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BRAZIL: INVESTMENT IN TIMES OF FISCAL ADJUSTMENT

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The Brazilian economy is gradually migrating towards a new macroeconomic equilibrium whereby the private sector is gaining a larger role in the allocation of resources. This transition is the result of a changing conception of the role of the state but also stems out of a necessity to consolidate fiscal accounts. The nature of the fiscal adjustment however has had knock-on effects on both public and private investment, with adverse consequences on the recovery and medium-term growth prospects. The recent disruption to the economy resulting from the Covid-19 pandemic has also reset the deck with regards to the outlook for corporate investment and potential output. Brazil may have to proceed much more rapidly in lifting long-standing impediments to investment if it wants to offset some of the adjustments costs inherent to the transition process and make up for the lost ground it will suffer due to the pandemic.

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The Brazilian economy is gradually migrating towards a new macroeconomic equilibrium whereby the private sector is gaining a larger role in the allocation of resources. This transition is the result of a changing conception of the role of the state but also stems out of a necessity to consolidate fiscal accounts. The nature of the fiscal adjustment however has had knock-on effects on both public and private investment, with adverse consequences on the recovery and medium-term growth prospects. The recent disruption to the economy resulting from the Covid-19 pandemic has also reset the deck with regards to the outlook for corporate investment and potential output. Brazil may have to proceed much more rapidly in lifting long-standing impediments to investment if it wants to offset some of the adjustments costs inherent to the transition process and make up for the lost ground it will suffer due to the pandemic.

Passing of the baton

The slow pace of the economic recovery in Brazil over the past 3 years has cemented the belief that Brazil's historic engines of growth have run their course. The demographic bonus is gradually fading, the commodity super-cycle has turned and — notwithstanding the fiscal policy response to Covid 19 — public spending has been on the retreat owing to concerns over fiscal sustainability.

During the late presidential campaign, now Minister of the Economy Paulo Guedes vocalized his intentions to undertake a Copernican revolution of the Brazilian economy with the aim of starting a new phase in the country's history. The old model — combining a larger role for the government, abundant access to subsidized credit, loose fiscal policy and tight monetary policy – was identified as the source of all ills and needed to be turned on its head. The new economic model would be premised on shrinking the federal state, changing its role in the economy, limiting the draw of public sector careers, and instilling greater competition to boost productivity. Newly appointed Central Bank Governor Neto echoed this line of reasoning: *"Brazil spent all its time trying to find public solutions to private problems. Well, that didn't work. Now we are trying to find private solutions to public problems.[...] We need to reinvent ourselves with private money"*.[1]

Naturally, the Covid-19 crisis has put on hold the administration's transition plans and Minister Guedes' inclination for mobilizing supply-side solutions to address the country's many challenges. The state has deployed one of the largest fiscal packages across emerging markets to support the economy. This will bring the headline budget deficit in double digit territory in 2020 delaying efforts at fiscal consolidation. Clearly, Minister Guedes' plans to uproot the policy mix (*"tight fiscal and easy money"*) will have to wait.

Looking beyond the crisis, there is no doubt that giving greater priority to markets will require firms and workers to adjust to new realities and frames of reference. This adjustment is unlikely to take place organically and swiftly given Brazil's history of state intervention. There are still parts of the country that will first look to the state as the go to problem-solver and the late crisis could certainly reinforce this belief.

Prior to the Covid-19 epidemic hitting the economy, there was nonetheless some early evidence that the transition was gradually taking hold with the private sector growing twice as fast as the public sector.[2]

Will this handing over of the baton translate into more dynamic GDP growth? How long will it take for the private sector to step up and fill in the void left behind by the state? Can Brazil vigorously grow during a period of drastic fiscal consolidation?

Notable events in Brazil over the past decade

- 2010: Brazil reaches highest GDP annual growth rate at 7.5%. In October, Dilma Rousseff (Workers Party - PT) is elected President (56%) vs José Serra (PSDB) (44%).
- 2011: In January, Lula da Silva (Workers Party - PT) leaves the Presidency (2003-2011) with skyrocketing approval ratings (87%). In July 2011, the BRL reaches a historic high of 1.5 against the USD.
- 2013: waves of protests and civil unrest, with over 1.5 million people taking to the street to denounce rising costs of transportation (bus and subway fares) and poor quality of public services in the face of large public spending ahead of the FIFA World Cup (2014) and Rio Olympics (2016).
- 2014: In March implosion of a massive corruption scandal (*Lava Jato* – Operation Car Wash) uncovering a transnational network of illicit transfers between public officials and contractors in the energy, construction, infrastructure and food processing sectors. Start of a cycle of corruption investigations targeting top political leaders.
- 2014: In October, incumbent President Rousseff wins reelection (52%) vs Aécio Neves (PSDB) (48%). Shortly after the election, Rousseff backpedals on electoral promises to increase public spending leading to mounting public anger.
- 2014: End of the commodity "super cycle".
- 2015-2016: Brazil experiences a deep recession. Real GDP contracts by a cumulative 6.8%.
- 2016: Impeachment of President Dilma Rousseff for illegal use of public funds and violating campaign financing regulations. Vice-president Michel Temer (PMD) takes over as acting president despite being himself the target of an investigation.
- 2016: Loss of investment grade status after 7 years
- 2017: Incriminating recorded conversation made public between the chairman of meat-packing giant JBS and interim president Michel Termer suggesting the President participated in payoffs to impede investigation.
- 2018: Imprisonment of ex-President Lula for corruption (12-year sentence) amongst others, for failing to declare ownership of a beachside property renovated by a construction company implicated in *Lava Jato*.
- 2018: In October, Jair Bolsonaro (PSL), a seven-term member of the Brazilian lower house, is elected President (55%) vs Fernando Haddad (PT) (45%), putting an end to 4 successive terms in office by the PT.
- 2019: Passing of long-awaited pension reform, the most comprehensive to date with estimated fiscal savings of around BRL 800 bn over 10 years.
- 2020: Covid-19 pandemic hits Brazil. USDBRL reaches an all-time low of close to 6. From high to low, the BRL has lost ~ 75% in approximately 10 years.

1 Harris, B. (2019, October), *Bolsonaro's central bank chief vows to 'reinvent' Brazil economy*, Financial Times
2 McGeever J. & Ayres.M. (2020, January), *Brazil bank lending up 6.5% in 2019, default ratio falls to historic low. Reuters: "Figures from the Economy Ministry earlier this month showed that behind Brazil's gradually accelerating economic growth, the private sector is growing at a 2.72% pace while the public sector is shrinking 2.25%".*

While the structural decline in public investment in recent years has created a space for private investment to expand its role, it has not yet emerged as an alternative engine of growth. There is wide consensus that longstanding obstacles will have to be lifted before this can forcefully materialize. We will identify some of them in this article.

This is the first out of two articles devoted to the issue of investment in Brazil. In this issue of Conjoncture we focus on one of the main causes of the weak recovery: the lack of investment.[3] First, we identify impediments which have weighed on both the public and private sectors' investment function. Then, we offer some remarks about the ongoing macroeconomic adjustment amidst the Covid-19 epidemic and how it might impact the outlook for investment and affect potential output. A companion article will be published in the September issue of *Conjoncture*. It will discuss some implications for the Brazilian economy of having durably low investment rates in the face of the country's demographic transition. We will also unpack elements of the government's reform agenda and see how it intends to spur investment and raise productivity. We will also identify some downside risks to the reform agenda, some of which pre-date Covid-19 and others, which have emerged along with the epidemic.

A recovery under duress marked by constraints on public and corporate investment

Much wishful thinking has gone into Brazil's growth story in recent years. Brazil seemed bound to recover swiftly given the depth of its recession (2015-16) which wiped out close to 7 years of growth[4]. Over the period 2014-2016, GDP per capita measured in current dollars contracted by 28%, inequality, poverty and extreme poverty all increased, while investment and confidence experienced sharp drops (charts 1-4). It took 15 quarters for real gross fixed capital formation to finally start recovering in Q4 2017, reflecting the significant suffering in the business sector. Unemployment stood at 13.7% in March 2017, a far cry from its rate of 6.2% in December 2013 (chart 5). Formal jobs in the construction sector—one of the country's main employers—have fallen by some 40% over the period 2014-18 to roughly 2 million.

The upswing in economic activity never materialized (chart 6). Brazil was unable to surf on the coat tails of the pick-up in global growth observed in 2017-2018 and the economy grew by a mere 1.2% on average over the period 2017-19. Admittedly, the aggregate picture hid differentiated growth patterns by regions (for instance the state of Sao Paulo and agribusiness states in the West were growing more dynamically) supporting the thesis that a two-speed recovery was likely underway[5] prior to Covid-19 hitting the economy. On aggregate though, growth has remained still significantly below its long-term trend of around 2.6% according to the IMF. Why has the Brazilian economy had such a hard time picking itself off the ground? What are the factors which have inhibited a rapid adjustment of the economy after the 2015-16 recession?

A string of cyclical and external factors

A conjunction of cyclical factors and shocks has certainly taken a toll on the rebound. The truckers strike brought the country to a standstill in May 2018 with enduring effects on the economy.[6] The Brumadinho dam collapse in January 2019 led to a significant decline in mining production through the first half of 2019. Meanwhile, declines in export commodity prices and weaker global trade and growth since H2 2018 have also constituted negative shocks on demand. The recession in Argentina strongly affected the automotive industry and weakened exports (sales to Argentina dropped by USD 5 bn in 2019). The Presidential electoral cycle (throughout 2018) and uncertainty regarding the future direction of economic policy and stifling effects of the corruption scandal on business confidence also weighed on the recovery. More recently, and perhaps more dramatically, the effects of the Covid-19 pandemic has contributed to further delay the recovery and will result in significant output costs.

