2020 Brazil Strategy Outlook

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2020 Brazil Equity Strategy Outlook

Economic growth to drive markets in 2020

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We expect Brazilian equities to continue its run in 2020

✓ Economic recovery to drive equities further up

- We expect Brazilian equities to continue its run in 2020, after performing strongly for four years in a row – the Ibovespa is up 147% in BRL from 2016 to 2019.
- Even though the performance has been strong, we anticipate the next leg of the rally to be just starting and to be supported by an accelerated economic recovery.
- At this point, signs that the economy is picking up are evident. We expect investments and household consumption to be the main drivers of economic growth in 2020, fueled by employment growth, credit expansion and another round of economic reforms.

✓ A new round of economic reforms are expected in 2020

- In 2019, the government and congress focused its efforts to approve a much waited and essential reform of Brazil's pension system – with savings estimated at R$800bn in the next 10 years.
- For 2020, the administration and congress are already working on a series of additional constitutional amendments aiming at consolidating Brazil's fiscal accounts and overhauling the country's public administration.
- The reform agenda also includes a sorely-needed, but tough to implement tax reform. More than reducing the tax burden, the tax reform proposals focus on simplifying Brazil's extremely complex tax system ultimately boosting companies' productivity.

✓ Domestic-companies' earnings to grow 18% in 2020

- We estimate earnings of companies that sell basically domestically to grow 18% in 2020.

✓ Brazilians stocks are under-owned by locals and foreigners

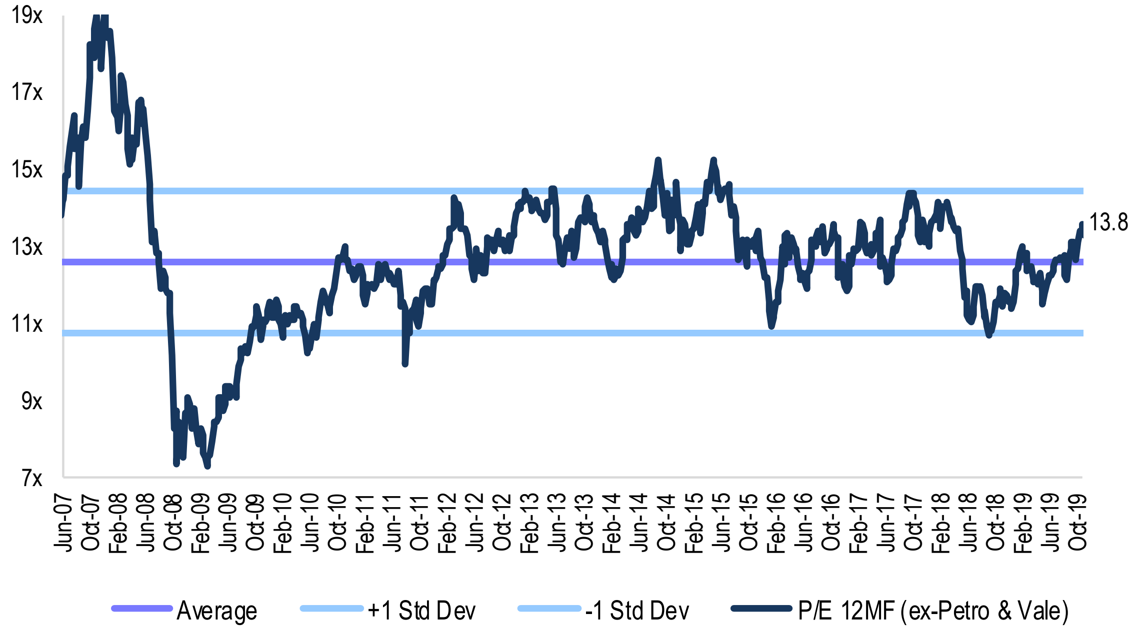
- Allocations to Brazilian equities, both by foreign and local investors, are at quite reduced levels. Increased flows to Brazilian equities have the potential to drive valuations further up.

Valuations are relatively attractive

✓ **The Ibovespa is now trading at 13.8x 12-month forward P/E, somewhat above its historical average**

- Some may argue that the Ibovespa has moved up too much in recent months. It is indeed trading somewhat above its historical average (13.8x vs. 12.6x 12-month forward P/E), but now the scenario is different.
- Brazil's historical valuation levels were built in a scenario of much higher real interest rates. In our view, sustainable, lower-than-historical real interest rates should translate into higher-than-historical valuation levels.
- Long-term real interest rates were at 5.9% before the elections and have since plummeted to 3% on expectations of structural changes.
- We believe that under this scenario of structural low long-term interest rates, the Ibovespa could quickly trade at one-standard deviation above average. Using our 12-month forward earnings, this puts the index at ~118k points.

Brazil's 12-month forward P/E



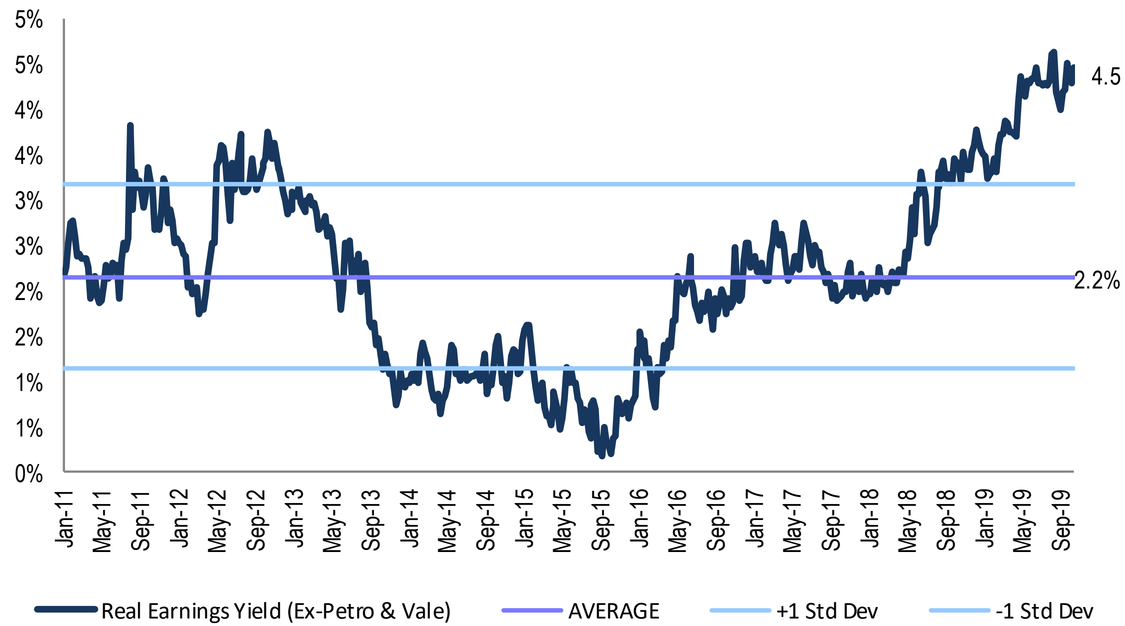
Source: Economática, BTG Pactual estimates

Premium to hold equities at historical high levels

✓ **Equity Risk Premium soared after strong decline in long-term real rates**

- Earnings yield, i.e. the inverse of the P/E (Earnings / market cap) minus ten-year real interest rates, is above one-standard deviation above its historical average, suggesting room for stock prices to move up further and bring the yield back to average.
- At one-standard above average (earnings yield of 3.2%), the Ibovespa would have to go up to 122k points. To go back to historical average (2.2% earnings yield), the Ibovespa would have to go up to 147k points.

Earnings yield (E/P minus 10-year interest rates)



Source: Bloomberg, Tesouro Direto, BTG Pactual estimates

Long-term real interest rates falling fast

✓ **Long-term real rates have fallen consistently since the election of President Bolsonaro.**

Brazil's long-term real interest rates (NTN-B 2024/2035)

BTG Pactual

Earnings should continue to grow nicely in 2020

✓ We are modeling for 2020 domestic earnings to grow 18% y/y

– Another round of interest rate cuts (200bps in 2019), deleveraging and a faster growing economy should drive the next leg of earnings expansion.

Domestic companies' earnings growth

	2015	2016	2017	2018	2019E	2020E
Net revenues	741,042	805,257	842,760	936,887	1,025,458	1,118,212
Growth		8.7%	4.7%	11.2%	9.5%	9.0%
Net income	113,764	114,377	123,629	145,107	173,627	205,449
Growth		0.5%	8.1%	17.4%	19.7%	18.3%

Source: BTG Pactual estimates

✓ Consolidated earnings (ex-Petro & Vale) expected to grow 20% in 2020

– Consolidated earnings ex-Petro & Vale, but including commodity exporters, are set to grow 20.2% y/y in 2020.

Consolidated earnings and revenue growth (ex-Petro & Vale)

	2015	2016	2017	2018	2019E	2020E
Net revenues	1,050,672	1,104,853	1,150,165	1,302,566	1,410,752	1,522,607
Growth		5.2%	4.1%	13.3%	8.3%	7.9%
Net income	107,540	116,190	130,812	163,145	184,877	222,205
Growth		8.0%	12.6%	24.7%	13.3%	20.2%

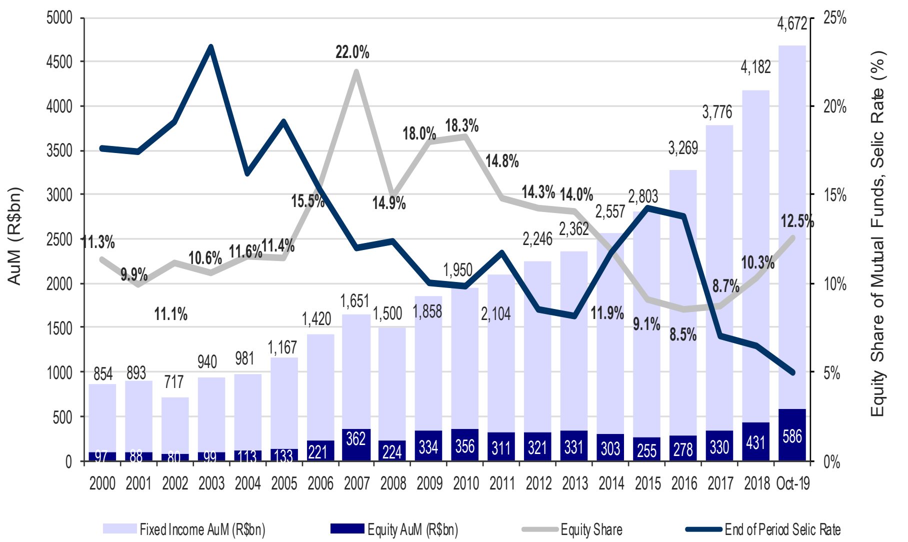
Source: BTG Pactual estimates

Brazilian equities are under-owned

✓ Allocations to equities by locals should continue to grow; Foreigners remain a question mark

- ✓ Local investors have been continuously and consistently increasing allocations to Brazilian equities. At the end of October, equity allocation by local investors reached 12.5%, from 8.9% in August 2018. Despite the increase, allocation levels are still below the average of 14% from 2011 to 2014 (pre-recession) and way below 2007's 22% peak.
- ✓ With interest rates at historically low levels, we expect locals to continue to increase the share of their portfolios invested in equities in 2020.
- ✓ Foreign investors, though, have been way more cautious. Since President Bolsonaro's election, and reflecting a global risk-off mode, they have not increased their exposure to Brazilian equities much.
- ✓ Stronger economic growth could finally drive foreign flows to Brazil, but the situation of global markets will be important to define foreigners' appetite for emerging markets' exposure.

Local investors' allocation



Source: Anbima

Allocation of global and GEM-weighted funds

	Allocation into Brazilian equities	
	G.E.M.	Global
Dec-09	16.7%	2.40%
Dec-10	15.9%	1.97%
Dec-11	16.4%	2.24%
Dec-12	11.9%	1.31%
Dec-13	11.0%	1.07%
Dec-14	9.1%	1.07%
Dec-15	6.0%	0.52%
Dec-16	8.6%	0.93%
Dec-17	7.2%	0.60%
Jun-18	6.0%	0.42%
Dec-18	8.0%	0.58%
Mar-19	7.6%	0.46%
May-19	8.2%	0.48%
Jul-19	8.7%	0.51%
Sep-19	8.4%	0.51%
Oct-19	8.5%	0.47%

Source: EPFR

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Economic recovery to drive Brazilian equities further up

✓ Economic activity Heat Map shows the recovery is under way

- Our Macroeconomic team built a tool that brings together all indicators, simplifying assessments of the true state of Brazil's economy. The proposal is a simple approach based on a combination of the visual resource of heat maps and a univariate analysis between each economic activity indicator and GDP.
- We can conclude that employment growth, retail sales, and the auto industry are already pointing to higher GDP growth rates. On the other hand, capacity utilization, the construction sector, and the services sector are still indicating low levels of GDP growth.

Brazil economic activity heat map (hard data)

	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19
Employment growth (IBGE)	2.0%	1.8%	1.7%	2.0%	2.5%	3.0%	3.4%	3.5%	3.3%	2.8%	2.5%	
Supermarket sales (ABRAS)	2.5%	2.6%	2.3%	1.4%	1.6%	1.6%	2.5%	2.4%	3.0%	2.9%		
Heavy vehicles traffic (ABCR)	2.2%	2.3%	3.4%	2.7%	2.1%	6.2%	5.4%	6.0%	0.7%	2.8%	3.1%	
Auto sales (Fenabrave)	3.8%	3.3%	3.8%	3.5%	3.3%	3.1%	3.5%	3.7%	2.6%	2.7%	2.3%	2.8%
New payroll jobs (CAGED)	2.6%	2.2%	2.4%	1.5%	1.7%	0.9%	1.6%	1.7%	2.2%	2.4%	2.7%	
Construction supplies (IBGE)	1.7%	1.2%	2.0%	1.9%	1.9%	2.9%	3.0%	3.2%	1.6%	2.2%	2.0%	
Auto production (Anfavea)	1.1%	0.6%	1.5%	1.8%	2.1%	2.4%	2.5%	2.8%	1.5%	2.2%	2.2%	
Broad retail sales (IBGE)	2.2%	2.0%	1.6%	1.6%	1.2%	1.9%	2.1%	2.8%	2.0%	1.9%		
Manufacturing production (IBGE)	1.1%	0.6%	1.4%	1.3%	1.6%	2.8%	2.8%	2.7%	0.7%	1.6%	2.3%	
Core retail sales (IBGE)	1.7%	1.7%	1.4%	1.3%	0.9%	0.7%	0.7%	1.4%	1.4%	1.6%		
Industrial production (IBGE)	1.3%	0.8%	1.3%	0.9%	0.6%	1.5%	1.6%	1.7%	0.3%	1.4%	2.0%	
Household credit growth (CB)	-0.2%	0.0%	0.3%	0.4%	0.4%	0.4%	0.4%	0.7%	1.0%	1.2%	1.4%	
Cardboard expedition (ABPO)	1.2%	0.4%	0.9%	0.6%	1.0%	4.4%	2.4%	2.2%	-1.8%	0.9%	1.3%	
Real wage bill growth (IBGE)	1.4%	1.5%	1.6%	1.7%	1.7%	1.5%	1.3%	1.2%	1.0%	0.9%	1.0%	
Real wage growth (IBGE)	1.5%	1.6%	1.8%	1.7%	1.5%	1.1%	0.8%	0.7%	0.7%	0.8%	1.0%	
Mining production (IBGE)	2.5%	2.4%	1.6%	0.1%	-2.0%	-2.5%	-2.6%	-1.5%	-0.3%	0.6%	0.8%	
Services output (IBGE)	0.8%	0.8%	1.3%	0.8%	0.3%	0.5%	0.3%	0.8%	-0.3%	0.6%		
Corporate credit growth (CB)	0.3%	0.4%	0.5%	0.5%	0.5%	0.4%	0.3%	0.2%	0.2%	0.3%	0.3%	

Source: IBGE, FGV, Central Bank, Fenabrave, Anfavea, ABRAS, ABCR, ABPO and BTG Pactual

A new round of economic reforms are expected in 2020

- ✓ **With the pension reform approved, the government is ready to move forward with its reform agenda.**
- ✓ **Some of them will continue the efforts to improve Brazil's fiscal accounts, including:**
  - i) The administrative reform: Payroll expenses is the second largest federal government expense line (22% of total). The goal of the administrative reform is to: i) restructure civil servants' careers; ii) reduce starting salaries to levels compatible with the private sector; iii) lengthen salary progression and end with automatic promotions based on time of service; and iv) end job stability, except for specific careers like diplomats and auditors.
    - The new rules would apply only to new civil servants, which would make it a lot easier to approve in congress. That said, 49% of all civil servants are expected to retire by 2026, creating a unique opportunity to implement a big change in public administration.
    - The speaker of the House has said the administrative reform is his number 1 priority. President Bolsonaro also said this should be congress' top priority.
  - ii) Changes to the Golden Rule: Proposes changing tax rules by curbing mandatory expenditures and creating triggers that would help comply with the rule. The PEC prevents a shutdown of the State apparatus by activating triggers such as authorization to reduce the number of working hours of civil servants (with a proportional decrease in remuneration) and charging a supplementary social security contribution of 3pp for civil servants (active, retirees and pensioners). The changes should give flexibility to manage the government's budget and are expected to free up to R$102bn in mandatory expenses in a period of 12 months.
  - iii) New federative pact: The goal is to redesign rights and obligations of the federal government, states and municipalities, with the federal government transferring more resources to state and municipalities.
    - The redesign will be done via approval of a series of legislation (some already approved), including: i) transfer of funds to states and municipalities related to the upcoming transfer-of-rights oil auction (already approved, PL5479/19); ii) higher transfer of resources from the social fund (constituted with resources from Oil&Gas exploration) to states and municipalities; iii) extension of the term to pay debt related to court decisions (PEC dos Precatórios / PEC95/19), which was already approved in the Senate and has now moved to the Lower House; and iv) Plano Mansueto (PL149/19), which allows for lower credit rating states and municipalities to issue new debt guaranteed by the federal government, under certain conditions.
- ✓ **The reform agenda also includes a sorely-needed, but tough to implement, tax reform.**

Brighter outlook for Brazil's fiscal accounts

✓ **Our macroeconomic team is more optimistic on the evolution of Brazil's fiscal accounts**

- We now expect the primary deficit for 2019 and 2020 to be R$60.7bn (0.8% of GDP) and R$96bn (1.2% of GDP), way less than what is in the budget (primary deficits of R$132bn and R$119bn, respectively).
- Several reasons help explain these better prospects:
  - i) additional revenues related to oil & gas concessions and dividend payments by state-owned companies;
  - ii) lower personnel expenses (R$6bn already "recognized", with the potential to deliver another >R$4bn);
  - iii) lower inflation;
  - iv) gains from reviewing/auditing some of the so-called "social" expenses;
  - v) a much lower Selic interest rate, which is at record low levels, reducing financial expenses (positive impact on nominal deficit).
- In addition, Brazil's expected economic recovery should also help improve tax revenues and reduce the fiscal deficit in the coming years. The approval of additional reforms (like the administrative reform and changes to the Golden Rule) have the potential to consolidate the improvement in the fiscal scenario.

Tax reform: Time to make things less complex

✓ **Many possible reforms show the complexity of the theme; new tax system to boost productivity**

- The proposal being debated in the Lower House transforms five federal (PIS, Cofins and IPI), state (ICMS) and municipal (ISS) taxes into a single VAT, called goods and services tax (IBS). The new tax would be regulated by complementary law and managed by a national committee that would centralize and collect taxes and transfer them to the federal government, states and municipalities.
- However, it is far from clear if this proposal will prevail. Right now, there are 4-5 tax reform proposals being discussed. It is also unclear how broad the reform will be. A relevant portion of the debate so far has been centered on taxation of goods and services, which account for just over 40% of Brazil's tax burden. However, we believe there is a good chance that changes to the taxation of income and profits (20% of the overall tax burden) will also be proposed.
- The proposal in the Lower House is thorough and tackles most challenges of Brazil's tax system. But as it affects more groups, including a tough reorganization of state and municipal taxes, it may be tougher to pass. This is probably why the government has been indicating it should send congress a simpler, less controversial, easier-to-approve reform. Lower House Speaker Rodrigo Maia has already pledged to incorporate the government's proposal into the debate once the government sends it to Congress.
- The sheer fact that there are a number of possible reforms under discussion indicates the complexity of the subject and suggests that the debate may be long and that approval of a reform may take a while.

✓ **Changes to corporate taxes, tax on dividends and IOE are also likely**

- The government proposal, besides simplifying federal taxes on sales, may also reduce tax on corporate earnings (IRPJ/CSLL) whilst taxing dividends. The government's goal is to lower production tax and raise capital gains tax. Measures alleviating low-income taxpayers whilst raising taxes at the top of the pyramid are also possible.

Big infrastructure concessions and additional Oil&Gas auctions

✓ **The government raised R$96bn in the first 10 months of the new administration by selling a number of state-controlled assets.**

- Between selling subsidiaries of state-owned companies (most of them controlled by Petrobras, like TAG, BR Distribuidora, distribution assets in Paraguay, and a refining business in the US) and minority stakes in listed companies, the government raised R$78.6bn this year.
- In addition, it auctioned concessions for the operation of 12 airport terminals, port terminals and railroad concessions that combined raised a total of R$5.7bn. Lastly, the government sold some Oil&Gas camps that combined brought in a total of R$11.9bn.
- At this point, there is a list of 17 companies being prepared to be privatized, including some high-profile ones like the national post-office company Correios (needs approval of a constitutional amendment authorizing the sale) and Eletrobras (needs approval of ordinary legislation).

✓ **Additional Oil&Gas concession auctions to happen in 2020**

- Leftovers from the November auction may be offered to the market in 2020.

✓ **Big highway concessions scheduled for 2020; Several projects in other areas**

- The Sao Paulo government is planning to auction a 30-year concession to operate 1,273Km of highway connecting Piracicaba to Panorama, in the state of Sao Paulo. This is the largest concession auction ever in Brazil, with expected investments of R$14bn.
- Brazil's Infrastructure Ministry plans to auction the concession to operate 8 highways spread across the country, with total investments estimated to reach R$47bn. It expects to auction most of these projects in 2020.
- It is also working to auction the concession to operate 4 new railroads that combined could mean investments of more than R$20bn – in March it auctioned the concession to operate the North-South railroad with expected investments of R$2.8bn.

Top Picks, by sector

✓ **Retail**
- Lojas Renner
- Magazine Luiza

✓ **Financials, ex-banks**
- B3
- Stone

✓ **Agribusiness**
- São Martinho

✓ **Banks**
- Bradesco
- Itau

✓ **Utilities**
- Cemig
- CPFL
- Light

✓ **Oil & Gas**
- Petrobras
- Cosan

✓ **Basic Materials**
- Gerdau
- Suzano

✓ **Food & Beverage**
- JBS
- Minerva

✓ **Healthcare & Education**
- Cogna
- Hapvida

✓ **Transportation, Infra, Capital Goods**
- Rumo
- Localiza
- CCR

✓ **Telecom, Media, Technology**
- Totvs
- Sinqia
- Oi

✓ **Homebuilders**
- Trisul

✓ **Malls & Properties**
- BR Properties
- Aliansce Sonae

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BTG Pactual's December 10SIM

Company	Ticker	Weight (%)	ADTV (R$m)	Mkt Cap (R$m)	PE 2019E
Itau Unibanco	ITUB4	15%	728.5	315,387	12.9x
JBS	JBSS3	10%	406.9	75,900	11.3x
Lojas Renner	LREN3	10%	206.6	41,099	30.9x
RUMO	RAIL3	10%	162.7	38,087	47.2x
CPFL	CPFE3	10%	70.7	36,400	14.5x
Localiza	RENT3	10%	241.6	32,410	33.7x
Gerdau	GGBR4	10%	223.2	27,307	11.2x
Totvs	TOTS3	10%	98.2	12,337	47.1x
BR Properties	BRPR3	10%	28.0	6,280	27.0x
Oi S.A.	OIBR3	5%	85.5	5,528	na.

BTG Pactual's December Small Caps portfolio

Company	Ticker	Weight (%)	ADTV (R$m)	Mkt Cap (R$m)	PE 2019E
São Martinho	SMTO3	20%	15.9	7,291	22.6x
BR Properties	BRPR3	20%	28.0	6,280	91.7x
CVC	CVCB3	20%	138.4	5,921	26.0x
JSL	JSLG3	20%	8.9	4,421	22.1x
Trisul	TRIS3	20%	19.3	2,484	17.9x

Why we selected these stocks

- ✓ **Itau**
  - We remain positive on Brazilian banking stocks since: i) we are at an inflection point for GDP growth; ii) bank stocks seem under-owned; and iii) the decline in ROEs should be smooth and not as aggressive as many seem to believe. We see a credit growth rebound in Brazil being led by the private sector, while a change in mix towards SMEs and individuals should drive NII acceleration and give some support to fees.
- ✓ **Totvs**
  - While we still consider an economic rebound the main top line driver for Totvs' core business in the coming years, we are also confident in the cross-selling potential of its CRM & Analytics platforms, as well as the success of its TechFin initiatives, which include: i) providing credit services/products to SMEs; ii) offering financial services, such as payroll loans and paycheck advances, to employees (10mn people) of companies using its HR solutions; iii) offering payment solutions to retail clients via partnerships with established acquirers; and iv) offering financial solutions to students (3.5mn) and doctors (10,000).
- ✓ **JBS**
  - We continue to have JBS as our Top Pick in the protein sector and believe it to be the best vehicle for exposure to the African swine fever outbreak in China. After an 81% 6-month rally, valuations remain reasonable and the stock still trades at a discount to peers at 5.1x 2020 EBITDA, or 6.8x even if excluding the ASF impact, which is below fair mid-cycle multiples. That said, we note that the main source of upside to JBS continues to rely on our belief that its longstanding corporate governance/management-related discount will gradually fade as management team professionalizes, the company puts greater efforts to enhance corporate governance and pursues a more reasonable capital structure and lower cost of debt.
- ✓ **Oi**
  - With the restructuring moving ahead as planned, Oi's restructured debt will collapse, leaving hefty upside for equity holders. Even under our more conservative estimates for the NPV of its restructured net debt, we still see a huge upside for the stock. Our target price is based on a fair EV/EBITDA multiple of 5.5x (LatAm sector average).
- ✓ **CPFL**
  - CPFL is our Top Pick in the sector, as we see it trading at an attractive real IRR of 9.4% and an EV/RAB 2020 of 1.94x, a big discount to other top-quality operators, whilst delivering strong cashflow generation through top-quality assets. CPFL's distribution assets are located in premium and concentrated concessions, which have one of the highest GDP per capita and the company has a track record of capital discipline and is well positioned to grow as a consolidator in distribution and generation (renewables).

Why we selected these stocks

- ✓ **Gerdau**
- – We added Gerdau to our portfolio on the heels of an improving demand for long steel stemming from a booming real estate market. With new launches in Brazil skyrocketing since mid-2018, construction phase for those projects is just now kicking-off, and should support demand for Gerdau's long steel products in the coming months/years. The company works with operating rates in the 65-70% range, so we see there's more than enough room to grow sales while also diluting fixed costs and increasing operating leverage. All in, we believe Gerdau could easily reach ~R$7bn in EBITDA for 2020, which would mean the company currently trading at ~5.3x, which we consider inexpensive.
- ✓ **Rumo**
- – Remains our top pick in Transportation. The company has the highest long-term EBITDA growth prospects in our coverage universe, and we believe volume momentum will significantly improve in the coming months on strong corn exports. We also see good upside risks coming from new projects (such as Sorriso) and continued strong execution.
- ✓ **BR Properties**
- – Corporate offices in São Paulo's prime business districts are poised to grow rents in the coming years due to low (and decreasing) vacancy rates as demand for office space is bouncing back (leasing spreads in prime regions are already growing 10-20% in real terms). Besides, we expect an increase in occupancy in Rio's AAA corporate towers due to fly-to-quality movement (which is already happening). In light of this positive scenario for offices in Brazil's main markets, we believe BR Properties is well positioned to surf a rebound in rents in its assets in São Paulo (30% of total GLA comprised of AAA offices in the city + 101,865m^2 of AAA GLA in São Paulo to be added to the portfolio with the delivery of Parque da Cidade's towers in 2H21, meaning 26% of company's GLA today) and BR Properties could increase occupancy in its AAA offices in Rio (post the sale of B offices in Rio, ~75% of BR Properties vacancy in Rio is in Ventura AAA towers).
- ✓ **Localiza**
- – The growth rates in car rental industry have been nothing short of stellar (especially Localiza, whose rent-a-car volumes grew at over 30% CAGR since 2015, accelerating year after year since then) despite a sluggish GDP scenario. With the corporate demand recovery, still low rental penetration in Brazil and potential for further market share gains, we expect strong growth rates to persist for longer. Also, given its capital intensiveness and strong growth, Localiza is one of the stocks we cover with the longest cash flow duration, which means it should continue to outperform in a declining cost of capital scenario.
- ✓ **Renner**
- – LREN's consistent track record over a long period shows management's execution discipline, leaving us more comfortable with the challenges ahead (ecommerce's greater share of sales). Poised to grow in the coming years and reaping the benefits of an assertive supply chain strategy, coupled with a more multichannel approach, LREN is the best positioned player in a fragmented apparel retail segment (with only 6% market share), paving the way for more consolidation. The company is currently trading at 28x P/E 2019, which is not a bargain, but it is a good (and premium) alternative to be exposed to retail sector.

Why we selected these stocks

✓ **JSL**

– JSLG3 benefited from Movida's strong 3Q19 results and follow-on process held in August, positively contributing to company's deleverage process. Looking forward, JSL has solid prospects for growth, based on the ongoing trend of vehicle outsourcing (which JSL benefits through the controlling businesses of Movida, Vamos and CS Brasil). This vehicle outsourcing business provides company with an attractive profile of long-term contracts, combining growth with improving profitability. Lastly, we consider current valuation level as attractive (13.1x PE2020).

✓ **CVC**

– CVCB3 has struggled since the beginning of the year (down 34% YTD), on the back of concerns related to Avianca (which was an important channel to sell cheaper tickets), an increase in the credit provisions (with CVC using more of its own balance sheet to finance consumers), as well as lower demand in the leisure segment since the middle of last year. We see these factors as much more temporary than structural and believe that synergies from recently acquired companies (already adding Esferatur, Biblos, Avantrip and Ola), coupled with a brighter macro outlook, will lead to better prospects, especially in the leisure division. CVC is also one of the best choices to play the economic recovery from 2H19 onwards, especially considering the improvement in consumers' confidence and purchasing intentions.

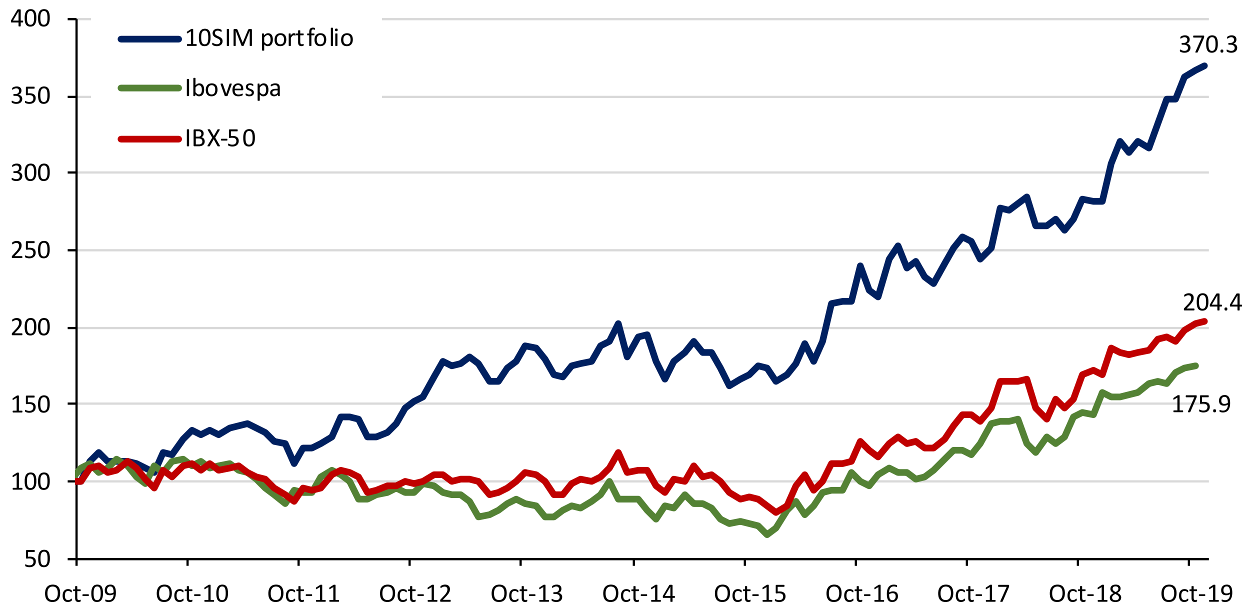
✓ **São Martinho**

– SMTO3 continues as an undervalued story, in our view, and remains our Top Pick in the ag sector. Despite the stock rally of 19% seen in November, we continue to see the stock trading at an attractive FY2021 FCF yield of 10%. Recent concerns regarding sugar prices look overcooked, suggesting an asymmetric risk-reward value proposition. SMTO already has almost 90% of its sugar sales hedged at R$1,208/ton (+9.4% y/y) for the ongoing crop-year. More importantly, over half of SMTO's revenues during 2019/20 crop is expected to derive from ethanol sales, where the scenario remains solid amid a resilient demand and rising gasoline prices. All-in, we see believe SMTO's case seems asymmetric, with risks skewed to the upside, and ready to become a nice combo of value + growth.

✓ **Trisul**

– Trisul is the best option to surf next cycle in mid/high-income housing space since it offers strong earnings growth (EPS CAGR of 35% for 2018-2022E) + attractive valuation (10x P/E for 2021E). Trisul's investment case is based on: (i) they are boasting higher ROEs than peers (19% in 9M19 vs. a sector average of 4%) as they entered the crisis unleveraged and without much inventory; (ii) Trisul will grow launches in the coming years (after the follow-on the company is capitalized to increase landbank), we expect launches to grow to R$1.3bn in 2019 and stabilized launches of R$1.5bn/year; (iii) their differentiated strategy of land acquisition boosts asset turns and ROEs (basically Trisul "creates" land plots by purchasing small houses via call options that only it can cancel); (iv) premium homebuilder with a verticalized operation, boasting high margins in projects and we forecast nice ROEs (17% and 19% ROE in 2020E and 2021E).

BTG Pactual's 10SIM Historical Performance



	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year	Ibov.	Accum.	Ibov Accum.
2009										0.2%	13.3%	4.8%	19.1%	11.5%	19.1%	11.5%
2010	-5.5%	0.3%	0.1%	-1.1%	-2.8%	-2.4%	12.3%	-1.4%	8.6%	4.8%	-2.4%	2.3%	12.0%	1.0%	33.4%	12.7%
2011	-2.2%	2.7%	1.6%	0.6%	-1.4%	-2.2%	-4.6%	-1.0%	-10.8%	9.5%	0.2%	2.1%	-6.5%	-18.1%	24.7%	-7.7%
2012	3.2%	10.3%	-0.2%	-0.8%	-8.7%	-0.1%	2.3%	5.1%	6.9%	3.0%	2.1%	8.1%	34.4%	7.4%	67.6%	-0.9%
2013	6.1%	-1.9%	1.4%	1.9%	-2.1%	-6.1%	-0.5%	5.1%	2.8%	5.3%	-0.6%	-3.5%	7.3%	-15.5%	79.9%	-16.3%
2014	-6.1%	-0.7%	4.0%	1.5%	0.2%	5.6%	1.9%	6.4%	-10.8%	6.8%	0.8%	-8.6%	-0.9%	-2.9%	78.3%	-18.7%
2015	-6.3%	6.2%	3.6%	3.5%	-3.1%	-0.1%	-5.5%	-6.8%	2.4%	1.5%	3.6%	-0.4%	-2.4%	-13.3%	73.9%	-29.5%
2016	-5.5%	3.2%	4.4%	7.2%	-6.0%	6.8%	12.9%	0.9%	-0.2%	10.9%	-6.5%	-2.5%	26.0%	38.9%	119.1%	-2.1%
2017	11.2%	3.9%	-5.6%	1.7%	-4.2%	-2.1%	5.7%	4.3%	2.9%	-0.9%	-4.6%	2.9%	14.7%	26.9%	151.4%	24.2%
2018	10.2%	-0.4%	1.6%	1.5%	-6.7%	0.1%	1.9%	-2.7%	2.5%	5.0%	-0.7%	0.2%	12.3%	15.0%	182.3%	42.9%
2019	8.3%	5.0%	-2.1%	2.3%	-1.6%	5.2%	4.8%	-0.1%	4.3%	1.2%	0.8%		31.2%	23.2%	270.3%	75.9%

BTG Pactual

The power of lower long-term interest rates

The power of lower long-term interest rates

✓ **Falling long-term real interest rates are driving down cost of capital**

- Since President Bolsonaro's election last October, real interest rates have fallen from 6% to 3% on prospects of dwindling fiscal deficits and more sustainable debt-to-GDP levels.
- The approval of a comprehensive Pension Reform and additional reforms under debate in Congress may drive LT rates even lower and keep them low in the long term.
- As we all know, low real LT rates mean a lower cost of capital.

✓ **Top-down approach to Ibovespa target price**

- We performed an exercise to gauge the Ibovespa's theoretical upside potential using a top-down approach. Using a little algebra (more details below), Gordon's Growth model and the sustainable growth rate formula, we can relate a given P/E to its Return on Equity (ROE), cost of equity (Ke) and expected growth rate
- We ran a few simulations (more details on the coming slides). In a scenario assuming key constitutional reforms are passed and the economy starts growing again, the upside could be big. Discussing real interest rates of ~3% may be a bit premature, but if the pension reform passes, the debate on how low real rates can go will take center stage.

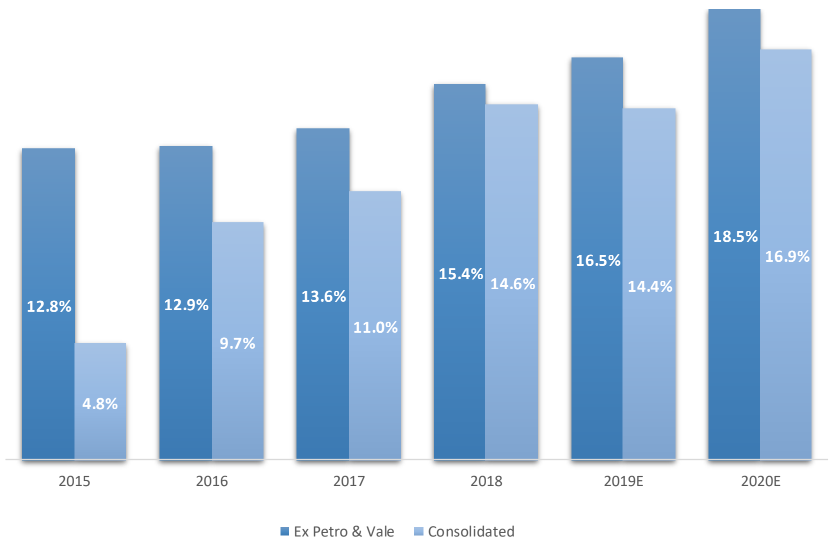
$$\frac{P}{E} = \frac{ROE_{lt} - g_{lt}}{ROE_{lt}(K_{e,lt} - g_{lt})}$$

Top-down approach to Ibovespa target price: Our assumptions

✓ Estimating ROE, Ke and growth

– We based our ROE estimates on the actual, consolidated ROEs delivered by Brazilian companies we cover in recent years, and below we show ROEs and our estimates for the next couple of years.

Brazilian listed companies' ROE



Source: Company reports and BTG Pactual estimates

✓ We keep our inflation estimates constant at 3.5% and work with equity risk premiums of 4.0%, 3.5% and 3.0% in the different scenarios.

