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Brazil: Economic Activity

In Search of Growth

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- **Brazilian economic growth has been frustrating expectations for a long time. Factors such as the sharp deterioration of the fiscal environment, fluctuations in business and consumer confidence, weakening international demand and a pronounced loss of productivity seem to explain a significant part of the deviation between expectations and reality.**
- **For the long term, domestic potential growth is also at depressed levels (we estimate 0.7% p.a. under current conditions). We believe that for potential growth to exceed 2% per year again, the investment rate of the Brazilian economy would need to reach at least 19% of GDP, while the annual gain in total factor productivity would have to reach at least its (low) historical average of 0.4% p.a.**
- **Although not trivial, we consider this evolution feasible. Brazil has the necessary conditions to advance the growth agenda, including a more accurate diagnosis of the causes and consequences of the current situation, more reformist guidelines and policies by the government's economic team and the National Congress, as well as the growing support of the population in Brazil regarding the need for adjustments and reforms.**
- **In the short term, the Brazilian economy is growing at a moderate pace and, in our opinion, this situation will not change quickly. We currently project expansion of 0.8% and 1.6% for Brazilian GDP in 2019 and 2020, respectively. With this, we believe that the economy's idleness (the current output gap is negative by 2.9%, according to our estimates) will not be eliminated until 2022.**
- **Advances in institutional frameworks; measures to stimulate competition, trade openness and integration; greater transparency and legal certainty; initiatives aimed at boosting infrastructure investments; and government's commitment to fiscal consolidation are some of the elements that need to move forward in order to promote stronger and sustained growth in the long run, in our view.**
- **Therefore, unlike in other not-so-distant periods, when demographic factors, positive shocks in international commodity prices and/or fiscal stimuli boosted Brazilian economic growth, we believe that, from now on, progress on the productivity agenda and measures to stimulate investment (mostly private, with domestic and foreign capital) will become increasingly prominent.**

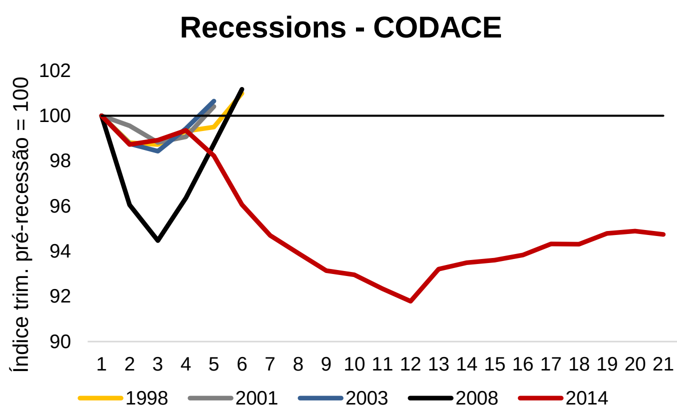
Setting expectations

Brazil is experiencing the longest economic recovery in its history—the recession that began in mid-2014 cost more than 9 p.p. of GDP per capita—and could still take another three years to recover, in our view. Economists had not expected such a significant contraction nor such a slow recovery; as such, reality has been disappointing for a few years. Explanations for such frustrations are related to both short- and long-term factors.

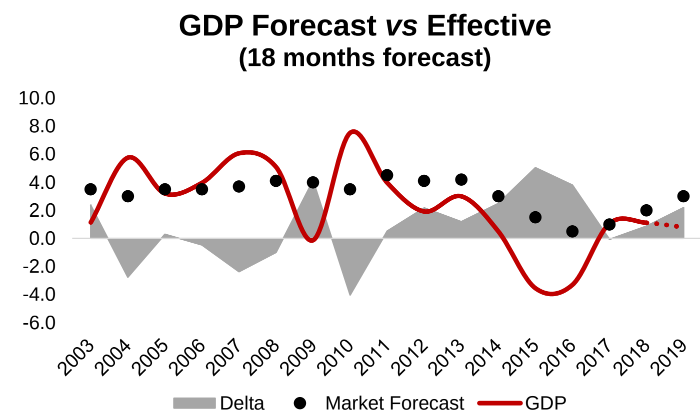
In the short term, more dependent on demand, the usual engines of growth failed or could not be triggered: the country has lacked room for fiscal impetus due to the sharp deterioration of the deficit and accelerated growth of public debt, which necessitates deep adjustment of expenses, decelerating external contributions, regaining confidence at a slow pace (and with erratic movements), and stimulative monetary policy, constrained by the risk balance of the inflationary framework. Considering a longer horizon, when production reacts mainly to factors that explain the supply of the economy, the sharp fall in investments (private and public), as well as the significant loss of productivity, has led the country to a position of low growth potential.