Structural ailments on display

The weak recovery also finds its roots in structural weaknesses and other legacies of the past, which have been amply documented: closed nature of the economy, large infrastructure gap, long-standing distortions in credit allocations, misguided economic policies, etc.[7]

But economic growth has also been held back by low investment. The toll of the 2015-16 recession on the private sector and the post-recession fiscal adjustment has contributed to significantly weaken Brazil's investment rate. The ratio of investment to GDP dropped to 14.7% in 2017 from 20.9% in 2013, a level comparatively low when pitted against that of most large emerging markets (chart 7). After bottoming out in 2017, the investment rate has since been very slow to rebound. To make matters worse, revisions to GDP and balance of payments figures in 2019 showed that the investment and savings rates were in fact lower than figures previously suggested, by 0.5 percentage point (pp) of GDP (15.5%) and 2pp of GDP (12.1%) respectively.

The absence of a recovery in gross fixed capital formation has been the byproduct of numerous impediments (many structural) which have adversely weighed on the public and private sectors' investment functions. Next, we investigate those more closely.

Public investment: what is the hold-up?

Fiscal tipping point

Owing to a largely degraded fiscal picture from 2014-on, the government has been in no position to expand fiscal policy to support the recovery. Since 2014, it was clear that nominal growth in public spending had become increasingly incompatible with the path of revenues leading to a rapidly deteriorating fiscal situation. Faster growth of numerous budget items was driving the surge in spending: subsidies, social security entitlements, pension benefits (driven by population ageing), public wages (due to extensive indexation practices). On the revenue side, tax breaks and a deep recession aggravated the picture. Very quickly, the primary balance turned negative averaging deficits of 2% of GDP over period 2015-2018 after posting average surpluses of 2.6% of GDP over period 2007-2013 (charts 8-9). This resulted in rapidly deteriorating debt dynamics leading Brazil to lose its investment grade status in 2016.

Since 2016, the fiscal policy stance has been largely contractionary following three years of expansion over the period 2013-2015 (chart 10). As a component of domestic demand, government spending has contributed positively to quarterly GDP growth only 7 times in 16 quarters over period 2015-2019 and never more than 0.2 percentage points (chart 11).

3 As per IMF (2015). World Economic Outlook, April 2015: *Uneven Growth: Short-and Long-Term Factors*. If otherwise specified, "investment" refers primarily to fixed investment throughout the article that is investment in physical assets, not financial investment, investment in labor, investment in research and development. etc.
4 OECD (2018), OECD economic survey: *Brazil 2018*
5 Arruda, G. (2019, October), *Brazil: Desynchronized Growth. Deep dive, Emerging Markets,* BNP Paribas, Markets 360
6 60% of all cargo transportation occurs by trucks in Brazil – 90% if one excludes the transportation of crude oil and iron ore according to the Brazilian Report. The 11 days strike thus severely disrupted supply chains and industrial agricultural activities in the country.
7 For greater details see Spilimbergo, A., Srinivasan, K., & Walutowy, M. F. (Eds.) (2018), *Brazil: Boom, bust, and the road to recovery*, International Monetary Fund

GDP/CAPITA – CURRENT PRICES (USD)

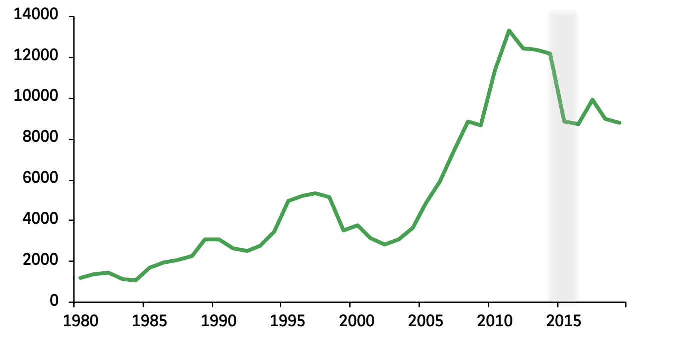

CHART 1

SOURCE: IMF

EXTREME POVERTY AND POVERTY (2011, PPP VALUES)*

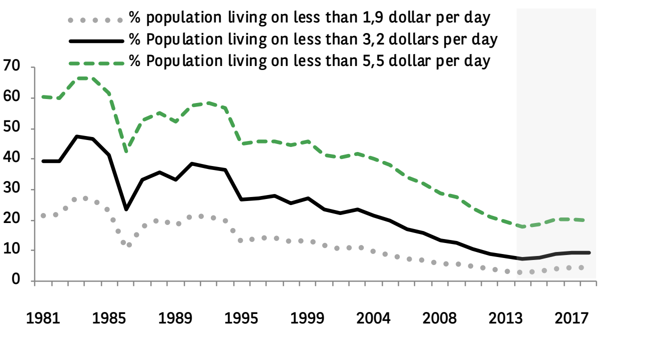

CHART 4

*1991, 1994, 2000, 2010 year missing

SOURCE: WORLD BANK

INVESTMENT AND BUSINESS CONFIDENCE

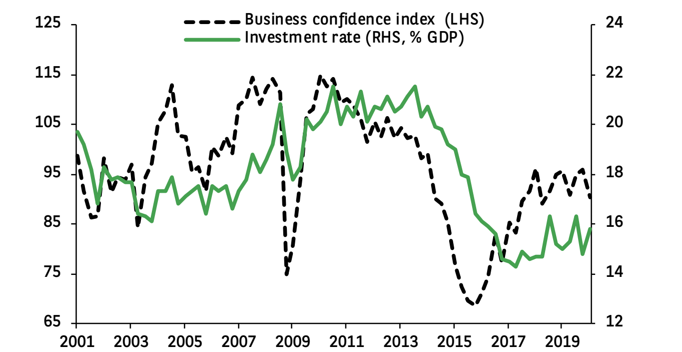

CHART 2

SOURCE: FGV, IBGE

UNEMPLOYMENT AND REAL WAGES

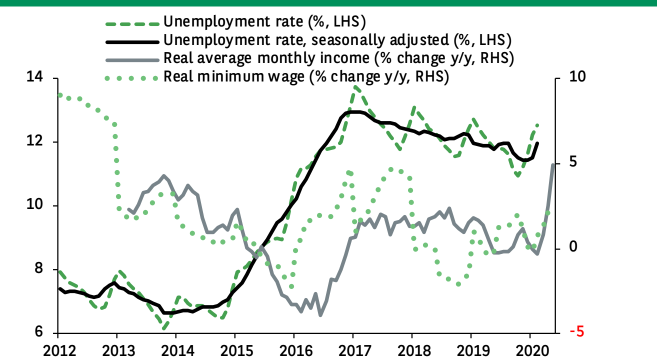

CHART 5

SOURCE: IBGE, IPEA

INEQUALITY : INCOME SHARE BY QUINTILE IN THE POPULATION

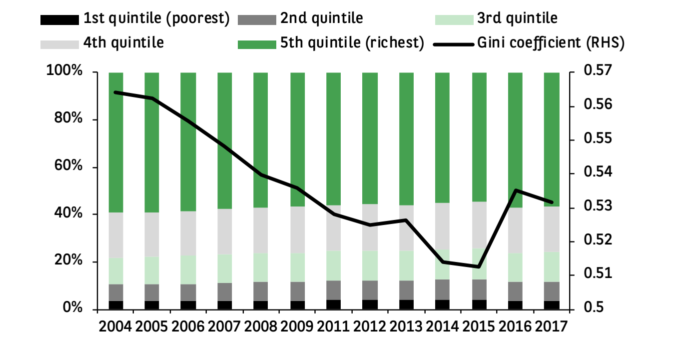

CHART 3

SOURCE: CEDLAS, WORLD BANK

RECESSIONS AND RECOVERIES

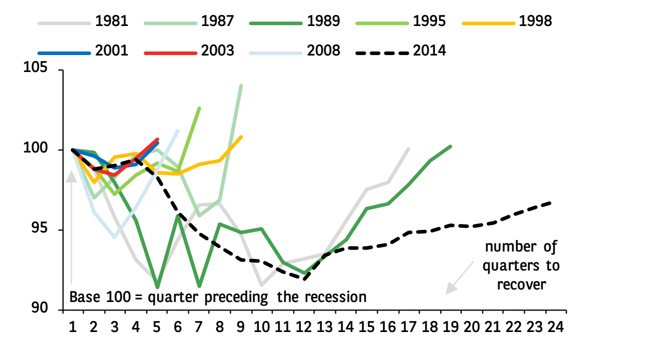

CHART 6

SOURCE: CODACE (FGV-IBRE), GSP

BRIICS - INVESTMENT (% OF GDP)