✓ The two most sensitive variables are real interest rates (today at 3.0%) and real GDP growth (expected to range between 2.0% and 2.5% in 2020).

Lower real interest rates to support premium valuations

✓ Our optimistic (base-case) scenario shows decent upside

- Our base-case scenario may look optimistic to most people, but we like its odds. We are using ROE of 16%, in line with the 2018-19 average and less than what we are currently forecasting for 2019-20.
- We assume equity risk premium falling from 4.5% to 3.0%, at which level the ERP would still be one-standard deviation above its 2.2% historical average.
- In this scenario, we assume LT real interest rates at the current 3.0% level, based on the government's efforts to balance Brazil's fiscal accounts (including the possibility that additional reforms are approved, which would consolidate Brazil's long-term fiscal situation).
- Finally, we assume sustainable GDP growth of 2.0%. In the short term, Brazil's accelerating economic recovery indicates GDP growth between 2.0% and 2.5% in 2020, but delivering this growth consistently overtime requires additional steps to modernize Brazil's economy.
- In this scenario, we reach a target P/E for the Ibovespa of 16.4x, putting Brazil's broad tape at 134k points and offering upside of 19%.

Ibovespa target price sensitivity in different scenarios

	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
ROE	**14.0%**	**15.0%**	**16.0%**	**16.0%**	**17.0%**
K_e	**12.0%**	**11.0%**	**9.5%**	**9.5%**	**9.0%**
Inflation	3.5%	3.5%	3.5%	3.5%	3.5%
Real rates	4.5%	4.0%	3.0%	3.0%	2.5%
Interest Rates	8.0%	7.5%	6.5%	6.5%	6.0%
Premium	4.0%	3.5%	3.0%	3.0%	3.0%
Growth	**5.0%**	**5.5%**	**5.5%**	**6.0%**	**6.5%**
Inflation	3.5%	3.5%	3.5%	3.5%	3.5%
Real growth	1.5%	2.0%	2.0%	2.5%	3.0%
Target P/E	**9.2x**	**11.5x**	**16.4x**	**17.9x**	**24.7x**
Current P/E	13.8x	13.8x	13.8x	13.8x	13.8x
IBOV	112,390	112,390	112,390	112,390	112,390
IBOV Target	**74,794**	**93,782**	**133,616**	**145,432**	**201,210**
Upside	***-33.5%***	***-16.6%***	***18.9%***	***29.4%***	***79.0%***

Source: BTG Pactual estimates

Bottom-up approach: The power of a lower cost of equity

✓ **The impact of a lower Ke on companies' valuations can vary importantly**

- This is because companies have different leverage, Beta, capital structure and cashflow duration – some companies have more of their cashflow in the years out.
- To better understand how these differences could impact valuations in a scenario of a lower cost of capital, we asked our analysts to run their models for 54 companies under coverage (we cover more than 120 companies in Brazil), assuming a cost of equity 100bps lower. The results are shown in the table.
- The average target price increase for the companies analyzed was 19%, but the range goes from 7% all the way to 44%.
- Utilities and telecom operators have the lowest target price increases (average of 12.2% and 13.8%, respectively) as these businesses produce consistent, recurring cash flows.
- Car rental companies and apparel retailers and consumer discretionary companies enjoy an above-average target price increase (average of 40% and 26%, respectively).

Changes to selected Brazilian companies' target prices with a 100bps reduction in Ke

	Upside
Real Estate	
Multiplan	21.2%
Iguatemi	17.3%
Cyrela	17.3%
MRVE	14.5%
Retail	
Lojas Americanas	13.0%
Pão de Açucar	13.8%
Magazine Luiza	32.7%
Lojas Renner	32.2%
CVC	23.4%
B2W	10.3%
Natura	20.7%
Raia Drogasil	34.4%
Food & Beverage	
JBS	22.9%
BRF	7.3%
Minerva	9.1%
Marfrig	25.0%
Ambev	15.0%
M. Dias Branco	17.1%
Oil & Gas / Agribusiness	
BR Distribuidora	20.0%
Petrobras	11.8%
Ultrapar	15.1%
Cosan	16.3%
São Martinho	13.4%
SLC Agrícola	16.7%
Healthcare	
GNDI	39.4%
OdontoPrev	25.0%
Hapvida	32.8%
Alliar	16.7%
Fleury	14.3%
Qualicorp	8.7%

	Upside
Education	
Kroton	18.8%
Ânima	13.6%
YDUQS	12.8%
Ser	8.8%
Financials	
Banco do Brasil	19.3%
Bradesco	25.0%
Itau	26.7%
B3	35.6%
Pulp & Paper / Metals & Mining	
Vale	14.8%
Suzano	22.7%
Gerdau	15.6%
Utilities	
Energisa	13.8%
Equatorial	12.5%
Cemig	9.1%
Light	15.2%
CPFL	10.3%
TMT	
TIM	13.8%
Telefonica Brasil	13.8%
Transportation & Capital Goods	
Localiza	43.6%
JSL	37.5%
Ecorodovias	6.7%
Rumo	8.3%
Movida	38.1%
Marcopolo	14.5%

Source: BTG Pactual estimates

BTG Pactual

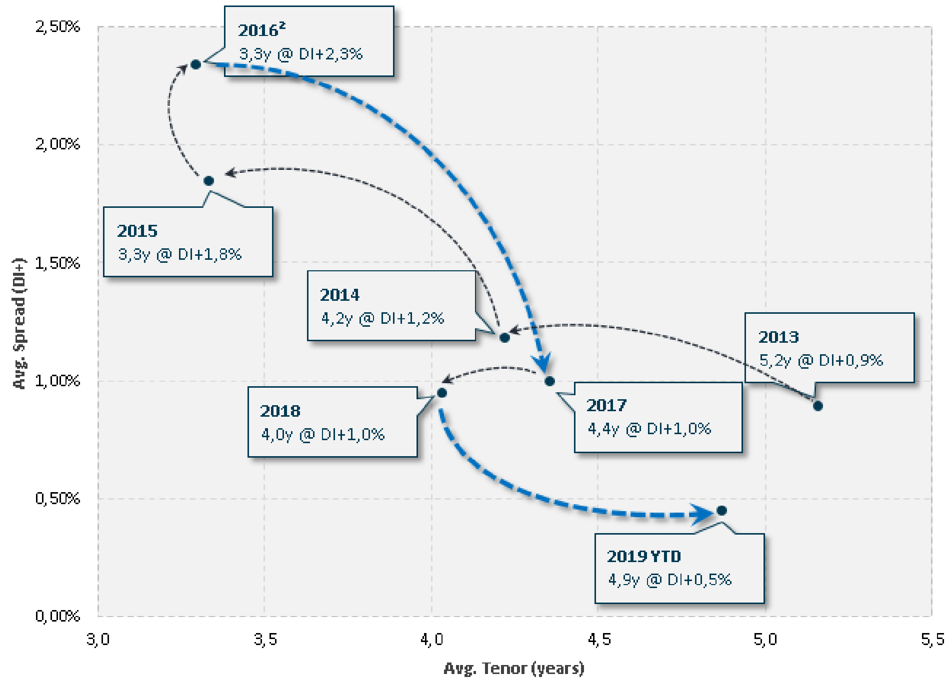
Local credit markets are booming

Funding costs are plummeting, while durations are getting longer

✓ **In mid-2016, with the Selic at 14.25% and spreads at double the 2010-14 average level, financing costs were high**

- A decline in the Selic rate (a movement that started in mid-2016) and normalization of debt capital markets in the last two years have slashed Brazilian companies' cost of funding.The Selic is down a further 200bps YTD (after a 50bps cut in 2018 and 675bps in 2017), with lower spreads than in 2014 and longer issuance durations.
- Average spreads for issuers rated AA- or higher now stand at DI+0.5% with an average duration of 4.9 years, compared to DI+2.3% in 2016, with a duration of 3.3 years. A few high-quality companies, like Petrobras, Rumo and Klabin and Neoenergia, have issued bonds with +10-year maturities.

Domestic debentures[1]: average spread (DI+) vs. average duration of issuances



Source: Anbima, BTG Pactual (*[1]issuers/issuances rated AA- or higher on Brazilian national scale, [2]Excluding issuances by NCF Participacoes and B3*

Lower rates + falling spreads: a potent combo

- **The bulk of the Selic´s downward cycle is admittedly over, but further (small) cuts and narrower spreads can still impact earnings**
  - We ran an exercise comparing the situation of the credit markets today vs. in the beginning of 2019 for a high-quality issuer with a 3x net debt-to-EBITDA leverage. We conclude that under the current credit conditions, and keeping all other variables unchanged, earnings would improve some 17%.

Lower interest rates + spreads = a potent combo

	Scenario 1	Scenario 2	Scenario 3
	Selic - 6.5% Spread - 1% Net Debt/EBITDA - 3x	Selic - 5.5% Spread - 0.5% Net Debt/EBITDA - 3x	Selic - 4.5% Spread - 0.5% Net Debt/EBITDA - 3x
Net Revenues	**100**	**100**	**100**
COGS	(40)	(40)	(40)
Gross profit	**60**	**60**	**60**
SG&A	(30)	(30)	(30)
EBITDA	**30**	**30**	**30**
EBITDA mg.	30%	30%	30%
D&A	(10)	(10)	(10)
EBIT	**20**	**20**	**20**
Financial result	(6.8)	(5.4)	(4.5)
Taxes (34%)	(4.5)	(5.0)	(5.3)
Net income	**8.7**	**9.6**	**10.2**
Net mg.	8.7%	9.6%	10.2%

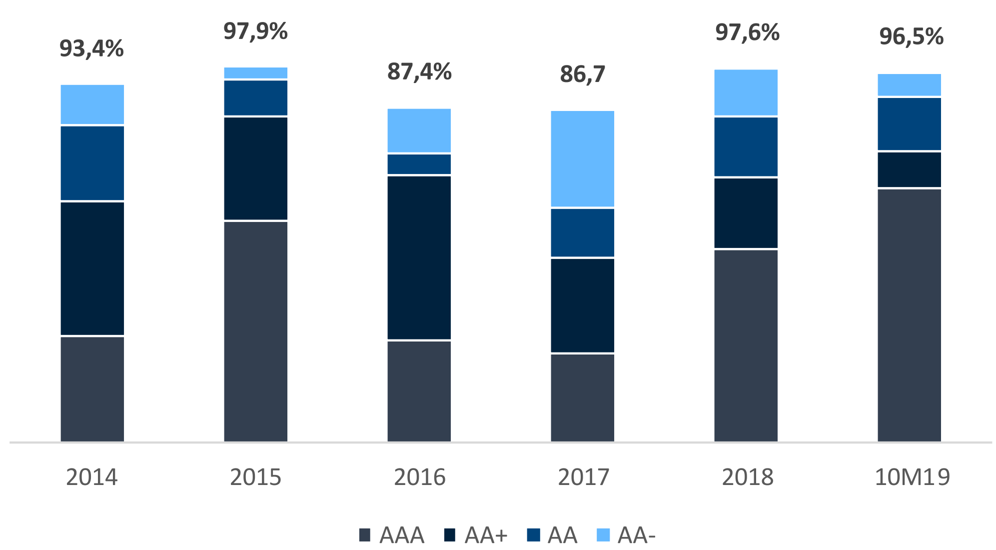
Source: BTG Pactual

Looking for extra returns on high-quality, longer-duration bonds

✓ **Investors want extra returns on high-quality, longer-duration bonds**

- Lower rates and spreads leave fixed income investors with two options to preserve profitability: i) invest in longer duration bonds; or ii) invest in lower-quality, high-yield issuers. Right now, investors are going for longer-duration bonds of high-quality issuers.
- In fact, the % of debentures issued by companies rated AA- and above was 96.5% in the first 10 months of 2019 (66% of AAA) vs. 86.7% in 2017 (23% of AAA).

Debenture issuances with ratings AA- and above (% of total issued)

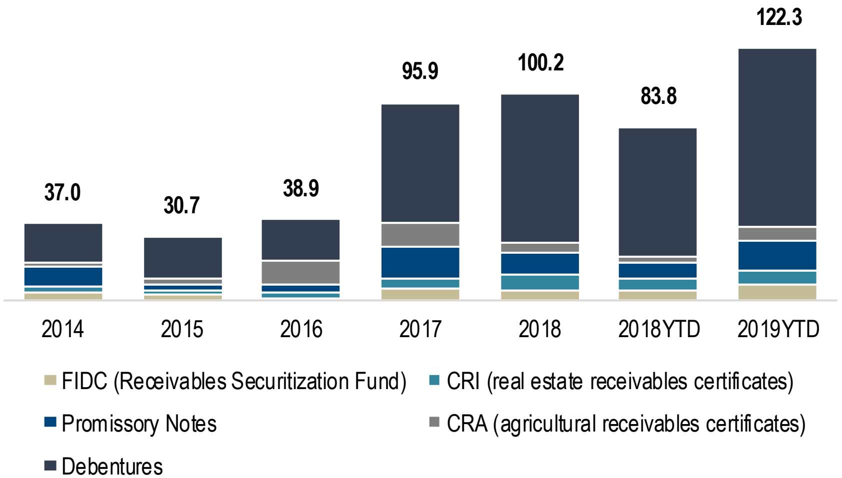


Source: ANBIMA, BTG Pactual

Local debt capital markets are on fire

✓ Local debt capital market is on fire; More than R$120bn issued YTD (all time record level)

Local bond market (R$bn)



Source: Anbima, BTG Pactual

✓ International capital markets are fully open for Brazilian issuers again

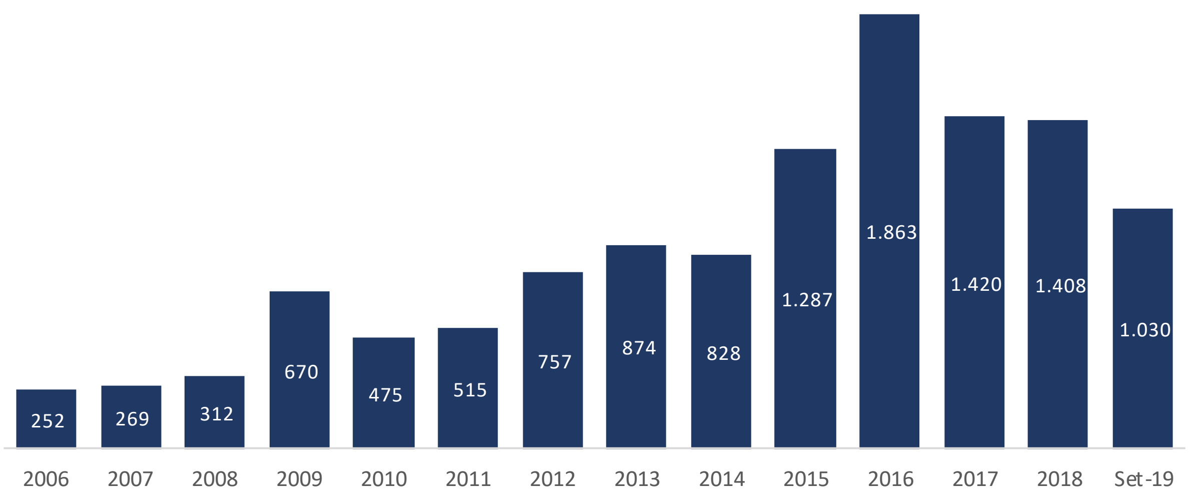
- Brazilian companies raised USD30bn in bonds and USD7.7bn in equity transactions in 2017, plus USD11.6bn in bonds and USD3.5bn in equity transactions last year.
- This year's international capital markets have surpassed all expectations, with Brazilian companies raising ~USD25.4bn in bonds and USD9.2bn in equity transactions YTD (or a staggering USD20bn if we add secondary offers).

Capital markets are fully operational again

✓ **It was tough to sell local capital market operations in 2015-16, and foreign markets were basically closed to Brazilian issuers**

- Top quality issuers had to rely more on bank loans, and banks reduced loans to smaller (riskier) companies.
- Result: the number of companies filing for bankruptcy protection in 2016 was 2.2x more than in 2014.
- But with banks now gradually lending out money to smaller, riskier companies at better terms, this number is already falling. In Jan-Sep 2019, 1,030 companies filed for bankruptcy protection – still a high number but, again, a sequential marked improvement y/y.

Number of companies filing for bankruptcy protection



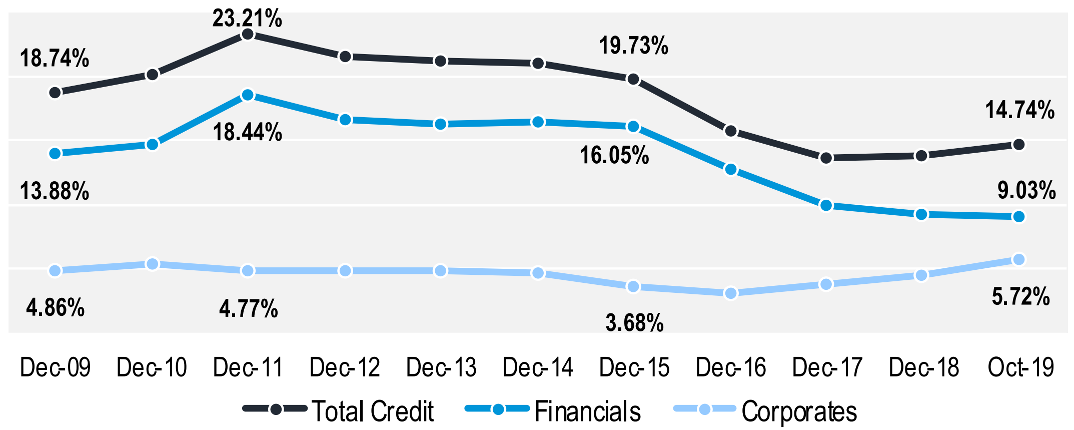
Source: Serasa

Corporate bonds are gaining grounds

✓ Corporate bonds are gaining ground…but not from government bonds

- Corporate bonds are gaining share (from 3% of allocations in fixed income instruments in 2016 to 5.7% in October 2019), but it's banking credit that has been losing ground, not government bonds (80% of all fixed income instruments in October 2019, same level as YE18).

Local funds' allocation in fixed income instruments (ex-government bonds)



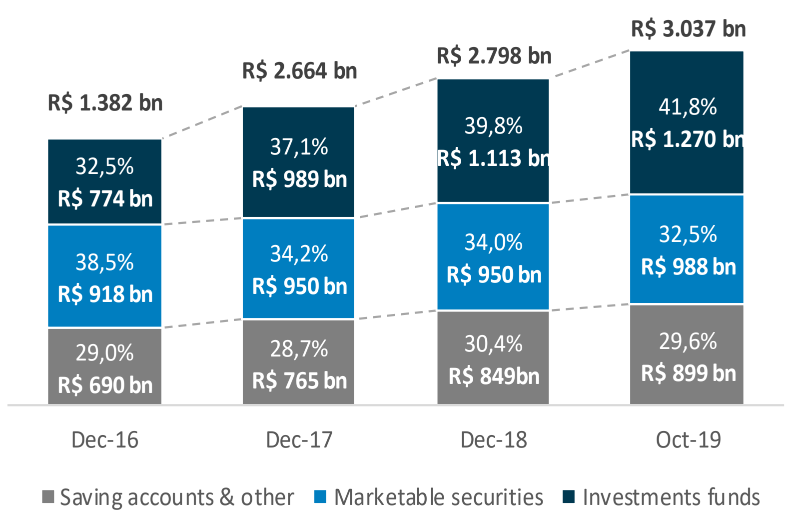
Source: Anbima, BTG Pactual

Credit investment funds are gaining ground

✓ Credit investment funds keep gaining ground

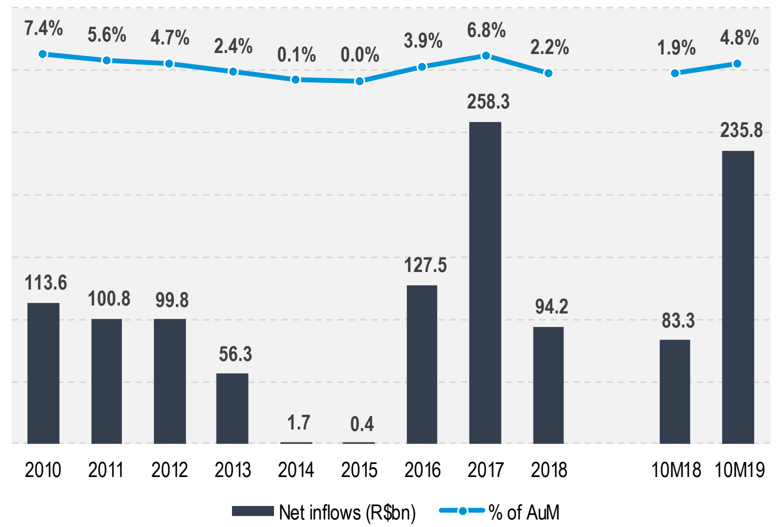
– Stronger demand for more sophisticated investment products and lower supply of bank credit notes have paved the way for growth in credit investment funds. These funds (current and new ones) are growing rapidly and increasing demand for corporate bonds.

Private banking and retail investors (WuM, R$bn)



Source: ANBIMA, BTG Pactual

Net inflows into funds (R$bn)



Source: ANBIMA

Domestic-companies’ earnings to grow 18% in 2020

Earnings should continue to grow nicely in 2020

✓ We are modeling for 2020 domestic earnings to grow 18% y/y

Domestic companies' earnings growth

	2015	2016	2017	2018	2019E	2020E
Net revenues	741,042	805,257	842,760	936,887	1,025,458	1,118,212
Growth		8.7%	4.7%	11.2%	9.5%	9.0%
Net income	113,764	114,377	123,629	145,107	173,627	205,449
Growth		0.5%	8.1%	17.4%	19.7%	18.3%

Source: BTG Pactual estimates

✓ Consolidated earnings (ex-Petro & Vale) expected to grow 20% in 2020

- Consolidated earnings ex-Petro & Vale, but including commodity exporters, are set to grow 20% y/y in 2020.

Consolidated earnings and revenue growth (ex-Petro & Vale)

	2015	2016	2017	2018	2019E	2020E
Net revenues	1,050,672	1,104,853	1,150,165	1,302,566	1,410,752	1,522,607
Growth		5.2%	4.1%	13.3%	8.3%	7.9%
Net income	107,540	116,190	130,812	163,145	184,877	222,205
Growth		8.0%	12.6%	24.7%	13.3%	20.2%

Source: BTG Pactual estimates

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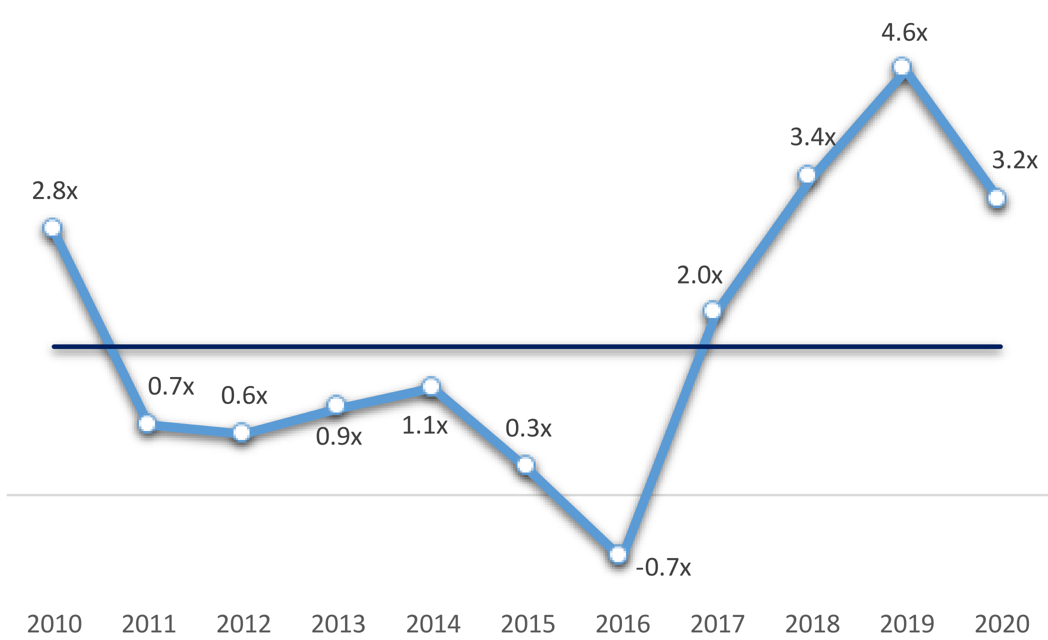
Earnings/nominal GDP growth multiplier to peak in 2019

✓ **We expect the domestic earnings/nominal GDP growth multiplier to peak in 2019, at 4.6x – considering real GDP growth of 0.8% and inflation of 3.4%**

– For 2020, we expect the multiplier to drop to 3.2x, still higher than the last 10-year average of 1.6x.

Domestic companies' earnings growth / nominal GDP growth



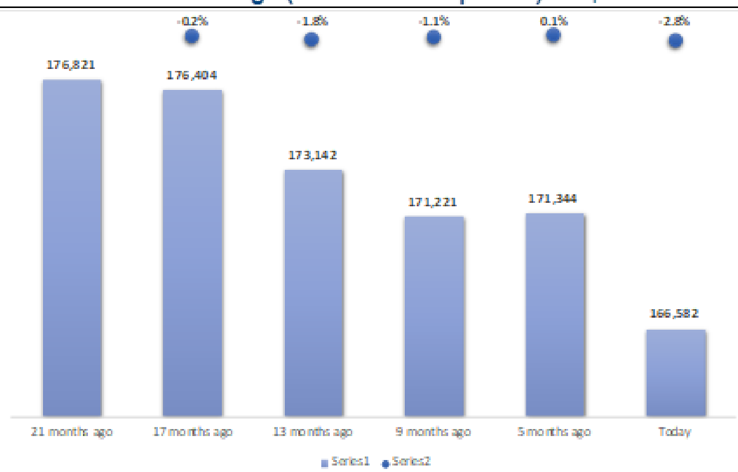
Source: Company reports and BTG Pactual estimates. 2015/2016 numbers adjusted for gains/losses with derivatives booked by JBS.

We haven’t seen heavy revisions in 2019 after all

✓ **The last time we published our consolidated earnings analysis, 5 months ago, we were modelling for domestic earnings to grow 22% in 2019**

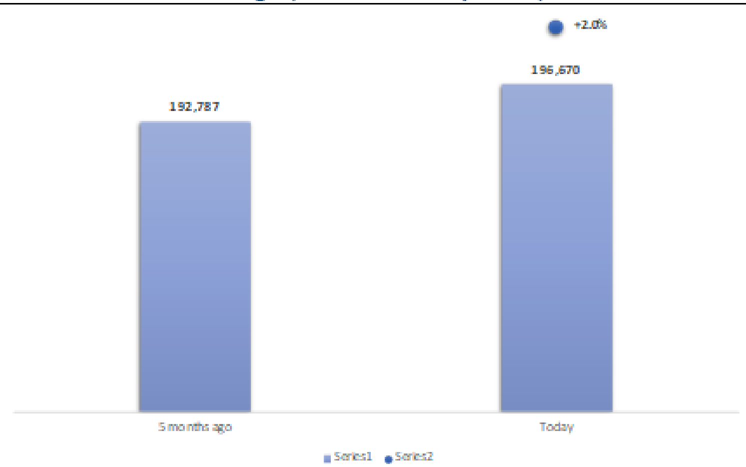
- In the report, we anticipated the possibility that, with Brazil’s economy recovering only mildly and with 2019 GDP growth expectations consistently revised down, it could be a matter of time before 2019 consolidated earnings estimates were trimmed.
- At the end of the day, the revision ended up being lighter than what we would have expected, given that 2019 GDP growth was revised down to less than 1%, from 2.5% at the start of the year. On the other hand, our estimates for 2020 earnings were revised up, in spite of the still weak macro scenario.
- Since the beginning of 2019, our domestic earnings forecasts for 2019 were cut by only 2.8%. For 2020, earnings forecasts were revised upwards by 2% (vs. 5 months ago).

Revisions to 2019E earnings (domestic companies) – R$mn



Source: Companies’ reports and BTG Pactual

Revisions to 2020E earnings (domestic companies) – R$mn



Source: Companies’ reports BTG Pactual estimates

Double-digit growth for several sectors in 2020

✓ Many sectors are expected to grow at double-digit levels in 2020

- Excluding commodity exporters, we estimate relevant earnings growth for Housing (+92% y/y in 2020), Capital Goods (+64%), Infrastructure (+48%), Retail (37%), Food & Beverage (+33), Car Rental & Logistics (+32%), and Healthcare providers (+23%).
- In 2020, the banking sector will account for 35% of consolidated earnings. The next most relevant sectors for consolidated earnings are Metals & Mining (17%), Oil & Gas (9%), Utilities (9%), and Food & Beverage (9%).

Earnings growth by sector

	2018	2019	2020
Food & Beverage	4.7%	138.0%	33.1%
Capital Goods	-35.7%	61.6%	63.8%
Car Rental & Logistics	55.4%	30.6%	31.7%
Infrastructure	4.7%	29.5%	48.4%
Banks	15.2%	19.4%	10.0%
Commercial Properties	16.1%	14.6%	12.6%
Healthcare	10.5%	8.0%	22.9%
Oil & Gas	n.a.	5.0%	-19.2%
Retail	24.0%	4.0%	37.3%
Utilities	37.5%	2.9%	20.5%
Financials ex-banks	-1.0%	2.4%	16.7%
Agribiness	26.7%	0.0%	9.2%
Education	-14.8%	-17.7%	18.6%
TMT	n.a.	n.a.	7.4%
Metals & Mining	89.6%	-43.7%	151.1%
Pulp & paper	16.3%	-127.6%	-446.3%
Airlines & Mileage	n.a.	n.a.	66.1%
Housing	-55.4%	n.a.	92.4%

Source: BTG Pactual estimates

Earnings share by sector

	2018	2019	2020
Banks	34.8%	39.4%	34.5%
Oil & Gas	14.1%	14.0%	9.0%
Utilities	9.3%	9.0%	8.7%
Food & Beverage	3.9%	8.8%	9.3%
Metals & Mining	15.6%	8.3%	16.6%
Financials ex-banks	6.4%	6.2%	5.7%
Retail	3.7%	3.6%	4.0%
TMT	5.5%	3.2%	2.8%
Infrastructure	1.0%	1.2%	1.4%
Agribiness	1.2%	1.1%	1.0%
Capital Goods	0.7%	1.1%	1.4%
Commercial Properties	0.9%	0.9%	0.8%
Healthcare	0.9%	0.9%	0.9%
Education	1.1%	0.9%	0.8%
Car Rental & Logistics	0.6%	0.7%	0.7%
Housing	-0.3%	0.6%	0.8%
Airlines & Mileage	-0.5%	0.4%	0.6%
Pulp & paper	1.4%	-0.4%	1.0%

Source: BTG Pactual estimates

Brazilian equities look under-owned

Local investors to continue to increase allocations to equities in 2020

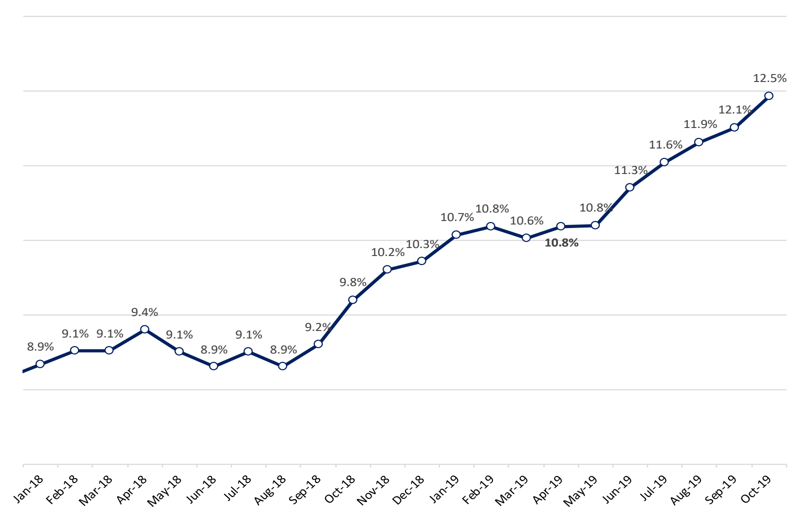
✓ We are seeing a continuous and consistent increase in allocations into Brazilian equities by local investors

- With interest rates plummeting, local investors are moving their money over to equities.
- In October, equity allocation by local investors reached 12.5%, up from 8.9% in August 2018. Despite the increase, allocation levels are still below the average of 14% from 2011 to 2014 (pre-recession) and way below 2007's 22% peak.

✓ Foreign investors, though, have been way more cautious

- Foreign investors, though, have been way more cautious. Since President Bolsonaro's election, and reflecting a global risk-off mode, they have not increased their exposure to Brazilian equities much.
- In October, GEM funds had 8.5% of their money parked in Brazilian equities, a tad above the 8% level seen in October 2018. Global fund allocations into Brazil were 0.47% in October, a very low level.
- We believe stronger economic growth should finally drive foreign flows to Brazil.

Local investors' allocation



Source: Anbima

Allocation of global and GEM-weighted funds

Allocation into Brazilian equities		
	G.E.M.	Global
Jan-18	7.6%	0.69%
Mar-18	7.5%	0.62%
Jun-18	6.0%	0.42%
Sep-18	6.4%	0.37%
Oct-18	8.0%	0.51%
Nov-18	7.7%	0.47%
Dec-18	8.0%	0.58%
Jan-19	8.3%	0.64%
Feb-19	7.9%	0.52%
Mar-19	7.6%	0.46%
Apr-19	7.6%	0.45%
May-19	8.2%	0.48%
Jun-19	8.3%	0.51%
Jul-19	8.7%	0.51%
Aug-19	8.3%	0.54%
Sep-19	8.4%	0.51%
Oct-19	8.5%	0.47%

Source: EPFR

Huge potential inflows from foreigners

✓ Potential inflows into Brazilian equities is huge

- Although low allocation levels reveal Foreign Investors' continued (extreme) cautiousness when it comes to investing in Brazil, we see huge potential inflows into Brazilian equities.
- Assuming allocations return to October 2014 levels, i.e. just before ex-President Rousseff´s reelection, and based on the current AUM levels of all fund categories, our back-of-the envelope calculation estimates BRL226bn (USD55bn) could flow into Brazilian equities.

Allocation to Brazilian Equities	Global	GEM	BRIC	LatAm
April 2010	**2.00%**	**16.0%**	**25.0%**	**66.0%**
April 2012	**2.33%**	**16.3%**	**31.1%**	**65.5%**
Oct/14 (Before elections)	**1.41%**	**11.7%**	**26.3%**	**57.1%**
Feb 2017	**1.11%**	**9.1%**	**19.1%**	**57.3%**
Apr 2017	**0.92%**	**8.1%**	**17.4%**	**54.7%**
Jun 2017	**0.75%**	**7.1%**	**16.2%**	**52.6%**
Dec 2017	**0.60%**	**7.2%**	**14.7%**	**56.4%**
Mar 2018	**0.62%**	**7.5%**	**16.7%**	**58.2%**
Oct 2018	**0.51%**	**8.0%**	**17.0%**	**60.3%**
Dec 2018	**0.58%**	**8.0%**	**18.5%**	**59.9%**
Feb 2019	**0.52%**	**7.9%**	**17.0%**	**60.0%**
Apr 2019	**0.45%**	**7.6%**	**15.8%**	**60.1%**
Jun 2019	**0.51%**	**8.3%**	**18.1%**	**61.0%**
Aug 2019	**0.54%**	**8.3%**	**17.5%**	**62.4%**
Oct 2019	**0.47%**	**8.5%**	**17.3%**	**63.2%**

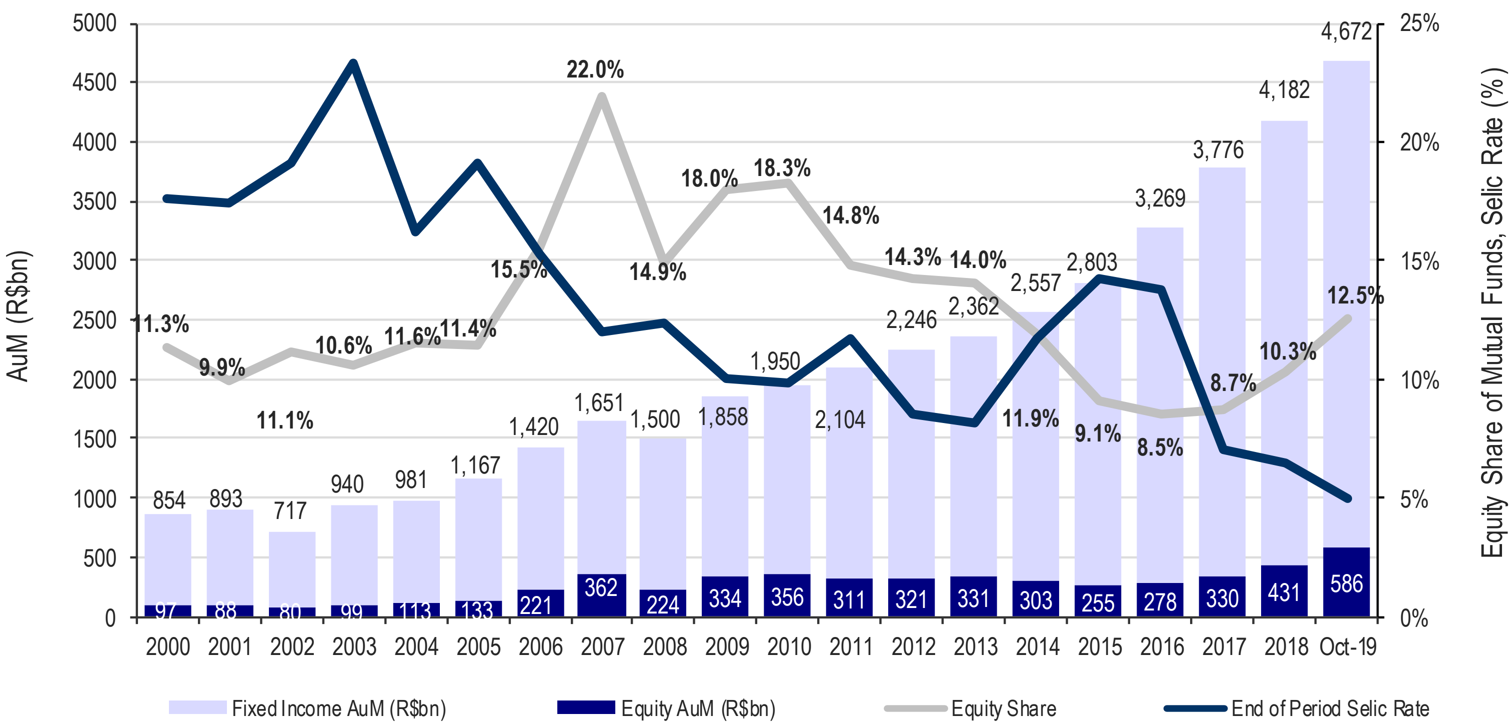
Estimated inflows to Brazilian equities assuming past allocations (US$ bn)	Global	GEM	BRIC	LatAm	Total USD	Total BRL	# Trading days (YTD ADTV)
April 2010	54.8	51.6	0.31	0.4	107	439	25.8x
April 2012	66.8	54.0	0.56	0.3	122	499	29.3x
Oct/14 (Before elections)	33.6	22.1	0.37	(0.8)	55	226	13.3x
Feb 2017	22.8	4.1	0.07	(0.8)	26	107	6.3x
Apr 2017	16.2	(2.7)	0.00	(1.2)	12	51	3.0x
AuM @ December 2019 (US$bn)	**3,589.4**	**688.0**	**4.1**	**13.8**			

Source: EPFR

Local funds: potentially another R$69bn in flows from local industry

✓ **Despite the increase, allocation levels are still below the average of 14% from 2011 to 2014 (pre-recession) and way below 2007's 22% peak.**

- ✓ With long-term rates set to fall, equities inflows from local funds are set to soar.
- ✓ If locals also increase their allocations to equities back to the average seen from 2011 to 2014 (14%), then the extra flows could reach BRL69bn (USD17bn).