Downward revisions in growth projections for the Brazilian economy have prevailed in the last 8 years and we see a confirmation of this trend in 2019. Considering an 18-month forward horizon, the market has, on average, overestimated by 2 p.p. the effective GDP growth rate.

Expectations are now better calibrated, or at least do not seem overly optimistic, in our view, as the scenario projected by market participants foresees a very gradual acceleration of GDP. Although market projections for 2020 have some downward bias, the balance of risks appears to be balanced over the medium term. The diagnosis of what needs to be done to finally be positively surprised is now closer to consensus—though it is not a trivial arrangement.



Sources: Comitê de Datação de Cilcios Econômicos (CODACE) and IBGE



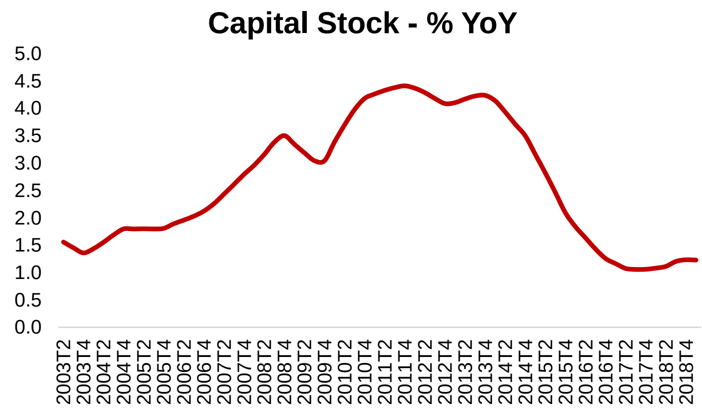
Sources: IBGE and Brazilian Central Bank

Potential GDP, long term growth

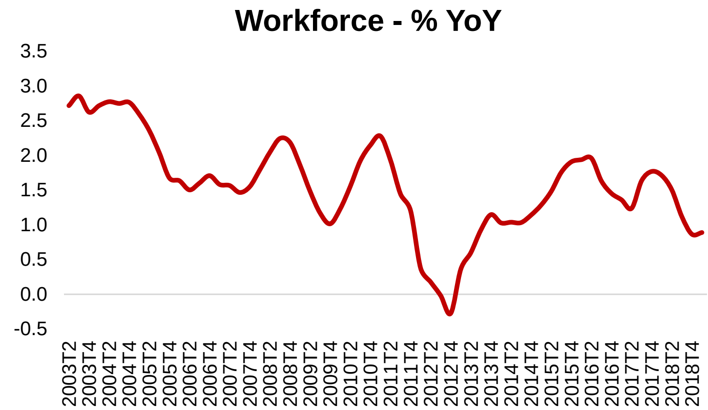
In the long run, economic growth is determined by supply—that is, by the rate of expansion of productive capacity. In short run, this rate depends on: (i) the evolution of the capital stock (which depends on investment); (ii) the growth rate of the workforce; and (iii) the total productivity of the factors of production.

We present a typical production function where: $Y_t = A_t(K_t\omega_t)^{1-\alpha}[L_t(1-\mu_t)]^{\alpha}$ where A_t corresponds to the exogenous shock of technology; K_t represents the net capital stock; ω_t denotes the level of capacity utilization (average economy); L_t is the workforce; and μ_t refers to the observed unemployment rate. Thus, potential GDP can be expressed as: $Y_t^* = A_t(K_t\omega_t^*)^{1-\alpha}.[L_t(1-\gamma_t^{\mu})]^{\alpha}$, where ω_t^* represents NAICU (Utilization of Non Accelerating Inflation Capacity) and γ_t^{μ} denotes NAIRU (Non Inflation Accelerating Unemployment Rate).

In addition to the unemployment rate we use the following data to calculate Brazil's potential output: (i) total GDP; (ii) net capital stock; (iii) workforce; and (iv) installed capacity utilization level weighted by sector weightings of GDP. All data series were used on a quarterly basis and seasonally adjusted.