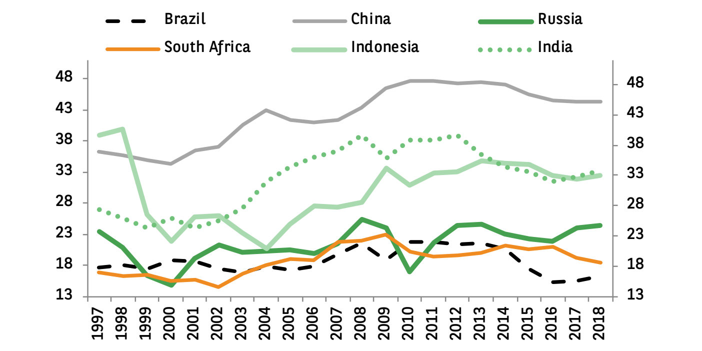

CHART 7 SOURCE: OECD

FISCAL TIGHTENING

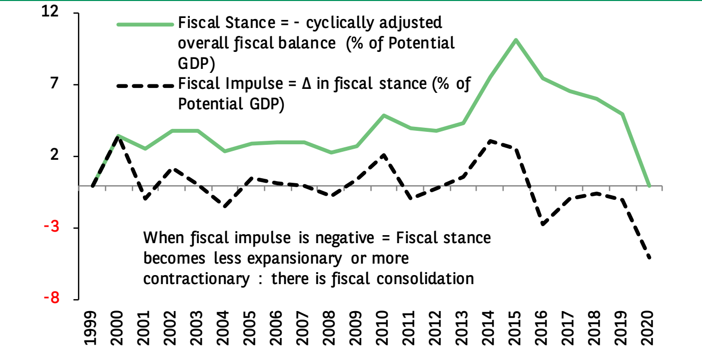

CHART 10 SOURCE: IMF FISCAL MONITOR, BNP PARIBAS

EXPENDITURE AND REVENUE DYNAMICS

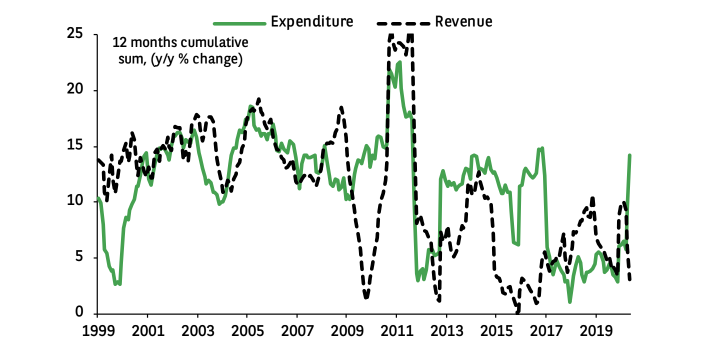

CHART 8 SOURCE: NATIONAL TREASURY

WEAK CONTRIBUTIONS OF INVESTMENT AND GOVERNMENT CONSUMPTION TO GROWTH

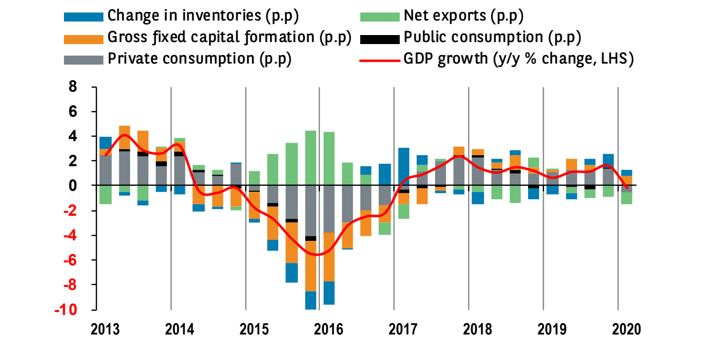

CHART 11 SOURCE: IBGE, BNP PARIBAS

CENTRAL GOVERNMENT FISCAL BALANCES

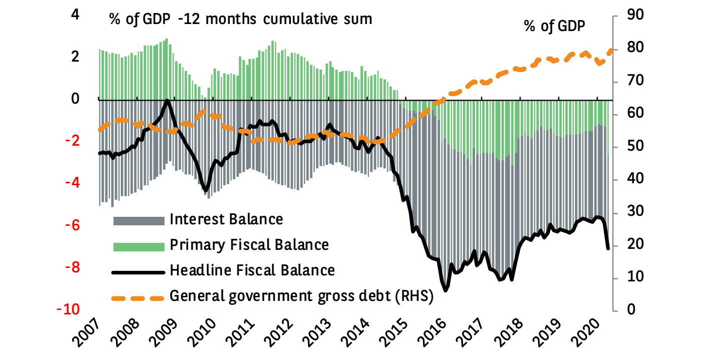

CHART 9 SOURCE: BCB, NATIONAL TREASURY

MANDATORY VS. DISCRETIONARY SPENDING (% OF GDP)

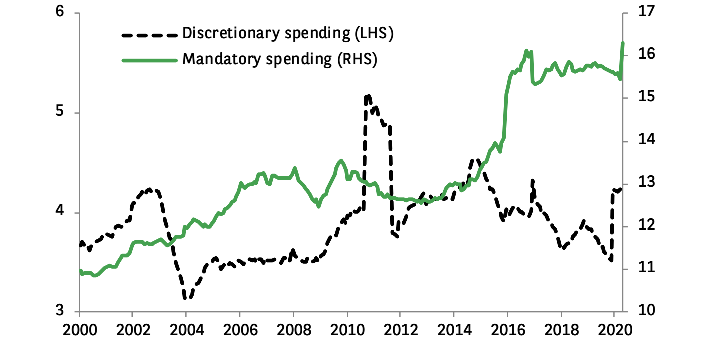

CHART 12 SOURCE: NATIONAL TREASURY, GSP

Hampered by constitutional protections, the fiscal adjustment has fallen almost entirely on public investment…

When President Michel Temer took office in mid-2016 following the impeachment of President Dilma Rousseff, he shifted the government's attention to fiscal consolidation. Aside from reining in subsidies (in large part associated to cutting down on the provision of earmarked loans[8]), the government's efforts to control current expenditure were however severely limited by constitutional constraints.

Controlling budget allocations in Brazil is indeed complicated by the fact that many spending items are protected by the Constitution (that is, are preset by legislation)—so called mandatory spending items which make up 96% of the federal government's budget. Altering components of mandatory spending entails amending the Constitution which in turn requires a high threshold of legislative support in Congress.[9]

In the absence of Constitution-altering reforms destined to help control the path of mandatory spending, the introduction of a constitutional spending cap[10] towards the end of 2016 meant that the brunt of the fiscal adjustment fell on public capital spending—the largest component of the government's discretionary spending (chart 12). In the end, the government continued to be a large spender but its expenses did very little to support growth[11]. Public sector investment ultimately dropped to 1% of GDP in 2019, an all-time low compared to 5.3% of GDP in 2010. Infrastructure spending by the government in its 2020 budget was projected to be the lowest in 10 years.

…resulting in immediate and medium-term output costs

The introduction of new constitutional rules while maintaining old ones has led to a fiscal adjustment with high output costs both in the short term and the medium term. Scaling back public investment in recent years not only weakened the impact of the fiscal multiplier [12] but has also had important knock on effects on the quality of infrastructure, an important determinant of potential growth. This policy recalibration (although constrained due to budget rigidities) has gone against many of the recommendations made by international organizations regarding the quality and composition of fiscal adjustments in Latin America.[13] Changing the composition of public spending will be central to make room for investment going forward. A continued strategy of deficit reduction at the expense of public investment will end up being self-defeating from the perspective of long-term growth.

Why aren't firms investing more in Brazil?

Post-recession hangover and political risks

The weakness of corporate investment seemed somewhat justified judging by the many impediments to investment[14] concurrently at work during the post-recession period: (i) corporate deleveraging was ongoing though progressing at a much slower pace than for households (chart 13), (ii) requests for judicial recoveries (a type of bankruptcy protection) continued to increase[15], (iii) there was no rush to invest as spare capacity was very high in many sectors. For instance, high inventories on residential and commercial properties strongly hampered construction activity (with some significant regional differences though).[16] The tepid recovery was certainly not strictly due to weakness in construction but it played a significant part as the sector represents roughly 50% of gross fixed capital formation of which about half is associated to residential and commercial construction and the other half to infrastructure. As such, it represented a significant shortfall on aggregate demand.

In terms of credit supply, (iv) financing conditions had dramatically changed—especially for large corporates—with the end of a cycle marked by access to subsidized loans and tax breaks[17]. In the wake of the fiscal adjustment, the role of state development bank, BNDES—the traditional anchor of capital expenditure and almost exclusive source of long term funding in Brazil—was being progressively redefined[18] while public banks dramatically cut down their credit offering (chart 14) affecting corporates' access to cheaper capital[19]. Meanwhile, the inability of the Temer government to approve a social security/pension reform maintained sovereign spreads at an elevated level – an additional disincentive to spur investment.[20]

(v) Corporates were also still dealing with the adverse spillovers of the corruption scandals. This included exercising greater scrutiny and caution in dealings with groups under investigation. Capital spending in the construction sector suffered from many firms' involvement in *Lava Jato* making some of them ineligible to participate in public civil construction projects[21]. More generally, (vi) political turmoil around the possible impeachment of President Temer, the ensuing 2018 Presidential election cycle and uncertainty about the structural reform agenda also likely increased risk aversion and the disposition to move forward with new investment plans (chart 15).[22]

8 According to estimates by the World Bank, the fiscal costs associated to having more than half of total credit being offered at subsidized rates amounted to roughly 1.5% of GDP in 2015 for instance. See Pazarbasioglu-Dutz, C., Byskov, S., Bonomo, M., Carneiro, I., Martins, B., & Perez, A. (2017), *Brazil financial intermediation costs and credit allocation,* World Bank Discussion Paper.
9 President Termer's proposal for social security and pension reform, although much less ambitious that the one passed in November 2019 under the Bolsonaro administration was buried precisely because the administration was unable to garner support in Congress.
10 The measure introduced by the Temer administration and passed in Congress limited the growth of primary expenditure to that of inflation for a period of 20 years.
11 World Bank (2018), Public Policy Notes, *Brazil: Towards a fair adjustment and inclusive growth*
12 Fiscal multipliers for public investment and social transfers are much higher than for current spending (cf World Bank (2018)).
13 In its regional economic outlook, the IMF notes: the burden of fiscal adjustment should not fall on public capital spending and policies should be geared towards safeguarding much needed spending on education and infrastructure (key determinants of potential growth) IMF (2018). Regional Economic Outlook, October 2018, *Western Hemisphere Department: An Uneven Recovery*.
14 The literature on the determinants of corporate investment has proposed several explanations driving the decision of firms to invest. Many possible drivers have been identified and tested, amongst them realized and expected GDP growth (ie demand growth), different measures of uncertainty (or confidence), rates of capacity utilization, corporate sector leverage, real cost of capital (or more broadly financial constraints), taxes and tax exemptions, Tobin Q ratio (market value of a company divided by its assets replacement cost), the exchange rate, rates of return, future profits expectation See De Vijlder, W. (2016) *What is driving corporate investment ?* Conjoncture, BNP Paribas. For a recap and references therein including 1/ Bussiere, M., Ferrara, L., & Milovich, J. (2015) *Explaining the recent slump in investment: the role of expected demand and uncertainty*, Banque de France Working Papers No 571. 2/ Pinto, E. P., & Tevlin, S. (2014) *Perspectives on the Recent Weakness in Investment (No. 2014-05-21)*, FEDS notes, Board of Governors of the Federal Reserve System (US). 3/ Banerjee, R., Kearns, J., & Lombardi, M. (2015), (Why) *Is Investment Weak?* BIS Quarterly Review, March.
15 According to Dwyer, R. (2016, May), *Brazil: Corporate default fear drives impeachment*. Euromoney, +5500 companies sought bankruptcy protection in 2015 alone (the most since 2008). In addition dealing with insolvency and liquidation is a particular long process (~4 years according to World Bank) and one that hinders entrepreneurialism.
16 Residential construction activity suffered 1/ from the contraction in housing prices and sales across Brazil's 20 largest cities during the recession but also 2/ from major public cuts in the affordable housing programme (a major portion of residential construction activity in Brazil). For non-residential buildings, there was already evidence of over-supply prior to the recession. The crisis exacerbated the downward pressure on prices which further reduced the incentive to invest especially across the commercial real estate market segment.
17 Anderson P. (2019, November), *Brazil Apart,* Financial Times. Gamarski R., Andrade V., & Biller D. (2019, March), *Elusive Economic Growth Points to Depth of Brazil's Problems*, Bloomberg.
18 Dwyer, R. (2018, April), *BNDES embraces its evolution*, Euromoney
19 Interest rates charged on earmarked credit supplied by public banks were on average one-fourth that of nonearmarked credit (ie market credit) according to Pazarbasioglu-Dutz, C., et al. (2017). Refer also to OECD, (2018).
20 Long term rates typically serve as a benchmark for private investment
21 OECD (2018)
22 According to a study with firm level data conducted by the IMF, policy uncertainty appeared to be a significant factor on investment levels in the healthcare, industrials, real estate, and utility sectors. Krznar, M. I., & Matheson, M. T. D. (2018), *Investment in Brazil: from crisis to recovery,* IMF Working Paper.