Source: Anbima

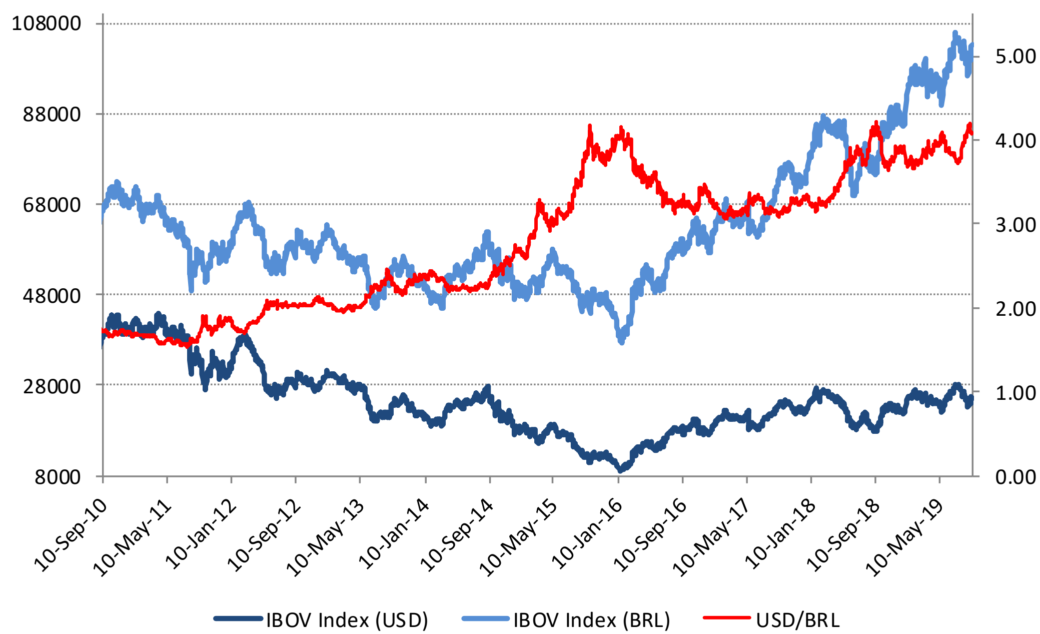
Seeking FX exposure? Look at food processors

Weakening BRL

✓ FX hasn't followed the Ibovespa

- Expectations on the government´s reform agenda have led the Ibovespa to climb to record levels and long-term real interest rates to fall consistently (to record lows).
- But the BRL has gone the other way, mainly due to global risk-off sentiment amid an escalating trade war and a smaller differential between domestic interest rates and other countries (making the BRL less attractive from a carry-currency perspective).
- YTD, Brazil´s broad tape is up 28% in BRL, long-term real rates have fallen from 5% to 3%, and the BRL has depreciated 5.1% vs. the USD.

USD/BRL and Ibovespa historical performances

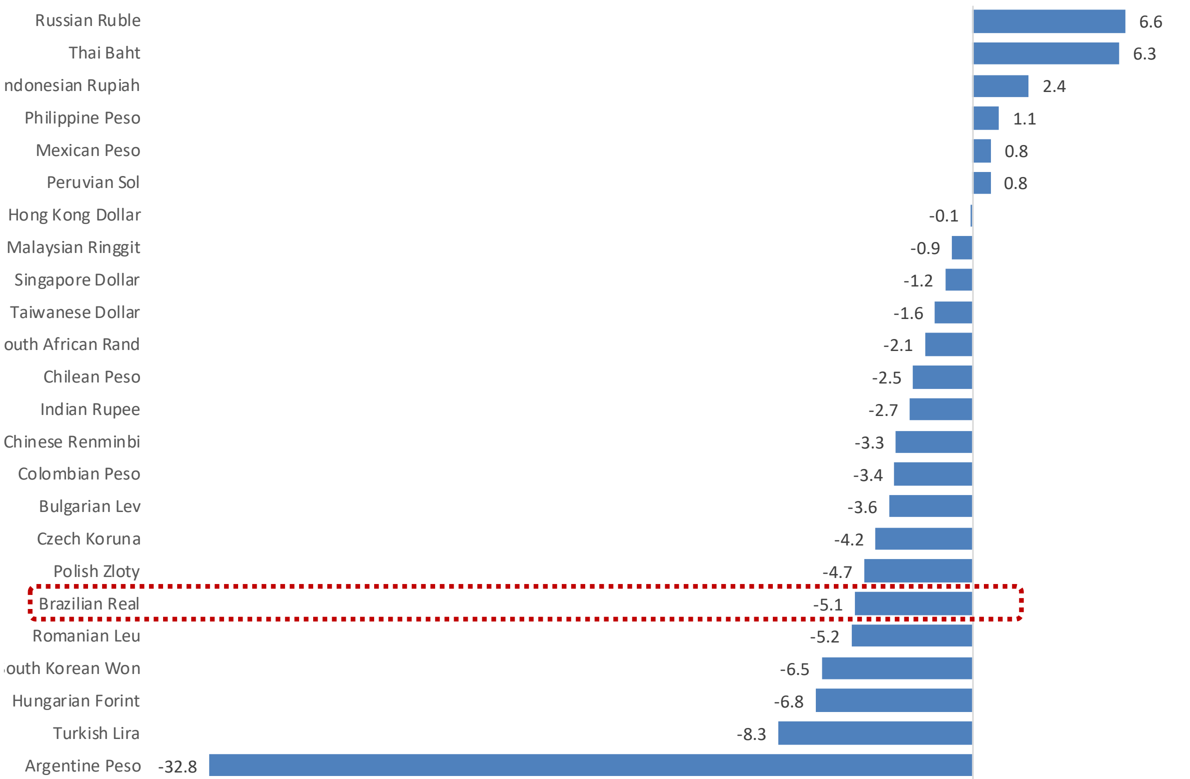


Source: BTG Pactual

BRL has performed poorer than other emerging currencies

✓ **In fact, the BRL is one of the six currencies to depreciate most (YTD) in the universe of emerging market countries.**

EM currencies spot return YTD (%) - base in USD



Source: Bloomberg and BTG Pactual

Seeking FX exposure? Look at food processors

✓ Embraer, food processors, commodity exporters, industrials to gain

- In theory, the winners and losers in a weaker BRL scenario can be easily identified. With more revenues in USD/Euro than cash costs, the EBITDA impact is positive whenever the BRL weakens. This is the case for aircraft maker Embraer, food processors, pulp & paper companies (Suzano and Klabin), agribusiness companies (SLC and SMTO), steelmakers and industrials (Iochpe, Tupy).

✓ Our top FX plays: JBS, Minerva and Embraer

- Our #1 stock for exposure to a stronger USD is food processor JBS. Besides benefiting from a stronger USD, ASF outbreak in China is also good for the company.
- We like Minerva as well, for similar reasons.
- Embraer is another nice option to gain USD exposure. The stock has underperformed recently on market concerns related to the Boeing deal tie-up.

Companies	% Sales in FX	% Cash costs in FX	% of FX-denominated debt	% of FX-denominated debt hedged
Steel & Mining				
VALE3	100%	49%	90%	18%
GGBR4	65%	55%	26%	0%
USIM5	25%	40%	50%	0%
Pulp & Paper				
DTEX3	19%	30%	5%	100%
SUZB5	85%	28%	77%	10%
KLBN11	65%	30%	75%	0%
Oil & Gas				
BRDT3	2%	0%	0%	0%
UGPA3	2%	0%	46%	41%
PETR4	90%	50%	86%	5%
Agribusiness				
SLCE3	94%	60%	11%	100%
CSAN3	11%	5%	60%	12%
SMTO3	30%	15%	30%	0%
Food & Beverage				
ABEV3	45%	50%	53%	100%
MDIA3	1%	55%	45%	100%
BRFS3	45%	40%	45%	50%
JBSS3	86%	80%	97%	10%
BEEF3	75%	60%	75%	50%
MRFG3	90%	70%	99%	0%
Retail				
CVCB3	0%	0%	39%	100%
MEAL3	66%	48%	49%	100%
LAME4	0%	0%	13%	100%
BTOW3	0%	0%	16%	100%
AMAR3	0%	12%	17%	100%
HYPE3	0%	27%	0%	100%
RADL3	0%	0%	0%	0%
HGTX3	3%	15%	0%	0%
ARZZ3	10%	n.a.	84%	0%
MGLU3	0%	0%	0%	0%
TECN3	0%	74%	78%	100%
NATU3	37%	30%	36%	100%
PCAR4	0%	0%	14%	100%
LREN3	0%	25%	41%	100%
VVAR11	0%	0%	9%	100%
Capital Goods, Airlines & Mileage, Aerospace & Transportation				
GOLL4	15%	50%	95%	0%
WEGE3	61%	66%	85%	50%
EMBR3	90%	80%	94%	83%
POMO4	55%	n.a.	43%	n.a.
RAPT4	17%	15%	19%	0%
MYPK3	76%	60%	77%	n.a.
TUPY3	83%	45%	99%	n.a.
CCRO3	0%	0%	8%	0%
RAIL3	0%	0%	46%	100%
Utilities				
CESP6	0%	0%	5%	0%
CMIG4	0%	0%	42%	100%
SBSP3	0%	0%	49%	0%

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The post-pension reform agenda is moving forward

Government is moving forward with its reform agenda

✓ **With the pension reform approved, the government is ready to move forward with its reform agenda**

- Some of them will continue the efforts to improve Brazil's fiscal accounts, including:
  - i) the administrative reform;
  - ii) changes to the Golden Rule;
  - iii) a new federative pact redesigning rights and obligations of the federal government, states and municipalities.
- The reform agenda also includes a sorely-needed, but tough to implement, tax reform.

Proposals on the Economic Agenda

Measure	Comment	Initial Stage	Current Stage
Social Security Reform (PEC[1] 6/19)	Changes retirement rules for RGPS[2] and RPPS[3] workers. Some changes: (i) establishment of minimum retirement age of 62/65 for women men; and (ii) equal RGPS and RPPS rules. The PEC vote in the Senate will likely be completed by the end of October. The fiscal impact of the approved version of the PEC is of R$800bn in 10 years.	Lower House	Approved ✓
Social Security Reform Parallel PEC (PEC 133/19)	In order to avoid a delay in processing the Social Security Reform, with a return of the text to the Lower House, some changes were proposed in a parallel PEC, such as: (i) inclusion of states and municipalities by passing ordinary law in city halls; (ii) increase in the death pension quota to 20% for dependents under the age of 18; (iii) reduction of the minimum contribution time to 15 years for all men; and (iv) charges levied on exporting agribusiness and small/medium enterprises in the Simples tax regime. There is a lot of resistance to point (iv), which has led the rapporteur to back down the taxation of philanthropic entities, attributing to a complementary bill the discussion of this point. Those in favor of the New Social Security System in the Senate are negotiating to complete the PEC vote in the Senate later this year. The Lower House vote is likely to take place in 2020.	Senate	Awaits vote of the bill rapporteur's report in the Senate Legal Committee
Tax Reform (PEC 45/19)	Proposes: (i) unification of 5 taxes (IPI[4], ICMS[5], ISS[6], PIS/Cofins[7]) via creation of IBS (Tax on Goods and Services); (ii) 10-year transition for taxpayers and 50-year transition for states and municipalities; (iii) creation of selective tax on alcoholic beverages and cigarettes; (iv) no more tax benefits. Each subnational entity can set its own rate. Other proposals (e.g. the government one) will probably be attached to this PEC. The tax reform will likely take longer than the social security reform as it involves the interest of many more sectors and isn't seen by congressmen as equally urgent. The approval process will end only in 2021.	Lower House	Awaits bill rapporteur's final report in the Lower House Special Committee
Tax Reform (PEC 110/19)	Proposes: (i) creation of a dual VAT (IBS): one national, replacing 5 taxes (PIS/Cofins, Education Salary[8], IPI and Cide[9]) and one for states and municipalities, replacing 2 taxes (ICMS and ISS); (ii) transition of 5 years for taxpayers and 15 years for subnational entities; (iii) creation of a selective tax (IS) on alcoholic beverages, cigarettes, fuels and others; (iv) maintenance of Manaus Free Trade Zone tax benefits (other tax benefits will require additional legislation). The Senate bill is likely to be attached to the Lower House bill.	Senate	Awaits vote of the bill rapporteur's report in the Senate Legal Committee
Tax Reform (Government)	The reform will be sent in three steps. The first will be the creation of a Federal VAT, with the unification of PIS and Cofins, with instruments for states' membership (dual VAT). In the 2nd stage, the income tax (IR) reform will be sent, which may include correction of tax brackets, taxation of profits and dividends, and reduction of taxes for legal entities. Step 3 will include payroll tax exemption, with some offsetting measures (beyond the financial transactions tax), and the addition of IPI industrial products tax to the VAT. The government plans to send at least the first part of its tax reform in the coming days.	-	It was not yet sent to Congress
Taxation of Profits and Dividends (PLS[10] 215/18 and PL[11] 3129/19)	Two bills are underway: one in the Senate (PLS 215/18) and one in the Lower House (PL 3129/19). Both seek to tax the distribution of profits and dividends, but the former taxes remittances of profits and dividends abroad (tax rate of 15% or 25%, depending on the country, without double taxation), while the latter taxes profits and dividends in Brazil. (20% rate). PL 3129/19 also proposes the reduction of the IRPJ corporate income tax rate and revokes the possibility of a company distributing interest on equity. In our view, these points will be discussed in the context of the tax reform, which is Congressmen´s priority when it comes to the tax issue. Thus, the bills will not advance in both chambers before the reform.	Senate/Lower House	PLS 215/18: CAE[12] of the Senate PL3129/19: CFT[13] of the Lower House
Federative Pact	It will have two main pillars: flexibility of public budgets; and transfer of federal government resources to states and municipalities. Proposals in the new pact include: (i) distribution of resources from the pre-salt onerous assignment to all states; (ii) transfer of resources related to oil exploration from the Social Fund; (iii) extension of the deadline for the payment of court orders; (iv) regularization of the so-called "securitization" of state credits; (v) payment by the federal government for compensation under the Kandir Law and the export fund; (vi) the Mansueto Plan. Federative Pact proposals tend to advance more quickly in the Senate than other bills as they meet the interests of congressmen.	Senate	-

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Government will move forward with its reform agenda (II)

Proposals on the Economic Agenda

Measure	Comment	Initial Stage	Current Stage
Onerous Transfer of Rights (PL[1] 5478/19)	It is one of the measures that make up the Federative Pact. It proposes that 30% (R$21bn - after the payment of R$33.6bn to Petrobras for the investments already made) of the funds raised by the federal government in pre-salt auctions be divided between states and municipalities - 15% for states and 15% for municipalities. In addition, the government has pledged to transfer 3% of resources to oil producing states (a change that will mainly benefit Rio). The remaining resources, R$49bn, go to the federal government. The bill approved by the Lower House includes the specifications that the municipalities can use the money to cover the social security deficit or for investments, while the states will have to use the money obligatorily to pay the social security deficit, using the remaining resources for investments.	Lower House	Approved ✔
Fiscal Balance Plan (PLP[2] 149/19)	It is one of the measures that make up the Federative Pact. It allows states and municipalities with a C rating (not only A and B) in repayment ability to obtain a federally guaranteed loan. In contrast, states will have to comply with at least three of eight fiscal adjustment measures. In addition, the bill also alters the LRF to clarify issues such as staffing expenses, with 2024 the deadline to comply with the Treasury's rules.	Lower House	Awaits creation of Special Committee in the Lower House
Court-ordered debt PEC (PEC[3] 98/19)	It is one of the measures that make up the Federative Pact. It proposes to extend the deadline for the payment of court-ordered debts until 2028 (current term is 2024) in the case of precatories issued for the benefit of legal entities, thus not affecting the payment schedule of individuals. PEC is part of the federative pact.	Senate	Approved in the Senate. Goes to the Lower House Legal Committee.
Administrative Reform	The proposal seeks to ease the burden on the government coffers via measures such as: (i) reducing the federal government employee headcount; (ii) no more career stability for civil servants; and (iii) wage cuts for civil servants (with a respective reduction in the working day). The complexity and diversity of the proposals will almost certainly require constitutional amendment proposals, bills and additional pieces of legislation. The reform is part of the government´s liberal agenda and, as such, will seek to review the role of the State and change its administrative structure, with the merger of entities and privatization of companies.	-	It was not yet sent to Congress
Golden Rule (PEC 438/18)	The PEC provides mechanisms for cutting mandatory expenditures, decoupling resources from funds, de-taxing government expenditures and reviewing tax incentives. The PEC has been seen as an instrument that enables Congress to control mandatory spending without having to change the PEC of the spending ceiling. The Minister of Economy, Paulo Guedes, will send to the Senate a proposal of his own similar to PEC 438/18.	Lower House	Awaits report from new rapporteur in the Lower House Legal Committee
Central Bank's Autonomy (PLP 112/19)	It deals with the technical, operational, administrative and financial autonomy of the autarchy and the mandates of its leaders. Currently, the Central Bank reports to the Presidency of the Republic. This matter has gained 'urgency status' and can be voted directly on the Lower House floor without having to pass through Committees. Autonomy is likely to be approved, at least in the Lower House, still in 2019.	Lower House	Awaits vote on the Lower House Floor
Economic Freedom (MP[4] 881/19)	It institutes the Declaration of Economic Freedom Rights, establishes free market guarantees, regulatory impact analysis, and other measures.	Senate	Approved ✔
Sanitation Regulatory Framework (PL 3261/19)	It allows private companies to provide basic sanitation services via concession contracts and to open bids, with the participation of public and private companies. It ends the preemptive right of state companies. There was agreement to close the vote in the Special Committee on October 30 and on the Lower House floor shortly after. As the bill will changed in the Lower House, it will have to return to the Senate. It is possible to complete the Senate vote still in this year.	Senate	Awaits vote of the bill rapporteur's report in the Lower House Special Committee
PLC 79/2016 (Telecom)	The bill creates a new milestone for the telecommunications industry by establishing changes in the General Telecommunications Law in order to definitively migrate the provision of fixed telephone services to the private sector (doing away with public concessions).	Lower House	Approved ✔
LDO 2020 (PLN[5] 5/19)	Provides for the guidelines for the preparation and implementation of the 2020 Budget Law. The text projects a minimum wage readjustment to R$1,040 next year (no real gain), a primary deficit of R$124.1bn for the central government, a GDP growth of 2.7%, among other points.	Congress	Approved. Awaits sanction of the president

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Government will move forward with its reform agenda (III)

Proposals on the Economic Agenda

Measure	Comment	Initial Stage	Current Stage
Military Reform (PL[1] 1645/19)	The proposal increases the length of service of active military workers (from 30 to 35 years) and contribution rates (from 1.5% to 10.5% in 2022) via a career restructuring plan and changes in the Armed Forces Social Security System. Military police and firefighters will also be included in the reform of the military's retirement rules. According to the Ministry of Economy, the net saving will be ~R$10mn in 10 years.	Lower House	Awaits vote of the amendments to the rapporteur's report in the Lower House Special Committee
New Gas Law (PL 6407/13)	The project sets new rules for the country's natural gas market in order to make the sector more competitive. The proposal brings points such as: (i) changes in the Gas Law (11.909 / 09); (ii) creation of a secondary market for natural gas consumers and potential consumers to acquire and use natural gas already contracted by another consumer in the so-called primary market; (iii) end of the PIS/Pasep and Cofins tax rates on imports and gross domestic sales of natural gas, liquefied or gaseous.	Lower House	Approved in the CME of the Lower House. Goes to the CDEICS of the Lower House.
FGTS (MP[2] 889/19)	It makes available the full withdrawal of the PIS / Pasep balance from August 19, 2019 and establishes the form of FGTS Birthday withdrawal that will allow the withdrawal of part of the FGTS account balance annually, in the employee's month of birthday.	Congress	Awaits report in the Congress Joint Committee
Eletrobras Privatization	Eletrobras (holding company) privatization will occur via a dilution of the government´s stake through a capital increase, with the issuance of Eletrobras shares to be sold on the market or with an eventual company resulting from the restructuring process. Therefore, it only needs an Ordinary Law that will be forwarded in the coming days. The privatization will involve approval by Congress and the Federal Audit Court, and the issuance of shares. According to the minister of Mines and Energy, the share of the federal government after the privatization will stand around 30%-40%.	-	It was not yet sent to Congress
PL 3832/19	The bill aims to change the Pay TV Act (12485/11) to remove restrictions on ownership concentration between providers of collective interest telecommunications services (telephone and internet companies) and broadcasting concessionaires and licensees of sounds and images (TV broadcasters and radio) and producers and programmers of the Conditional Access Service (pay TV). It also revokes the prohibition against the exploitation of images of national events and artists by telephone and internet companies, as well as their controlled, controlling or affiliated companies.	Senate	Awaits vote in the Senate Science and Technology Committee

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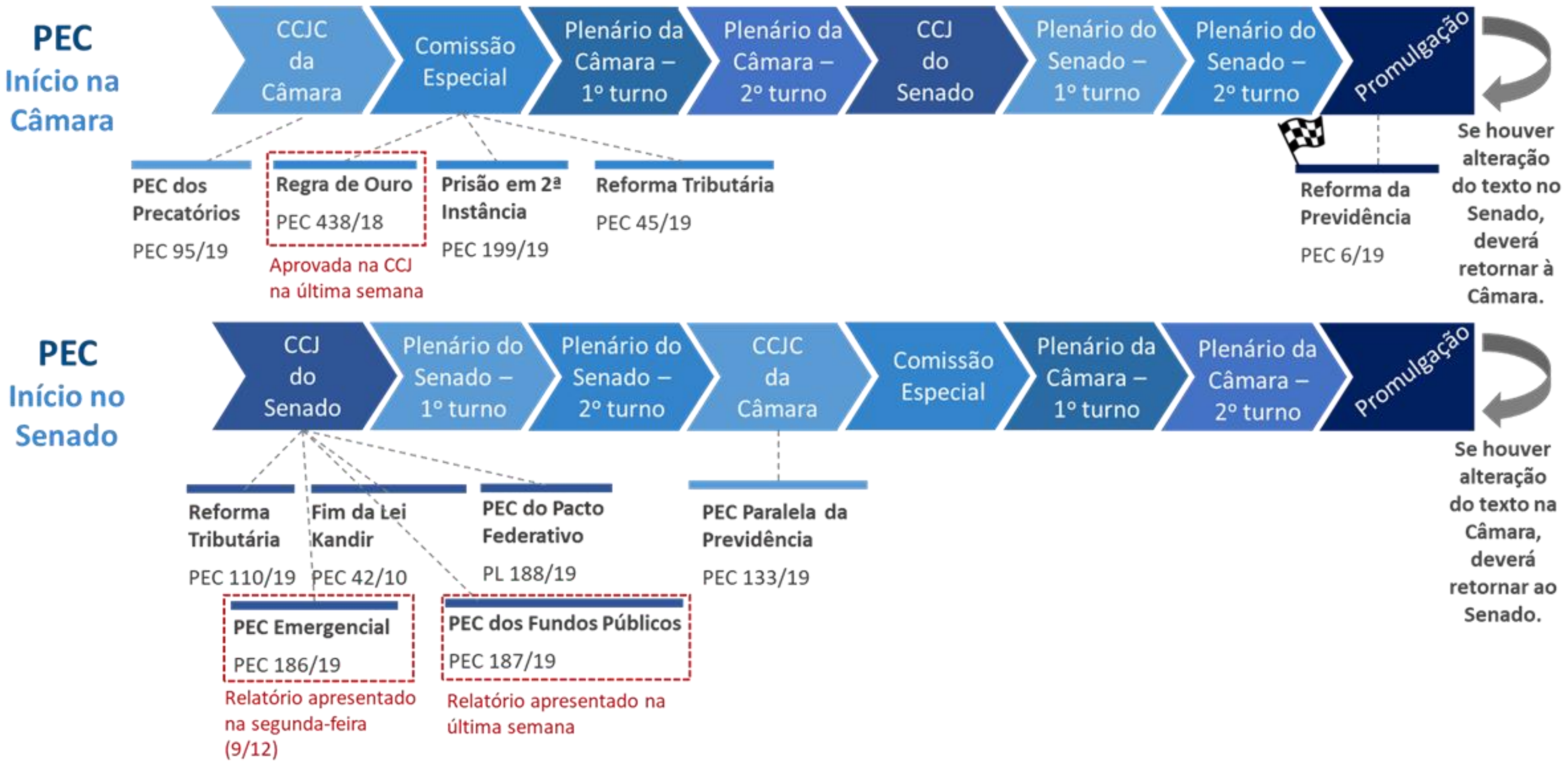
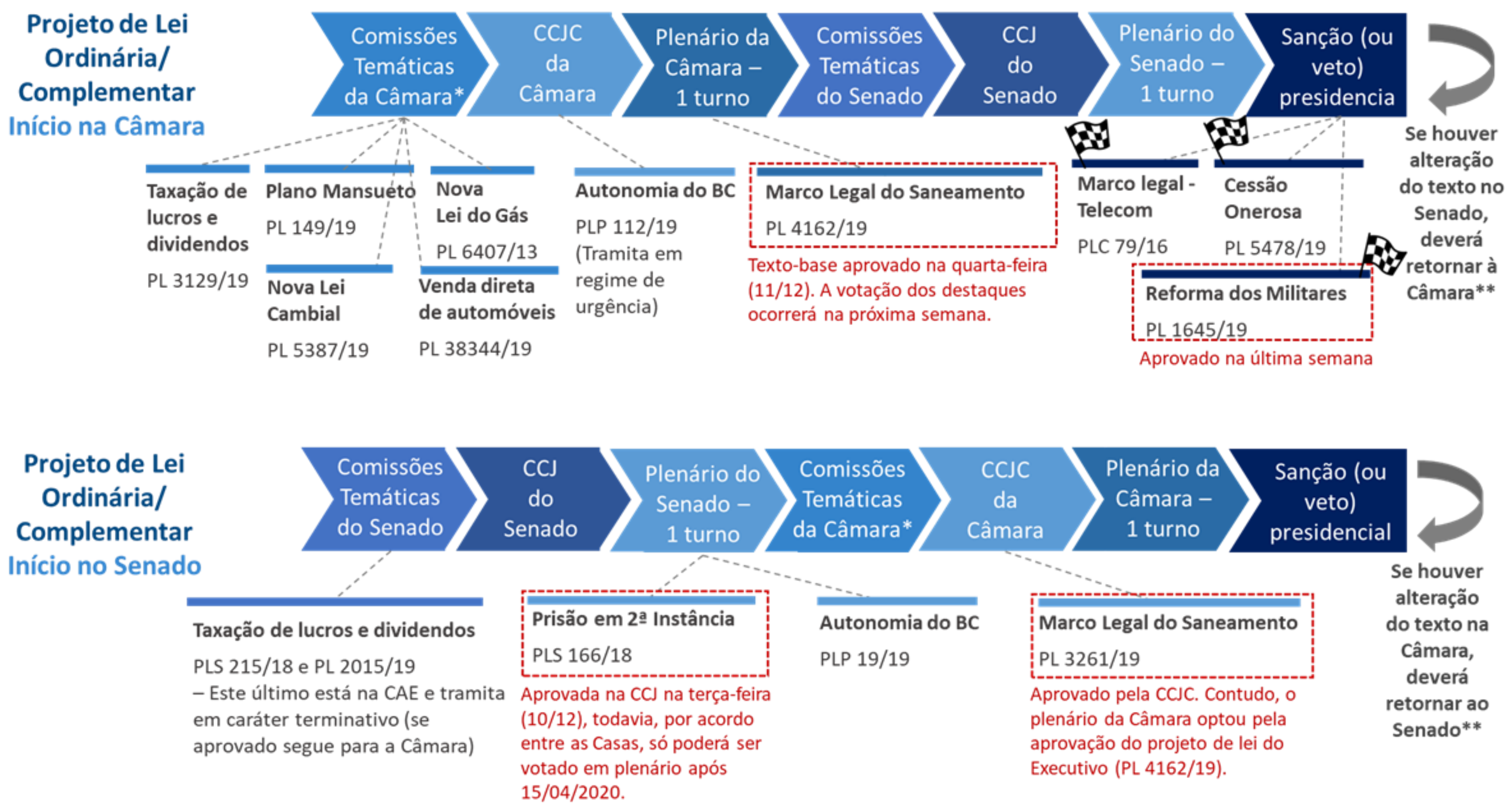
Status of reforms in the Lower House and the Senate

Constitutional Amendments (PEC)



Status of reforms in Congress (ordinary legislation)

Ordinary legislation



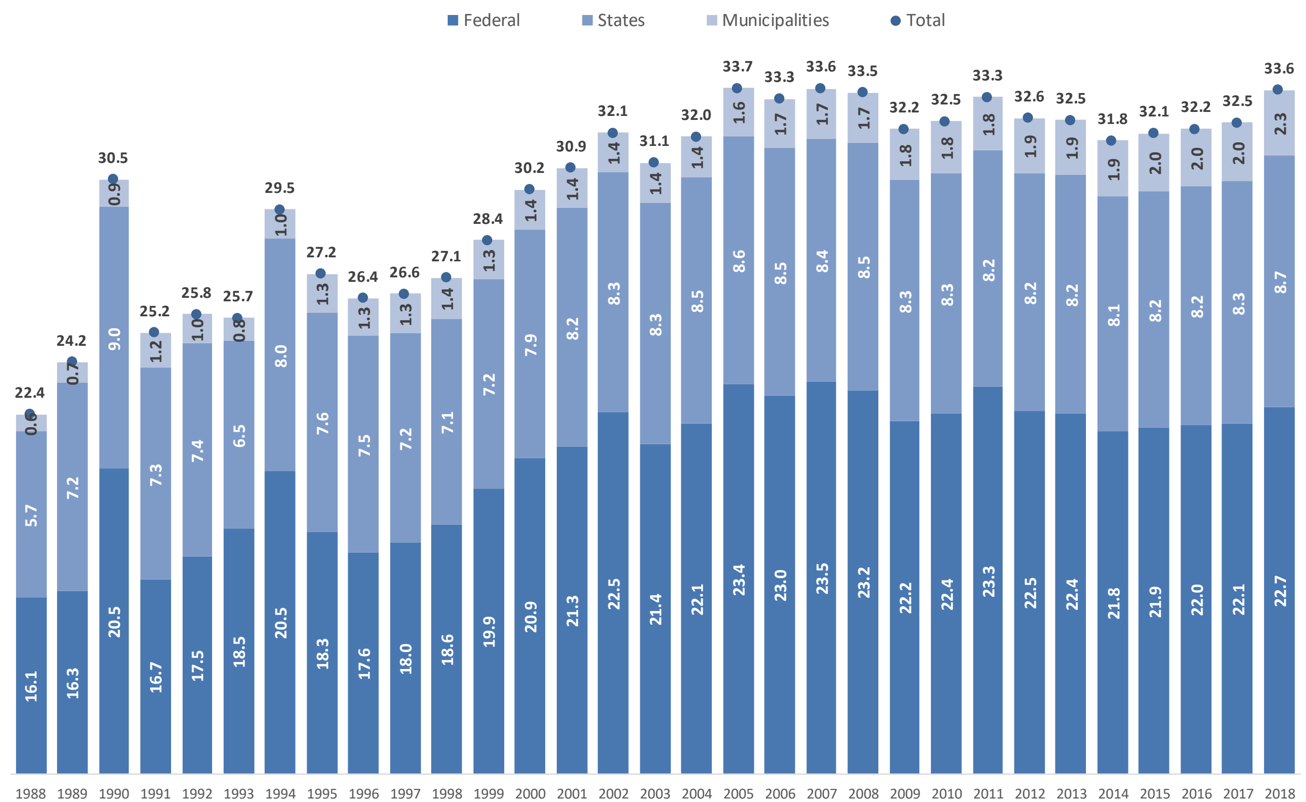
Tax reform: Time to make things less complex…

The tax burden is high and should remain high

✓ A simpler tax system to boost productivity

- Now that the Pension Reform has been approved in the Lower House (and is expected to be voted in the Senate in the next couple of months), Congress and the government are expected to move to the next, also extremely challenging reform: the Tax Reform.
- Most economists argue that Brazil's tax burden is high for a middle-income, emerging country. The tax burden reached 33.6% of GDP in 2018, expanding 11pp since 1998. Municipalities grew their share of the tax pie strongly in the period.

Tax burden on goods and services (% of GDP and as share of total)

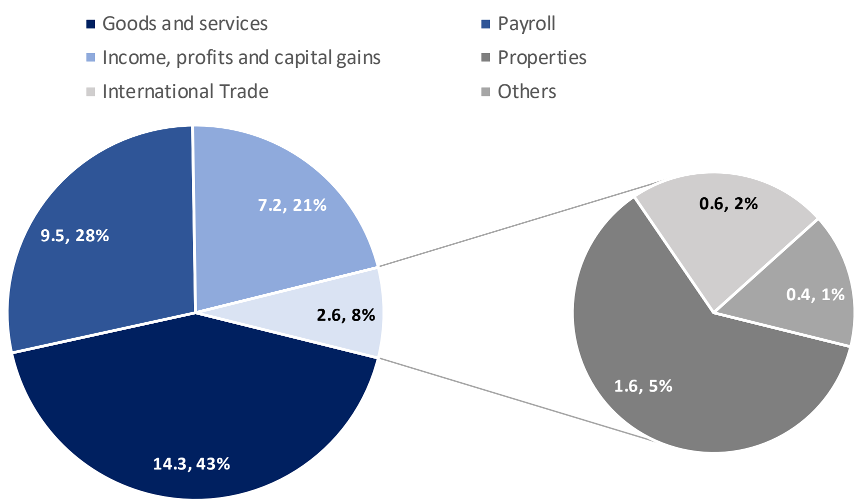


Source: IRS, National's Treasury and BTG Pactual

Tax on goods and services is the main focus of the reform

✓ **Taxes on goods and services account for just over 40% of the tax pie (these taxes will probably be the main focus of the reform), followed by payroll taxes, with 28%, and taxes on income, profits and capital gains, at 21%**

Tax burden on goods and services (% of GDP and as share of total)



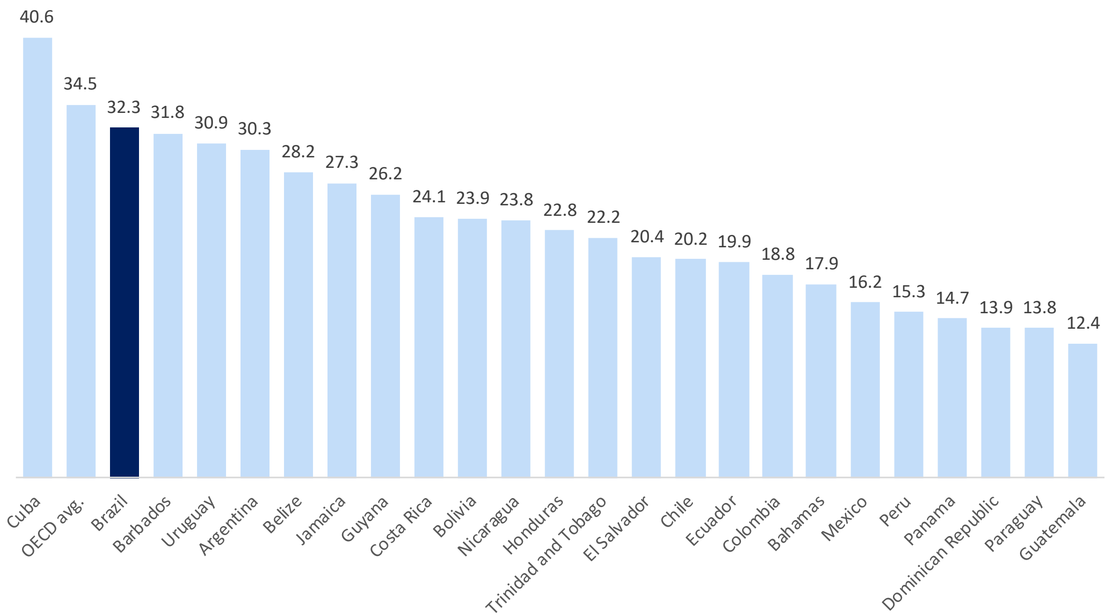
Source: National's Treasury and BTG Pactual

Brazil taxes more than its Latin American peers

✓ **Brazil taxes way more than other emerging market countries and Latin American peers, and almost as much as some developed countries, even though it offers its population poor quality public services.**

- According to an OECD study using 2017 data, Brazil taxes, on average, 9.6 percentage points of GDP more than the average of Latin American and Caribbean countries — after Cuba, Brazil ranks second in a list of 24 countries in the region. It taxes almost as much as the average of 34 developed economies, at 34.5% of GDP.

Tax Burden – LatAm and Caribbean Countries (% of GDP)



Source: OECD and BTG Pactual

Paying taxes in Brazil is a nightmare

Ease of doing business

Country	Rank
New Zealand	1
United States	8
Canada	22
Germany	24
China	46
Israel	49
Chile	56
Colombia	65
Peru	68
Uruguay	95
Brazil	109
Paraguay	113
Argentina	119
Ecuador	123
Bolivia	156
Venezuela	188

Source: World Bank, BTG Pactual

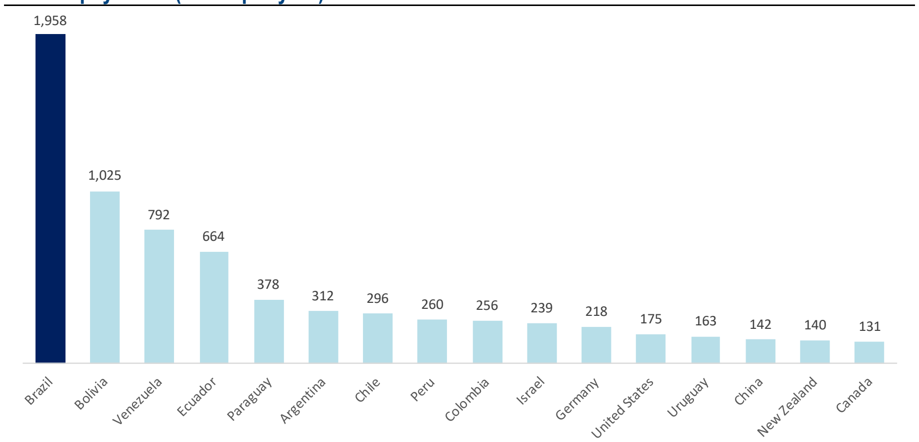
✓ **Brazil ranks 109 out of 190 countries in the Ease of Doing Business ranking compiled by the World Bank.**

- The ranking is built taking into account a variety of items, including getting credit, enforcing contracts, labor market regulations, etc. One of the variables that is central to the ranking is tax systems and how easy it is to pay taxes.

✓ **A simplified tax system has the potential to reduce the costs of paying taxes, as well as tax-related litigations.**

- According to a study by the World Bank, Brazilian companies are among those that take longest to pay their taxes. In fact, Brazil has one of the worst rankings when it comes to paying taxes, according to World Bank (184 out of 190). Brazilian companies spend a total of 1,958 hours per year just to pay taxes, i.e. they need to employ armies of people fully dedicated to paying taxes.
- Only South American countries Bolivia and Venezuela and four sub-Saharan African countries (Republic of Congo, Central African Republic, Chad and Somalia) rank lower than Brazil in the paying taxes ranking.

Time to pay taxes (hours per year)



Source: World bank

Tax reform can boost productivity; Approving one won't be easy

✓ Many possible reforms show the complexity of the theme; new tax system to boost productivity

- The proposal being debated in the Lower House transforms five federal (PIS, Cofins and IPI), state (ICMS) and municipal (ISS) taxes into a single VAT, called goods and services tax (IBS). The new tax would be regulated by complementary law and managed by a national committee that would centralize and collect taxes and transfer them to the federal government, states and municipalities.
- However, it is far from clear if this proposal will prevail. Right now, there are 4-5 tax reform proposals being discussed. It is also unclear how broad the reform will be. A relevant portion of the debate so far has been centered on taxation of goods and services, which account for just over 40% of Brazil's tax burden. However, we believe there is a good chance that changes to the taxation of income and profits (20% of the overall tax burden) will also be proposed.
- The proposal in the Lower House is thorough and tackles most challenges of Brazil's tax system. But as it affects more groups, including a tough reorganization of state and municipal taxes, it may be tougher to pass. This is probably why the government has been indicating it should send congress a simpler, less controversial, easier-to-approve reform. Lower House Speaker Rodrigo Maia has already pledged to incorporate the government's proposal into the debate once the government sends it to Congress.
- The sheer fact that there are a number of possible reforms under discussion indicates the complexity of the subject and suggests that the debate may be long and that approval of a reform may take a while.