Source: IPEA



Source: IBGE

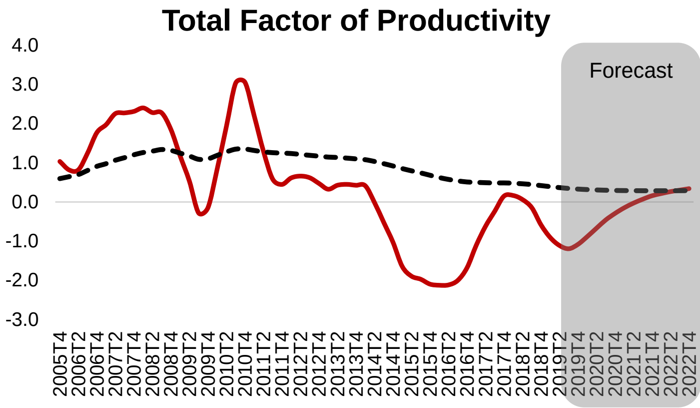
In the last available data, the capital stock has grown by 1.2% per year while the workforce has risen by 0.8%, and productivity fell -0.9%, which we expect to intensify the pace of declines in the coming quarters before recovering. Therefore, considering these three elements, the estimate obtained from the production function for the potential growth of the Brazilian economy in 2019 is only 0.7%, reaching 2.2% in the year by the end of 2022, according to our analysis.

In our view, labor will not be the main driver of growth until 2022, given demographic trends and economic constraints; however, a favorable and effective economic agenda could substantially increase investment and productivity levels, boosting the country's long-term potential growth.

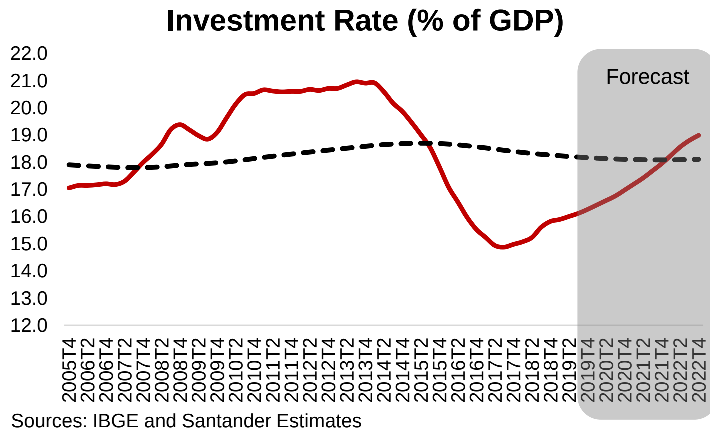
We believe that Brazil meets the necessary conditions to advance the growth agenda, including a more accurate diagnosis of the causes and consequences of the current framework, more reformist guidelines and initiatives by the government's economic team and the National Congress, as well as the population's growing support for the need for adjustments and reforms.

The agenda being discussed has the potential to bring considerable gains in the long run, in our view, with some advances already visible in Congress, such as the approval of pension reform in the House of Representatives: (i) successful concessions and privatizations, based on the modernization of institutional frameworks, should attract investments in infrastructure sectors, such as sanitation, logistics (road, rail, airport and water), electricity, oil & gas, and telecommunications; (ii) an improved business environment through process simplification, reduction of red tape, and changes in legislation should increase competition in the economic environment; and (iii) the simplification and elimination of distortions and privileges (benefits) of the current tax system, which significantly increase the costs of local enterprises, discourages investments and intensifies income concentration. Finally, we see auspicious signs in the current growth and productivity agenda, particularly with regard to advances in the aggregate infrastructure sector.

Returning to the numbers, we estimate that for potential growth to reach the estimated 2.2%, the Brazilian economy's investment rate would need to reach at least 19% of GDP (the rate currently stands at 15.9% of GDP), while annual productivity gains would have to reach at least the historical (low) average of 0.4% per annum. Compared to other countries' productivity growth in the last decade, this seems reasonable, which means that the reference levels could be exceeded if the current administration is successful in implementing structural reforms in Brazil. Although not trivial, we consider this evolution feasible.