CORPORATE INDEBTEDNESS AND INVESTMENT

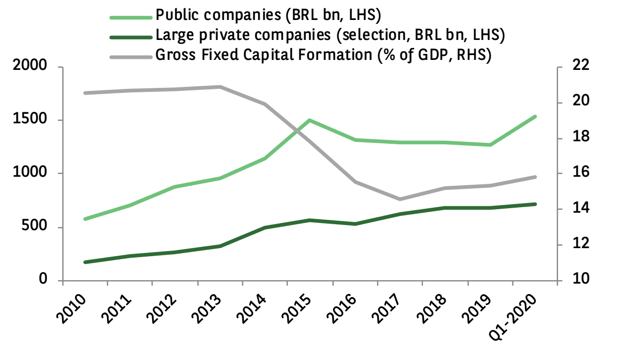

CHART 13 SOURCE: IBGE, FIPE, CEMEC

A CHALLENGING ENVIRONMENT FOR DOING BUSINESS

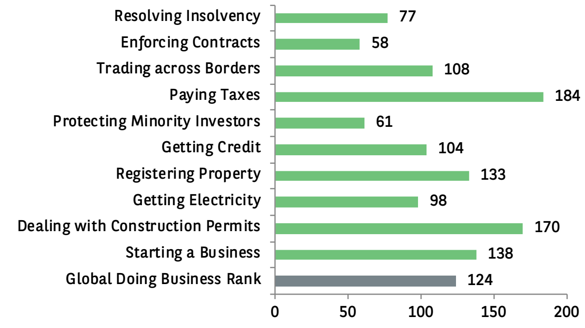

CHART 16 SOURCE: DOING BUSINESS REPORT 2019, WORLD BANK

CUTTING DOWN EARMARKED CREDIT (BELOW MARKET RATES)

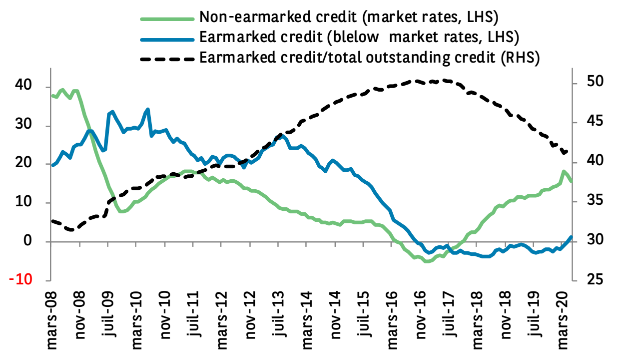

CHART 14 SOURCE: BCB, BNP PARIBAS

BRAZIL: MIDDLE OF THE PACK IN TERMS OF COMPETITIVENESS

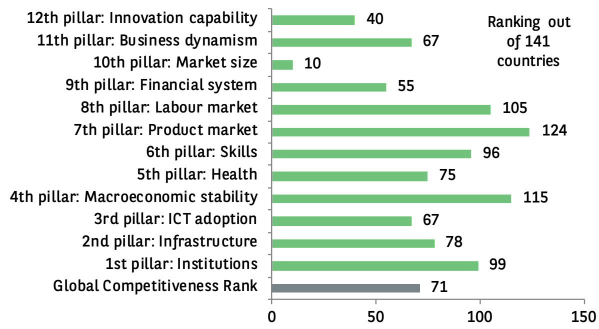

CHART 17 SOURCE: WORLD COMPETITIVENESS REPORT 2019, WEF

POLICY UNCERTAINTY AND INVESTMENT

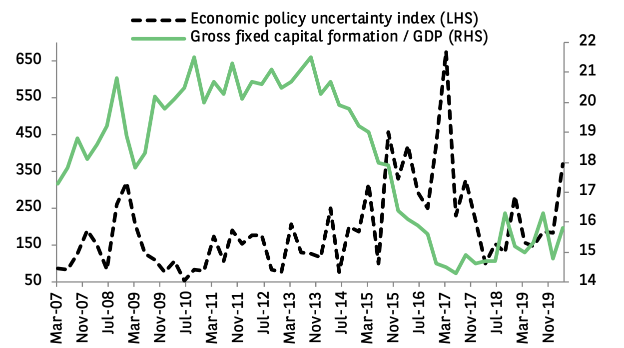

CHART 15 SOURCE: EPU, IBGE

COMPETITIVENESS : ZOOMING IN ON THE INFRASTRUCTURE PILLAR

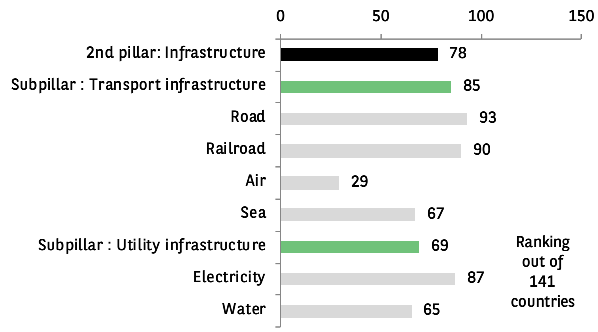

CHART 18 SOURCE: WORLD COMPETITIVENESS REPORT 2019, WEF

Expected growth: the main driver of corporate investment?

The role of expected demand (sales) also appears to be a significant driver of corporate investment decisions in Brazil. According to this argument, weaker medium-term growth prospects (macroeconomic determinant) by hurting firms' future expected returns would discourage investment decisions today[23]. An empirical study conducted by CEMEC[24] shows that the expectation of demand growth (3 year average not just next year's expected growth) is a top concern among Brazilian firms, one that is empirically more important for instance than financial constraints or profitability[25].

This finding is corroborated by another study conducted by the IMF[26] according to which the deterioration in the medium term outlook for growth along with heightened policy uncertainty have been the most significant drags to investment over time. However, it is hard to say if weak business investment is more a cause than a consequence (through expectations) of the subdued recovery. It is likely both, even if difficult to isolate empirically. The difficulty of the corporate sector to jump start growth also supports the thesis that perhaps some form of "crowding in" by authorities may be required to spur corporate investment.

Enduring effects of financial repression and low savings

At a theoretical level, large deficits induced by public spending can have two opposite effects on private investment: a *crowding out* and *crowding in* effects.[27] In the latter case, public spending can have a positive ripple effect on private investment if it leads firms to anticipate an increase in aggregate demand. In the former case, the public sector by draining most private savings away from the private sector to finance spending leaves fewer savings behind to fund private sector investment, incidentally raising costs of financing.[28]

In Brazil, historically high public borrowing needs have led to crowding out effects more than crowding in effects. It has also gone hand in hand with "financial repression" i.e. the use of various measures to channel funds directly to the government[29]. This situation has generated many negative externalities for the corporate sector discouraging investment beyond cyclical factors.

Chronically large public borrowing requirements driven by rising public spending combined with low private savings has resulted in higher interest rates. The opportunity for savers to get better risk/returns in investing in government bonds has historically encouraged rent-seeking. For a long time, more than 70% of funds in Brazil's asset management industry were invested in public-sector bonds.[30] The high level of interest rates has also incentivized companies to invest any extra resources in the sovereign debt market instead of investing it back in their business[31].

Having most domestic savings flock into public debt has not only led to a crowding out of private sector investment, but has also concurrently hindered the development of the local capital market.

To help channel funds to the private sector the more efficient way is to reduce the government's high borrowing needs. The other is to foster private savings while containing the fiscal deficit to limit Ricardian behavior.[32] In Brazil, insufficient savings has been identified as a major constraint to higher investment in the country[33]. Until recently, the country's way around this problem was simply to have the public sector become *"the single largest source of financing for private investment"*[34]. But the government has paid a high price to capture scarce private savings and supply subsidized credit to corporates. For instance, in 2015-16, the government would typically borrow at 14%-15% and the state development bank, BNDES would extend credit at below market rates at around 7% — the burden of absorbing the cost differential falling naturally on government finances.

In recent years, this financing mechanism was scaled back with the fiscal adjustment. Unfortunately, the fiscal adjustment also led to a change in the nature of the crowding out : potential private investment was no longer crowded out by public investment, but by public consumption.[35] Rising public spending driven by mandatory obligations therefore came at the cost of both lower public and private investment.

