretion* (June 27, 2016) and *TJLP: What it is and why it matters* (June 27, 2012).

Some additional rules were defined to reduce volatility of the rate:

- The real component of the rate will be based on the public sector cost of funding, more specifically on the **6-month average of the 3-year NTNBs** (inflation-linked bond), but a "discount" will be embedded in the rate so as to keep it lower-than-market: whenever this 3-year yield is at or above 4% pa, there will be a "discount" of 2pp; whenever the 3-year yield is below 4% pa, the real component will be half of this yield;
- The inflation component will be the **average inflation target for the 12 months ahead** (targets are set by the CMN for the upcoming 3 years; so far, CMN has set 4.5%, 4.25% and 4% as the targets for 2018, 2019 and 2020 respectively);
- **The upper limit for the TJLP will be the prevailing target overnight rate (Selic) whenever the Selic is at or above 8.5% pa** (note that this constraint would not be binding now, when the Selic is at 6.75% pa; it seems to be there simply to ensure market participants that the rate for past loans will be always lower than the Selic).

How would the TJLP have evolved under this rule? An exercise

One important implication of moving towards a market-based rationale is that it reduces the room for discretionary moves in the TJLP. In the past, the rate was set by the CMN at artificially low levels. In fact, a simple exercise suggests that, if this new formula had been adopted before, the TJLP would have been much higher than it actually was. We compute the new formula back to early 2014 – the results are shown in Figure 1 (the estimated TJLP under the new rule is given by the sum of the two bars). Note that throughout this period it would have been higher than the TJLP actually observed. The smaller difference happens in the latest two quarters, when the new rule would imply a TJLP very similar to the actual level. Considering that the new formula already embeds a generous subsidy, the fact that the actual TJLP was an additional 2-3pp below these levels for most of these years is a good indication of the strong subsidy in BNDES operations, with a massive fiscal cost (recall that the difference between the government's cost of funding – proxied by the Selic – and the TJLP represents an implicit subsidy on BNDES operations).

Looking ahead: a slightly declining trend, sensitive to economic conditions

A simple extrapolation of the last observed 3-year NTNB yield (3.86% pa last Friday) could be suggestive of a TJLP close to 6.3% (real component of 1.93% + average inflation target of 4.4%), but there are two points of caution here. First, what counts is not the latest point, but rather a 6-month average (for the Oct17-March18 period, the average is 4.08% until the latest data point, March 16, implying a 2.08% real component and therefore a TJLP closer to 6.5%). Second, because the 3-year yield reflects to a large extent the short-term monetary cycle, the current estimates are contaminated by the fact that the Selic is expected to remain below neutral, and therefore exceptionally low for at least until mid-2019 (more than one third of the 3-year period). Therefore, for forecasting the rate over a longer period, it is more useful to think in terms of the neutral interest rate and typical term premium. We work with the following assumptions:

1. The neutral interest rate for Brazil will remain at around 4%, in real terms[3];
2. The term premium for the 3-year horizon will oscillate around 0.5%, consistent with its historical average;
3. The inflation targets already set for the 2018-2020 period will be maintained.

Under these assumptions, the real component of the TJLP would likely stabilize around 2.5% (4% of the neutral rate + 0.5% term premium = 4.5%, minus the 2pp subsidy for this level of rate). If the inflation target stabilizes at 4%, this would imply a TJLP at 6.5%, with some oscillation around these levels depending on the prevailing market conditions in each quarter.

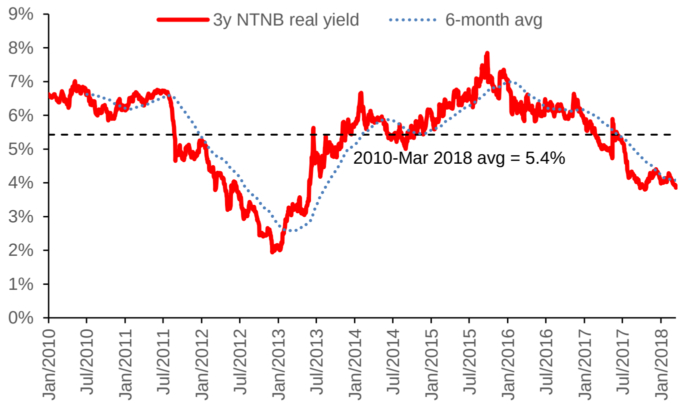
Having said that, the market-based component makes it sensitive to perceived shifts in economic policymaking. Our base-case scenario assumes the maintenance of the current economic policy in the years ahead, and some advances on the reform front, plus U.S. rates normalizing to 3%. Should markets perceive a high risk of change in economic policy and/or a stalled reform agenda and/or U.S. monetary normalization to a higher level of rates, the 3-year NTNB yield will likely respond by going higher, and the TJLP would likewise rise. On the other hand, a faster-than-anticipated improvement in macro and fiscal conditions and/or a slower-than-expected rise in U.S. rates could tip the 3-year NTNB lower. Two alternative scenarios are outlined in Figure 2 – and should be taken as simple exercises, not alternative forecasts.