Source: Santander Estimates



Sources: IBGE and Santander Estimates

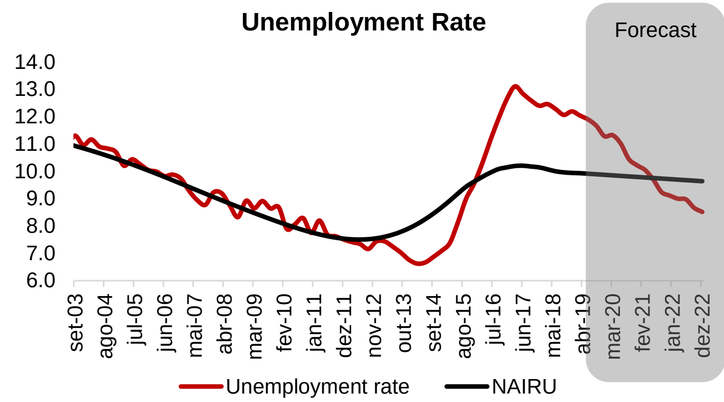
Potential GDP for different combinations of investment rate and TFP

%FBKF\GA	0.0	0.2	0.4	0.6	0.8	1.0
15	0.99	1.19	1.39	1.59	1.80	2.00
16	1.20	1.40	1.61	1.81	2.01	2.21
17	1.41	1.62	1.82	2.02	2.22	2.43
18	1.62	1.83	2.03	2.23	2.44	2.64
19	1.83	2.04	2.24	2.45	2.65	2.85
20	2.05	2.25	2.45	2.66	2.86	3.07

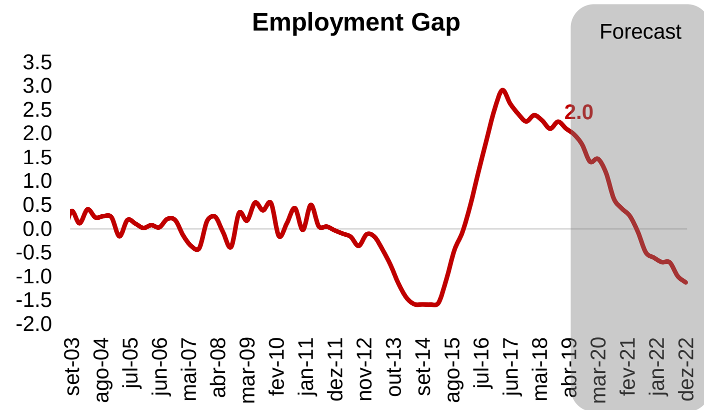
Source: Santander estimates.

The short term situation

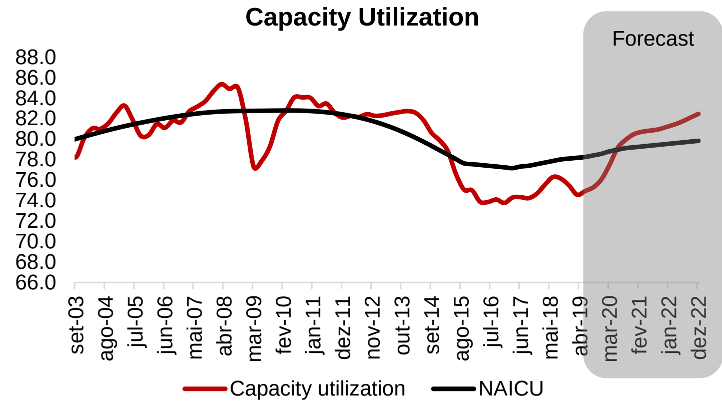
In the short term, the pace of economic growth is usually determined by demand, especially after recessions, when production factors are idle and supply can meet the expansion of demand without generating inflationary pressures. Indeed, in terms of labor and capital, the Brazilian economy seems to be far from its equilibrium. According to our estimates, the unemployment rate is 2 p.p. above equilibrium, and the installed capacity utilization level (NUCI) is 3.3 p.p. below the level that could generate some price pressure. Still, according to our simulations, if these two variables returned to their equilibrium, it would imply an expansion of the employed population from 92.8 to 95 million and growth in the capital stock, by raising the NUCI from 74.9% to 78.3%. In this case, we estimate GDP would grow by 2.9% per year.