Still numerous aspects of the business environment inhibit corporate investment

Many long-standing challenges and weaknesses in the business environment continue to weigh on corporate investment, impeding entrepreneurialism and innovation in Brazil. Empirical studies have shown that the quality of the business environment in a country is among one of the strongest determinants of economic growth[36]. Brazil is ranked 124th out of 190 countries for ease of doing business by the World Bank in its 2020 report (chart 16) and 71st out of 141 countries (8th in the Latin American and Caribbean region) on the 2019 World Economic Forum (WEF) Competitiveness report (charts 17-18); in both cases it ranks below other BRICS. Numerous impediments related to the business environment have contributed to discourage or postpone investment in Brazil. Many are on the administration's agenda for structural reforms and in some areas the federal government has, in recent years, already introduced important policy changes (kicked off under the Temer administration.)

- ***Limited access to long term capital for SMEs:*** Extending the maturity structure of finance is essential to promote growth insofar as it helps "to offer protection from credit supply shocks and from having to refinance in bad times, facilitating long-term investments and improving performance."[37] In Brazil, there has typically been a clear divide in loan maturities between public and private banks. Private banks dominate lending at shorter maturities: less than 90 days, ~70% of market share, 91 days to a year (~60%) while public banks dominate lending at longer maturities (3-5 years, ~67% of market share, 5-15 years, ~82%, more than 15 years, ~79%). The bulk share of longer term credit has been exclusively dominated by BNDES and has been available

23 Krznar, M. I., et al. (2018)
24 Carlos A. Rocca (2019), *Ancorar as expectativas de crescimento para destravar o investimento privado,* CEMEC, Seminário IBRE (Powerpoint presentation)
25 i.e. hurdle rate "the rate of returns firms reportedly require to embark on new investments" - Sharpe, S. A., & Suarez, G. (2015), *Why Isn't Investment More Sensitive to Interest Rates: Evidence from Surveys.* Available at SSRN 2667352. Similar results are referenced in De Vijlder, W. (2016).
26 Which finds that investment in Brazil "1/ increases with higher autonomous growth expectations for the future and higher terms of trade (in particular impacting prospects for commodity exporters) and 2/ decreases with higher real interest rates, unit labor costs, regulated prices, leverage and policy uncertainty. Krznar, M. I., et al. (2018).
27 Creel, J., Hubert, P., & Saraceno, F. (2015), *Une analyse empirique du lien entre investissement public et privé,* Revue de l'OFCE, (8), 331-356
28 In a way both mechanisms result from fiscal expansion but in one multiplier effects dominate, while in the other interest rate effects prevail.
29 IMF (2019), article IV *Jamaica*
30 OECD (2018). Note that years of double digit interest rates have also helped attract foreign savings. At their height, in 2015, non-residents held ~21% of the public debt versus less than 10% in 2020.
31 Arnold, J. (2011), *Raising investment in Brazil*, OECD Economics Department Working Papers No 900
32 Under the Ricardian equivalence theory, saving and consumption behaviors by households are constrained by future anticipated fiscal imbalances. According to the theory, when budget deficits deteriorate (due to increased spending, lower taxes, or both), the resulting increase in debt can lead economic agents to increase their precautionary savings (in anticipation of higher taxes in the future) to levels that may be detrimental to consumption, ultimately preventing an increase in production and thus weigh on economic growth.
33 Arnold, J. (2011)
34 OECD (2018) referencing work by Canuto, O., & Cavallari, M. (2017), *Long-term finance and BNDES tapering in Brazil* (No. 1720), Policy Center for the New South
35 OECD (2018)
36 Canuto, O. (2018, November). *Is It Finally Getting Easier to Do Business in Brazil? Americas Quarterly*
37 World Bank (2016), *Global financial development report 2015-16: Long-term Finance*, World Bank Publications

primarily to larger corporates. The average term of new operations for corporates in 2019 was ~5.3 years.

- ***High cost of borrowing:*** On aggregate average nominal interest rates for corporates (including both earmarked and non-earmarked loans) revolved around 15% throughout 2019 (11.2% in real terms). Average interest rates on the earmarked portion stood at 9% (5.2% in real terms) over the same period and 18.7% on the non-earmarked segment (14.9% in real terms). In April 2020, the spreads between the funding rate on corporate deposits and lending rate stood at 8.3 pp. Over time, the high cost of borrowing has been one of the contributing factors to Brazil's weak levels of credit intermediation (~50% of GDP in May 2020). Prohibitively high cost of borrowing along with the inability to enter into long-term contracts has meant that firms (in particular SMEs, which do not have access to external financing, market access or credit from BNDES) have traditionally relied a lot on internally generated funds (retained earnings) to invest. This has clearly had limiting effects on their growth opportunities.[38] The high cost of borrowing also means that companies spend more resources servicing debt than funding productive ventures. The differences are also enormous, based on company size, with smaller companies, with no market access, facing much larger funding costs[39].

  Many explanations have been brought forward for the high cost of capital in Brazil, including the 1/ role of frictions in the credit market (i.e. information asymmetries due to absence of credit registries, distortionary credit allocation practices), 2/ scarcity of savings (due in parts to high tax burden, design of the pension system), 3/ low judicial protection in the event of corporate defaults (bankruptcy resolution are lengthy and recovery rates on debt from insolvent firms are low), 4/ high taxation and compliance costs[40]. High frictions in the credit market (in particular the prevalence of earmarking capital) have in turn represented an impediment to effective monetary policy transmission weakening the stimulating effects of a drop in the SELIC policy rate.[41] As a World Bank report puts it, *"when more than half of total credit doesn't respond directly to the SELIC, a much larger change in the policy rate is required to have the same impact"*.[42] The transmission channel of monetary policy and its effects on the economy has also likely been dampened by the high level of informality in the country.[43]

- ***Complexity of the tax system / high compliance costs/ lengthy time to open a new business:*** Differentiated state tax regime and complex tax code have made tax accounting a particularly difficult task in Brazil. As a result, it takes an average Brazilian company close to 1501 hours to prepare and pay taxes (vs 296 in Chile, 175 in the US, 139 in France and 114 in the UK and 49 in Singapore), according to World Bank data. It also takes on average about 21 days to open a new business in Brazil (vs 11 in Colombia, 8 in Mexico and 6 in Chile) according to WEF data.[44]

- ***Difficulties closing down a business:*** According to the OECD, it takes on average 4 years to close down a business against 1.7 years on average in the OECD. Analysis by partner Nicola Calicchio at consultancy McKinsey & Co helps to get insight into the difficulties encountered by companies seeking to shut down their operations in the country: "Shutting down […] remains *"basically impossible," […] That leaves companies exposed to liabilities for many years after their activity ceases, and so impedes entrepreneurialism."*[45]

- ***Severe patent backlog:*** The number of yearly patent applications has increased tremendously over the past 10 years in part due to changes to the Brazilian Industrial Code (CPI) and to the Brazilian Industrial Property Law (LPI) which *"finally recognized patent rights for pharma, agriculture and biotech"*[46]. But limited resources have resulted in severe backlogs estimated at 160,000 pending requests in 2019 down from 200,000 in 2015[47]. According to patent specialist firm, BR Latin America, it can take the Brazilian patent office (INPI) *"10 to 15 years to grant a patent"*. This situation has ended being *"a massive disincentive to innovators who can't hope to bring their creations to market anytime soon."*[48] In its latest report on SME and entrepreneurship in Brazil, the OECD notes that a major restructuring plan of the national industry property office (INPI) has been enacted and that ad-hoc organizations have been set up to manage university intellectual property.[49] The newly created fast track Standardized Office Action Program is expected to help address the backlog program over the next 2 years.[50]

- ***Weakness in governance indicators:*** Brazil's business environment has been tarnished by a deterioration over the last decade of the country's governance indicators in large part as a result of the *Lava Jato* corruption scandals. Transparency International's Corruption Perceptions Index (CPI) in 2019 ranks Brazil 106th out of 180 countries behind other BRICS (India and China both 80th, South Africa 70th) with the exception of Russia (137th). As Kaushik Basu — ex-chief economist at the World Bank — writes in a piece for Brookings: *"corruption corrodes markets, protects incumbents from competitive challenges by impeding the entry of new actors, destroys the moral fabric of society, and stunts economic development."*[51] In Latin America, more generally, corruption has been a significant impediment to the development of public-private partnership (PPP) projects — an important limitation to the development of infrastructure investment.

- ***High barriers to competition (e.g. subsidies, entry and trade barriers):*** Subsidies, transfers and other forms of tax exemptions as well as entry and trade barriers can be sources of misallocation of capital and contribute to prop up the rate of survival of inefficient companies[52]. More importantly, such barriers tend to be detrimental to competition[53]. Weaker competition in turn tends to reduce the incentive to invest although the literature shows