✓ Changes to corporate taxes, tax on dividends and IOE are also likely

- The government proposal, besides simplifying federal taxes on sales, may also reduce tax on corporate earnings (IRPJ/CSLL) whilst taxing dividends. The government's goal is to lower production tax and raise capital gains tax. Measures alleviating low-income taxpayers whilst raising taxes at the top of the pyramid are also possible.

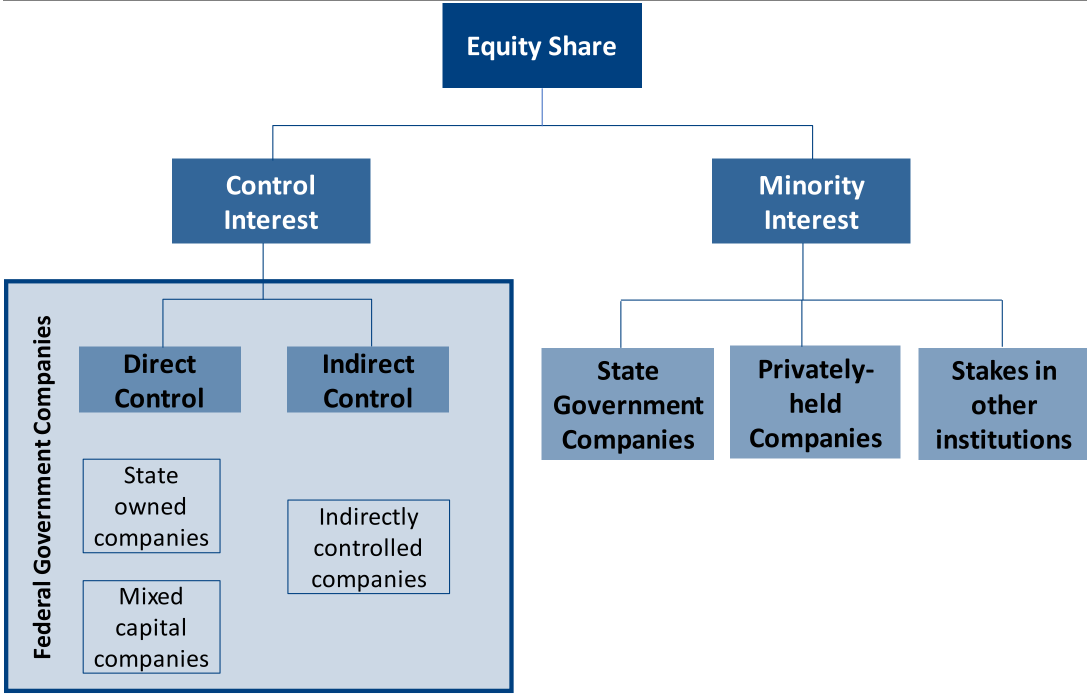
State-owned companies: A long list of assets to sell

A big government

✓ **A Finance Ministry report a few weeks ago shows that there were 148 Federal government-owned companies in Brazil at the end of 2017, 5 less than at the end of 2016**

- However, since the end of 2004, i.e. in the past 13 years, 16 new state-owned companies were created.
- The chart below shows the different types of stakes held by the government. It controls some companies directly, some indirectly and is a minority investor in others.

Types of ownership



Source: Finance Ministry report on Brazilian government's ownership stakes

47 directly-controlled companies

✓ **At the end of 2017, the government controlled 47 companies directly, including high-profile listed companies like Petrobras, Eletrobras and Banco do Brasil.**

Companies directly controlled by the government

Controlling stake - 148 companies					
Direct control - 47 Companies					
26 state-owned	**%**	**20 mixed public-private capital companies**	**%**	**1 Binational company**	**%**
13 Non-dependents		**6 Listed**			
ABGF-AG.BR.GEST.FUND.GARANT.	100.00	BANCO DO BRASIL	50.73	ALCANTRA CYCLONE SPAC	51.18
BNDES	100.00	ELETROBRÁS (*)	40.99		
CAIXA ECONÔMICA FEDERAL	100.00	PETROBRAS (*)	28.67		
CASA DA MOEDA	100.00	TELEBRAS (*)	47.39		
DATAPREV	51.00	BASA-BANCO DA AMAZÔNIA	51.00		
CORREIOS ECT	100.00	BNB - BANCO DO NORDESTE	50.92		
EMGEA-EMP.GEST.ATIVOS	100.00	**11 Non-listed**			
EMGEPRON-EMP.GEST.PROJ.NAVAIS	100.00	CASEMG-CIA ARMAZ. SILOS DE MG	92.96		
FINEP-FINANCIAD.ESTUDOS	100.00	CEAGESP-CIA ENTREP.ARMAZ.SP	99.68		
HEMOBRAS-EMP.BR.HEMOD.BIOTEC.	100.00	CEASAMINAS-CENT.ABAST.MG	99.57		
INFRAERO	100.00	CDC-CIA DOCAS DO CEARÁ	99.93		
PPSA-PRÉ-SAL PETRÓLEO S.A.	100.00	CDP-CIA DOCAS DO PARÁ	100.00		
13 Dependents		CDRJ-CIA DOCAS DO RJ	99.99		
AMAZUL-AMAZÔNIA AZUL TEC.DEFESA	100.00	CODEBA-CIA DOCAS DA BA	98.36		
CEITEC-CENT.EXCEL.TEC.ELETR.AVANÇ.	100.00	CODERN-CIA DOCAS DO RN	99.99		
CODEVASF-CIA DES.VALES.FR.PARN	100.00	CODESA-CIA DOCAS DO ES	99.45		
CONAB-CIA NAC.ABASTECIMENTO	100.00	CODESP-CIA DOCAS DE SP	99.97		
CPRM-CIA PESQUISA REC.MINERAIS	97.33	CODOMAR-CIA DOCAS DO MA	99.97		
EBC-EMP.BRASIL COMUNICAÇÃO	100.00	**3 Dependents (non-listed)**			
EBSERH-EMP.BR.SERVIÇOS HOSPIT.	100.00	CBTU-CIA BR. TRENS URBANOS	99.99		
EMBRAPA-EMP.BR.PESQUISA AGROP.	100.00	HNSC-HOSP.N.S.CONCEIÇÃO	99.99		
EPE-EMP.PESQ.ENERGÉTICA	100.00	TRENSURB-EMP.TR.URB.P.ALEGRE	99.88		
EPL SA-EMP.PLANEJ.LOGÍSTICA	100.00				
HCPA-HOPS.CLÍNICAS PORTO ALEGRE	100.00				
IMBEL-IND. MATERIAL BÉLICO DO BR	100.00				
VALEC ENG.CONSTR.FERROVIAS S.A.	100.00				

Source: Finance Ministry report on Brazilian government's ownership stakes

Petrobras, Eletrobras and BB control 92 subsidiaries

✓ **In addition to the 47 directly controlled companies, the government controls 101 companies indirectly.**

- Brazil's new administration has been talking about privatizing a large number of companies but has reiterated that it doesn't intend to privatize Petrobras or Banco do Brasil (and maybe not even Eletrobras).
- However, Petrobras, Eletrobras and Banco do Brasil control together 92 subsidiaries. By selling some of these subsidiaries, the government can slash the number of state-owned companies.

✓ **The government also has minority stakes in 58 companies from a range of sectors.**

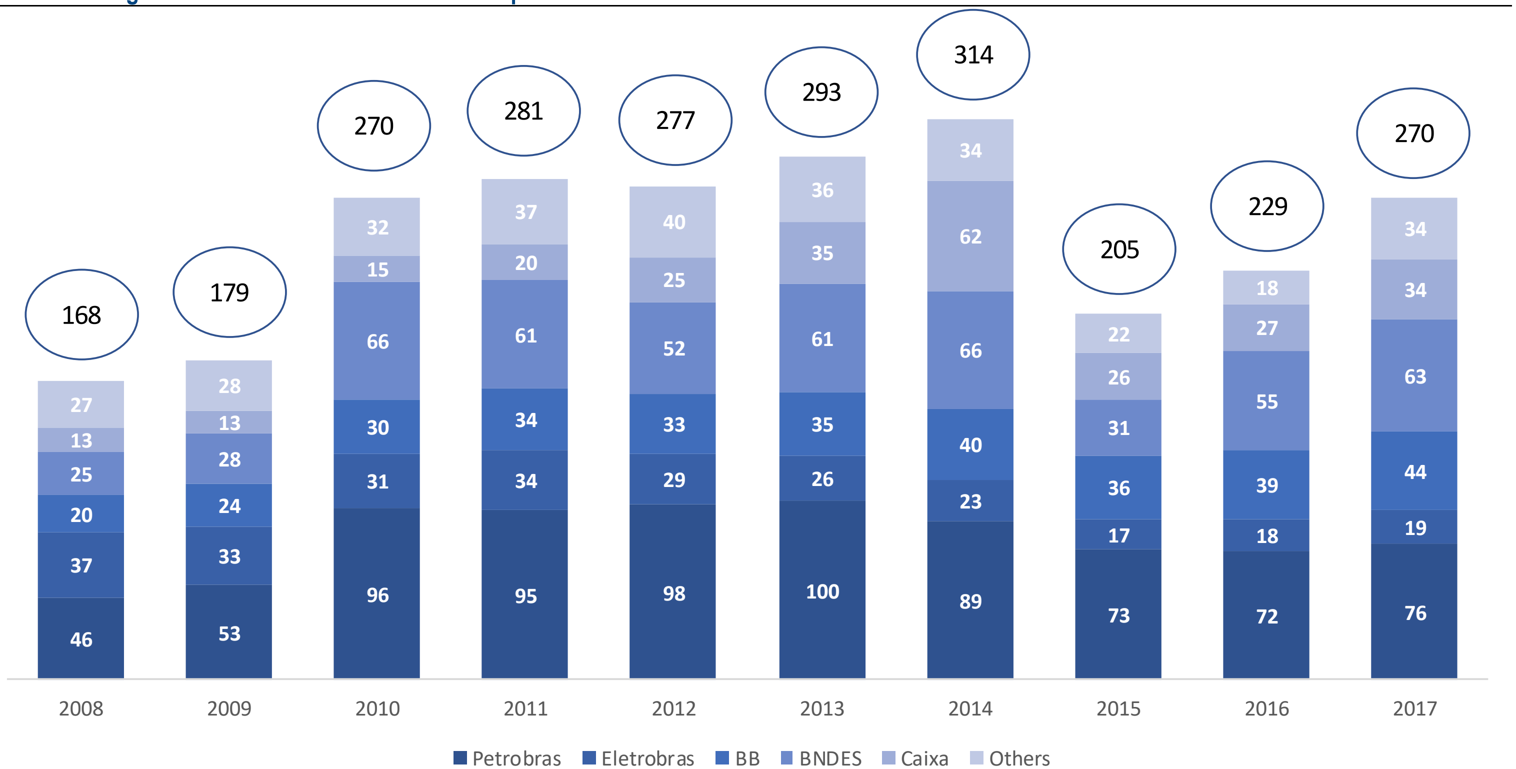
- Of these, 27 have an equity value above R$100mn. The government also has golden shares in three privately-controlled listed companies: Vale, Embraer and IRB.

Broad privatization program could slash debt levels

✓ Big companies under control

- The book value of the government´s stakes in the 47 companies it directly controls was R$270bn at the end of 2017. In 2014, before the write-downs at Petrobras and Caixa, the book value of these stakes was R$314bn.

Book value of government´s direct stakes in 47 companies



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Petrobras	46	53	96	95	98	100	89	73	72	76
Eletrobras	37	33	31	34	29	26	23	17	18	19
BB	20	24	30	34	33	35	40	36	39	44
BNDES	25	28	66	61	52	61	66	31	55	63
Caixa	13	13	15	20	25	35	62	26	27	34
Others	27	28	32	37	40	36	34	22	18	34
Total	168	179	270	281	277	293	314	205	229	270

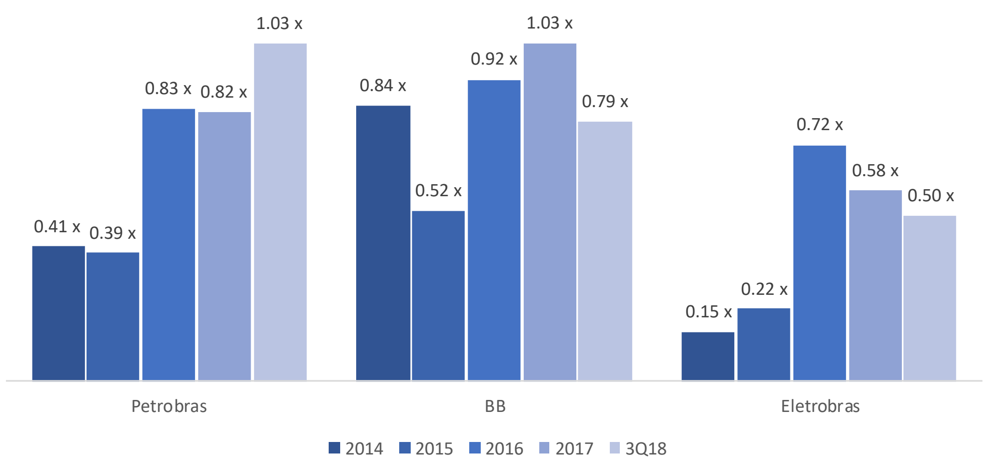
Source: Finance Ministry report on Brazilian government's ownership stakes

BTGPactual

Profits of state-owned companies have plummeted

✓ **The three big listed state-owned companies were trading at or below their book values at the end of 2017.**

Price/Book Value: Petrobras, Eletrobras and Caixa



Source: Finance Ministry report on Brazilian government's ownership stakes

✓ **The profits generated by government-controlled companies have also plummeted in recent years, as shown in the table below.**

Earnings of companies directly controlled by the government (R$mn)

Company	2012	2013	2014	2015	2016	2017
Banco do Brasil	12,310	15,810	11,313	14,109	7,930	10,881
BNDES	8,136	8,150	8,594	6,199	6,392	6,183
Caixa	6,066	6,723	7,092	5,797	3,702	12,462
Petrobras	20,895	23,408	-21,692	-34,836	-14,824	-446
Eletrobras	-6,879	-6,287	-3,031	-14,442	3,426	-1,764
Other	1,452	-2,984	-3,428	-9,609	-4,434	-3,154
Total	**41,980**	**44,822**	**-1,153**	**-32,782**	**2,193**	**24,162**

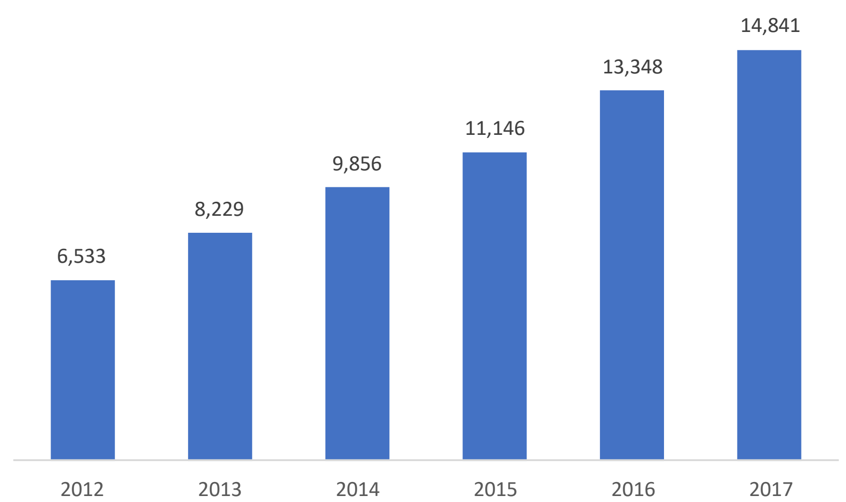
Source: Finance Ministry report on Brazilian government's ownership stakes

State-owned companies have been draining cash

✓ Consistent negative contributions

- State-owned companies have consistently negatively contributed to the country's fiscal accounts. In other words, the government is having to put more money into state-owned companies (capitalizations + debt financing) than it has been able to collect (dividends + interest).
- The amount of money required to fund these companies' deficits has been growing consistently, rising from R$6.5bn in 2012 to ~R$15bn in 2017.
- In the past 5 years, except for 2014, the government has pumped more money into state-owned companies than it has taken out. In 2016 and 2017, the money-in/money-out ratio was as low as 0.2x and 0.3x, respectively.

Direct subsidies for state-owned companies (R$mn)



Source: Finance Ministry report on Brazilian government's ownership stakes

Costs vs. returns of state-owned companies (R$mn)

Costs (R$ thousands)					Return (R$ thousands)			
Year	AFCI	Hybrid Instruments	Subsidy	Total Costs	Interest Income (Hybrid Instruments)	Dividends	Total Return	Return/Costs
2012	3,285,634	21,099,997	6,531,679	30,917,310	2,391,340	27,775,051	30,166,391	0.98
2013	5,384,644	23,000,000	8,229,590	36,614,234	1,373,016	16,909,531	18,282,547	0.50
2014	5,132,002	999,999	9,856,531	15,988,532	2,779,339	18,905,531	21,684,870	1.36
2015	5,634,086	0	11,145,857	16,779,943	2,677,569	12,044,357	14,721,926	0.88
2016	8,666,265	0	13,348,536	22,014,801	1,668,075	2,835,828	4,503,903	0.20
2017	5,334,390	0	14,840,910	20,175,300	1,029,182	5,498,246	6,527,428	0.32
Total	**33,437,021**	**45,099,996**	**63,953,103**	142,490,120	**11,918,521**	**83,968,544**	**95,887,065**	0.67

Source: Finance Ministry report on Brazilian government's ownership stakes

The Brazilian economy

(Claudio Ferraz & team)

Summary – Baseline scenario and risks

- **Recovery gains traction.** The weak performance of the economy involved both cyclical and structural/persistent aspects. But, consistent signs of recovery begin to emerge. Slack remains significant.

- **Benign inflation outlook**. 12-month accumulated inflation at 3.3%p.a. in November and should accelerate towards ~4.0% at YE19 due to temporary price shocks. However, core and services inflation stand at historically low levels. Also, forecasts point to IPCA inflation well below target in 2020.

- **Selic rate**. Conditional inflation forecasts indicate room for the easing cycle to continue a little further. Language has been more cautious at the margin.

- **Fiscal performance improves**. Spending cap can be met in 2020/22. Debt remains high but may have peaked. Pension reform was key and additional fiscal measures should be implemented ("More Brazil" Plan). Execution needs to be monitored.

- **External position.** Strong FDI inflow and high level of reserves. Current account deficit (revised series) has increased markedly due to diminished trade balance and income account outflows. There is an ongoing structural change in the FX market.

- **Accelerating growth with continued reforms and increased confidence should help the overall environment in 2020**. But, the evolution of the international setting will also play a key role.

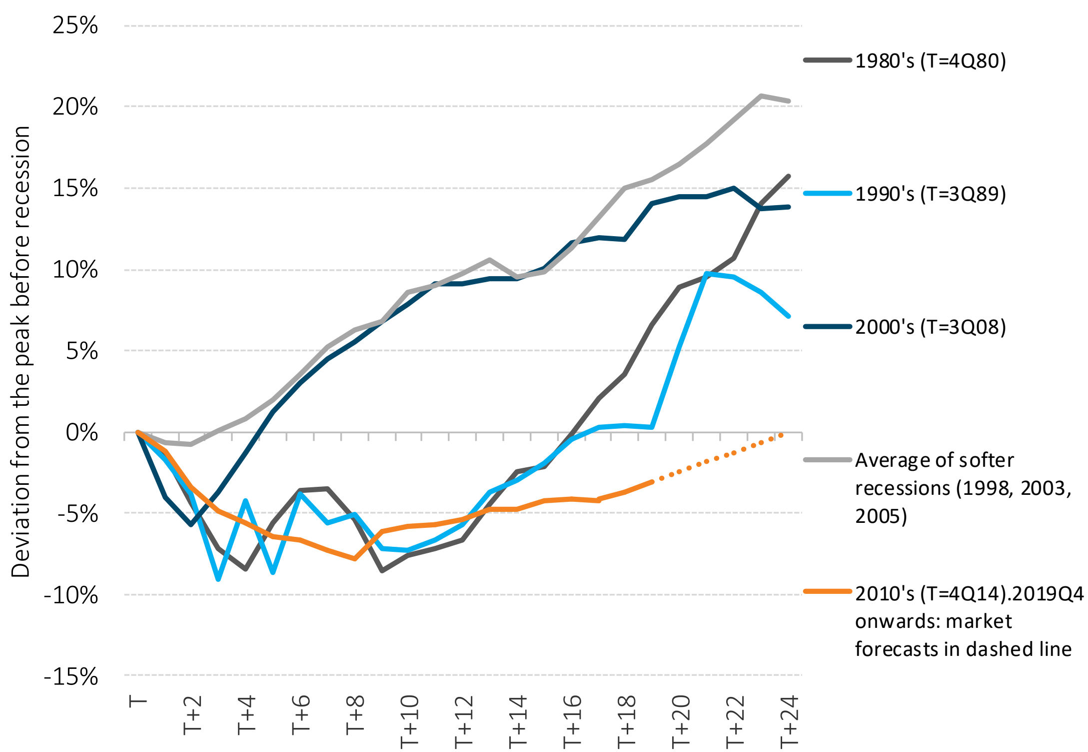
BTG Pactual

Economic Activity

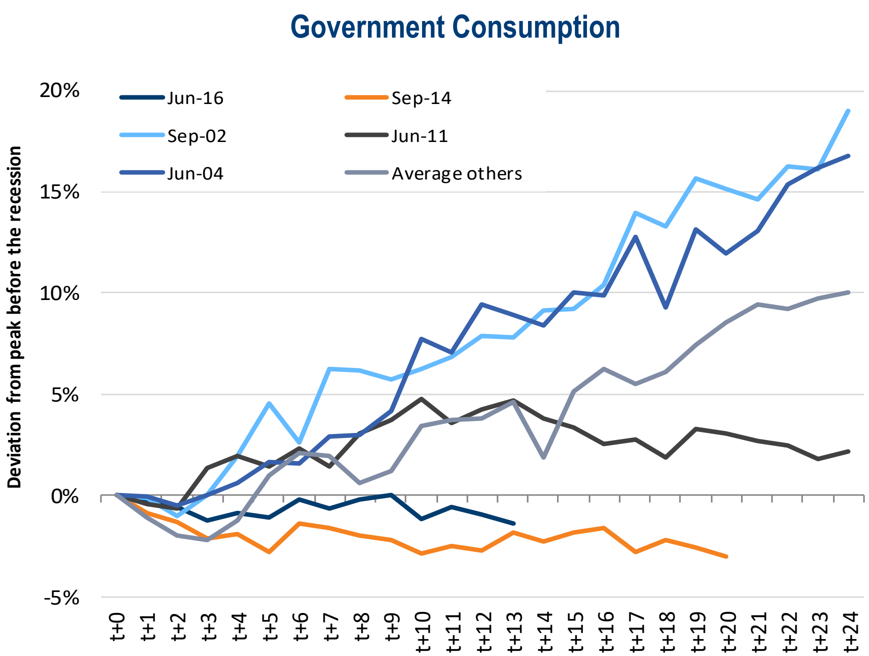
The recovery is gaining traction

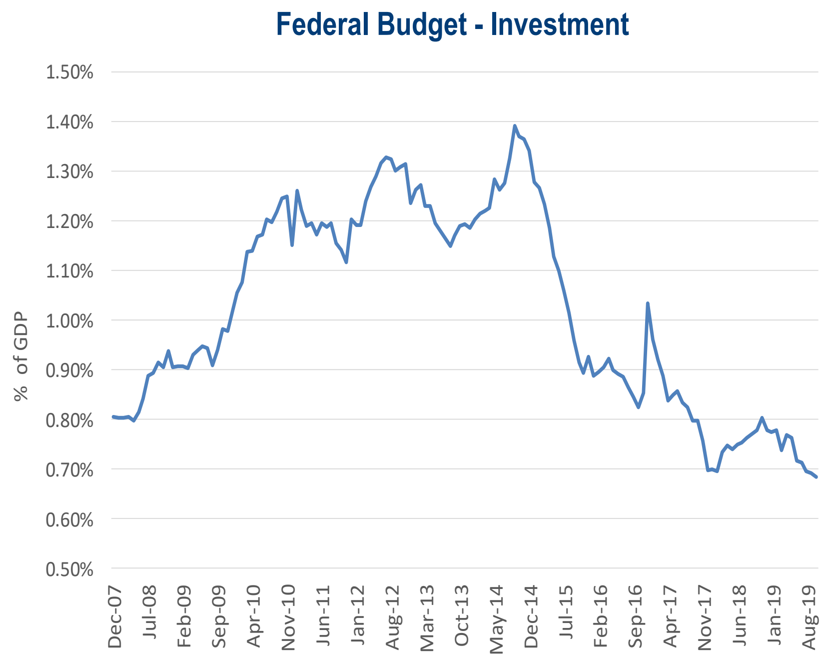
- Economy expanded at a better-than-expected pace in 3Q19 (0.6% q/q vs 0.4% q/q e), following growth of 0.5% q/q in 2Q. 4Q19 looks stronger (~0.8% q/q e).
- Labor market is improving, but only gradually despite the increase of formal job posts at the margin.
- On the other hand, credit has advanced significantly.
- Slack remains significant.
- Our 2019 growth forecast stands at 1.2% and 2.5% in 2020.

GDP vs. peak before recession



Public sector engine has lost steam





Heat Map – Economic Activity

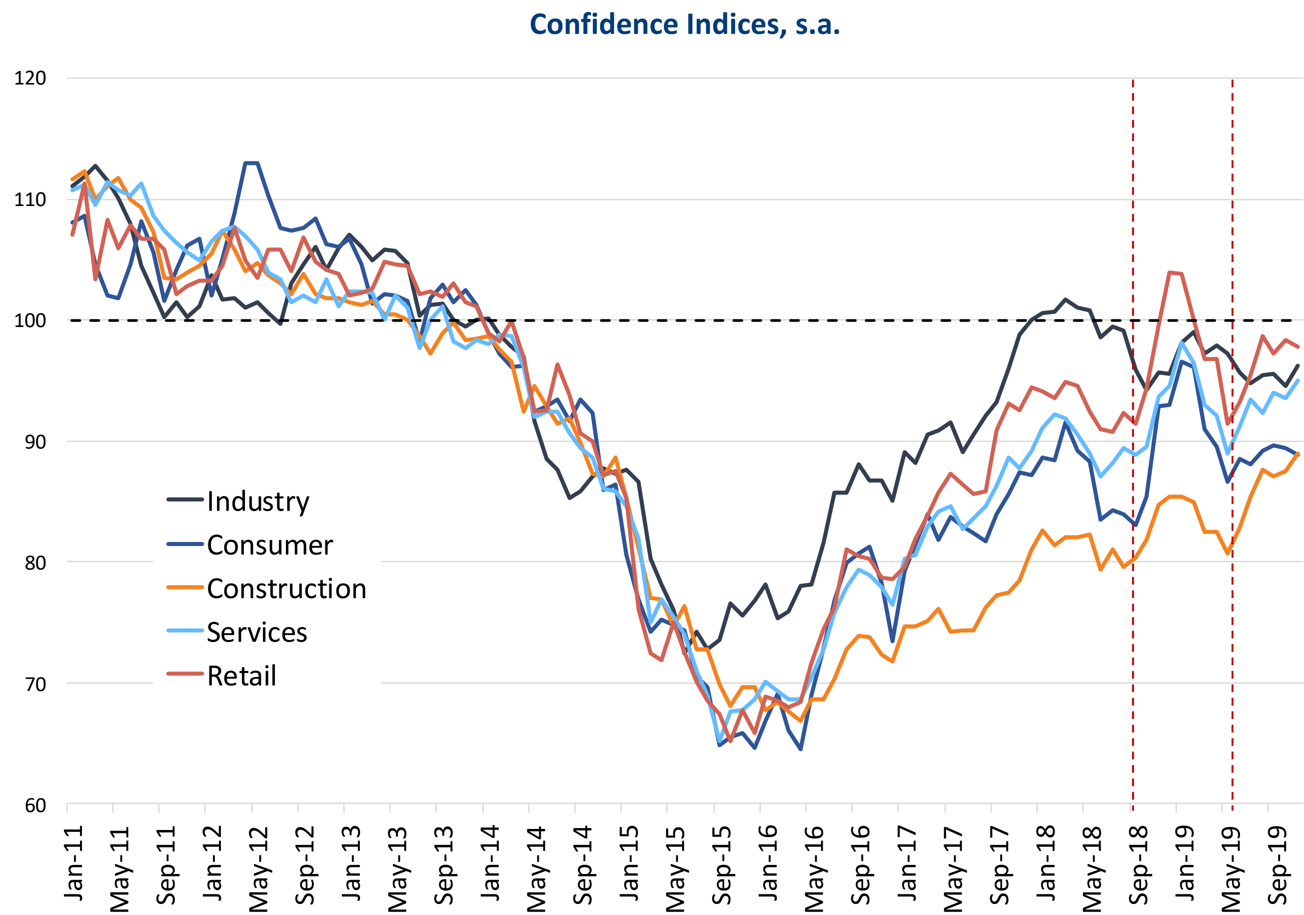
Recovery gain traction

	Dec-18	Jan-19	Feb-19	Mar-19	Apr-19	May-19	Jun-19	Jul-19	Aug-19	Sep-19	Oct-19	Nov-19
Employment growth (IBGE)	2.0%	1.8%	1.7%	2.0%	2.5%	3.0%	3.4%	3.5%	3.3%	2.8%	2.5%	
Supermarket sales (ABRAS)	2.5%	2.6%	2.3%	1.4%	1.6%	1.6%	2.5%	2.4%	3.0%	2.9%		
Heavy vehicles traffic (ABCR)	2.2%	2.3%	3.4%	2.7%	2.1%	6.2%	5.4%	6.0%	0.7%	2.8%	3.1%	
Auto sales (Fenabrave)	3.8%	3.3%	3.8%	3.5%	3.3%	3.1%	3.5%	3.7%	2.6%	2.7%	2.3%	2.8%
New payroll jobs (CAGED)	2.6%	2.2%	2.4%	1.5%	1.7%	0.9%	1.6%	1.7%	2.2%	2.4%	2.7%	
Construction supplies (IBGE)	1.7%	1.2%	2.0%	1.9%	1.9%	2.9%	3.0%	3.2%	1.6%	2.2%	2.0%	
Auto production (Anfavea)	1.1%	0.6%	1.5%	1.8%	2.1%	2.4%	2.5%	2.8%	1.5%	2.2%	2.2%	
Broad retail sales (IBGE)	2.2%	2.0%	1.6%	1.6%	1.2%	1.9%	2.1%	2.8%	2.0%	1.9%		
Manufacturing production (IBGE)	1.1%	0.6%	1.4%	1.3%	1.6%	2.8%	2.8%	2.7%	0.7%	1.6%	2.3%	
Core retail sales (IBGE)	1.7%	1.7%	1.4%	1.3%	0.9%	0.7%	0.7%	1.4%	1.4%	1.6%		
Industrial production (IBGE)	1.3%	0.8%	1.3%	0.9%	0.6%	1.5%	1.6%	1.7%	0.3%	1.4%	2.0%	
Household credit growth (CB)	-0.2%	0.0%	0.3%	0.4%	0.4%	0.4%	0.4%	0.7%	1.0%	1.2%	1.4%	
Cardboard expedition (ABPO)	1.2%	0.4%	0.9%	0.6%	1.0%	4.4%	2.4%	2.2%	-1.8%	0.9%	1.3%	
Real wage bill growth (IBGE)	1.4%	1.5%	1.6%	1.7%	1.7%	1.5%	1.3%	1.2%	1.0%	0.9%	1.0%	
Real wage growth (IBGE)	1.5%	1.6%	1.8%	1.7%	1.5%	1.1%	0.8%	0.7%	0.7%	0.8%	1.0%	
Mining production (IBGE)	2.5%	2.4%	1.6%	0.1%	-2.0%	-2.5%	-2.6%	-1.5%	-0.3%	0.6%	0.8%	
Services output (IBGE)	0.8%	0.8%	1.3%	0.8%	0.3%	0.5%	0.3%	0.8%	-0.3%	0.6%		
Corporate credit growth (CB)	0.3%	0.4%	0.5%	0.5%	0.5%	0.4%	0.3%	0.2%	0.2%	0.3%	0.3%	

Source: BTG Pactual

Confidence is gaining some traction (again)

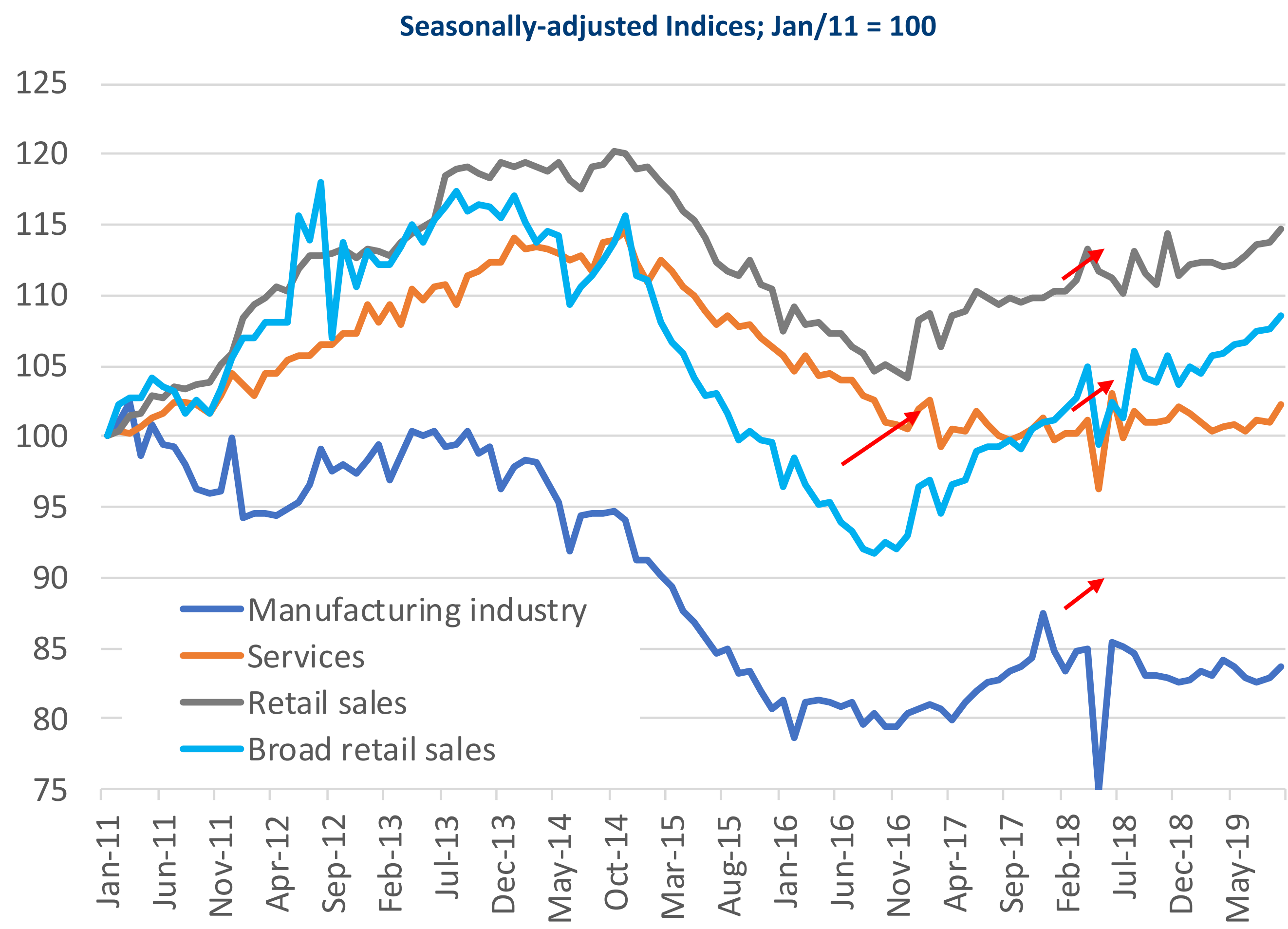
But remains below its historical average



Source: FGV and BTG Pactual

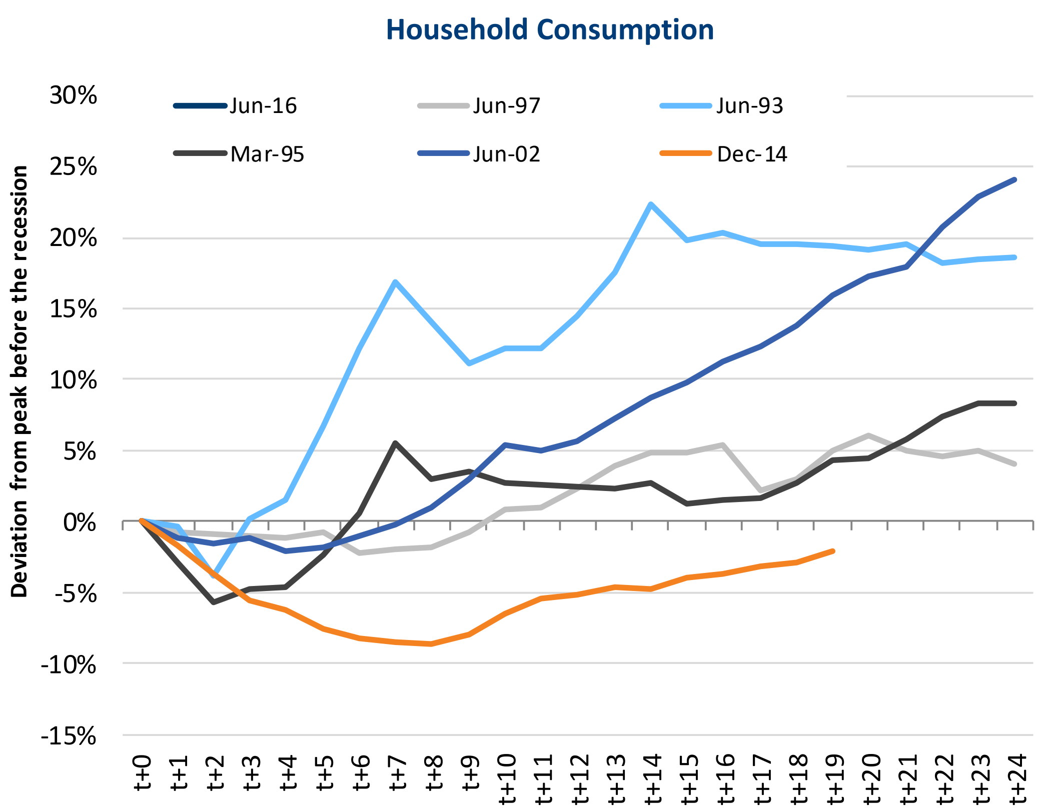
Sector breakdown

Diverging sector performance, but good signs at the margin



Consumption should continue to be the main growth engine

- ✓ Major contribution to growth has come from household consumption
- ✓ FGTS drawdowns should bring temporary boost in consumption
- ✓ Recovery of formal employment and household credit should boost consumption by 2020
- ✓ But slowdown in real income and rising in household debt service ratio need monitoring



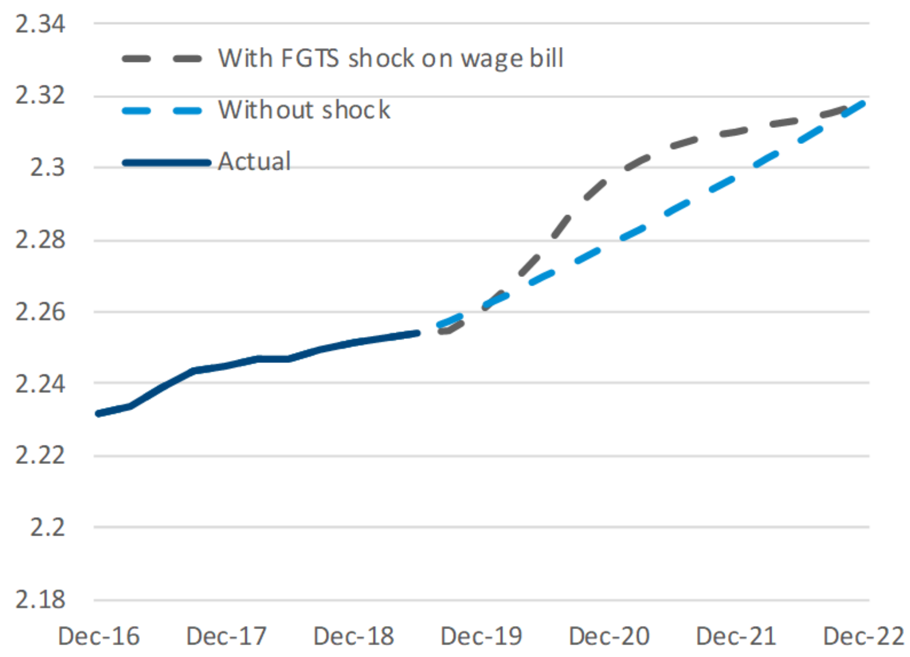
Source: IBGE

FGTS should promote a temporary stimulus

- ✓ Our results show that the FGTS measure should increase GDP by 0.5% to be incorporated in 4Q19 and 1Q20 (higher than the government estimated effect of 0.35% of GDP).
- ✓ Why should the effect be greater?