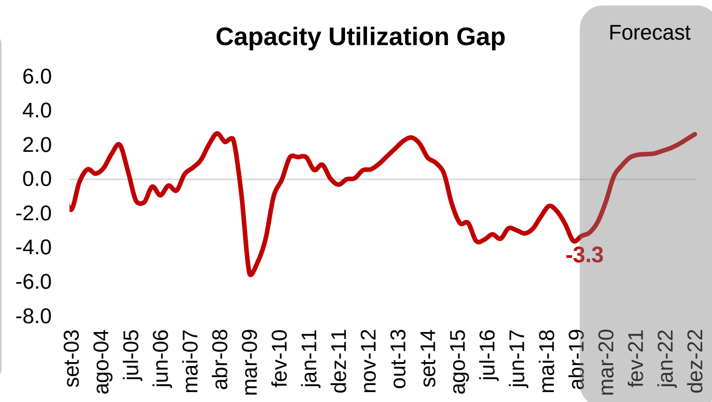
Sources: IBGE and Santander Estimates



Source: Santander Estimates



Source: FGV and Santander Estimates



Source: Santander Estimates

But then, if there is so much idleness, why doesn't demand grow?

Broadly speaking, there are three factors that can boost the economy in the short term, which are government spending, exports, and important positive variations in consumer and business confidence. In these respects, we would note:

(i) Governments cannot increase their demand because their resources are more than fully allocated, and even misallocated; aggregate public sector savings are negative by more than 5 p.p. of GDP, which makes pressing for fiscal consolidation an urgent matter. Any move in the opposite direction tends to undermine confidence in public debt solvency and the regular functioning of governments and can generate pressure for tax increases;

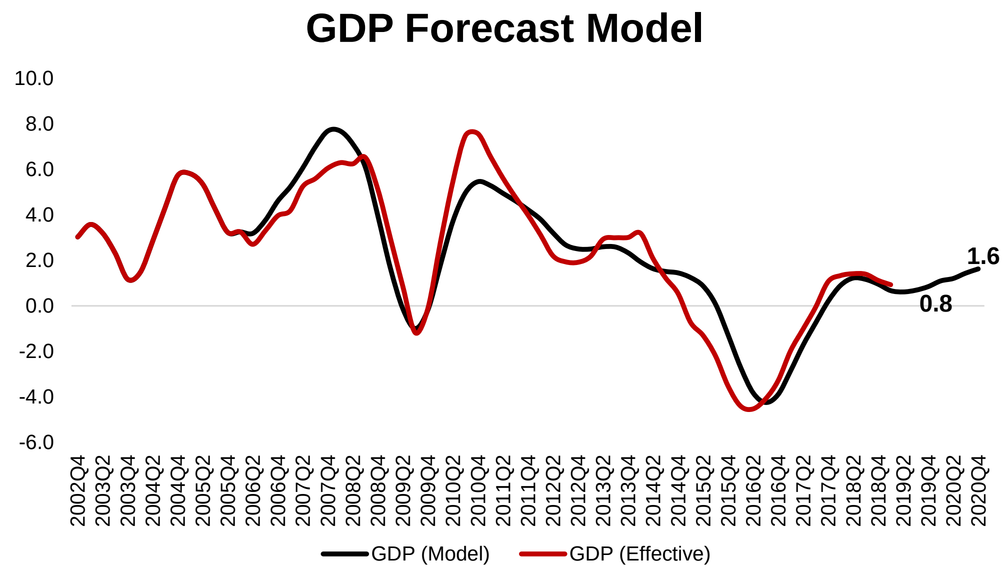
(ii) Exports, or external demand, have been weakening in the wake of the global economic slowdown, both among developed and emerging countries;

(iii) Local consumers, entrepreneurs and investors do not yet seem confident enough to boost the economy. Moreover, idleness itself limits demand, since the fragility of the labor market—with high levels of unemployment and informality, and unstable income behavior—prevents a sharp recovery in consumption; in the same vein, idleness in the use of installed machinery and equipment reduces the need for new investment.

We believe that the sharp decline in interest rates since 2017 has contributed to credit expansion, which has allowed for a relatively stronger recovery in the recent period for some durable goods sectors, such as the auto market. However, credit expansion to individuals also occurred due to debt re-profiling and the correction of delinquency, as well as due to consumption itself. As labor market reactivation tends to follow the gradualism of economic recovery, we do not believe in abruptly reversing this picture. In addition, the most significant increase in vehicle sales—specifically within durable goods—was largely due to tax arbitrage on direct sales by automakers to car rental companies or to people with disabilities.