38 Crisóstomo, V. L., Iturriaga, F. J. L., & González, E. V. (2014), *Financial constraints for investment in Brazil*, International Journal of Managerial Finance
39 Kumar, A., & Francisco, M. (2005), *Enterprise size, financing patterns, and credit constraints in Brazil: analysis of data from the investment climate assessment survey,* The World Bank Working Papers
40 Segura-Ubiergo, M. A. (2012), *The puzzle of Brazil's high interest rates (No. 12-62)*, IMF Working Papers. See also OECD (2018), Arnold, J. (2011)
41 This may help to explain why corporate investment hasn't responded more strongly to large cuts in interest rates in recent years. At the same time, researchers who have studied the elasticity of capital expenditures to changes in interest rates note that the effects of interest-rate on investment tend to be mixed: Sharpe et al (2015) note in their study that most firms claim their investment plans to be quite insensitive to decreases in interest rates and only somewhat more responsive to interest rate increases.
42 Pazarbasioglu-Dutz, C., et al. (2017) and Dwyer, R. (2017, July), *Brazilian government to press ahead with reform of TJLP,* Euromoney
43 Alberola, E., & Urrutia, C. (2020), *Does informality facilitate inflation stability?* Journal of Development Economics, 102505
44 Brazil has made some progress on these areas. Back in 2014, it took 2.600 hours to pay taxes on average, taking twice as much time as the second worst country, Bolivia (1025 hours). Regarding length of time to start a business, back in 2016-2017, Brazil placed 135th out 138 countries (vs 104/141 in 2020) with 83 days on average.
45 Quoted in Biller David & Lima M.S. (2019, August), *Five Lesser Known Obstacles to Brazil Growth and How to Fix Them*, Bloomberg
46 Di Blasi, G. (2014, February), *Tackling the patent backlog in Brazil*. LISPR review, online
47 Biller David & Lima M.S. (2019) and Di Blasi, G. (2014)
48 Biller David & Lima M.S. (2019)
49 OECD (2020), *SME and Entrepreneurship Policy in Brazil 2020*
50 Nunes, R.D & Romano, R.S. (2019, September), *Brazilian Patent Backlog's Days Are Numbered: Meet The Standardized Office Action Program,* Daniel Law
51 Basu, K. (2019, August), *Corrupt anti-corruption campaigns,* OP-ED, Brookings
52 Canuto, O. (2018, August), *Benefits and Costs of Opening Brazil's Foreign Trade*, Blog post, Economonitor and Policy Center for the New South
53 Sauvage, J. (2019, April), *Why government subsidies are bad for global competition*, OECD Trade, Opinion. See also Sorsa, P., Arnold, J. & Garda P. (2020, January), *Informality and weak competition: A deadly*

that a lot depends on market structure and sectors[54]. While the fiscal adjustment in recent years has helped Brazil cut down on subsidies and tax breaks, it still has a long way to go in terms of lifting entry and trade barriers: local content rules in many sectors are still prevalent even if they are being progressively lifted while the country still has *"the highest number of tariff lines above 10% among emerging markets"* and the country continues to lag behind its peers in terms of existing trade deals with bilateral trade agreement signed with *"only about 10% of world GDP while Chile and Peru have trade agreements covering about 70-80% of world GDP"*[55].

What's next for investment amid Covid-19?

The Covid-19 epidemic has thrown in a wrench in the government's timeline for transitioning Brazil into a private-led economy. Reforms were supposed to create the conditions to have the next wave of big investment come from the private sector while the state took a backseat and concerned itself with trimming its excesses. Instead, the fiscal policy response to soften the effects of the pandemic and containment measures will undermine the fiscal adjustment effort that Brazil had been making for the past three years leading to a significant deterioration of fiscal accounts. The government's fiscal package, the projected contraction of GDP and the shortfall in revenues will bring budget deficits into double-digit territory (over 15% of GDP) this year and will likely lead the debt to cross the 100% of GDP mark (from 77% in 2019)[56]. The crash in the oil market—besides erasing at one point half the market value of Petrobras—will also reduce transfers to States and municipalities.

Besides delaying the government's fiscal consolidation efforts, the epidemic has also brought havoc to the country's financial markets (chart 19). In the second quarter of 2020, the yield curve steepened sharply while rate cuts by the Central Bank coupled with increased risk aversion and the prospects of a deep recession have translated into large net outflows of portfolio investment taking the currency to new lows against the dollar (near BRL 6 in mid-May). A string of political crises and weak management of the epidemic has certainly not had a calming influence on the markets either.

Short terms prospects for investment in the wake of Covid-19

Covid-19 hit Brazil at a time 1/when the country was undergoing the slowest post-recession recovery in its history, 2/when roughly one quarter of the workforce was either unemployed or underemployed and 3/ when fiscal vulnerability was extremely high with a government likely still 4 or 5 years away from achieving a primary balance result capable of stabilizing its debt-to-GDP ratio.

Given that the duration and severity of the crisis are unknown (especially since the epidemic is still not under control), projecting the depth and type of macroeconomic adjustment that the country will undergo is difficult. Growth forecasts have declined rapidly but so has the dispersion around them, reflecting the high degree of uncertainty surrounding the magnitude of the impact of the pandemic on the economy and its recovery path — with V, W, U, L- shaped scenarios all being postulated by analysts. One element is more certain, the disruption to economic activity will be significant. According to most projections, Brazil is currently looking at a contraction of GDP in the order of 5 to 9% in 2020. GDP will also likely remain below pre-coronavirus levels through the first half of 2022.

While uncertainty prevails, some future developments are nonetheless perceptible. The corporate sector — a cornerstone of the government's new economic model — will emerge weakened from the crisis and could in the event of a deeper recession face longer term damage to its balance sheet[57]. In that department, SMEs are particularly at risk. The extensive measures introduced by the authorities have certainly helped provide relief to companies to avoid massive layoffs and a spike in credit events[58]but this support will be temporary. Like many other countries around the world, Brazil's corporate tissue will suffer from the economic consequences of the pandemic in terms of irreversible operating losses and weaker prospective demand as job and income losses adversely affect private consumption. The extension of repayments terms on working capital loans will also not reduce leverage while temporarily deferred tax payments will still have to be honoured. A notable increase in bankruptcies is therefore a scenario that is likely to materialize sooner or later unless corporates benefit from debt relief[59]. According to a study by consultancy firm Alvarez and Marsal[60], requests for bankruptcy protection with the courts could increase by 40% above the yearly record observed in 2016 (some 2,500 companies versus the previous peak of 1,800)[61]. This will have spillover effects as bankrupt firms end up disrupting supply chains of surviving firms.[62]

In the short term, the prospects of seeing a strong rebound of investment are limited. Gross fixed capital formation—the most volatile and pro-cyclical component of GDP—will be hit the hardest as investment plans are put-off until economic conditions normalize. Already, oil giant Petrobras has shelved investment outlays and postponed the sale of refineries and other logistics assets as part of 5 year divestment plan[63]. 5G tests were also postponed. Electrobras put off its privatizations plans until 2021. Numerous concession auctions were canceled in Sao Paulo (highway), Fortaleza (port). Six airports concessions auctions were also postponed (Salvador, Confins, Porto Alegre, Galeao, Fortaleza and Florianopolis). The National Petroleum Agency (ANP) also postponed an auction scheduled later this year for the exploration and production of oil and gas. Moreover, the Ministry of Mines and Energy has indefinitely postponed all the energy auctions that were planned to take place over period 2020-22.

cocktail for growth and equity in emerging Latin America. VOX EU, CEPR Policy Portal
54 Mathis, J., & Sand-Zantman, W. (2014), *Competition and investment: What do we know from the literature?* Institut d'Economie Industielle
55 See chapter 2 of survey in OECD (2018) for a more in depth look at Brazil's low level of integration in international trade and the opportunities it has missed out on as a result of being commercially closed. See also World Bank (2018).
56 And that is assuming that public guarantees are not drawn on.
57 World Bank (2020), LAC Semiannual Report April 2020: *The Economy in the Time of Covid-19. A joint product of the Chief Economist Office for Latin America and the Caribbean and the Macroeconomics, Trade and Investment Global Practice*
58 See OECD key country policy tracker and IMF policy tracker for summary of measures taken by both fiscal and monetary authorities.
59 Coface has forecasted a +25% increase in corporate insolvencies worldwide in 2020, Coface (2020, June), *Coface Barometer: COVID-19 - heading towards a sudden global surge in business insolvencies*, Coface Economic Publications.
60 Published in a local newspaper and referenced in Scalzaretto, N. (2020, April). "*Covid-19 could push over 2,500 Brazilian companies close to bankruptcy*", says study. The Brazilian Report.
61 Scalzaretto, N. (2020, April)
62 Boissay, F. & Rungcharoenkitkul, P. (2020), *Macroeconomic effects of Covid-19: an early review (No. 7)*, Bank for International Settlements Bulletin No 7
63 See daily briefs and online newswire at Latin Finance.

EQUITY MARKET AND EXCHANGE RATE

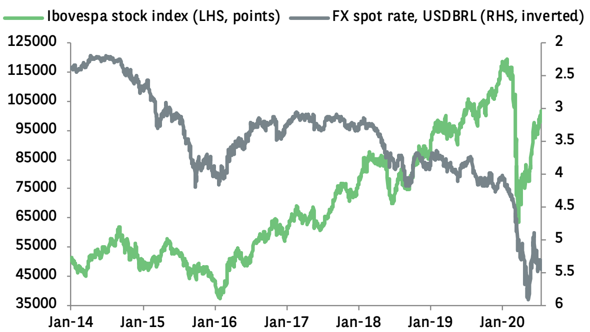

CHART 19 SOURCE: B3, MACROBOND

AVERAGE INTEREST RATES PER YEAR ON NEW OPERATIONS (%)

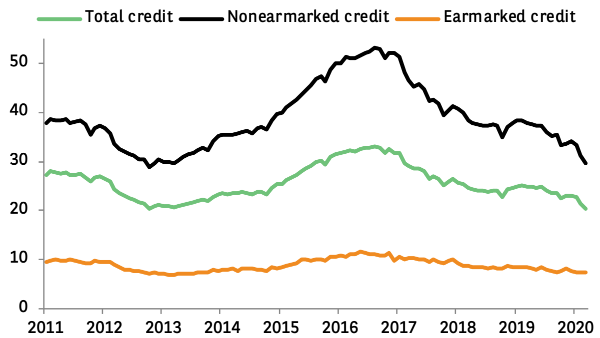

CHART 22 SOURCE: BCB

CAPACITY UTILIZATION - INDUSTRY (INDEXES, SA, 3 MMA)

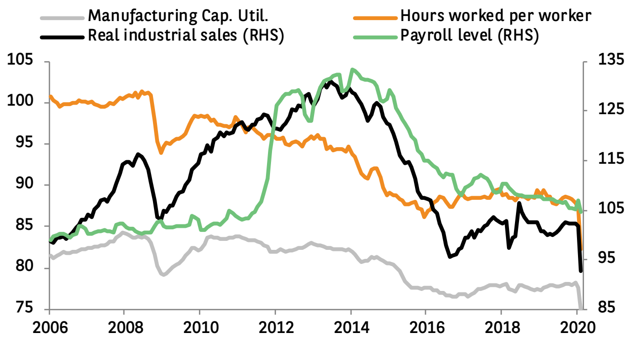

CHART 20 SOURCE: CNI, GSP

INTEREST RATES PER COUNTERPARTY (%)