1. The 2019 measure will affect ~ 96 million people, while in 2017 it affected ~ 26 million people;
2. This measure applies to all accounts (inactive and active), while in 2017 it involved only inactive FGTS accounts.
3. 80% of FGTS accounts have a balance of up to R$500
4. Households' financial situation is better than in 2017.

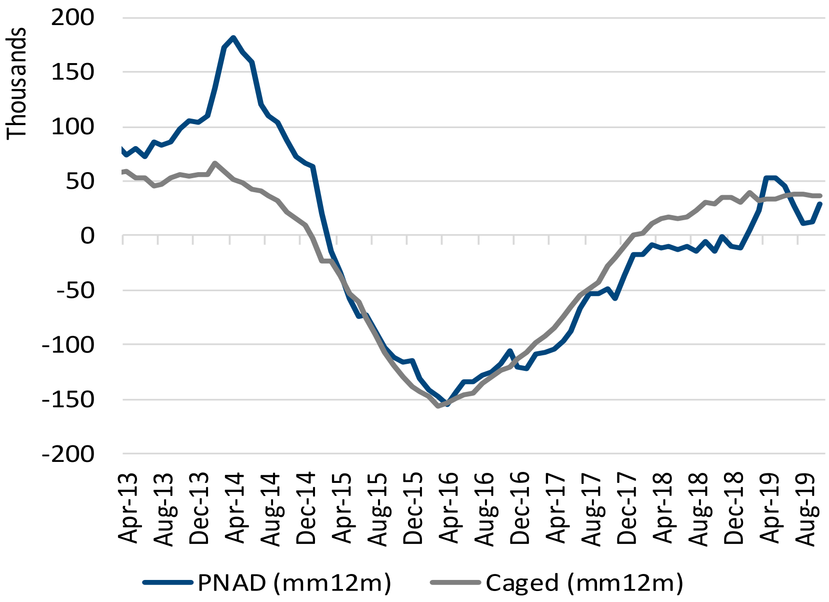
Estimated results for consumption (in log) with and without FGTS shock in payroll



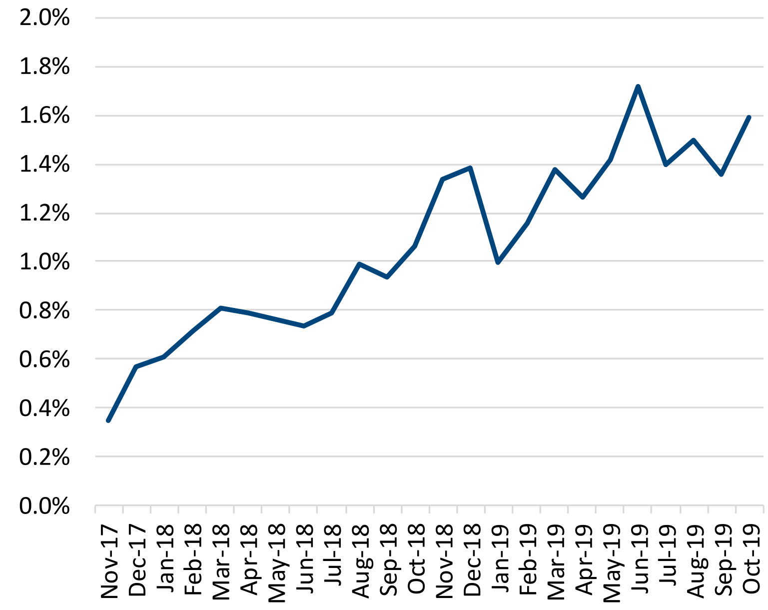
Source: IBGE and BTG Pactual

Positive signs from CAGED indicate a resumption of formal employment

Formal job creation - CAGED vs PNAD (s.a.)

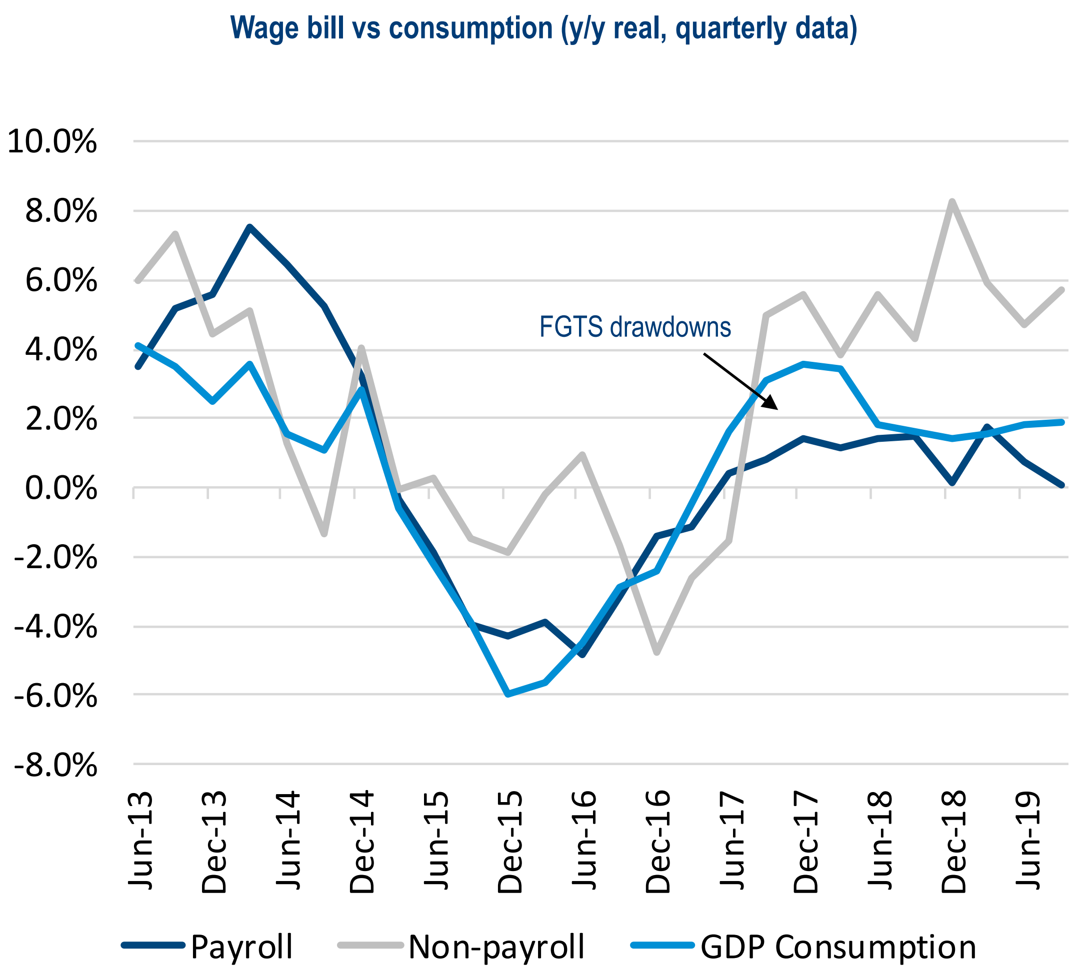


New employment contracts - % total admitted



Source: IBGE, Ministério da Economia and BTG Pactual

Resumption of employment and formal wage bill should boost consumption

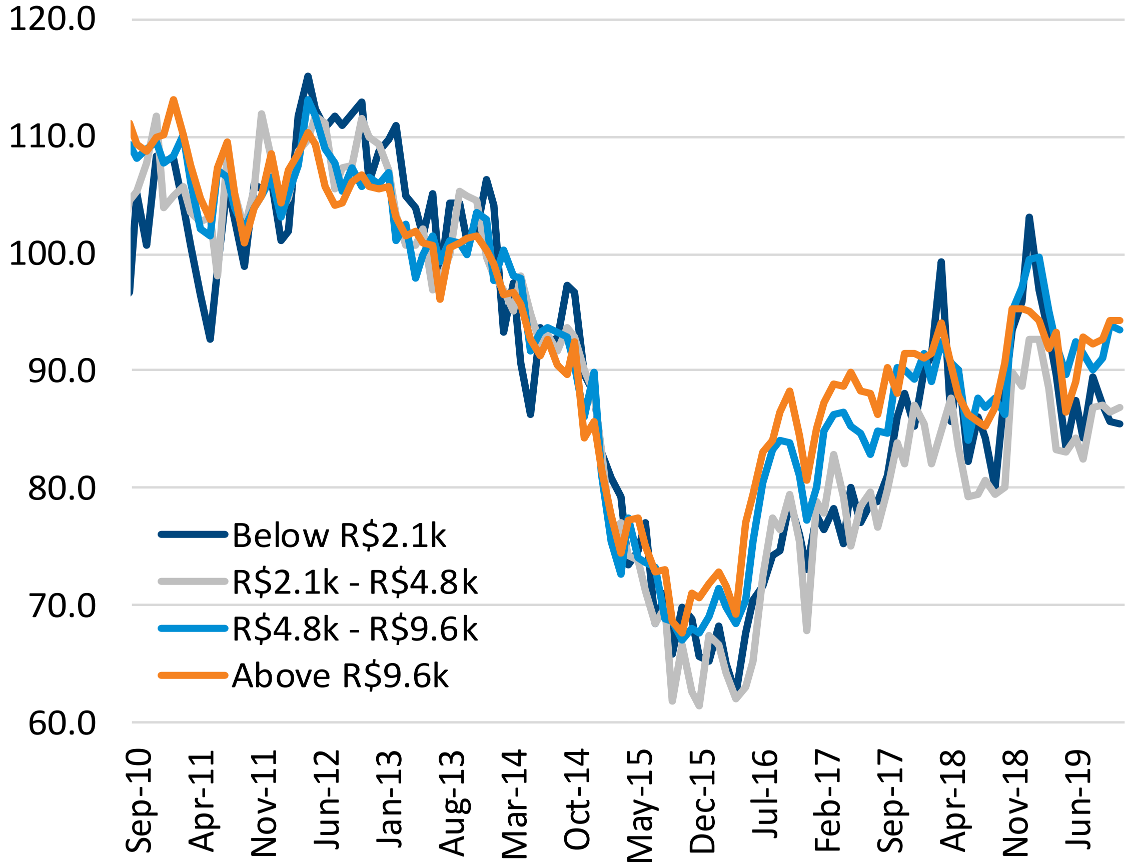


Source: IBGE and BTG Pactual

BTG Pactual

Employment recovery should have positive effect on consumer confidence

Consumer confidence by household income groups (s.a.)

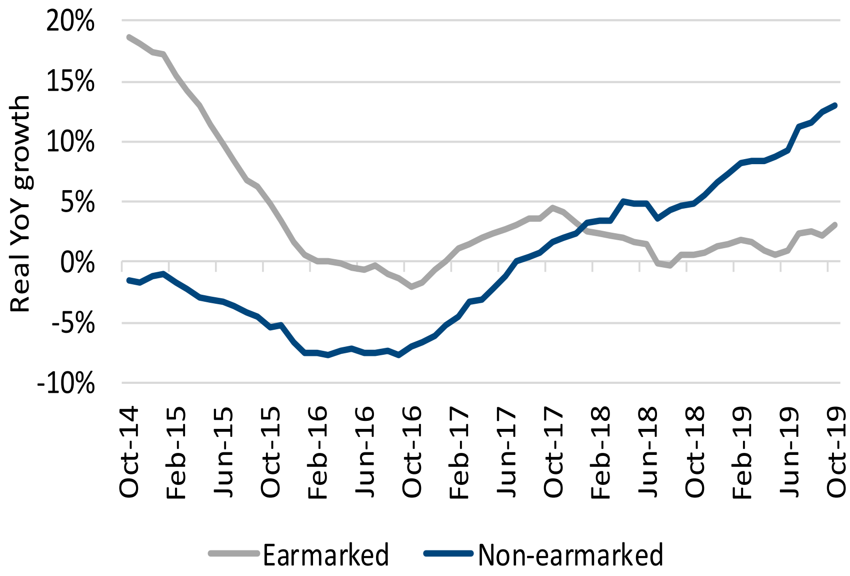


Source: FGV

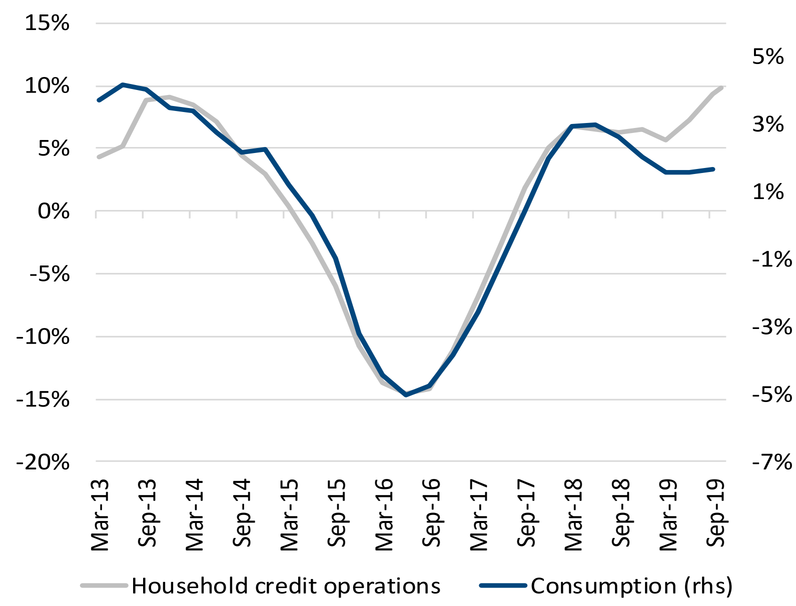
BTG Pactual

Household credit remains on a strong path

Outstanding loans for households (inflation adjusted, y/y)



Consumption vs household credit operations (12m acc., real)

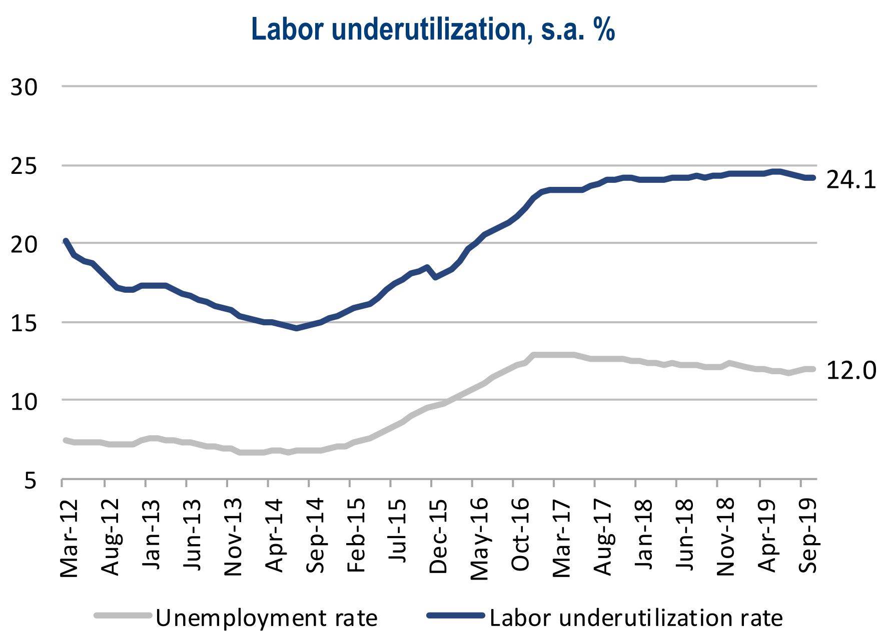


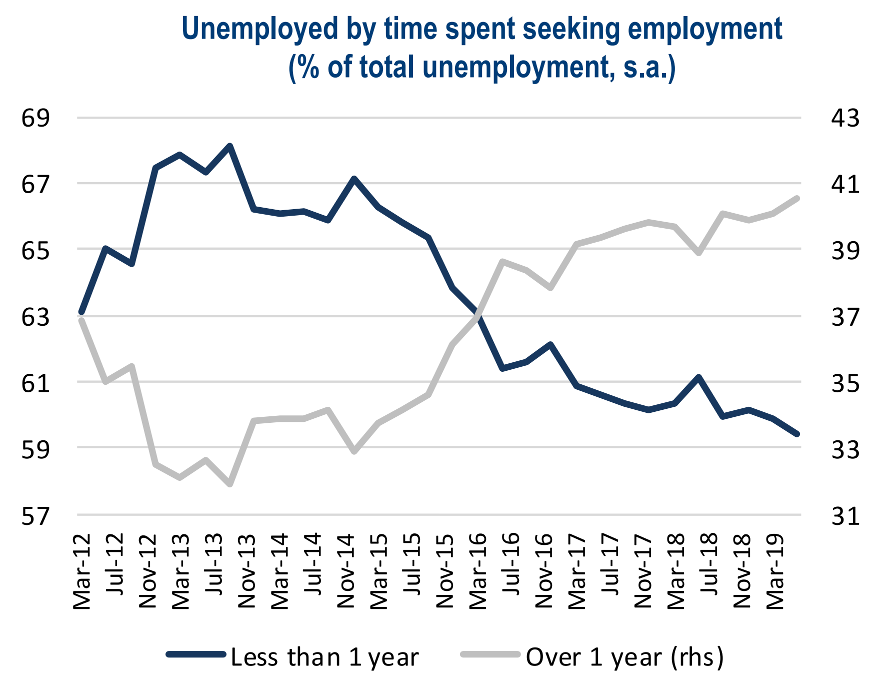
Source: IBGE, BCB and BTG Pactual

BTG Pactual

But the labor market is still weak

Very gradual decline of the unemployment rate

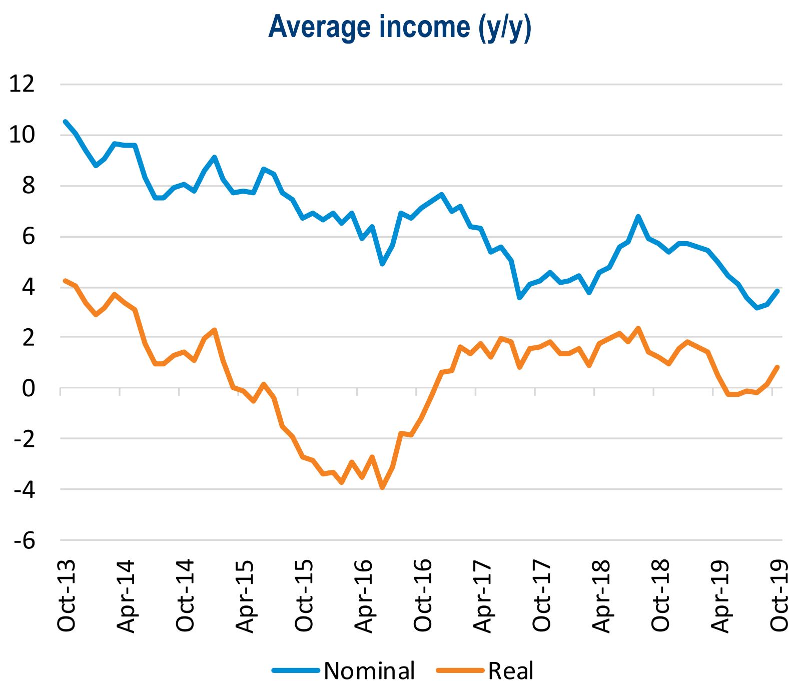


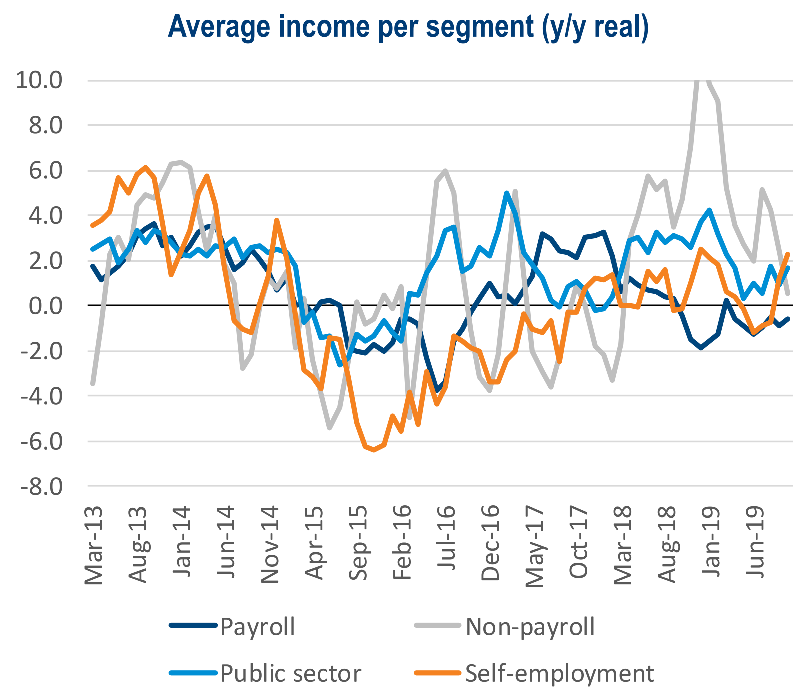


BTG Pactual

Source: IBGE and BTG Pactual

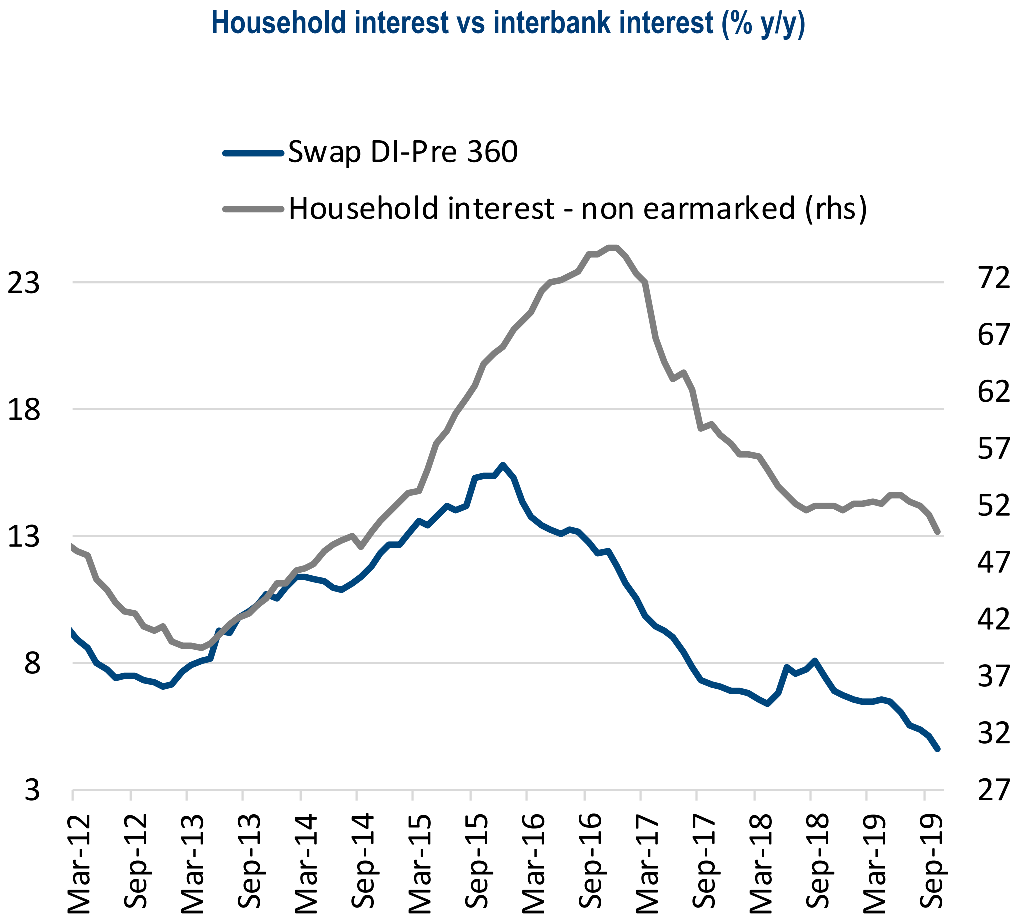
Real wage drop calls attention





Source: IBGE

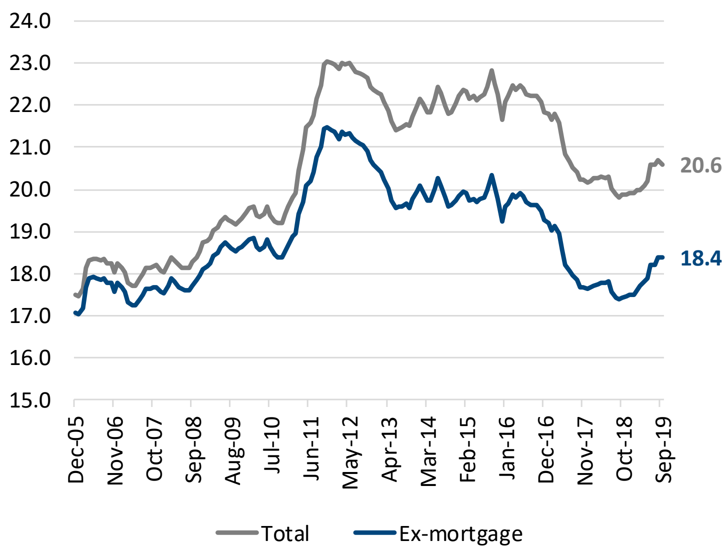
Interest still high for the segment, despite the fall of Selic



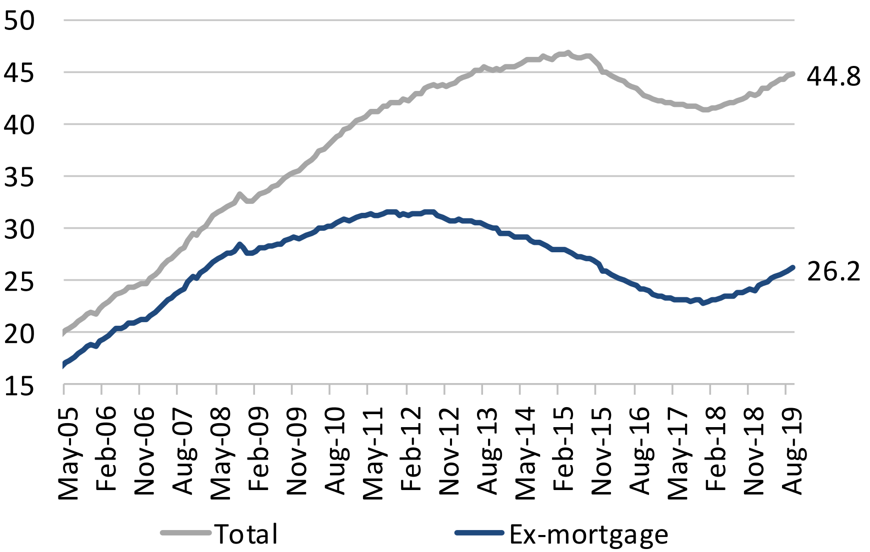
Source: BCB and Bloomberg

Lower wages + high interest rates = higher household debt service ratio

Household debt service ratio (% of income)



Household debt, % of annual income

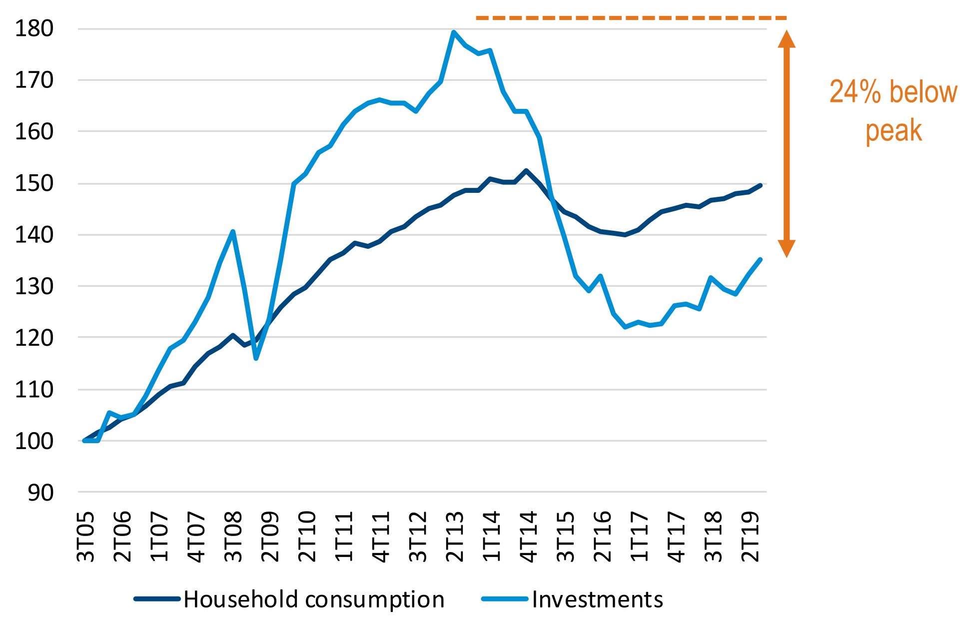


Source: BCB

Investments could show a better performance in 2020

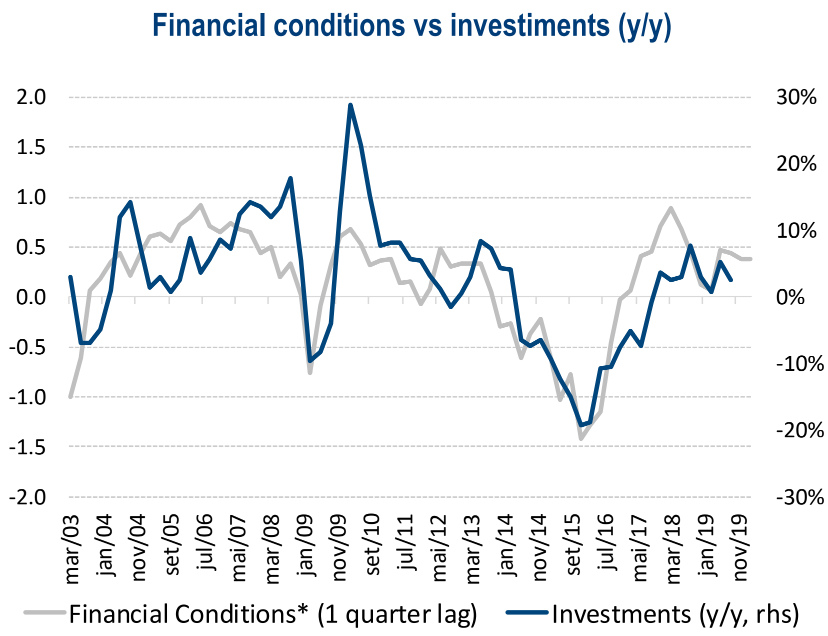
- Loose financial conditions should boost credit (including banking) and contribute to a resumption of investment
- Civil construction gives positive signs, although still incipient
- A big risk could come from an external negative shock (trade war, slowdown in Argentina, etc.)
- Government concessions and privatizations so far were timid.
- Fiscal adjustment should continue to weigh on investments.

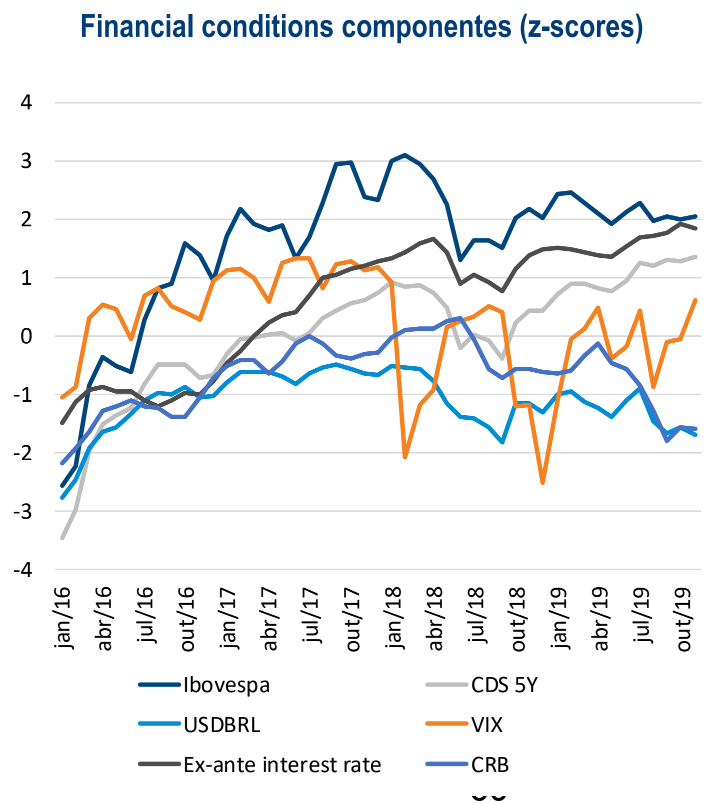
Consumption vs Investments (s.a.)



Source: IBGE

Financial conditions are loose and should drive the resumption of investments

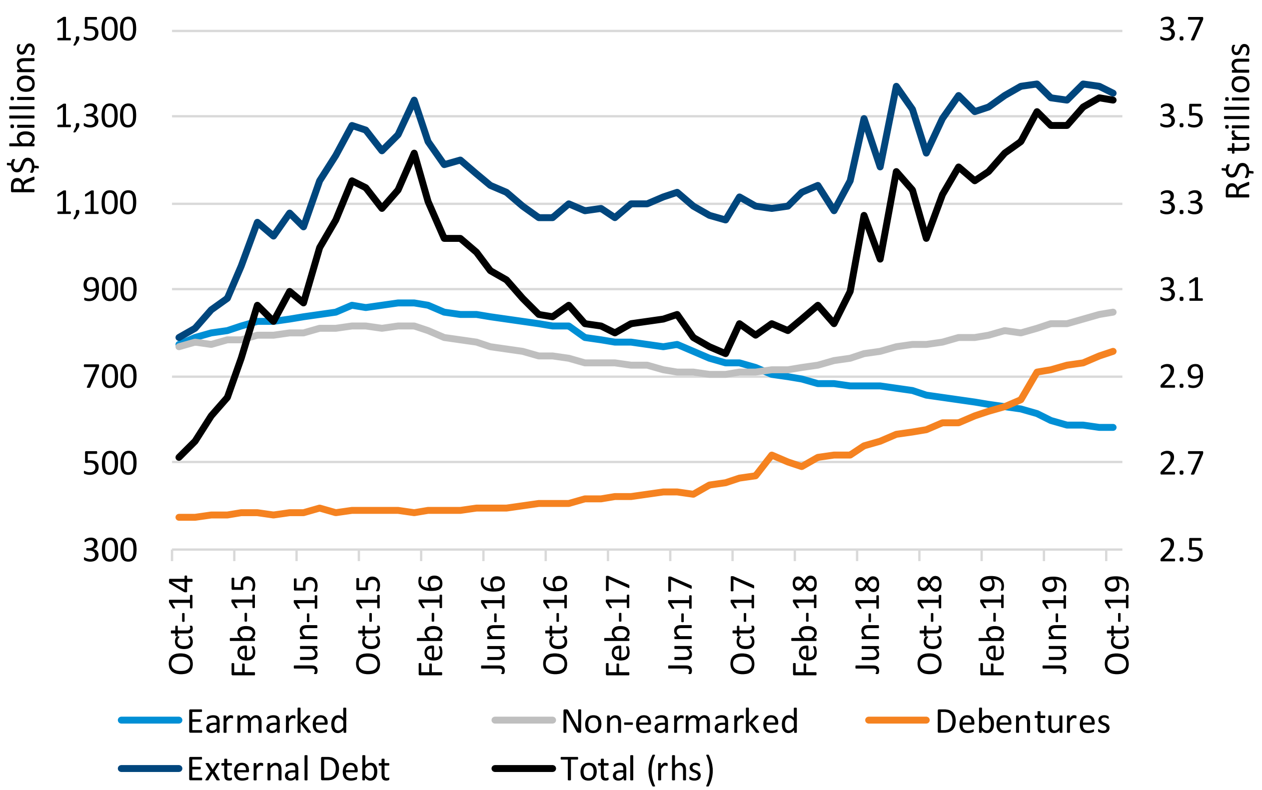




Source: Bloomberg and BTG Pactual

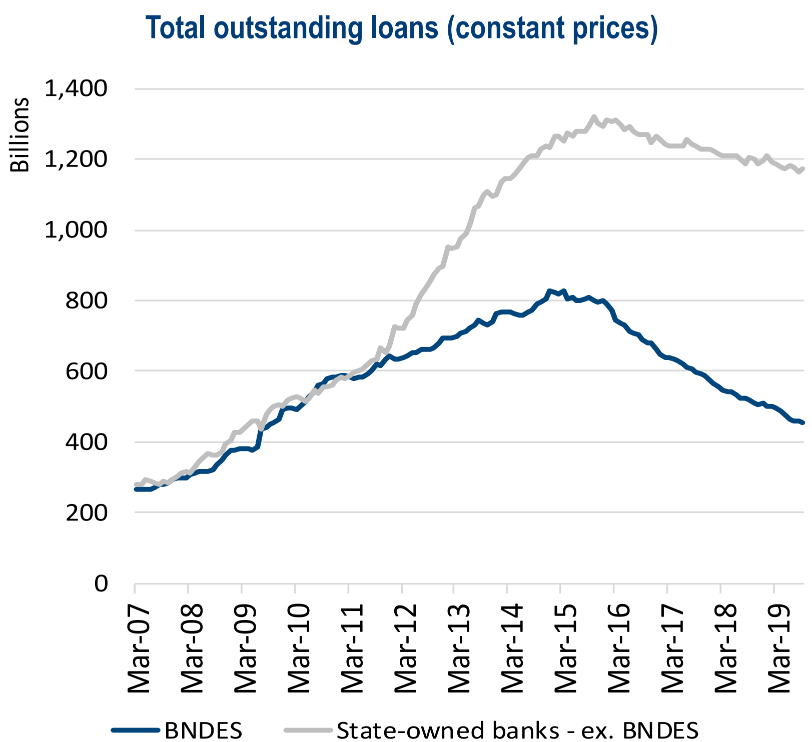
Shrinking bank credit has been compensated by access to capital markets

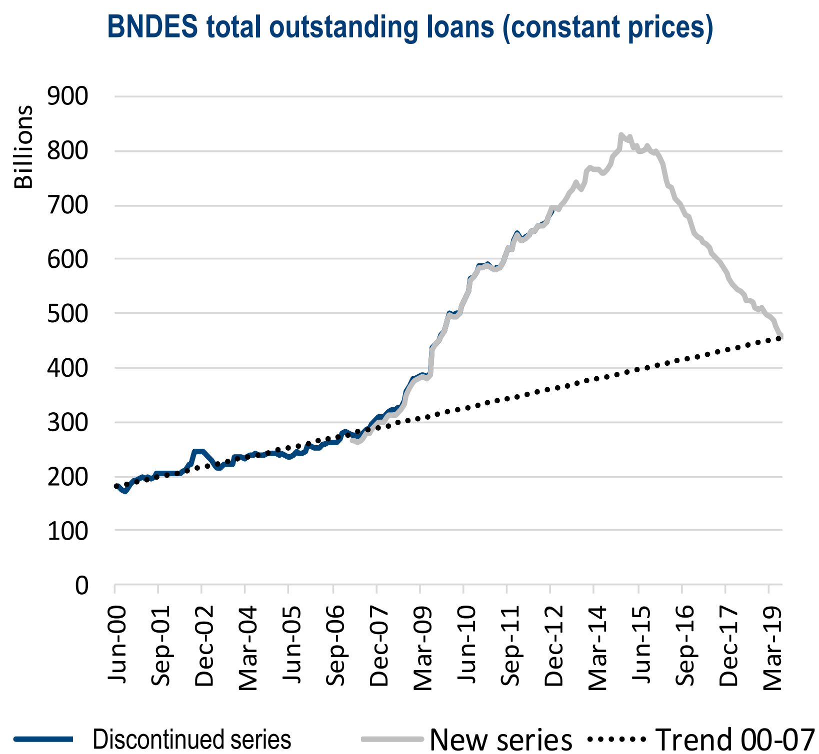
Broad outstanding loans – non-financial companies (s.a., constant prices)



Source: BCB

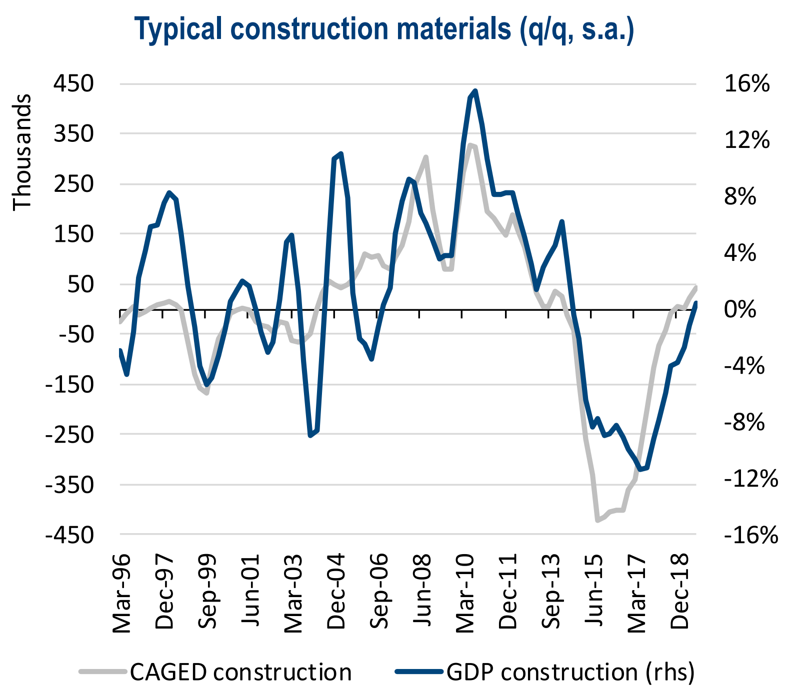
Drag from shrinking public credit is probably over?