Based on our medium-term projection VAR model, we project 1.6% growth for Brazilian GDP in 2020, after increasing 0.8% in 2019. The model considers as exogenous explanatory variables Chinese GDP growth and Credit Default Swaps (CDS), and as endogenous variables the real interest rate (ex-ante interest) and the consumer and industry confidence indicators. Other econometric models, which use financial market variables as growth antecedents, point to a similar growth rate, which is slightly below the current market consensus for next year's GDP performance (2.2%).

Therefore, based on our projections, the idle picture of the Brazilian economy will not be reversed any time soon. We estimate that the output gap, currently at -2.9%, will return to zero only in Q3 2022, allowing the domestic interest rate to remain below equilibrium for a long period. Consequently, we believe there is room for the Selic rate to be reduced to 5.25% p.a. by the end of this year.



Source: IBGE and Santander Estimates

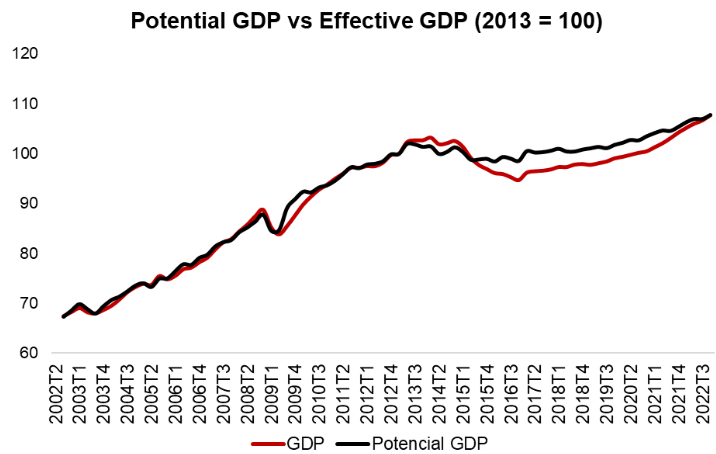
It is noteworthy that, knowing the difficulties and uncertainties related to the estimation of unobservable variables, such as the output gap, we decided to develop some sensitivity analyses, assessing the gap for different assumptions of unemployment rate and a balanced level of installed capacity utilization. The results suggest that, in the range that seems reasonable to us—as indicated by the red rectangle in the following table—our main conclusion does not change: idleness in the Brazilian economy is quite high.

On the one hand, these results are very similar to those reported by Ipea (Institute of Applied Economic Research), for example, which has frequently and for a long time been disclosing its own product gap estimate. On the other hand, our numbers are higher than those estimated with the direct use of statistical filter methodologies (such as Hoddrick-Prescott, known as HP filter). In this sense, it is worth mentioning two major disadvantages arising from the use of the HP statistical filter: (i) because it is a "trend estimator," when the economy is far from its equilibrium for a long period, the filter ends up considering recent values as a new equilibrium, and idleness (the difference between the observed value and that of this trend) ends up being underestimated, which seems to be happening today when using this methodology; and (ii) does not allow us to make a clear sensitivity analysis of the assumptions, something we perform from a production function.

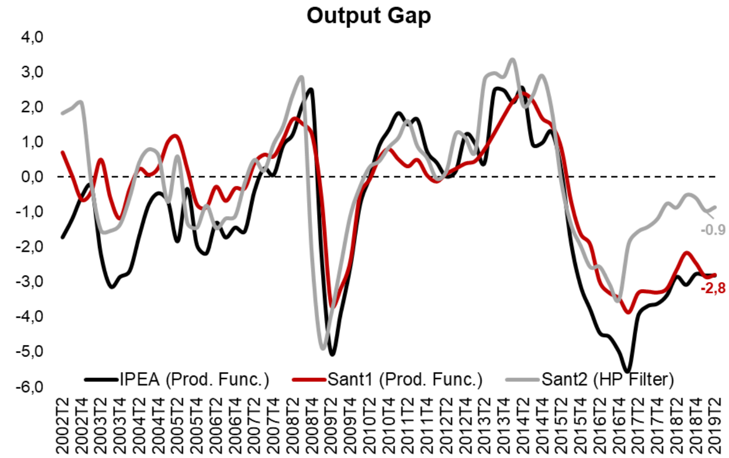
Output Gap for different combinations of NAIRU and NAICU