In any case, it is worth noting that, under this rationale, the TJLP will capture some of the market volatility (even if with a lag, induced by the 6-month average). This is illustrated by the evolution of the 3-year NTNB real yield in the 2010-2018 span, as depicted in Figure 3. In this relatively short period, the rate oscillated from a low of 1.9% to a high of 7.8%, with an average of 5.4%; under normal circumstances, the rate is expected to be less volatile than this, but there is still some room for oscillation. Finally, we also run an exercise on how the difference between TLP, TJLP and Selic will evolve over time (Figure 4), all under the assumption of neutral rates of 4% in real terms, current inflation targets and

[3] For further detail on our estimate of the neutral interest rate, please see our report *Monetary Policy and the Last Crusade* (August 30, 2017).

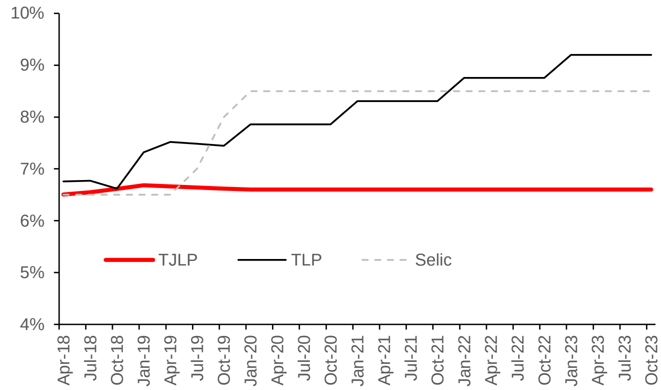
historical term premia. Note that while the TJLP would potentially stabilize around 6.5% in this exercise, the TLP would rise over time as the embedded subsidy is reduced over the next 5 years, eventually surpassing the Selic at the end of the period.

Figure 3. 3-year NTNB: real yield



Sources: Bloomberg, Santander.

Figure 4. TJLP, TLP and Selic: base-case scenario



Base-case scenario for TJLP and Selic. For the TLP, for simplicity the estimate assumes the actual inflation will be equal to the 12-month target, except for the Apr 18-Jan 19 period, for which we assume our inflation forecasts for the 12-month period starting at each date. Recall that the TLP has a pre-fixed real component (set at the moment the loan is granted) and a floating inflation component (the period's inflation). Assumptions: neutral rate of 4% in real terms, inflation targets stabilizing at 4% from 2020 on, term premia at 0.5% and 1% for 3 and 5 years respectively.
Source: Santander.

CONTACTS / IMPORTANT DISCLOSURES

Macro Research			
Maciej Reluga*	Head Macro, Rates & FX Strategy – CEE	maciej.reluga@bzwbk.pl	48-22-534-1888
Sergio Galván*	Economist – Argentina	sgalvan@santanderrio.com.ar	54-11-4341-1728
Maurício Molan*	Economist – Brazil	mmolan@santander.com.br	5511-3012-5724
Juan Pablo Cabrera*	Economist – Chile	jcabrera@santander.cl	562-2320-3778
Diana Ayala	Economist - Colombia	diana.ayala@santander.us	212-350-0979
Tatiana Pinheiro*	Economist – Peru	tatiana.pinheiro@santander.com.br	5511-3012-5179
Piotr Bielski*	Economist – Poland	piotr.bielski@bzwbk.pl	48-22-534-1888
Marcela Bensión*	Economist – Uruguay	mbension@santander.com.uy	5982-1747-5537
Fixed Income Research			
Diana Ayala	Macro, Rates & FX Strategy – Latin America	diana.ayala@santander.us	212-407-0979
Juan Arranz*	Chief Rates & FX Strategist – Argentina	jarranz@santanderrio.com.ar	5411-4341-1065
Juan Pablo Cabrera*	Chief Rates & FX Strategist – Chile	jcabrera@santander.cl	562-2320-3778
Aaron Holsberg	Head of Credit Research	aholsberg@santander.us	212-407-0978
Equity Research			
Christian Audi	Head LatAm Equity Research	caudi@santander.us	212-350-3991
Andres Soto	Head, Andean	asoto@santander.us	212-407-0976
Walter Chiarvesio*	Head, Argentina	wchiarvesio@santanderrio.com.ar	5411-4341-1564
Valder Nogueira*	Head, Brazil	jvalder@santander.com.br	5511-3012-5747
Pedro Balcao Reis*	Head, Mexico	pbalcao@santander.com.mx	5255-5269-2264

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