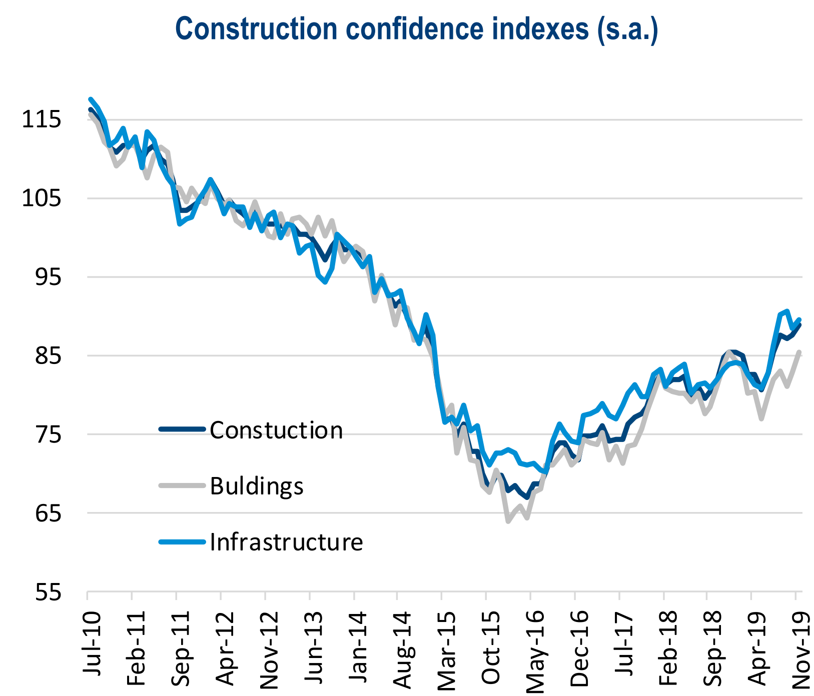




Source: BCB

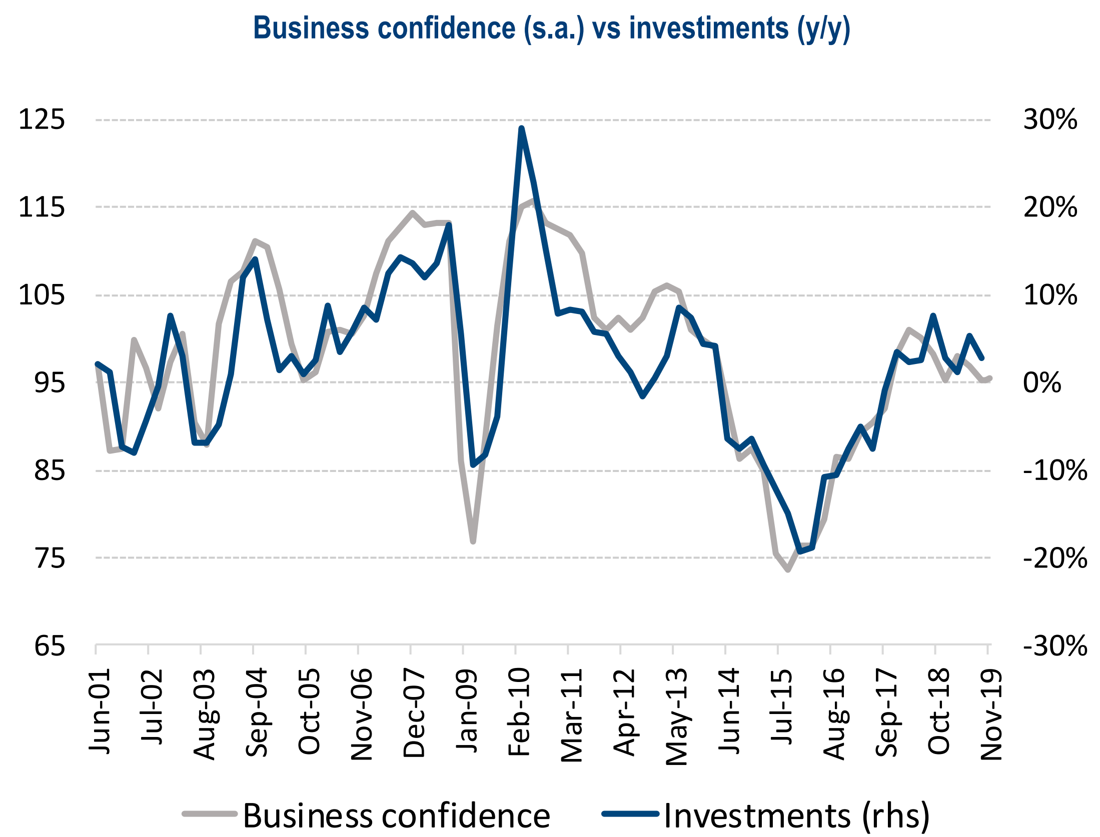
Construction sector shows visible signs of recovery





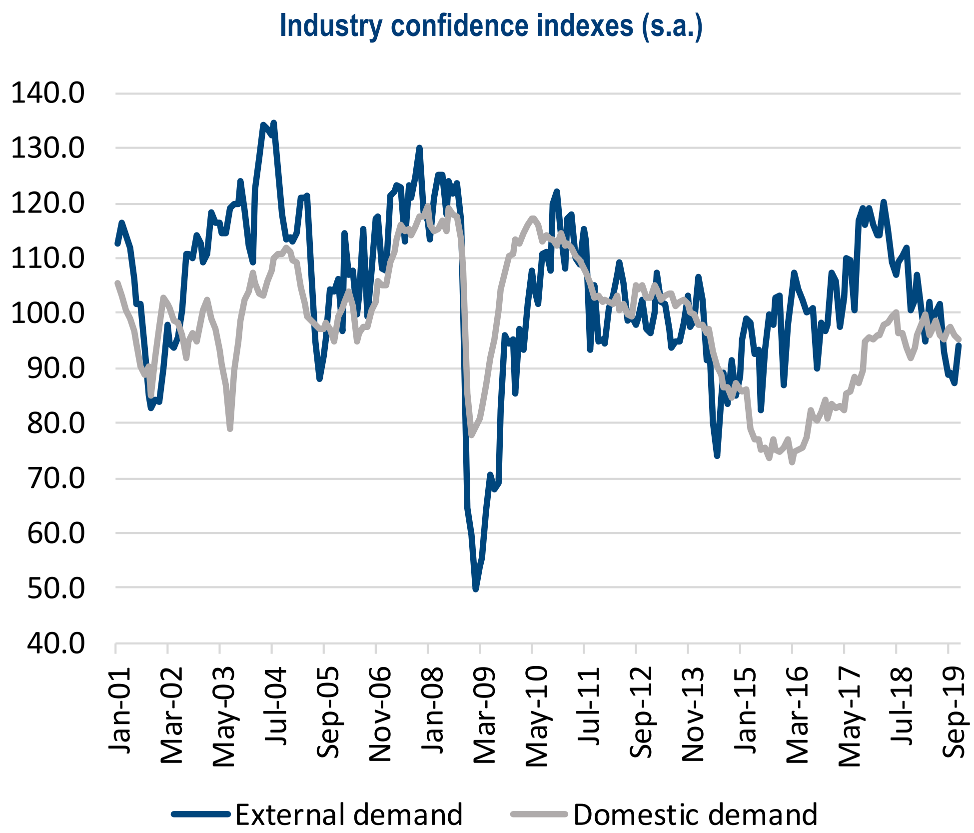
Source: IBGE and FGV

Lack of confidence has held back recovery of investments



Source: IBGE and FGV

Global slowdown seems to explain recent confidence worsening

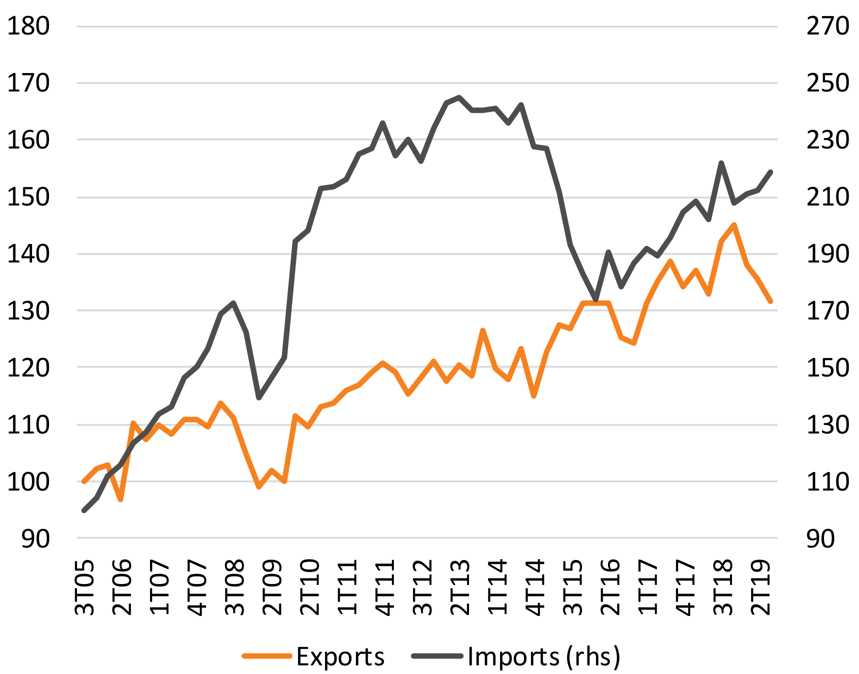


Source: IBGE and FGV

Net exports may be a big challenge in 2020

- ✓ The risk of major global slowdown may weigh down on exports in 2020
- ✓ So far, trade tensions between in US and China has not provided a boost to Brazil's export
- ✓ Argentina, however, may have limited impact on exports in 2020 given that its importance has been shirking

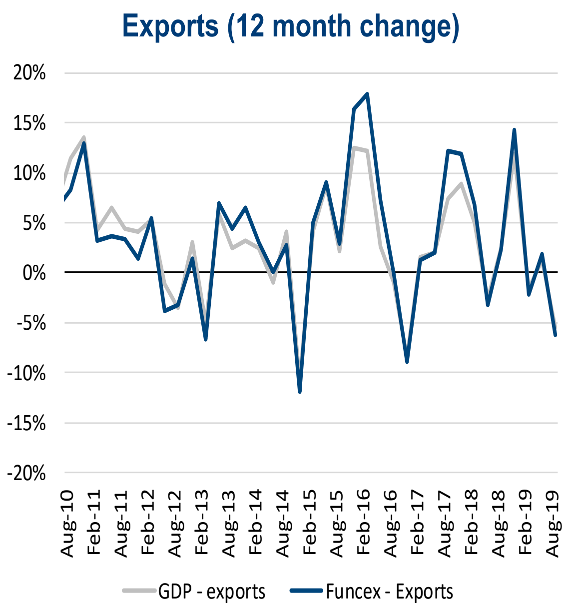
Exports vs Imports (s.a.)

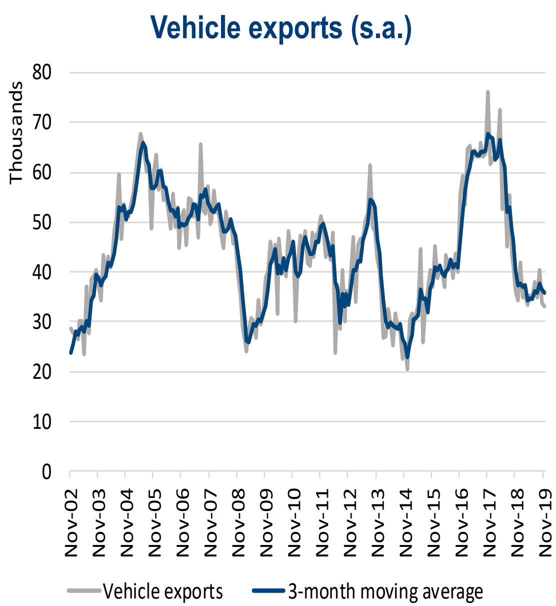


Source: IBGE

BTG Pactual

Exports already declining with global slowdown

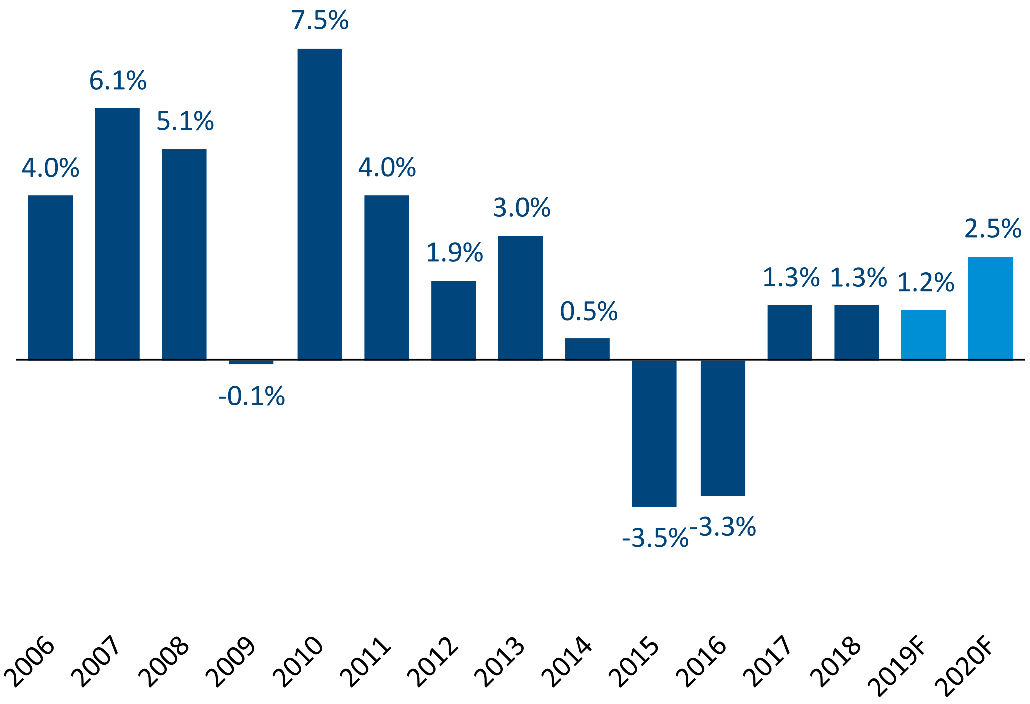




Source: Funcex

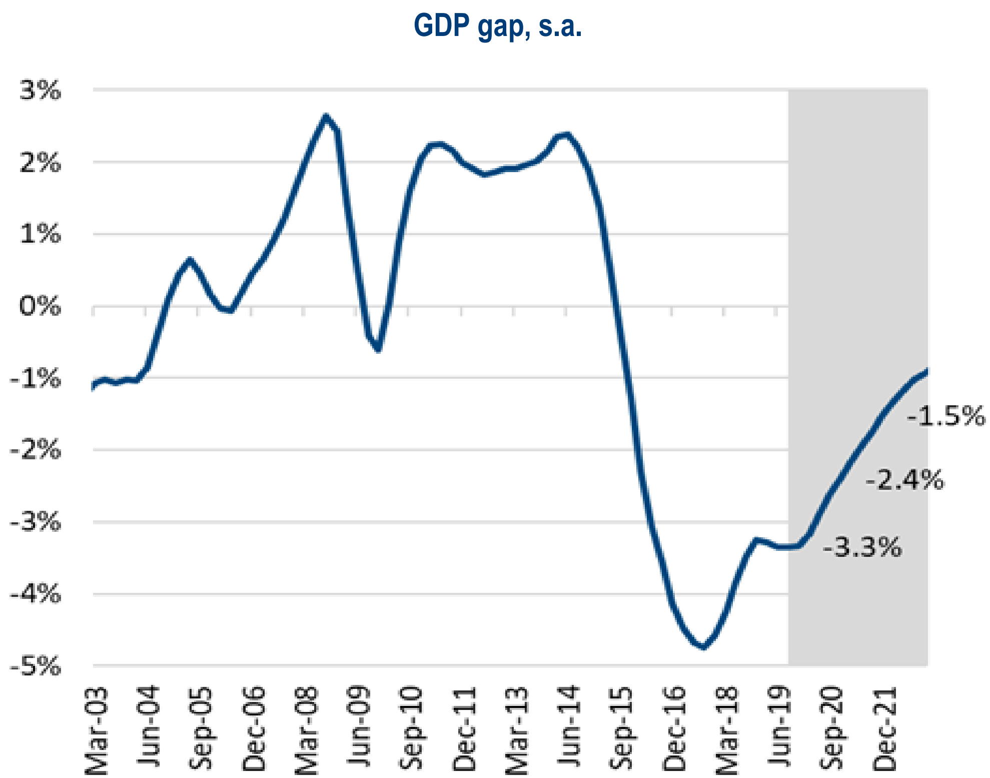
Conclusion: Growth should accelerate to 2.5% in 2020

GDP growth (annual)



Source: IBGE and BTG Pactual

Slack remains large



Source: IBGE and BTG Pactual

2019 GDP forecast updated to 1.2% (from 1.0%) and 2020 to 2.5% (vs. 2.3%)

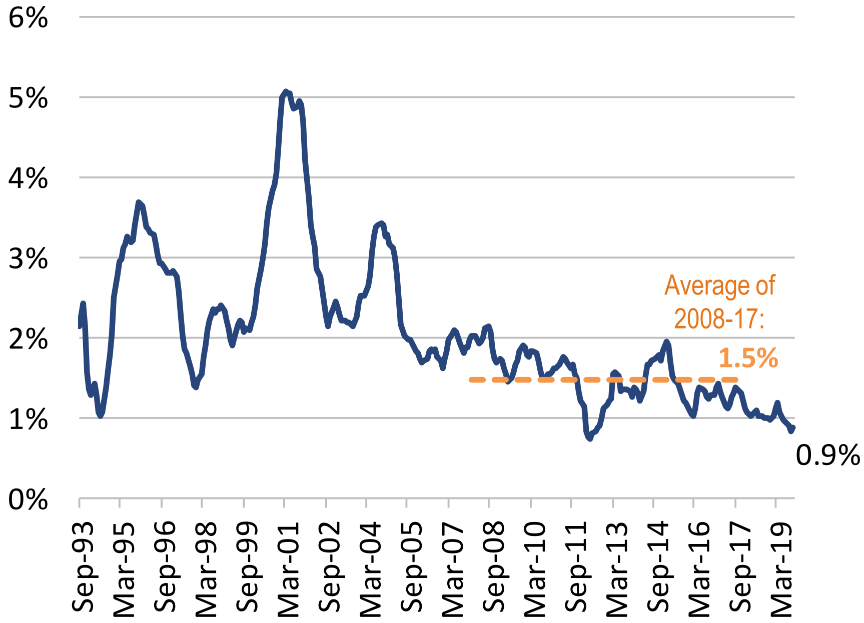
	GDP	Household Consumption	Govt. Consumption	Investments	Exports	Imports	Agriculture	Industry	Services	Taxes
2014	0.5	2.3	0.8	-4.2	-1.6	-2.3	2.8	-1.5	1.0	0.8
2015	-3.5	-3.2	-1.4	-13.9	6.8	-14.2	3.3	-5.8	-2.7	-6.0
2016	-3.3	-3.9	0.2	-12.1	0.9	-10.3	-5.2	-4.6	-2.3	-5.6
2017	1.1	1.4	-0.9	-2.5	5.2	5.0	12.5	-0.5	0.5	1.5
2018	1.1	1.9	0.0	4.1	4.1	8.5	0.1	0.6	1.3	1.4
2019	**1.2**	**1.9**	**-0.5**	**3.4**	**-2.6**	**2.5**	**1.7**	**0.5**	**1.2**	**1.6**
2020	**2.5**	**2.5**	**0.0**	**5.1**	**2.5**	**3.8**	**2.7**	**3.2**	**2.0**	**3.0**

Source: BTG Pactual

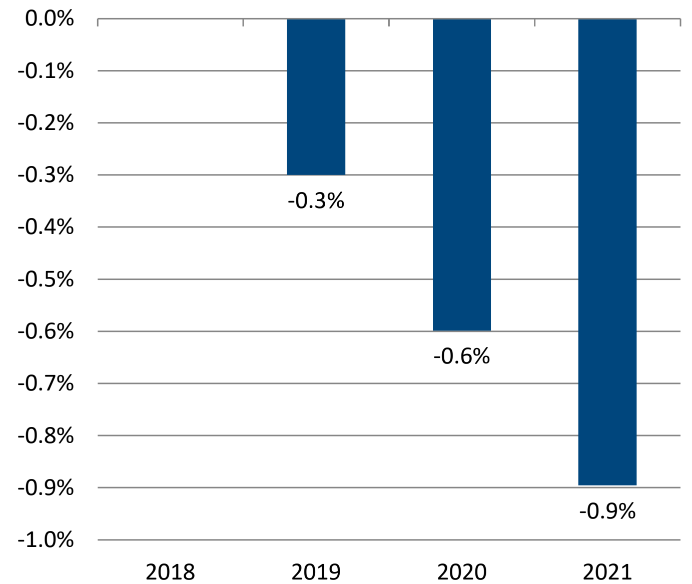
Beware of some structural factors

Population growth has decreased

Working-age population growth y/y



Accumulated impact on potential GDP level (Working-age population growth from 1.5% to 1% y/y / alpha=0.4)



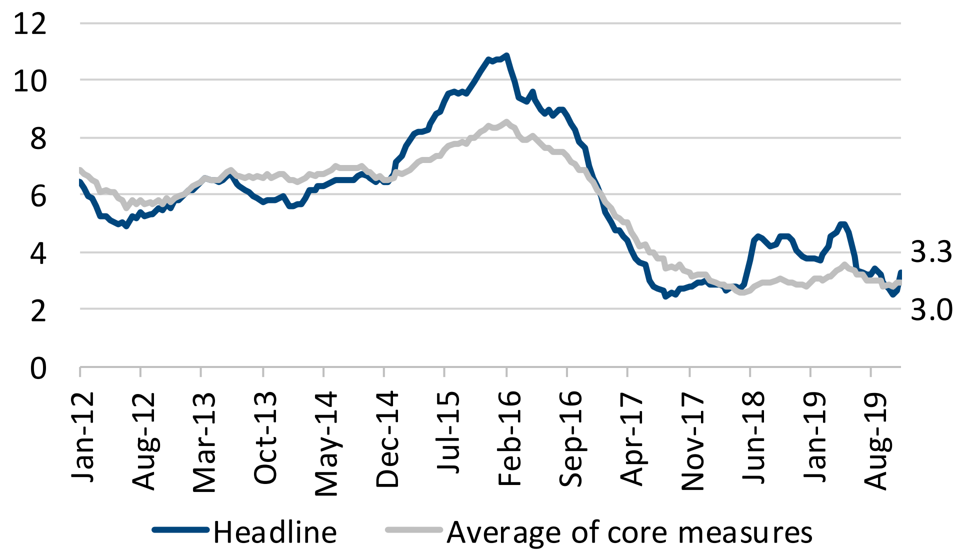
BTG Pactual

Inflation

Benign inflation scenario

- ✓ Sizable slack favors contained inflationary pressures.
- ✓ Most underlying inflation measures keep running at a muted pace.
- ✓ Medium and long-term inflation expectations remain well-anchored, amidst declining inflation targets.
- ✓ Central Bank strong credibility should maintain inflation expectations anchored despite the BRL more volatile environment.
- ✓ Our expectation for the IPCA is ~4.0% for 2019 (target: 4.25%) and ~3.5-3.6% for 2020 (target: 4.0%).

12-month accumulated inflation, %

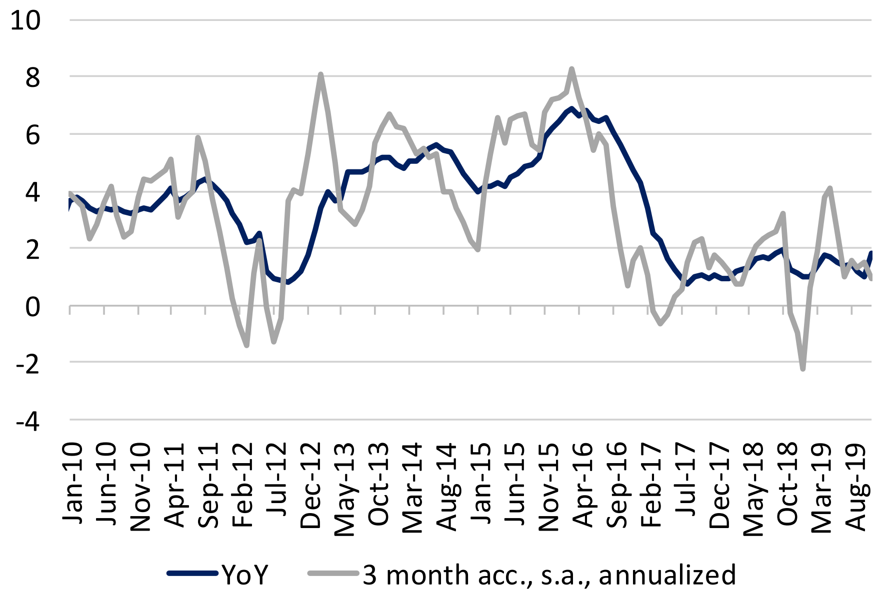


Source: IBGE and BTG Pactual

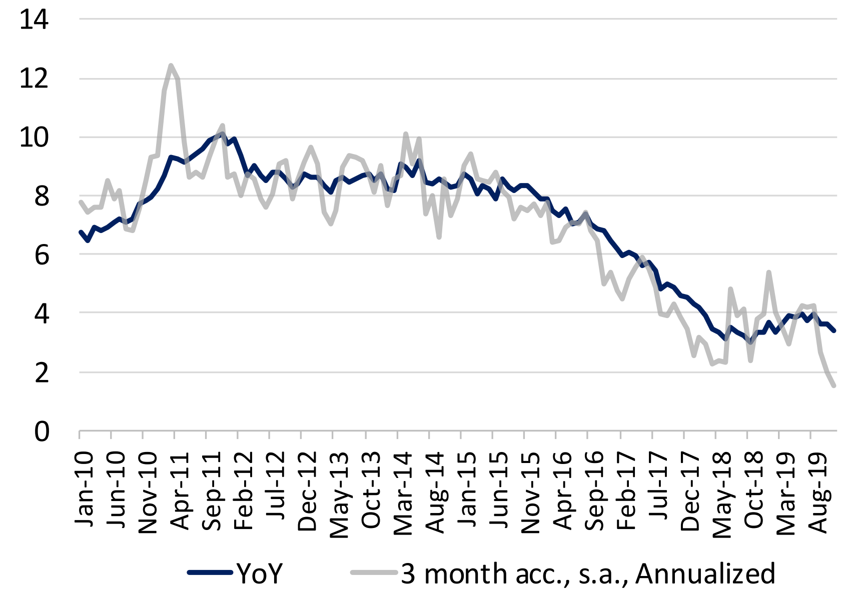
BTG Pactual

Industrial and services inflation at low levels

IPCA inflation, Industrial Goods, %



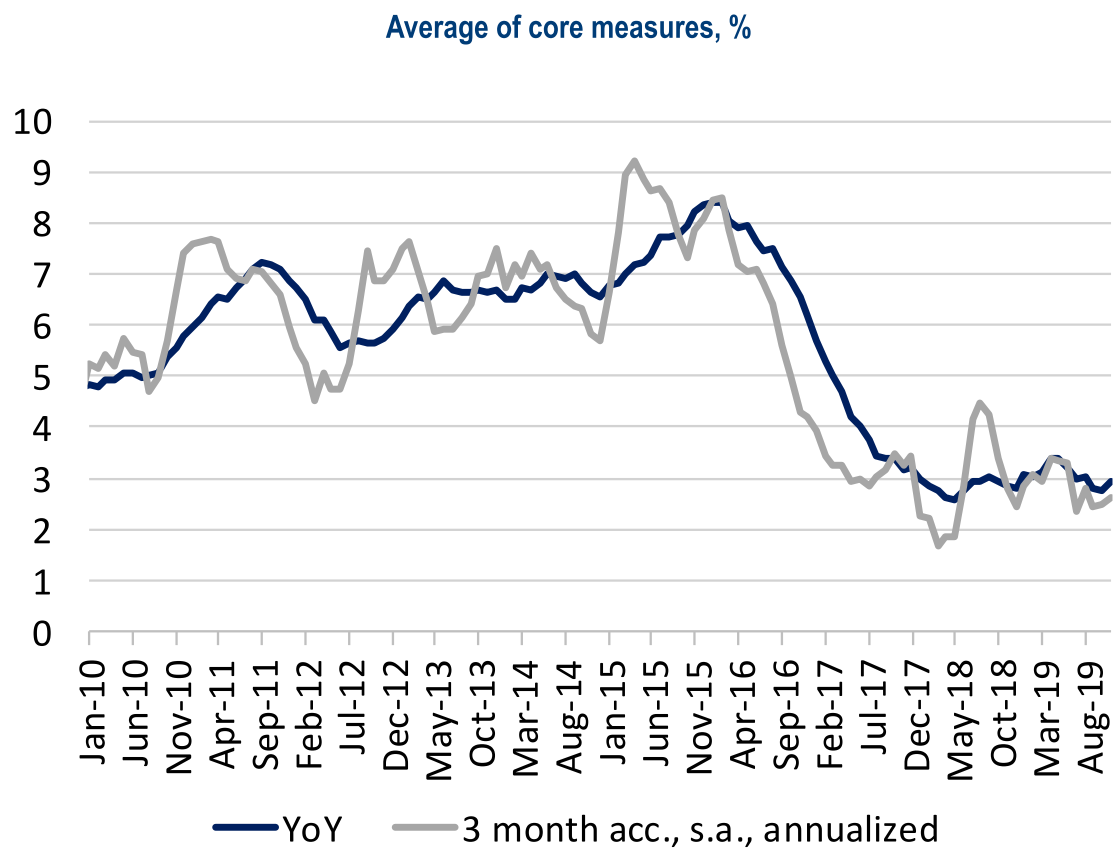
IPCA inflation, Services, %



BTG Pactual

Source: IBGE and BTG Pactual

So, core inflation measures are also contained



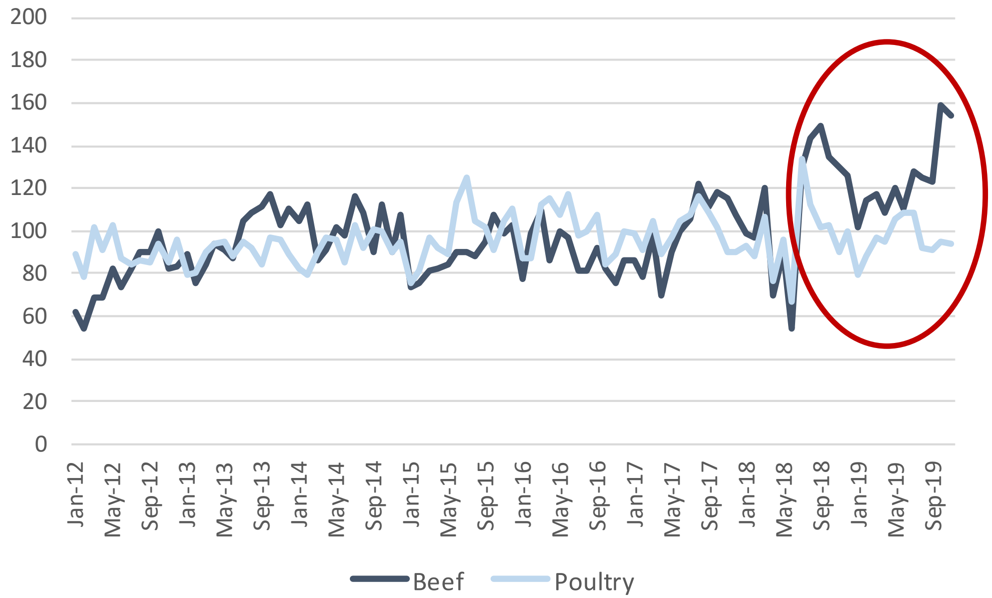
Source: IBGE and BTG Pactual

The bulk of ASF impact in domestic inflation appears to have materialized in 2019

But some residual impact is still expected in 2020

- ✓ Since September, the number of slaughter houses with licenses to export beef to China increased substantially. This has led to a sharp rise in exports (and export prices) since October
- ✓ Coupled with seasonally lower supply and seasonally higher demand, this caused cattle prices to soar to record levels, pushing up consumer prices dramatically
- ✓ While prices may give a little at the start of 2020 as demand falls after the holidays (and high prices will curtail demand), we expect some pressure to remain through 2020
- ✓ Chinese protein imports are expected to peak in 2020. Added to that, the Brazilian herd's internal dynamics suggest a slowdown in slaughtering is highly likely next year, thus reducing supply

Exports (Quantum), index 2017=100



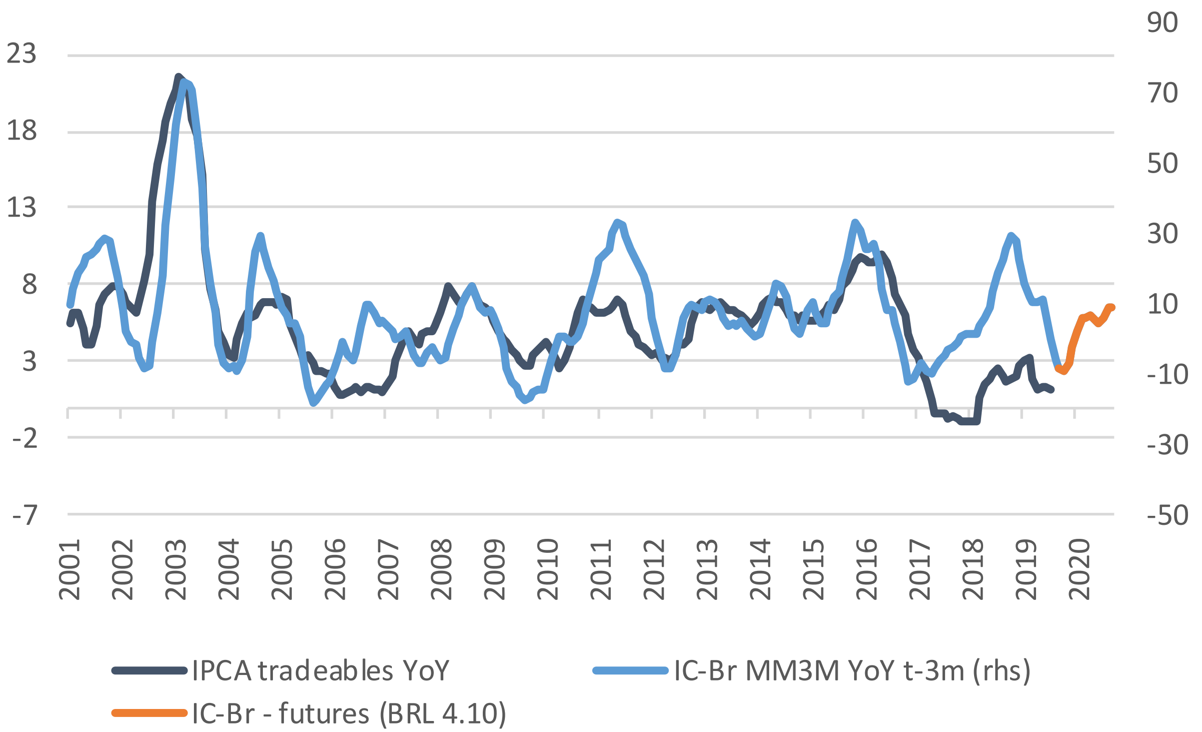
Source: Secex and BTG Pactual

BTG Pactual

Non-core items: Commodity prices' decline offset the weaker 2019 BRL

For 2020, commodity futures indicate a moderate acceleration

Tradeables' inflation (y/y) vs. IC-Br commodities index (y/y)