NAIRU\NAICU	75	76	77	78	79	80	81	82	83	84	85
6.5	-2.71	-3.35	-3.98	-4.60	-5.20	-5.84	-6.38	-6.95	-7.52	-8.07	-8.61
7.5	-2.18	-2.83	-3.46	-4.08	-4.69	-5.34	-5.88	-6.45	-7.02	-7.57	-8.12
8.5	-1.65	-2.30	-2.94	-3.56	-4.17	-4.82	-5.36	-5.94	-6.51	-7.07	-7.62
9.5	-1.11	-1.76	-2.40	-3.03	-3.64	-4.30	-4.84	-5.42	-6.00	-6.56	-7.11
10.5	-0.56	-1.21	-1.86	-2.49	-3.11	-3.72	-4.31	-4.90	-5.47	-6.04	-6.59
11.5	0.00	-0.66	-1.30	-1.94	-2.56	-3.22	-3.77	-4.36	-4.94	-5.51	-6.06
12.5	0.50	-0.09	-0.74	-1.38	-2.01	-2.62	-3.22	-3.82	-4.40	-4.97	-5.53

Source: Ipea and Santander.



Sources: IBGE and Santander Estimates



Sources: IPEA and Santander Estimates

Final considerations

Downward revisions in the projections for Brazilian economic growth have prevailed in the last 8 years and we see a confirmation of this trend in 2019. Considering an 18-month forward horizon, the market has, on average, overestimated by 2 p.p. the effective GDP growth. We understand that such optimism about cyclical recovery can be partly explained by looking to the past to infer the growth potential of the economy, which has shrunk in recent years.

Earlier this year, the market consensus published in the Central Bank of Brazil's Focus Bulletin indicated real GDP growth of 2.5% in 2019; in the most recent release (August 26), however, the bulletin recorded a median expectation of 0.8%. Recognizing the slow recovery in economic activity this year, the eyes of the market are increasingly focused on 2020.

We revised our projection for next year's GDP growth from 2.0% to 1.6%. On the one hand, we expect that sustaining a scenario of low inflation and interest rates, adjusted external accounts and greater predictability of local economic policy will promote some acceleration of economic growth compared to the current year. On the other hand, we believe that the recovery of economic agents' confidence will continue to show a moderate pace in coming quarters, reflecting factors such as the increased perception of risk on the evolution of the international economy and the fragile domestic labor market, which limits the pace of recovery.

Despite the continuity of a gradual recovery in the short and medium term, we recognize positive factors regarding the long-term growth potential of the Brazilian economy (currently quite limited). Advances in regulatory frameworks; measures to stimulate competition; increased legal certainty and transparency; initiatives aimed at boosting infrastructure investments; and government commitment to fiscal consolidation (reducing the perception of risk by local and foreign investors) are some of the key elements for an agenda that needs to move forward in order to promote more balanced, sustained, and robust growth in the country. Therefore, unlike in other not so distant periods, when demographic factors, positive shocks in international commodity prices and/or fiscal stimuli boosted Brazilian economic growth, we believe that progress in the productivity agenda and measures that stimulate investment in the majority of private companies, with domestic and foreign capital, will become increasingly prominent from now on.

Finally, we must consider the balance of risks for the scenario presented. On the positive side, successful advances in reform and compromise agendas could generate stimuli beyond what we have estimated. Among the reforms, we highlight the (i) definitive approval of the pension reform, which may include states and municipalities, something not included in our base scenario; (ii) approval of the tax reform on consumption, unifying and simplifying taxes and, consequently, reducing costs for companies and increasing productivity; (iii) establishing legal frameworks that can attract billions of dollars in private investments such as sanitation and telecommunications. Additionally, we expect benefits from (i) the rights of transfer that may eventually occur in the oil and gas sector this year and (ii) substantial advances in the Investment Partnership Program, a key element in stimulating investments, especially in infrastructure.

On the other hand, a turbulent external scenario dominates the balance of negative risks as (i) the expected slowdown in global growth may intensify; (ii) world trade may cool further in the wake of any escalation in the trade war between the two largest economies in the world; and (iii) the possible tensions arising from U.S. elections next year. But negative risks are not limited to the external scenario, as potential domestic challenges include: (i) pressures for changes in fiscal rules and/or the formulation of a federative pact that could be extremely damaging to the solvency of public accounts, in our view; and (ii) the additional risk of declining government popularity could slow the recovery of confidence indicators, reducing the momentum of economic growth. We believe that our economic growth projections of 0.8% and 1.6% for 2019 and 2020, respectively, are well calibrated for the probability of materialization of both the opportunity and risk sets.

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