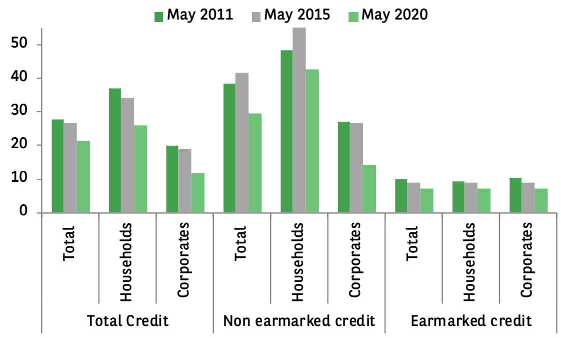

CHART 23 SOURCE: BCB

REAL INTEREST RATES

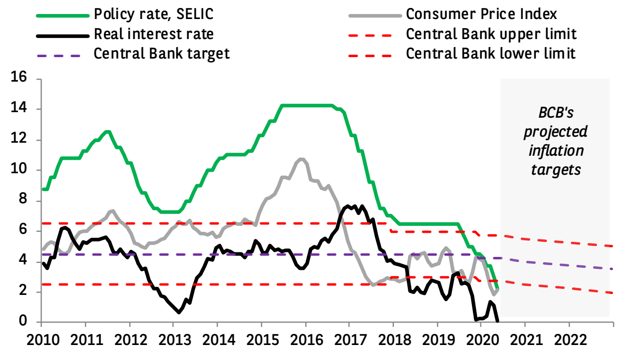

CHART 21 SOURCE: BCB

DOMESTIC ISSUE - FIXED INCOME, EQUITIES, HYBRID PRODUCTS VOLUME (BRL MILLIONS)

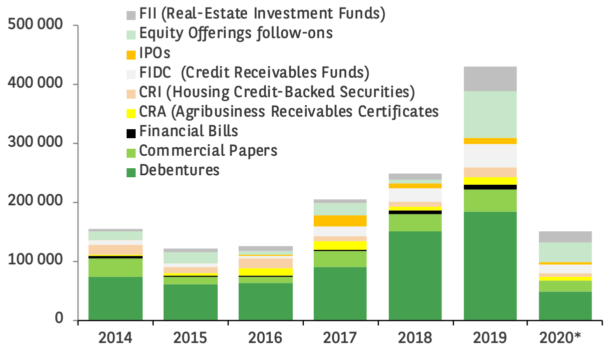

CHART 24 SOURCE: AMBIMA

2020 was also expected to be a ground breaking year for IPOs. The record will have to wait. Meanwhile, UNCTAD in its latest investment report, projects a drop of 50% of foreign direct investment (FDI) in Latin America and the Caribbean. As Brazil represented 44% of total inward FDI to the region last year with USD 72 bn, the impact on gross fixed capital formation (of which FDI accounts for 25.5% according to UNCTAD data) is therefore likely to be consequential.

The fallout from the Covid-19 crisis will certainly not do any good to help get rid of the significant amount of slack in the economy. Manufacturing had large margins of idle capacity going into the crisis which already discouraged purchases of new equipment[64] (chart 20). Construction which was expected to be one of the main drivers of the recovery may suffer from a slowdown in the real estate segment (due to weaker consumer sentiment) in spite of the supportive low-interest rate environment. Also, many corporates will need to rebuild cash flow positions, increase precautionary savings and — once activity normalizes — honor obligations that were temporarily suspended during the crisis[65].

Besides immediate weaker growth prospects, the high level of uncertainty surrounding the future occurrence and frequency of pandemics and their effects on the local and global economy may also further complicate firms' ability to update their views on the future (medium-term) path of expected demand. Meanwhile, business confidence could take time to rebound especially if political uncertainty remains high, if progress on the reform agenda stalls and the currency continues to experience extreme bouts of volatility and weakness[66]. All these concerns may ultimately contribute to put some private sector projects on hold.

In this context, there could be a temptation to wait for the state to take the first step in getting spending rolling again through infrastructure investments. Unlike in 2009, however, the government does not have room to implement counter-cyclical policies to help accelerate the recovery. The economic team has also signaled its intentions to avoid repeating errors of the past, in particular with regards to making temporary measures more permanent features of economic policy. While social spending is likely to go up, the government has no fiscal space to invest. It is expected to resume its fiscal consolidation strategy and push for convergence towards the new policy mix.[67]

The very large concession and privatization program should nonetheless help to cushion the blow to investment—provided it is able to resume fairly rapidly (2021) and is not disrupted by investors' concerns over fiscal sustainability. In that regard, two elements could complicate the adjustment process. First, the fiscal situation at the subnational level. Twelve states were already in breach of the fiscal responsibility law prior to the health crisis erupting (expenditures on public payroll were above the limit of 60% of net current revenues), and states may require additional support on top of that received during the crisis. Second, if despite easing monetary conditions, private commercial banks adopt a conservative stance in supplying credit, the government's plan of drastically scaling back public credit may have to be revisited.[68] The transition in the credit market may in this case be at risk of being temporarily set back.

Some potential lasting impact on investment and output

Alongside the more immediate detrimental impact to investment, the health crisis will have longer-term structural consequences on the supply side of the economy. While many researchers agree that it is too early to evaluate economic impacts of Covid-19 over a longer time horizon and how it may affect economic agents' behavior[69], some elements of the crisis can be interpreted as having more muted effects while others are more negative. Boissay et al. (2020) note that a first positive element is that unlike natural disasters, pandemics do not destroy physical capital. Another supportive factor, specific to Covid-19 (unlike some other pandemics in history) is that the virus' comparatively lower fatality rate for the younger population will likely help to mitigate loss of workforce and therefore have a more limited impact on potential output. [70]

At the same time, previous crises episodes have shown that recessions are often subject to hysteresis phenomena. Even in the event of a stronger than expected recovery post Covid-19, there may be some persisting effects on the economy from the crisis which could adversely affect potential output.

Firstly, in the labor market, crises episodes can contribute to remove certain categories of workers from the labor force (e.g. some elderly workers may decide to retire early). Also, empirical evidence shows that women tend to be disproportionality affected by economic crises compared to their male counterparts and are more vulnerable to dropping out of the workforce.[71] Also, the longer workers stay unemployed the higher their chances of losing their skills, making it harder, in turn, to get a job (*"erosion of human capital"*). This and the fact that Brazil was already dealing with persistently high unemployment prior to the crisis, could end up reducing the labor force by increasing the pool of *"discouraged workers"*, with potential adverse effects on potential output.[72] For workers in employment *"hardship and demoralization"* that come with financial stress in a more uncertain world could also end up impacting labor productivity.[73]

Secondly, there may be more durable losses to the economy that come with 1/bankruptcies (*"firm-specific skills have no value when the firm that uses them goes out of business"*[74]) and 2/missed opportunities to accumulate human capital, as school or work place shutdowns, *"deprive many people of opportunities to improve skills and productivity*

64 More broadly, the weakness in industry has been a long-standing issue. For some the sector never recovered from the 2008-09 crisis. For a long time, an overvalued exchange rate and high interest rates strongly affected competitiveness of industrial goods causing many to believe that Brazil was undergoing a "premature deindustrialization".
65 For studies showing the significant relationship between investment and changes in the levels of cash flow of a firm, see Oliveira, F. N. D. (2019) *Investment of Firms in Brazil: do financial restrictions, unexpected monetary shocks and BNDES play important roles?* Revista Brasileira de Economia, 73(2), 235-251. Fazzari, S. M., Hubbard, R. G., & Petersen, B. C. (2000), *Investment-cash flow sensitivities are useful: A comment on Kaplan and Zingales*. The Quarterly Journal of Economics, 115(2), 695-705.
66 The impact of currency volatility on business confidence is investigated in de Brouwer, G. (2003) *The cost of crises and learning to live with exchange rate volatility: evidence from survey measures of consumer and business expectations,* Routledge, London.
67 The burden of piloting the economic adjustment will therefore fall on monetary authorities whose policy actions in recent months have brought the SELIC policy rate significantly below the neutral rate. The authorities have had to balance the risks of rate cuts against that of 1/ steepening the yield curve and 2/ further weakening the currency with its potential higher pass-through effect on prices down the line.
68 Already, BNDES has been getting a second life since the onset of the crisis. It is supporting SMEs and the corporate sector at large providing close to a BRL 100 bn in funds. It is also being leaned on to rescue airlines Gol, Azul and Latam and bailout packages are also being prepared for automobile manufacturers. Since 2015, BNDES returned almost BRL 410 bn to the Treasury helping the central government reduce its debt ratio. These transfers have now been suspended; BNDES has also interrupted divestments and will likely increase its stakes in large companies facing difficulties.
69 Boissay, F., & Rungcharoenkitkul, P. (2020)
70 Boissay, F., & Rungcharoenkitkul, P. (2020)
71 Ghosh, J. (2013), *Economic crises and women's work. Exploring progressive strategies in a rapidly changing global environment*. UN Women report: *"This tends to confirm the earlier argument that as crisis sets in and fiscal austerity takes hold, women's employment in a range of public and other social services will decline. This need not always be reflected in higher open unemployment figures, especially as the 'discouraged worker' effect, whereby people simply leave the labour market rather than continuing to search for jobs, is known to be particularly strong for women (Seguino 2009). The decision to exit the labour market in bad times is often not a purely individual decision for women: it can reflect gender norms that encourage women to leave the productive space to husbands, brothers or other males."*
72 According to the IBGE, in May 2020, discouraged workers represented 25.6 mn people. Also note, that one mitigating factor which should help keep more workers in the labour force is the recent passing of the pension reform (which set the minimum retirement age at 65 for men and 62 for women for both public and private sector workers against an average retirement age prior to that of lower than 55).
73 Boissay, F. & Rungcharoenkitkul, P. (2020)
74 Eichengreen B. (2020, April), *The Human Capital Cost of the Crisis*, Project Syndicate

through apprenticeship, on the job learning." [75]

Thirdly, though the growth rate of capital stock accumulation will be driven by the large number of infrastructure investment projects currently under consideration by authorities, its pace may be slower than expected considering that 1/ the last two recessions have led to an acceleration of de-industrialization in Brazil leading to some capital destruction, while 2/ expansion of production capacity could be hampered by possibly enduring low levels of capacity utilization rates[76]. On the latter point, the World Bank notes in its June issue of Global Economic Prospects that *"low levels of capacity utilization discourage investment and lead to a legacy of obsolete capacity; expectations of weak growth also discourage investment and become self-fulfilling."*[77] Meanwhile, *"cash flow constraints and higher operating costs"* may force *"firms to critically re-assess budgets for R&D"*[78], with possible adverse consequences on productivity growth.