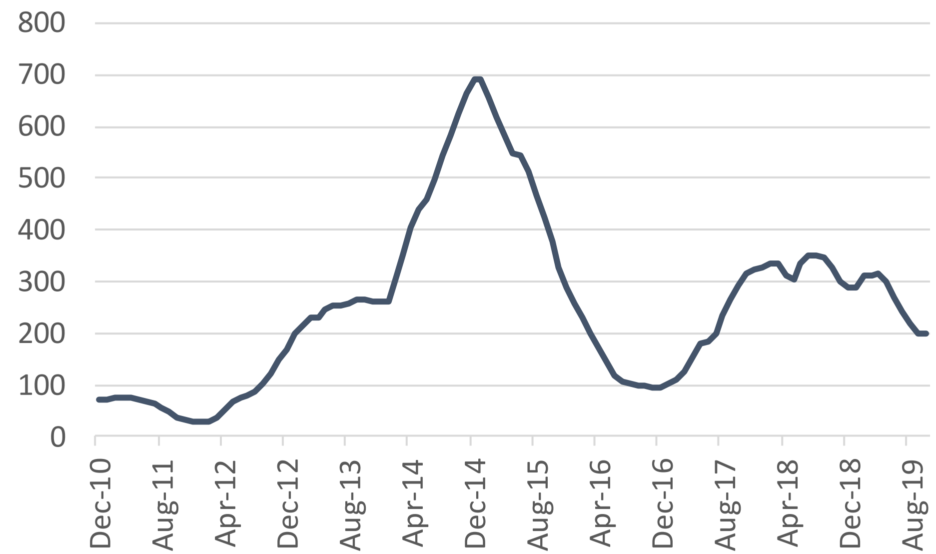
Source: Bloomberg, IBGE and BTG Pactual

Electricity expected to be an important deflationary vector

Costs have fallen for distributors and will lead to lower electricity tariffs

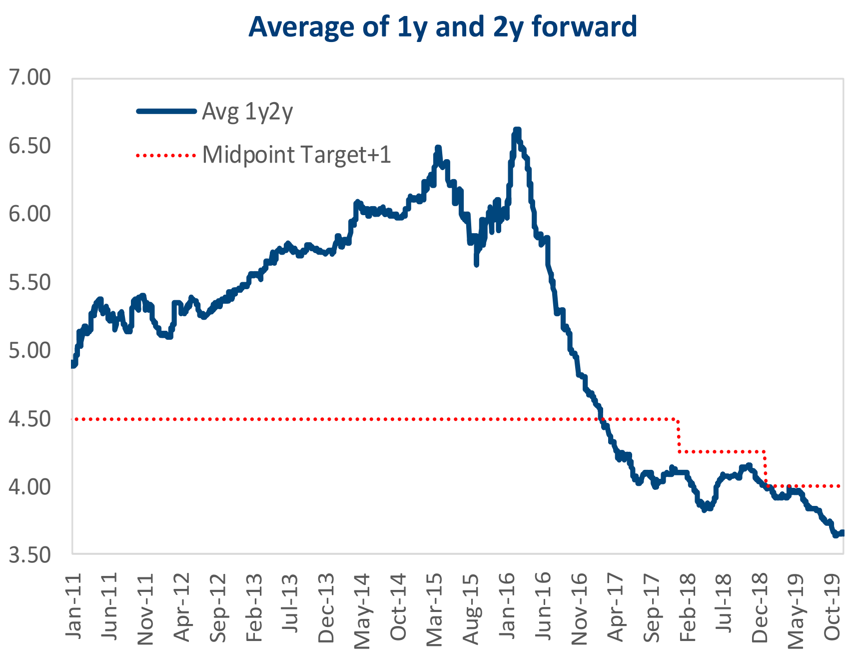
- ✓ Hydrological risk has retreated significantly over the past year. This is the most important factor in for electric energy prices in 2020
- ✓ Early payment (in 2019) of a 2014 loan made by regulators with private banks to rescue failing energy distributors will reduce debt servicing, thus lowering tariffs in 2020 (This effect has already started in 2H19)
- ✓ Average price of contracted (non-spot) energy expected to fall in 2020 for some distributors, as contracts negotiated in 2014 (during the hydrologic crisis) are expiring.
- ✓ Assuming constant electricity lags in December, we expect electricity deflation of -0.8% y/y (vs 5.5% y/y in 2019)

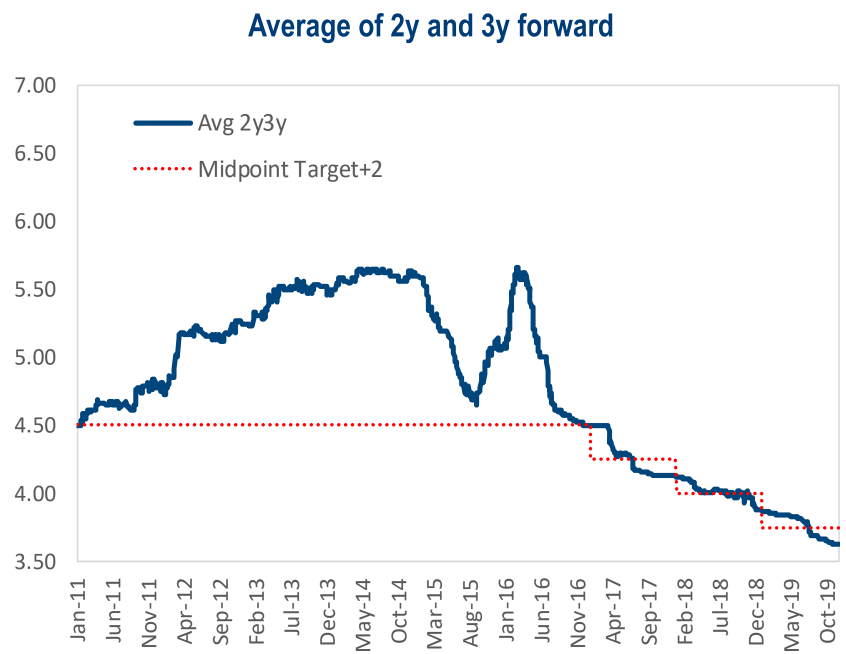
Energy spot price, Southeast, 12 months moving average



Source: IBGE and BTG Pactual

Inflation expectations remain very well anchored



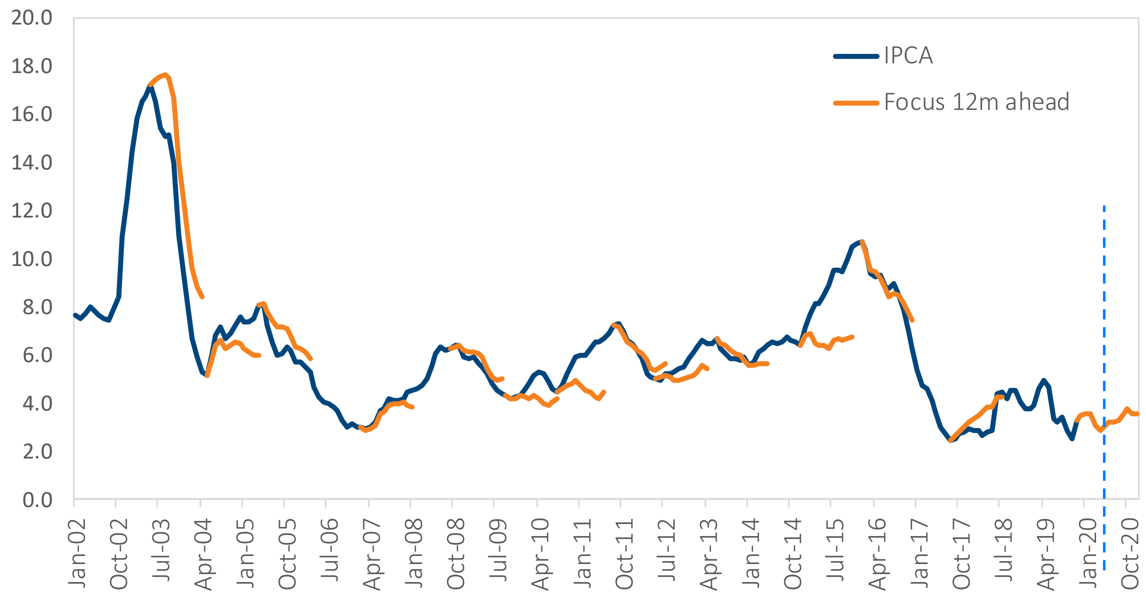


Source: Central Bank Focus Survey and BTG Pactual

12-month accumulated IPCA and Focus - Expectations

Inflection points?

Headline inflation Inflection point vs 12-month ahead Focus Forecasts



	IPCA	Non-Monitored	Food at home	Industrials	Services	Monitored
2018	3.7	2.9	4.5	1.1	3.4	6.2
2019F	4.0	3.5	6.4	1.8	3.3	5.2
2020F	3.5	3.5	6.2	1.6	3.9	3.0

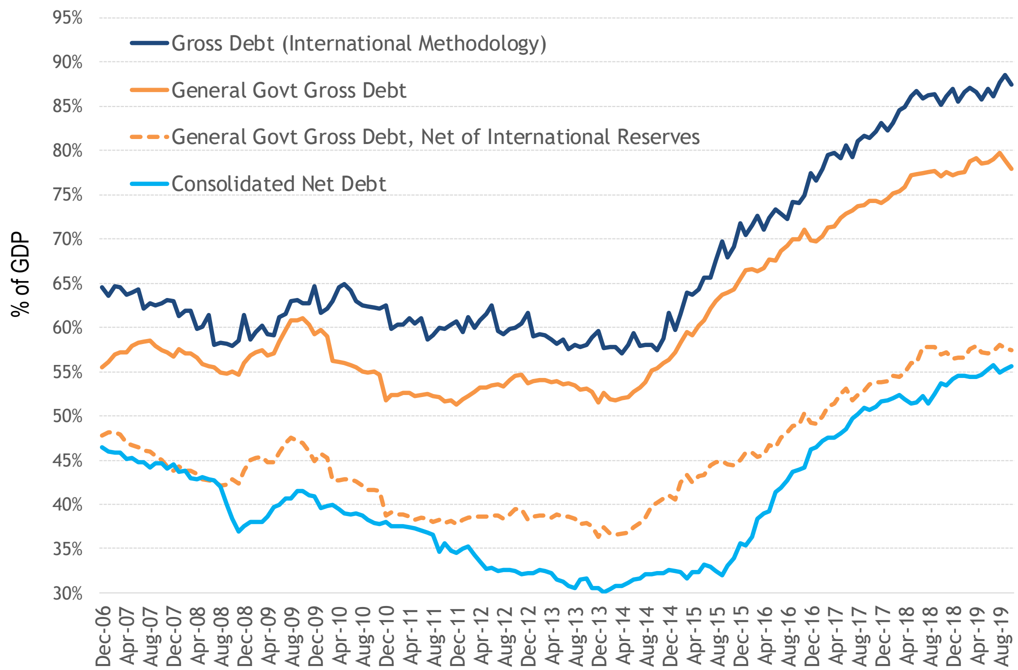
Source: Central Bank Focus Survey and BTG Pactual

Fiscal Accounts

Consolidated Public Sector Accounts: Indebtedness

Significant rise of public indebtedness in recent years

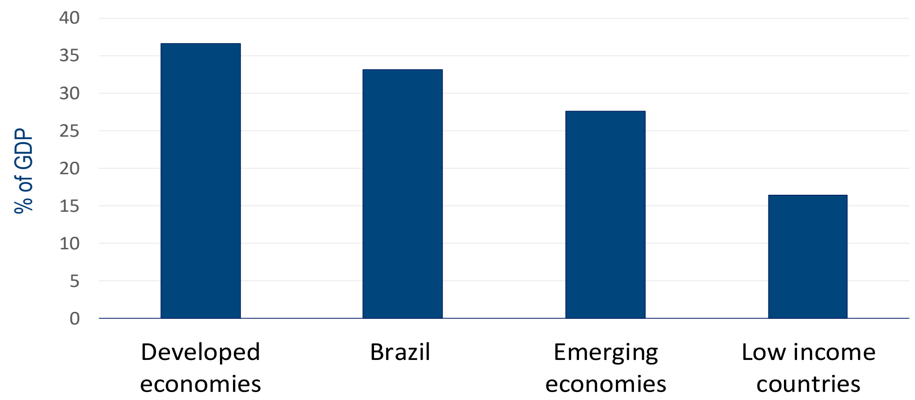
- Huge amount of capitalization in government entities, like BNDES and Caixa, helped to deteriorate indebtedness
- From 2007 to 2015, more than R$550bn were funded by National Treasury to finance government owned companies.
- Thanks to BNDES anticipated repayments, net debt dynamic was less negative at the margin
- Even when not considering international reserves, public debt in Brazil is close to 60% of GDP, higher than emerging market peers (51%, on average)



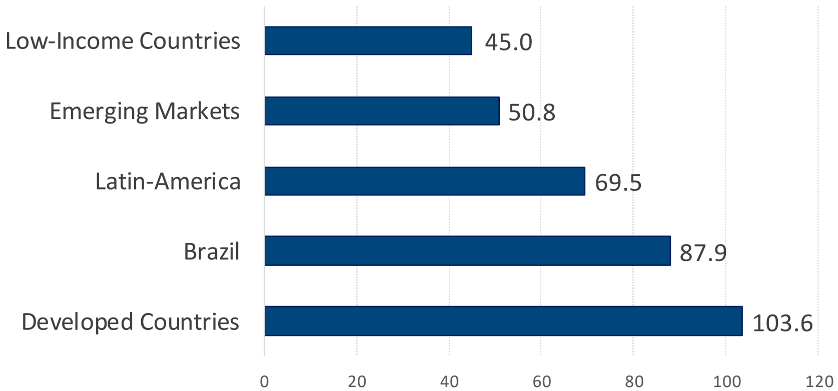
Source: Treasury and BTG Pactual

High debt and high tax burden

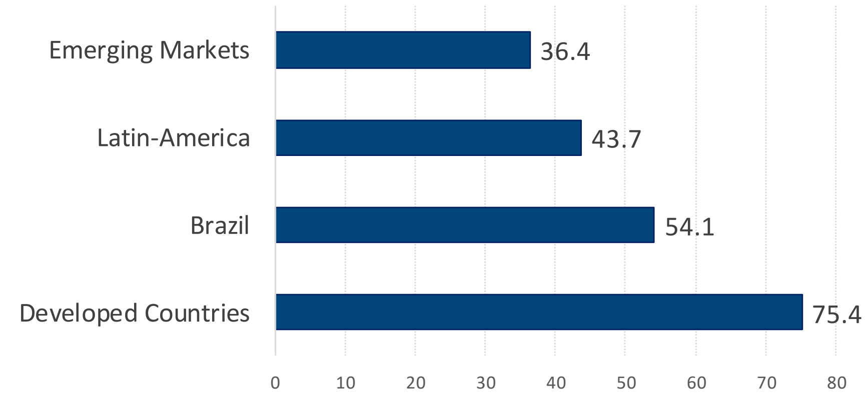
Tax Burden (% of GDP) – IMF 2015



Gross Debt (% of GDP) – IMF Fiscal Monitor



Net Debt (% of GDP) – IMF Fiscal Monitor

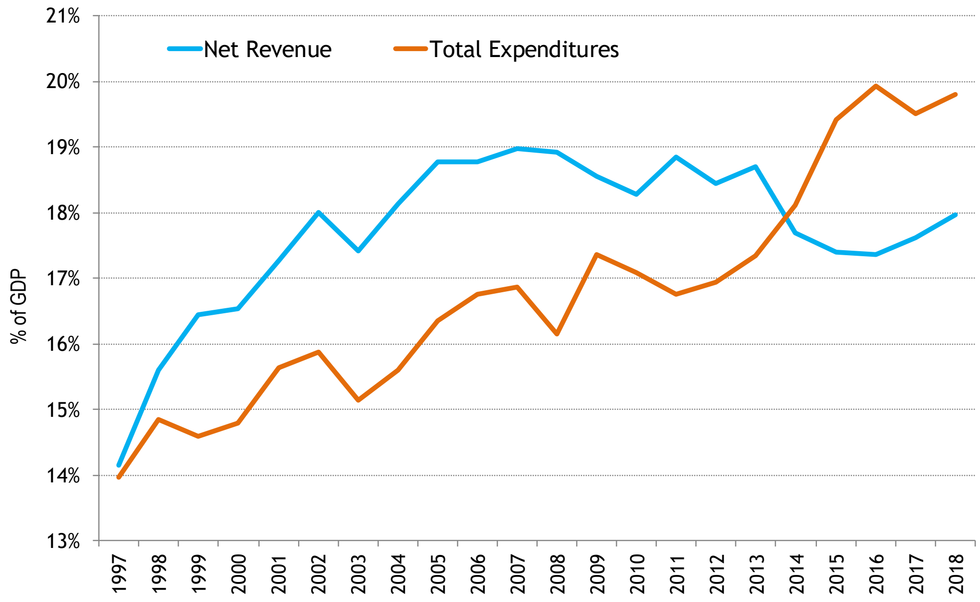


BTG Pactual

Public Sector - Central Government Primary Accounts

On average, expenditues grow above GDP and structurally pressures the fiscal side

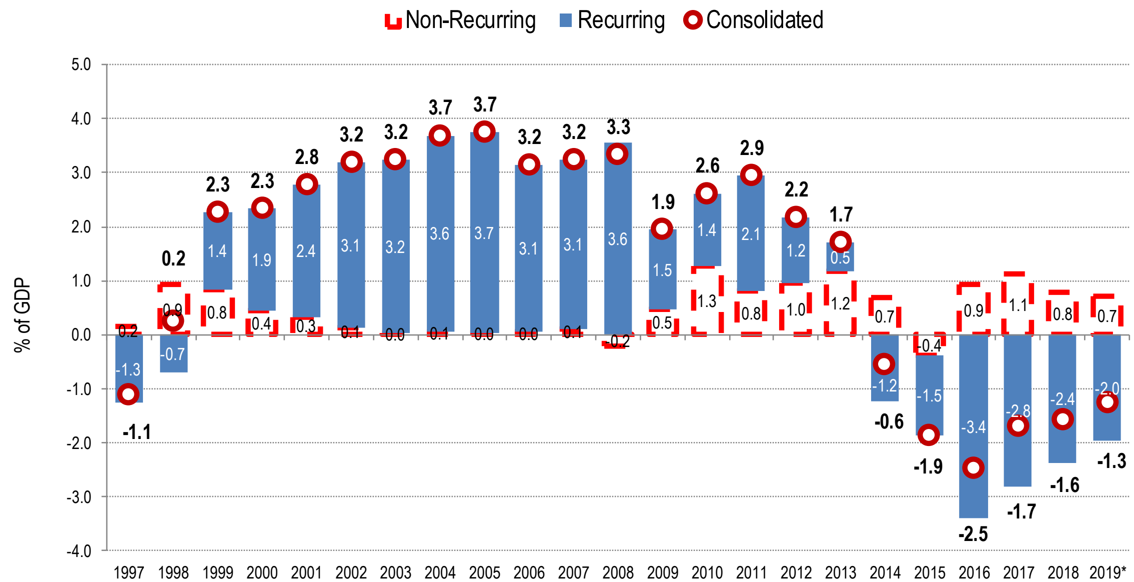
- From 1998 to 2018, on average, the real growth rate of non-financial expenditure was 5.2% y/y
- Main anchor for spending growth, RGPS pension increased 6.2% y/y, on average, from 1998 to 2018
- Other social expenditures such as salary bonuses and unemployment insurance, linked to the minimum wage and inflation, experienced a remarkable expansion of 6.7% y/y in the same period.
- Granting real adjustments to the minimum wage (price effect) above the average labor market wage has contributed to the expansion of the potential beneficiaries (quantity effect) of social policies, such as the salary bonuses.



Primary Result from Consolidated Public Sector

After significant deficit in 2016, fiscal consolidation advance gradually

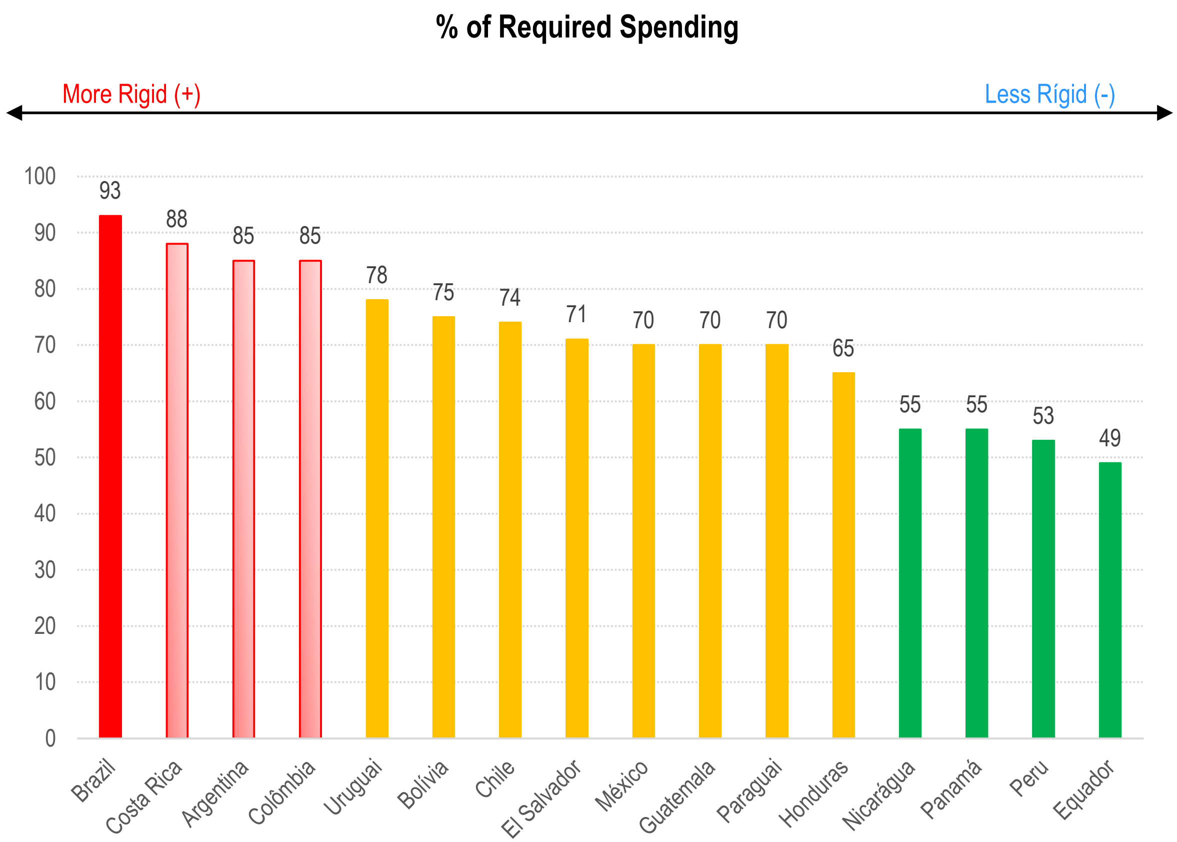
- Extraordinary revenues made a significant contribution in reversing deficit into surplus in the late 1990s
- For 7 years, from 2002 to 2008, the average primary surplus was 3.3% of GDP, strongly supported by recurring results.
- From 2009 to 2014, anticipated dividends and "Refis" contributed to minimize the sharp decline in the fiscal balance.
- In 2015, the "fiscal pedaling" was paid in the amount of R$55.6 billion or 0.9% of GDP.
- As of 2016, revenues from repatriation of capital, "Refis" and Concessions and Grants sustained the fiscal results.



*12 month accumulated - September

Budget Rigidity

Brazil has the highest rigidity of public spending among LatAm countries



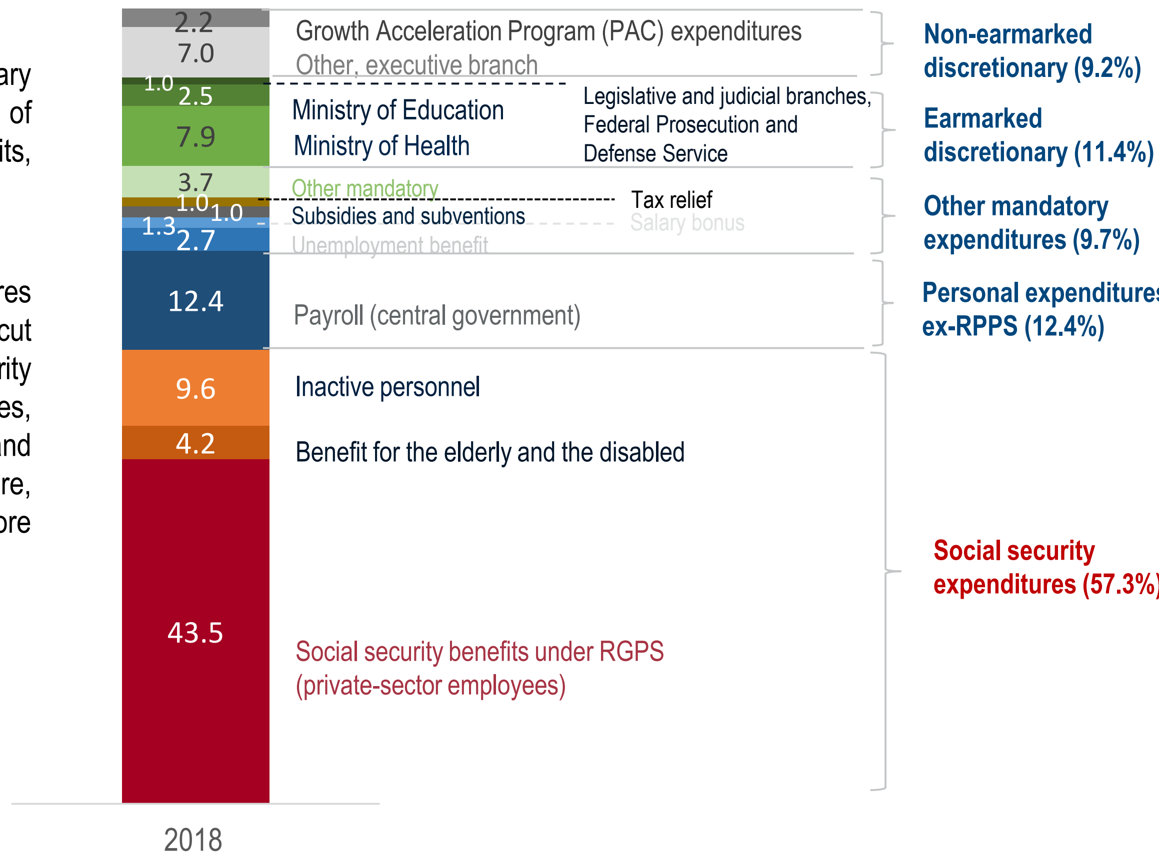
BTG Pactual

Budget Rigidity

- Social security accounts for 57% of primary expenditures. With the high level of growth of expenses with the social security benefits, other expenditures have to be cut.

- However, only ~9% of primary expenditures (non-earmarked discretionary) can be cut without changes in the law. Social security expenditures, other personal expenditures, other mandatory expenditures, and discretionary expenditures for healthcare, education and other areas, account for more than 90% of the total.

Primary expenditures (% of total)



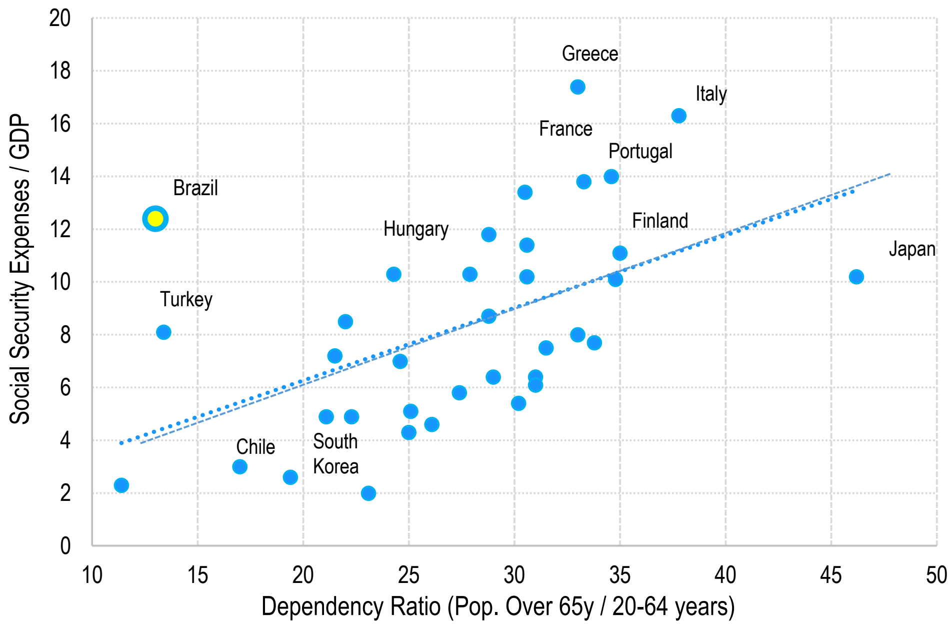
[1] Establishes that the primary expenditures cannot increase in real terms.

Source: STN, BTG Pactual

Demography and Pension

Although still young, Brazil is outlier in social security spending

- Taking into account all pension systems (public and private) of the 3 spheres of government, spending represents 13% of GDP.
- Brazil still has a low dependency ratio (elderly/working-age youth), despite high spending
- Social security reform only stabilizes spending as a proportion of GDP, only for the federal level
- Social security imbalance in states and municipalities is severe, particularly in the South/Southeast region (+elderly)
- Lack of reform in S&M is a substantial contingent fiscal risk for the Union

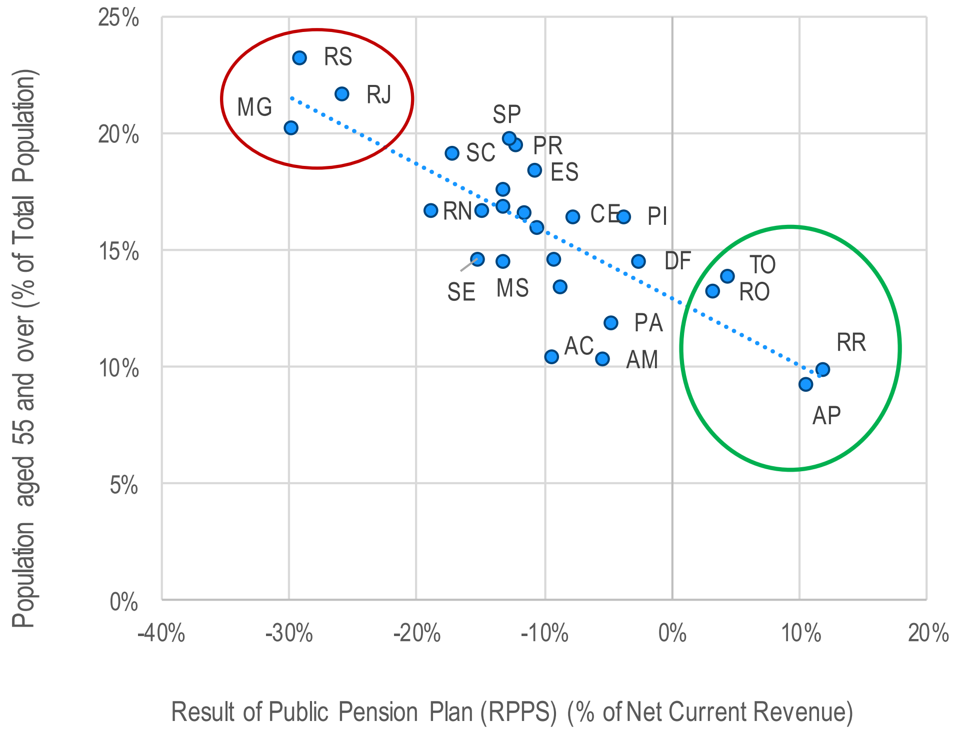


BTG Pactual

Demography and Pension

Lack of reform in E&M is a risk to be monitored

- Relationship between social security deficit size and demographics in states is almost 1:1
- Traditionally older states (such as RS, RS, MG) have a larger social security deficit as a reason for their respective revenues. Only a few very young states (such as RR, RO, TO and AP) registered a social security surplus in 2017.
- The number of states with intermediate social security deficits is large, so that the absence of reform will inevitably explain the size of the social security fiscal imbalance.
- Trade-off between aging speed and transition rules gains relevance given nearly 70% of special retirements



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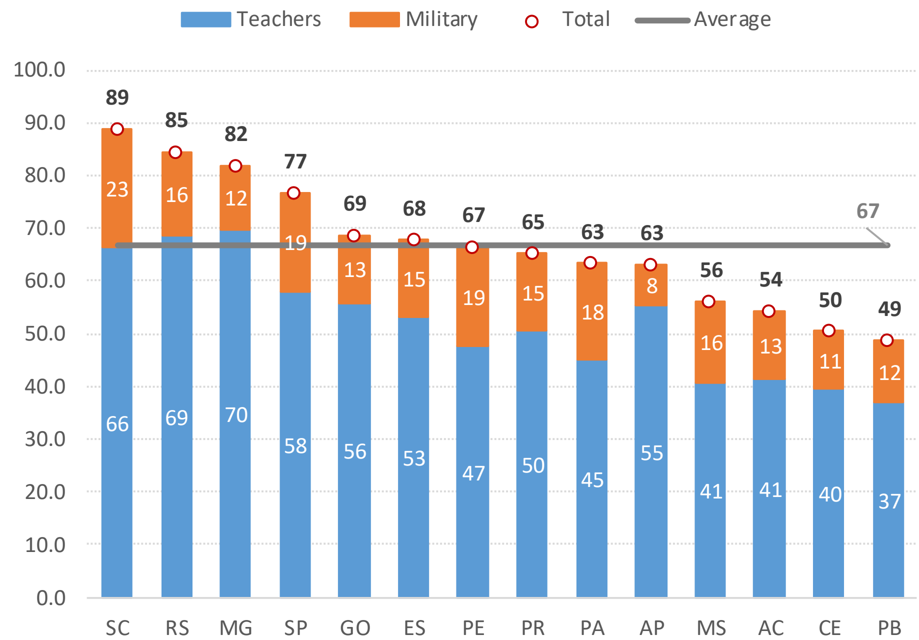
Share of Special Retirements in Total Inactive (%)

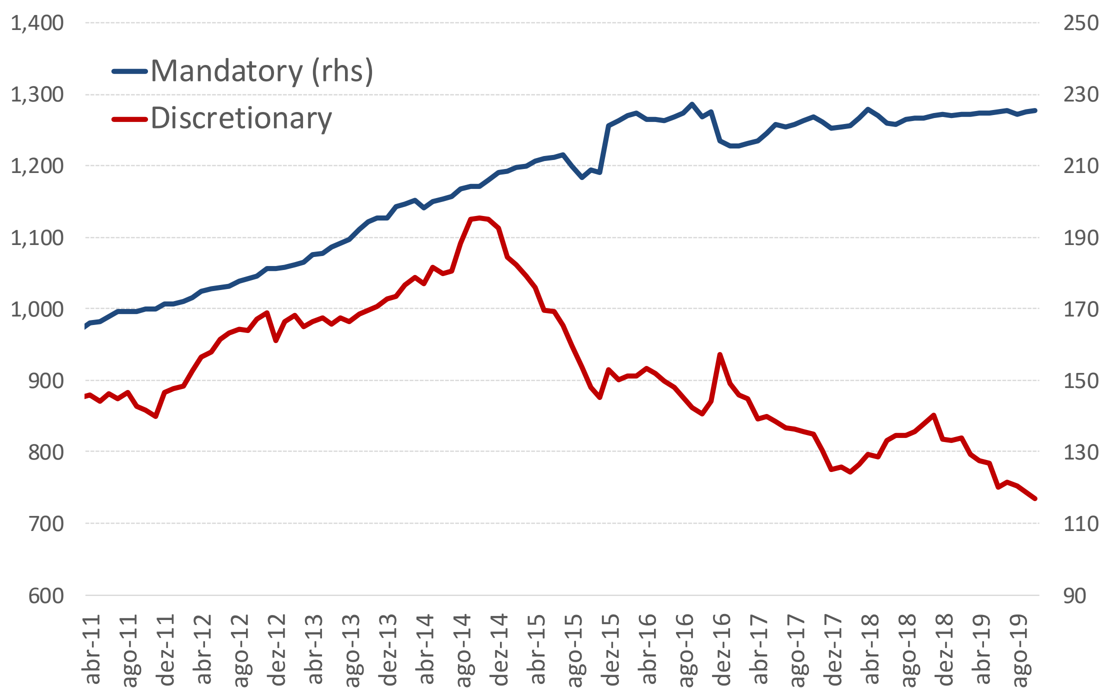


Short Term Fiscal Scenario

Short-term adjustment focuses on discretionary spending

Pure discretionary is the most appropriate proxy for assessing the degree of freedom of fiscal policy enforcement in the short term. There are, however, important restrictions to its reduction.

Evolution of Federal Expenditure (Accum. 12 months, R$ billion)

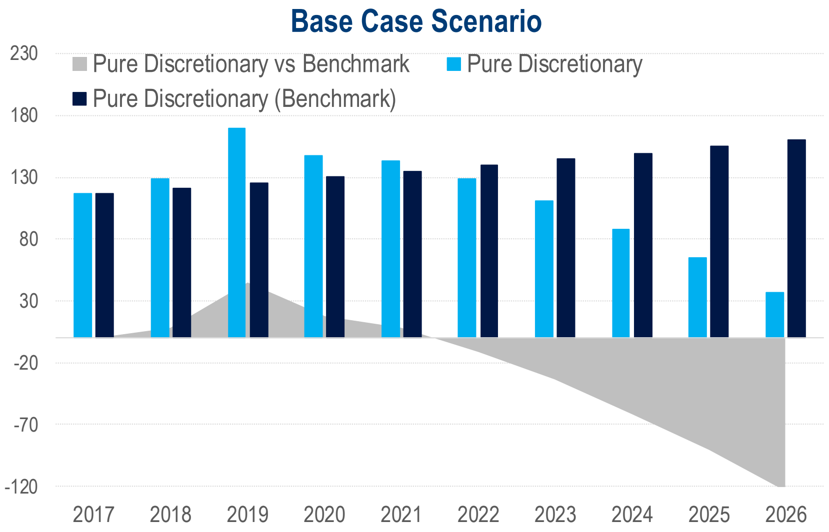


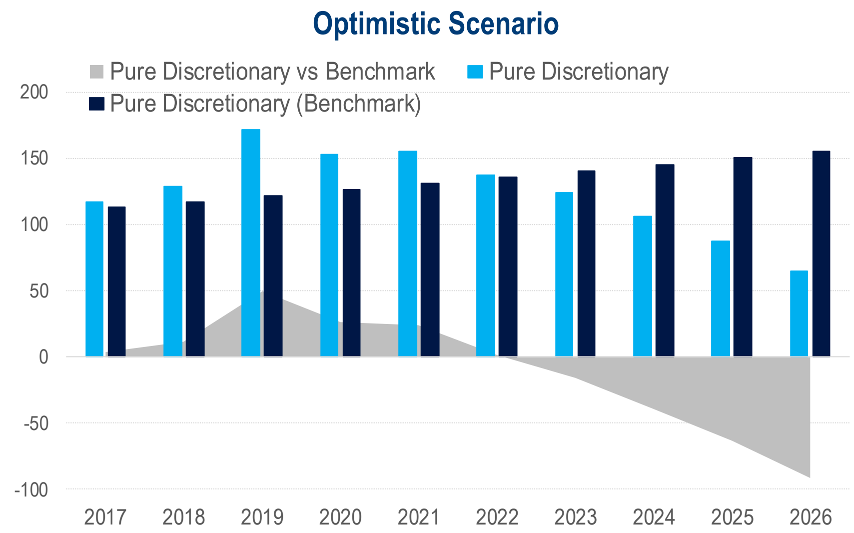
Outlook for discretionary spending

How long can the spending ceiling be met and what is the gap until 2026?