The bottom line is that while it is too early to estimate the longer term damage to labour, capital and productivity resulting from the effects of the pandemic[79], there are real risks of seeing the crisis exacerbate weaknesses in private investment and productivity growth. Empirical analysis of deep recessions also indicates risks of *"lasting damage to potential output levels"* sometimes for as long as *"four to five years after the event."* [80] These insights further raise the stakes of approving the administration's reform agenda as it will most likely help to "*moderate the damage"* to medium term growth prospects by introducing productivity-enhancing structural changes.

Also, understanding the impact of the crisis on potential output and the transmission channels through which factors of production are being affected will be of particular importance for the conduct of monetary policy as it gains more prominence in the policy mix. *"Mismeasuring the output gap"* and having the *"wrong policy setting" could otherwise have adverse consequences on the economy*[81].

There are still many supportive pieces in place to provide an impetus to investment in the medium-term

Besides the government's multi-year privatization and concession programme, other positive changes may help spur investment over the medium term and support Brazil's transition to a new macroeconomic equilibrium:

- ***Inflation is under control and this has allowed a sharp loosening of monetary policy***. Moreover, monetary easing has accelerated the convergence of the exchange rate towards a new (lower) equilibrium with an expected positive impact on competitiveness.[82] Controlled inflation is also expected to positively impact savings behavior in the medium-term.[83]
- ***The real and neutral interest rates have significantly declined*** (chart 21). In that regard, the passage of a bold version of the pension reform has helped alleviate fiscal risks and bring down long-term interest rates. The structural decline in interest rates has had many beneficial consequences: improve credit conditions for private counterparties (charts 22-23), lower borrowing costs for the sovereign; it will also help support a recovery in the construction sector, a traditionally important investment vector in Brazil[84]. Perhaps in a more transformative way, the decline in interest rates has also helped bring structural changes to the local financial markets *(see below)*.
- ***Credit markets are mutating***. In 2019, for the first time in 10 years, the share of private credit overtook that of public credit, which growth —prior to Covid-19— was contracting in real terms. Numerous credit market distortions have been progressively lifted (a process that started under the Temer administration), with public banks progressively realigning their practices to that of the market. Overtime a greater share of outstanding credit will respond to monetary policy changes which should ultimately help strengthen the credit channel.
- ***The local capital markets are developing***. The fall in real interest rates and sovereign yields has brought more local players to the equity market and corporate bond market in search of higher returns.[85] This has unleashed a new wave of financial investments *"from domestic savings that had been previously sitting, unproductively, in government bonds"*[86]. This is largely what explained the surge in the B3 Ibovespa index in 2019, which gained 35% on the year. The increased appetite for risk assets is good news for corporates as it provides them with more diverse sources of local financing to fund investments. This can be seen through the emergence of mid-size issuers over the past couple of years, a novel development across Brazilian capital markets.

The high cost of local financing and the lack of depth in the debt market meant that corporates for a long time borrowed abroad to finance themselves. In recent years, however they have bought back dollars, paid off their debts and instead raised money in the local market[87]. Changes in portfolio allocations are expected to continue to help increase the depth and liquidity of the secondary corporate debt market, which in turn should help further bring down the cost of capital and lengthen tenors.[88] Already, in recent years some corporate debentures cleared the primary market carrying rates lower than that of BNDES' old benchmark TJLP rate.[89] Meanwhile, less administrative hurdles for primary issuances is also expected to support the growth of IPOs volumes going forward.

75 World Bank (2020), *Lasting Scars of the Covid-19 Pandemic in Global Economic Prospects*, Chapter 3, June Issue
76 As a result in part to weaker demand (due perhaps to changes in consumption habits, higher precautionary savings, lower confidence etc.)
77 World Bank (2020)
78 Erken, H. et al. (2020, April), *Looking beyond the Covid-19 crisis,* Rabobank, Economic Research. See also Portes, J. (2020, June), *The lasting scars of the Covid-19 crisis: channels and impacts*, VOX EU, CEPR Policy Portal
79 As the World Bank notes in its June issue of the Global Economic Prospects report, research is still limited in evaluating the medium and long term impact of pandemics on output but assuredly there will be a growing literature on the issue for years to come which will prove useful to policy-makers.
80 World Bank (2020)
81 S&P Global Ratings (2020, April), *Economic Research: COVID-19 Deals A Larger, Longer Hit To Global GDP*
82 Campos E. (2019, November), *Brasil tem que escolher entre céu do juro baixo ou inferno da crise, diz Tony Volpon,* Seudinheiro
83 Historically, episodes of hyper-inflation have meant that the focus of economic agents tended to be dominated by short-term considerations discouraging savings.
84 The sector which suffered a lot from its entanglement in Lava Jato was starting to show signs of recovery pre-Covid 19.
85 Note that the search for yield in a new low interest rate environment is also helping the sovereign to lengthen its curve. As a Treasury official remarked during a trip to Brasilia in November 2019: *"To get more yield, investors need to face more risk. Either they take on more credit risk through the corporate bond market for instance or alternatively they can take on more interest rate risk on government bonds that is go long on the curve to increase duration of their portfolio."*
86 Typical Brazilian investors have invested in fixed income with little diversification with a strong skew in favor of government debt products.
87 FDI in 2019 (USD 72 bn, according to UNCTAD) could have seen a much larger increase if Brazilian firms hadn't scaled back their practice of financing themselves through their foreign affiliates (accounted for in the intercompany loan portion of FDI), UNCTAD (2020), World Investment Report.
88 Dwyer, R. (2019, November), *Brazil's new FX low is not the financial record to watch*. Euromoney notes: *"in 2016 just 25% of primary issuance of local debentures was bought by private investment funds. In 2019 this has leapt to 55%, while the portion held by the coordinating banks has fallen from 35% to just 10%. Growing demand (and those lower interest rates again) has also lengthened tenors. In 2018, 31.5% of all deals were less than three years, compared with just 20.5% this year. Meanwhile 46.3% of deals have maturities of between four and six years."*
89 The TJLP rate, a subsidized rate fixed by the National Monetary Council, is now defunct. It was replaced by the TLP (new long-term interest rate) more tied to market rates and is expected to converge towards the 5-year government bond yield. Starting in 2018, it has been the new benchmark for BNDES' lending.

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The investment rate in Brazil fell precipitously over period 2013-17. Since, the recovery has been weak, constrained by a string of cyclical and structural impediments (e.g. slack in the economy, weak business environment, low savings rate etc.) Bleak expected growth has also acted as a drag on corporate outlays preventing the investment accelerator from kicking in. The fiscal adjustment — initiated by the Temer administration at the end of 2016 and pushed forward under the government of Jair Bolsonaro — has meanwhile had some unfavorable knock-on effects on both public and private investment.

Rising fiscal imbalances post-Covid 19 will increase the sense of urgency about the need to further foster the development of the private sector, lift impediments to investment and raise domestic savings. In the immediate future, though, the transition will be challenging and the outlook for investment, grim. Indeed, with an anticipated contraction of the economy in the order of 5 to 9% in 2020, the damage to corporate investment will be sizeable. The recession will also impact investment through its effects on expectations. Limited fiscal space and the need to consolidate will meanwhile constrain an expansion of public investment.

While some supportive pieces are in place to spur investment in the medium term, the road to recovery will be long. Even if we assume 1/ that a recovery in construction materializes 2/that the administration is in position to approve its pro-market reforms and is able to move forward (at a reasonable pace) with its large privatization and concession programme and 3/that lower interest rates are passed on to private counterparties to ignite capital expenditures — it will still take time for investment to return to its pre-2014 level.[90] Prior to Covid-19, the investment rate was already not projected to recover until the second half of the decade even under optimistic scenarios regarding the path of economic growth[91].

The lasting impact of the Covid-19 epidemic and the projected slow recovery of investment are certainly raising questions about the country's medium-term growth perspective. Economic theory tells us that investment must be sufficiently high to make future growth possible, especially if productivity is stagnant and the workforce contracts. In a forthcoming issue of *Conjoncture*, we will look at some of the implications for Brazil of having durably low investment rates in particular in the context of the country's demographic transition.

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90 At end of Q1-2019, the investment rate was close to 30% lower than its peak in Q2-2013.
91 According to projections by local bank Bradesco : *"Based on a GDP growth rate of 3 % starting in 2021, with a 6 % increase in investments, the investment rate would only reach 20 % again in the second half of the decade"*, Bradesco (March 2020). *Required scenarios to increase potential GDP growth*. DEPEC Highlight. Similar remarks can be made for the fate of GDP per capita. After internalizing population growth, if the economy had grown by 2% a year starting in 2020, the level of per capita GDP of 2013 would have only been reached in 2026, according to calculations by Global Source Partners (GSP). With a 5% contraction, GDP per capita *"will bottom out nearly 13% below the level of 2013 and 10 years will be necessary for the figure to return to level of 2013."* Pastore, A. et al (2020, July), *Synthesis of the Brazilian Economy*, Global Source Partners.

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