✓ In the Base Scenario, to meet the spending ceiling by 2026, the cumulative gap is ~R$300bn for discretionary spending in 2022.
  - Minimum wage with real gain of 0.5% y/y from 2023
  - Personnel growth rate of 0.5% y/y since 2020

✓ In the Optimistic Scenario, the accumulated gap is ~R$200bn and would occur in the following year (2023).
  - Minimum wage with no real gain since 2020
  - No staff growth since 2020, only inflation correction

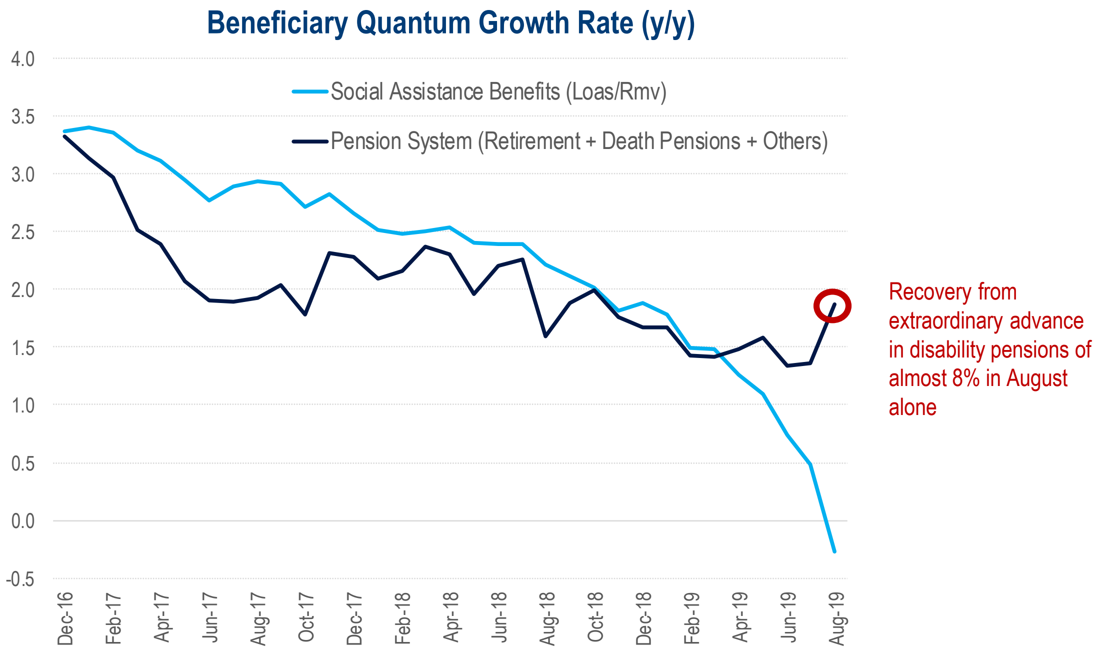




Social Security and Assistance Expenditures

Even without reform, data indicate a substantial decline

- There is a remarkable decrease in the vegetative growth rate of social security and welfare benefits.
- RGPS benefits have systematically declined since 2016 from ~3.5% to less than 2%
- BPC registers extraordinary decline and registers negative growth rate of benefits issued for payment, from ~3.5% in 2016 to -0.3% in August/19



Fiscal Timing and Structural Reforms

Approval of structural fiscal agenda anchors feasibility of spending ceiling

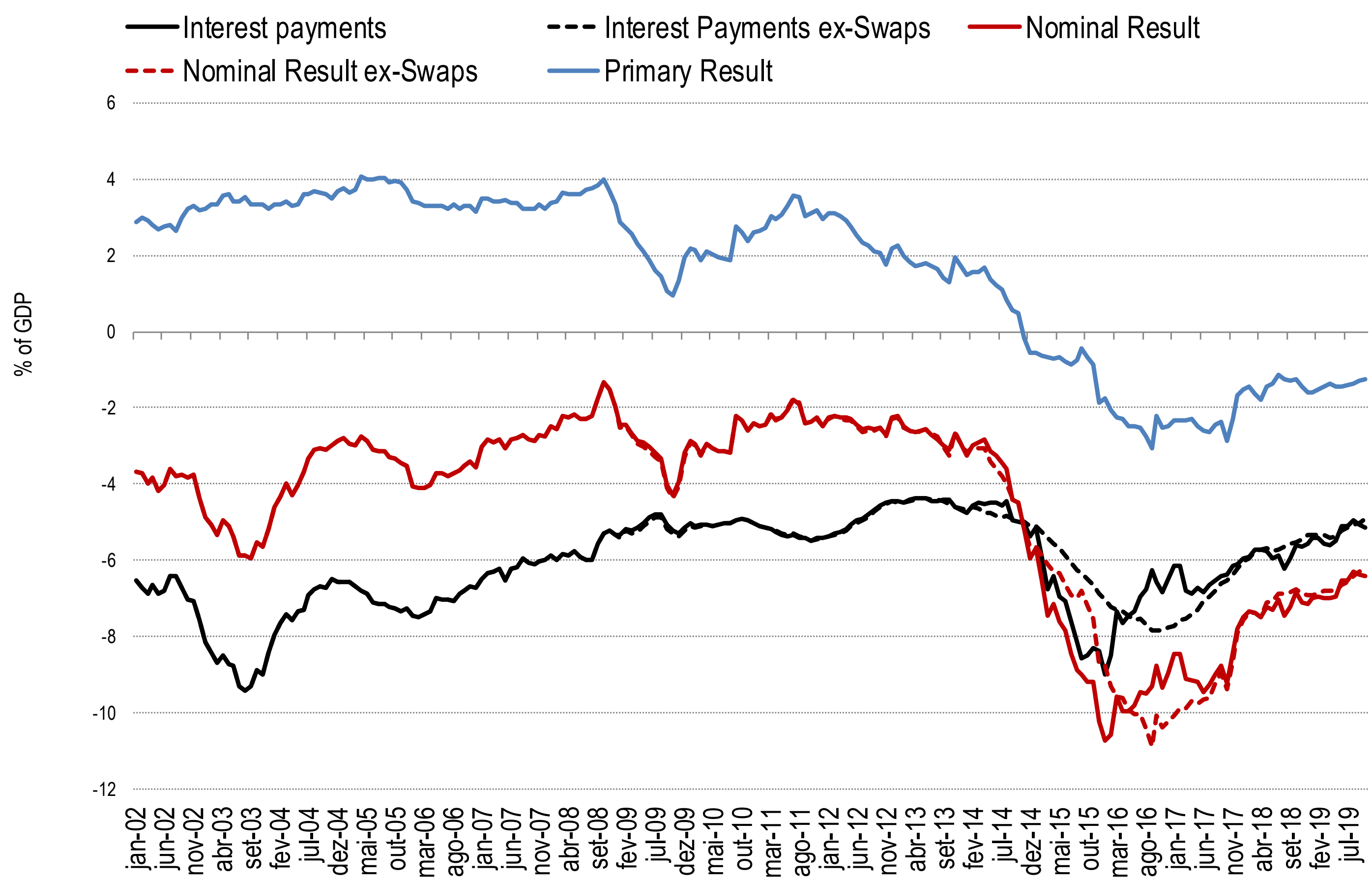
- Of the 3 PECs recently sent to the Senate, Emergency PEC is a priority for the fiscal over the medium term.
- The PEC of the Federative Pact is important for states and municipalities, but requires caution when decentralizing resources
- "State HR"
  - Taking 2016 data from 1.2 million public servants, just over 540,000 were active
  - Civil servants eligible for retirement by 2026 make up nearly half of the workforce
  - There is a unique window of opportunity to restructure public service positions and salaries

Public Agencies	Until 2016	2017/18	2019/20	2021/22	2023/24	2025/26	2016/26
Federal Higher Education Institutions	39,757	10,632	11,893	10,426	10,664	10,336	**93,708**
Ministries of Health, Labor, Social Security and INSS	42,240	7,023	6,775	5,195	4,502	3,268	**69,003**
Ministries of Finance and Planning	9,717	2,081	2,172	1,999	1,784	1,570	**19,323**
Federal Police and Federal Highway Police	3,154	1,409	1,434	1,300	2,407	2,354	**12,058**
Advocacy and Comptroller General and Public Defense	1,386	358	411	408	421	410	**3,394**
Regulatory agencies	917	196	207	180	204	260	**1,964**
Military Commands	6,879	1,342	1,570	1,199	935	857	**12,782**
Other Ministries and Presidency of the Republic	8,320	1,325	1,174	938	742	622	**13,121**
Other autarchies and foundations	17,063	3,509	3,249	2,462	1,775	1,377	**29,435**
Former federal territories	7,760	1,294	1,383	814	685	701	**12,637**
Total	**137,193**	**29,169**	**30,268**	**24,921**	**24,119**	**21,755**	**267,425**
% of Potential Retirements	**25.2**	**5.4**	**5.6**	**4.6**	**4.4**	**4.0**	**49.2**

BTG Pactual

Public Sector Borrowing Requirements

After surpassing 8% in 2015, net nominal interest fell to ~5% of GDP

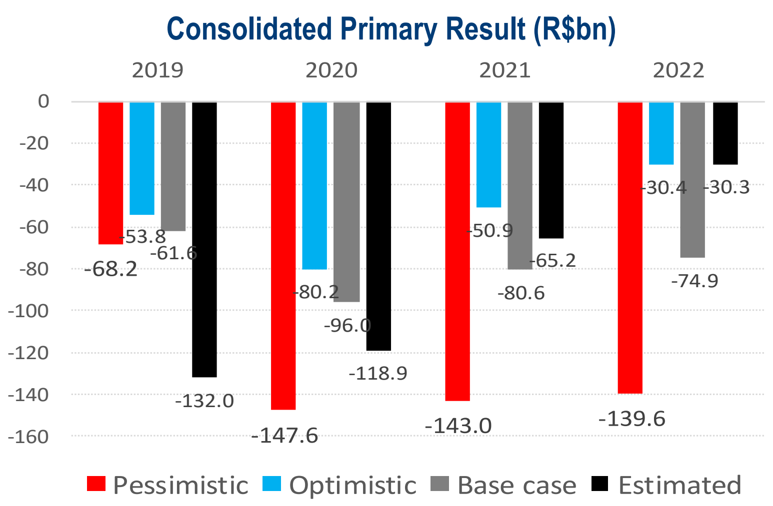


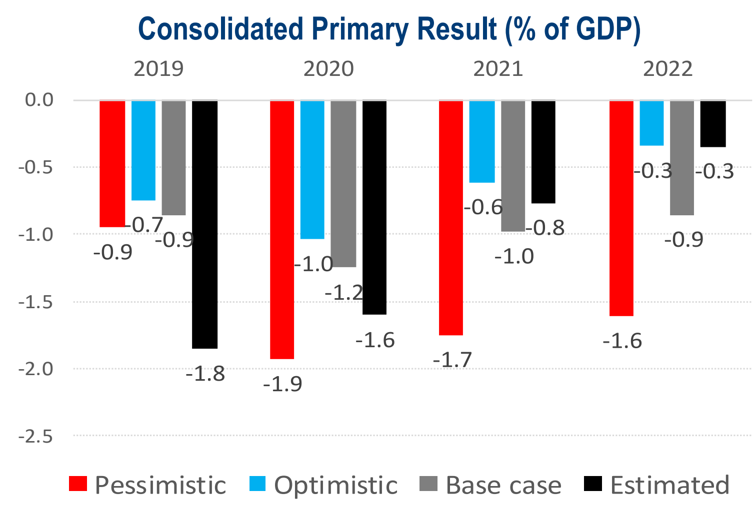
BTG Pactual

Scenarios for Primary Outcome

In the optimistic scenario, consolidated result target is met by 2022

- Expected Gross Revenue from transfer of rights is R$107bi, with automatic payment of R$35bi to Petrobras
- In 2019 and 2020, net revenue (from payments to Petrobras and the states and municipalities) from the assignment will be R$24bn each year.
- For 2019, net collection of R$24bi will enter the Treasury single account at the end of Dec/19 and will be fully reversed to reduce the primary deficit.
- By 2019, automatic transfer to 27 states and more than 5,500 municipalities from R$12bi will improve primary S&M result
- Non-linearity of GDP-revenue during the closing of the gap can lead to better recurring revenue performance, as well as surprises around extraordinary events (such as the Legal Taxpayer PM)





External Sector

Significant Revisions in the Balance of Payments data

Current Account Deficit
(accum. 12-month, % of GDP)

Foreign Direct Investment
(accum. 12-month, % of GDP)

*Old: up to June 2019
* After first revision: up to September 2019
* After second revision: up to October 2019

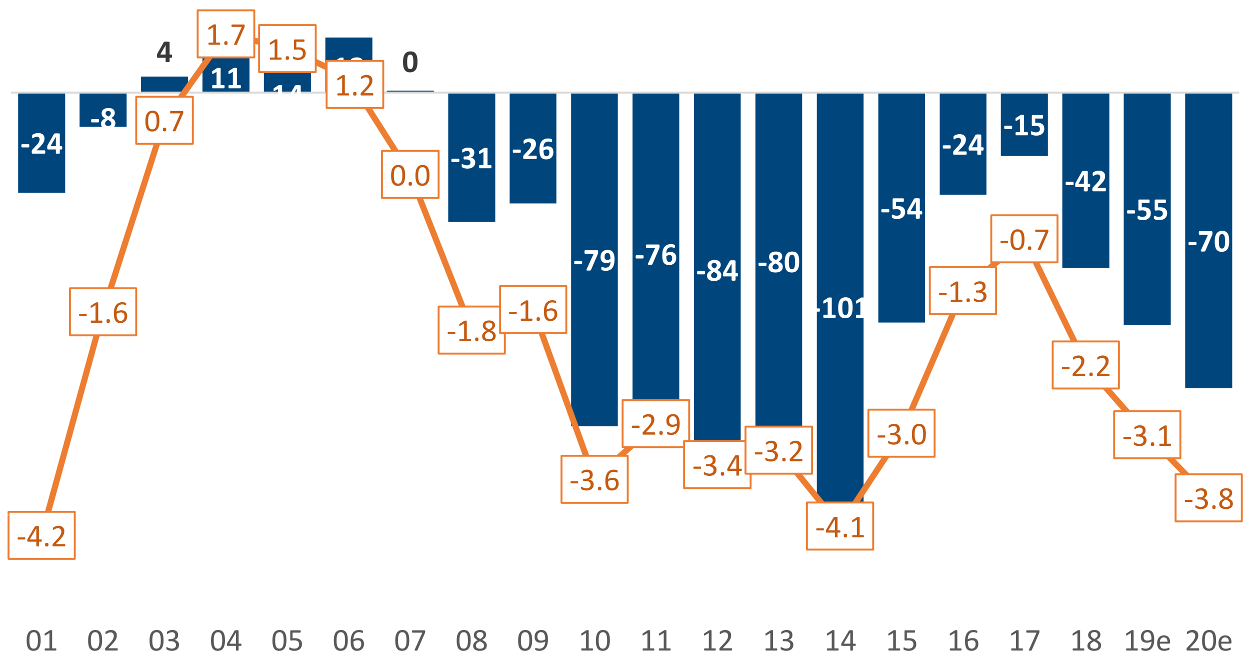
Old — After first revision — After second revision

Source: Brazil's Central Bank, BTG Pactual

Increase in the current account deficit in 2019-2020

The current account deficit will increase to 3.0% of GDP in 2019 and to 3.8% of GDP in 2020, from 2.2% of GDP in 2018. The decline in the trade balance will be the main driver of the reduction in the current account deficit in the year.

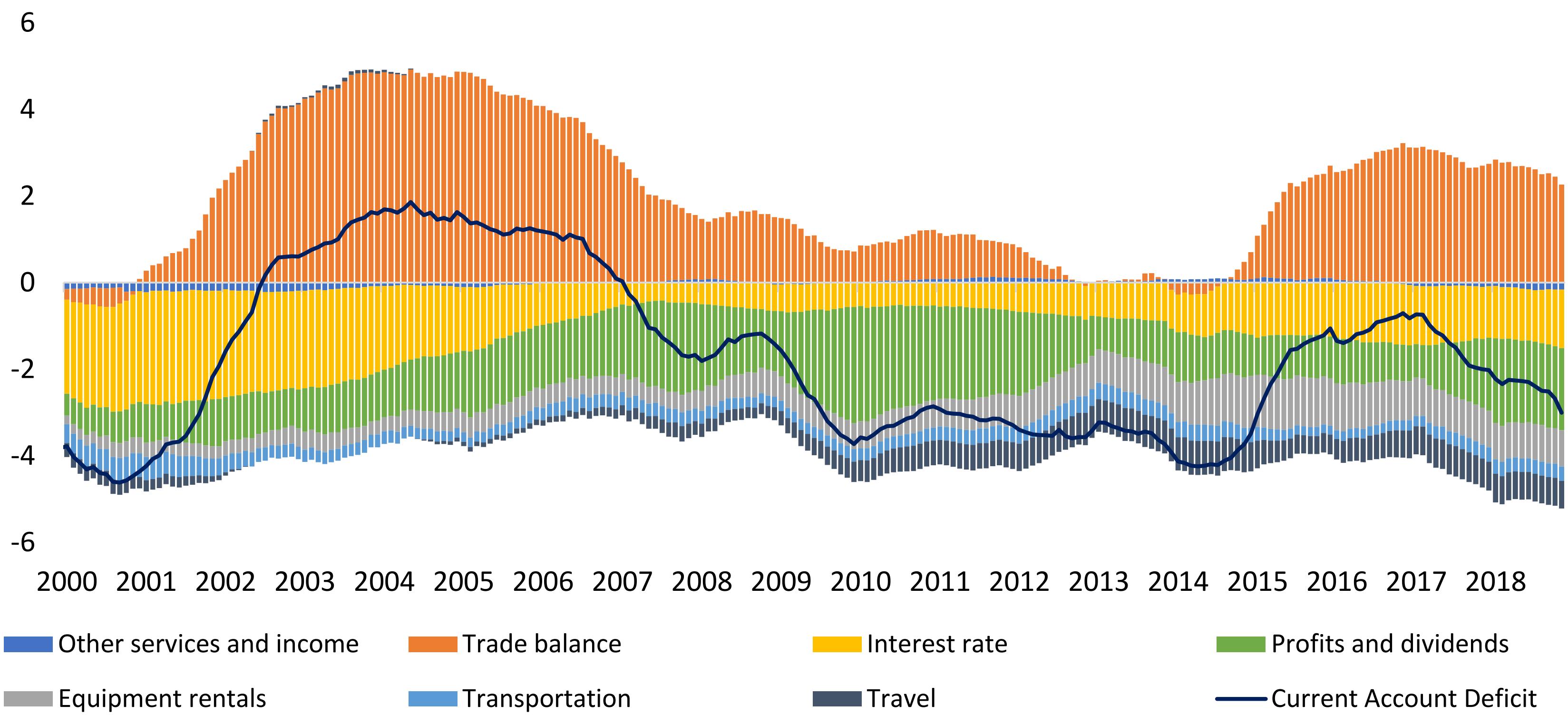
Current account balance 12-month accumulated
(left axis: US$bn; right axis: % of GDP)



Source: Brazil's Central Bank, BTG Pactual

Lower trade balance explained the higher current account deficit in 2019

Breakdown of current account balance 12-month accumulated (% of GDP)

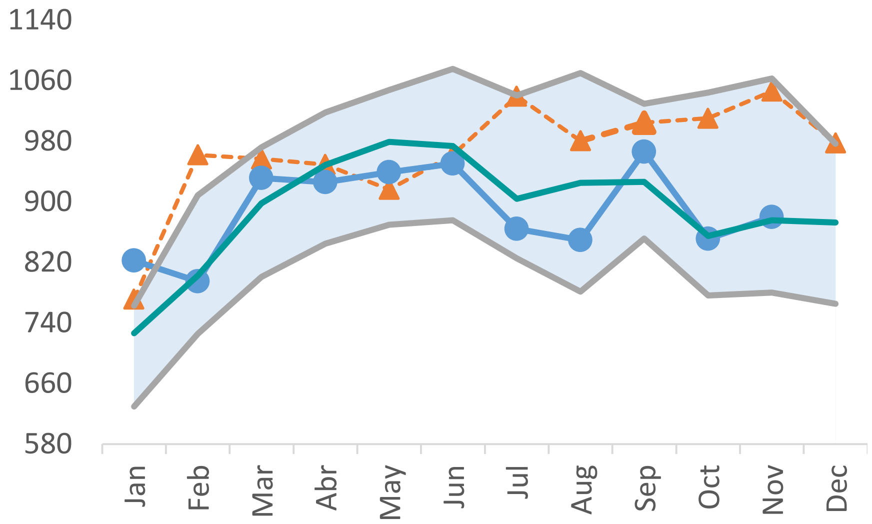


Source: Central Bank of Brazil and BTG Pactual

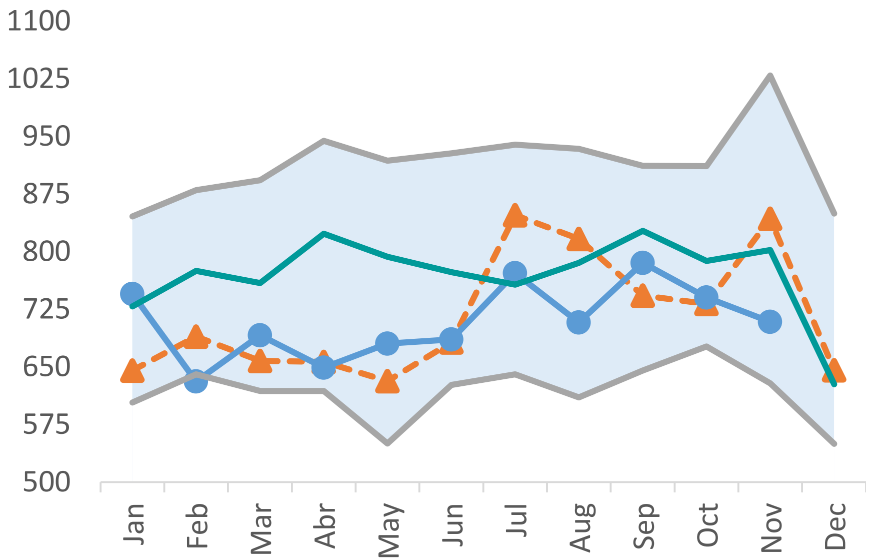
Weakening trade surplus is also at play

Due to weaker exports

Exports (US$bn, daily average, statistics refer to 2011-2018 period)



Imports (US$bn, daily average, statistics refer to 2011-2018 period

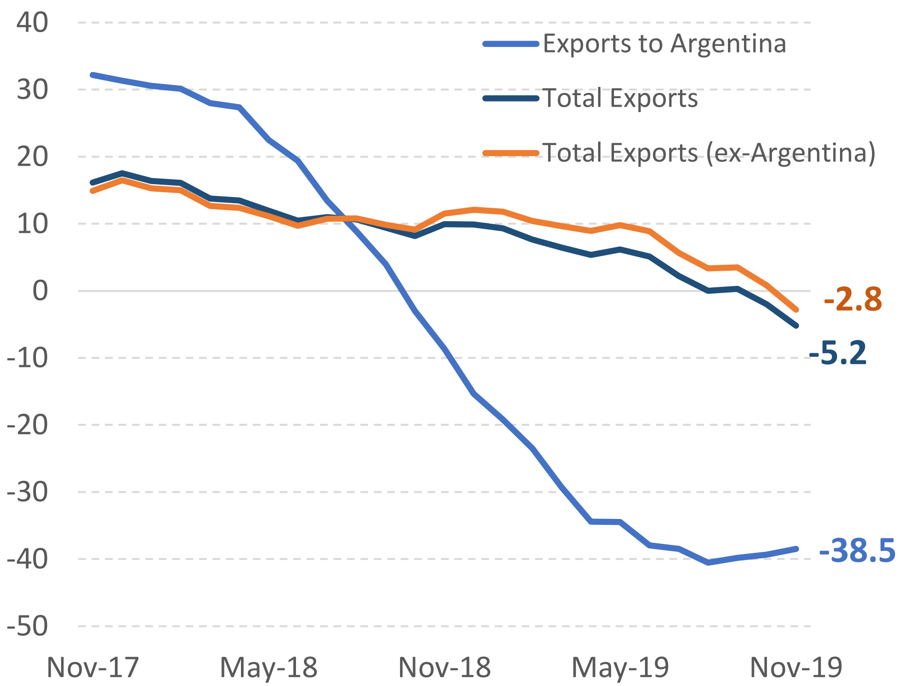


Source: Brazil's Central Bank, BTG Pactual

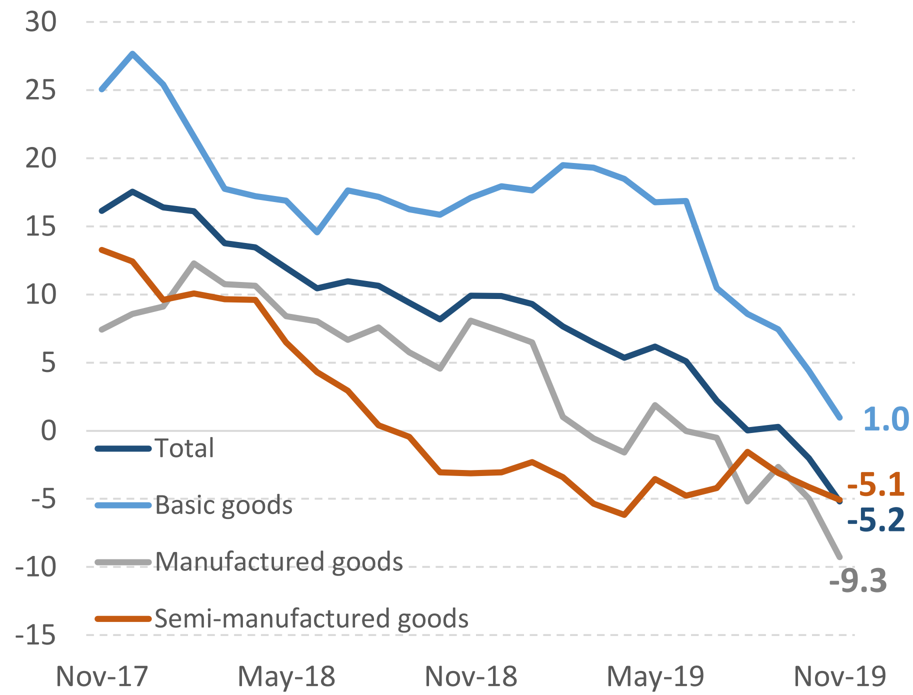
Weakening trade surplus

Regional and global drivers

Brazil Exports - Value
(%yoy, accum. 12-month)



Brazil Exports – Value per Segment
(%yoy, accum. 12-month)



Source: Brazil's Central Bank, BTG Pactual

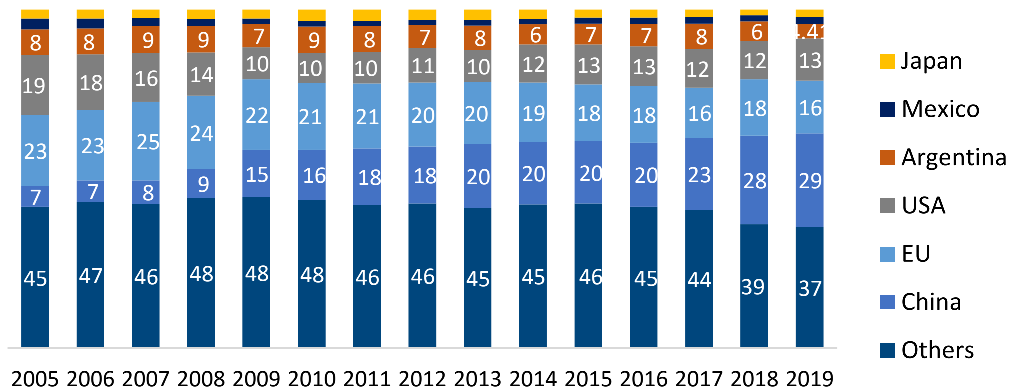
Recession in Argentina continue to hurt Brazilian exports

- ✓ The crisis that has hit Argentina since the middle of last year is being reflected in the Brazilian trade balance. The setback mainly affects exports of manufactured goods since 90% of what Brazil exports to Argentina are manufactured.

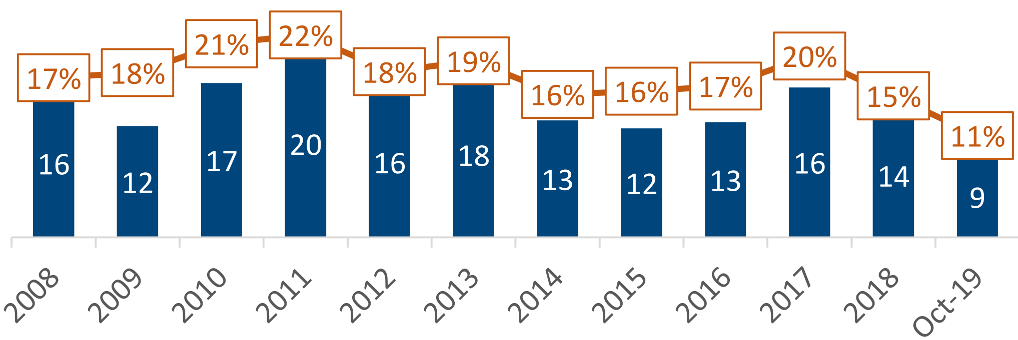
- ✓ Currently, the main Brazilian products exported to Argentina are:
  1. Cars (Passenger vehicles);
  2. Delivery trucks;
  3. Tractors; and
  4. Vehicle parts.

- ➢ According to the Ministry of Economy, Argentina's share of Brazilian exports fell from 6.23% in 2018 to 4.41% in 2019 (January-October). As for the exports of manufactured goods to Argentina, from January till October, Brazil already saw a 4pp decline compared to the YE18, representing a loss of ~US$5bn.

Main destinations Brazilian Exports (%)



Brazilian manufactured goods exported to Argentina (%)

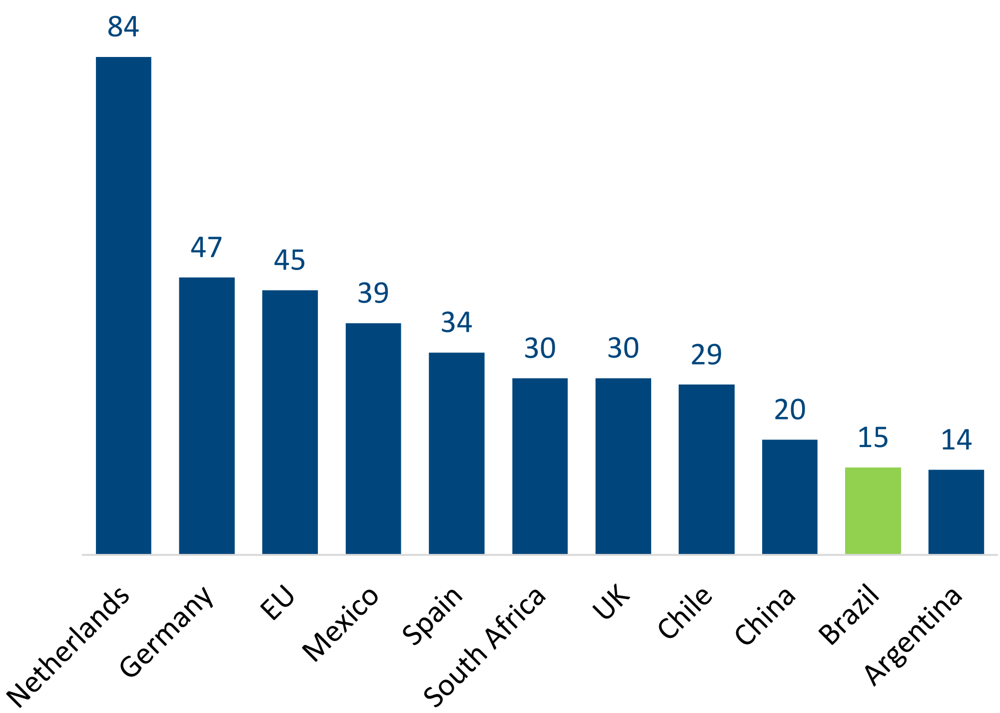


*In 12 months through October 2019

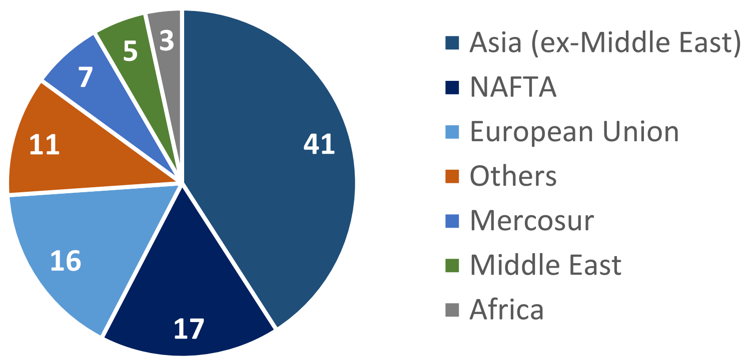
Source: Brazil's Central Bank, MDIC, BTG Pactual

Exports overview: countries, products and share

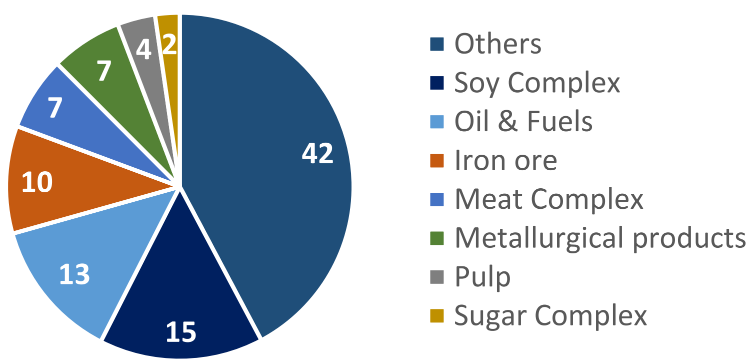
Exports of goods and services (as % of GDP) as of 2018



Main destinations – Exports (%) – 2019 YTD



Main products – Exports (%) – 2019 YTD

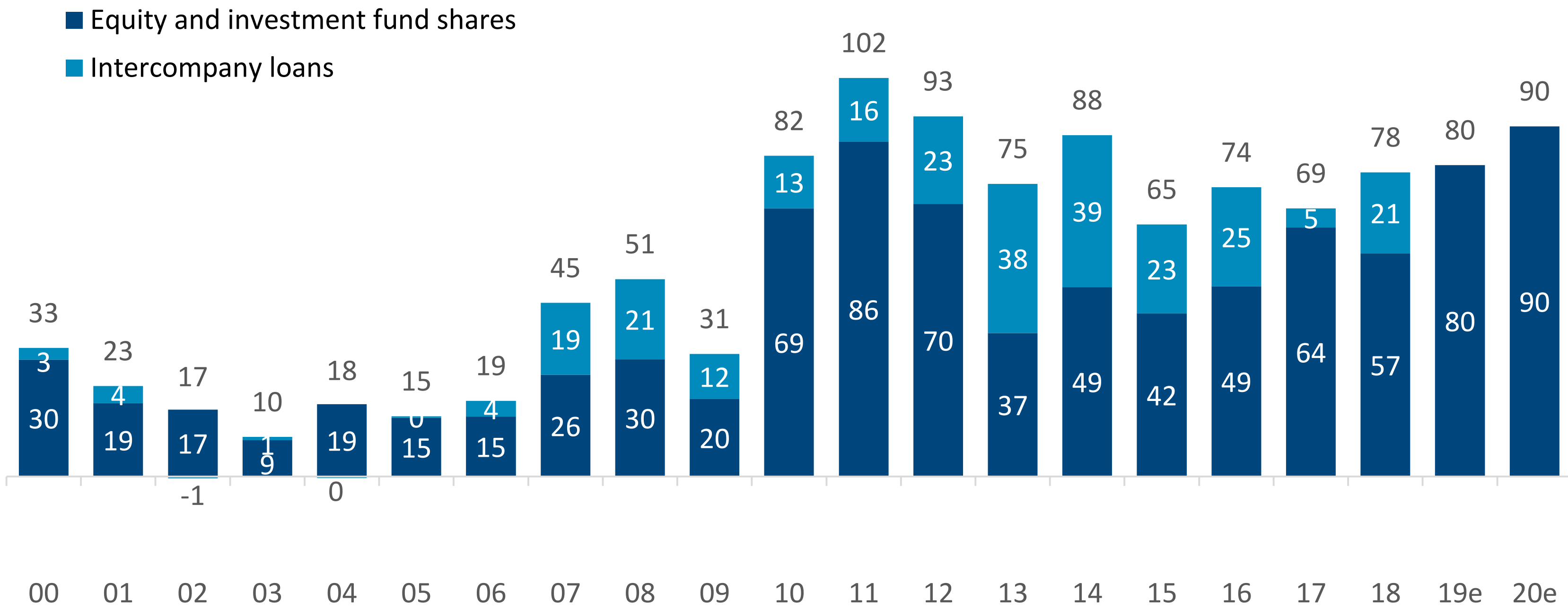


Source: Brazil's Central Bank, MDIC, BTG Pactual

FDI will reach US$80bn in 2019

- The government's privatization program will contribute to increase the FDI to US$80bn in 2019 and to US$90bn in 2020.
- FDI will continue to finance the current account deficit comfortably in 2019.

Foreign Direct Investment (US$bn)

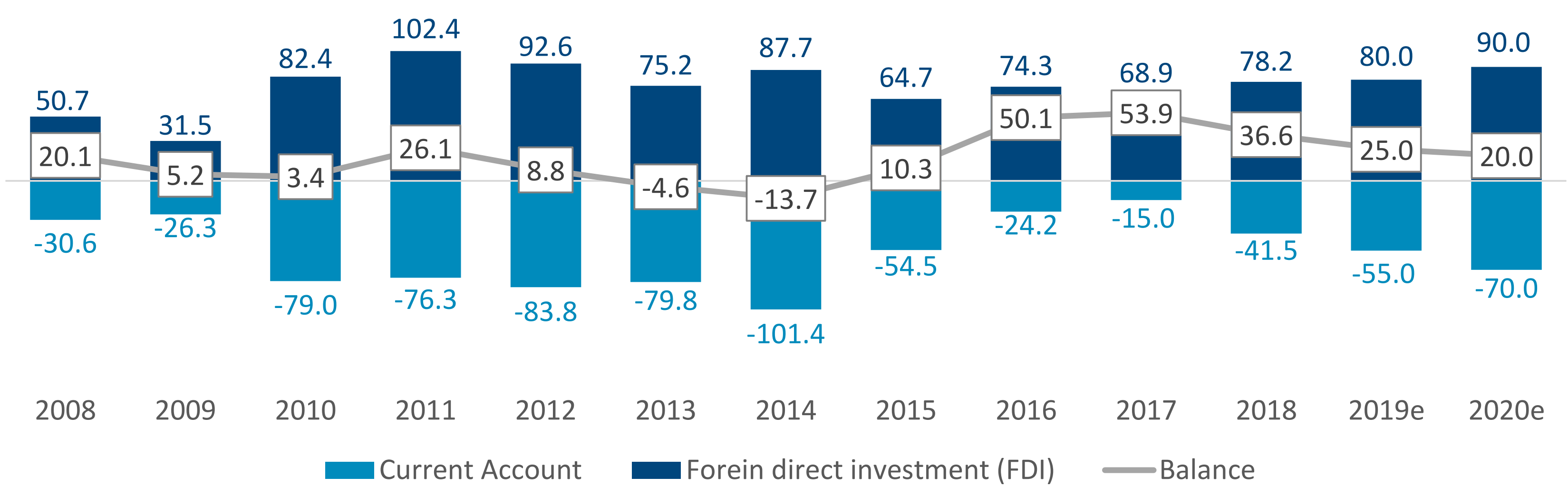


Source: Brazil's Central Bank, BTG Pactual

External accounts

- We expect an increase in the current account deficit in 2019 and 2020, primarily owing to a decline in the trade balance.
- The government's privatization program will contribute to increase the FDI in 2019 and 2020. FDI will continue to finance the current account deficit comfortably in both years.
- International reserves remain at a very high level, helping to keep Brazil's external vulnerability at a low level.
- The dynamic of the exchange rate in 2020 will depend on the external scenario, in particular on the trade negotiations between China and the US.

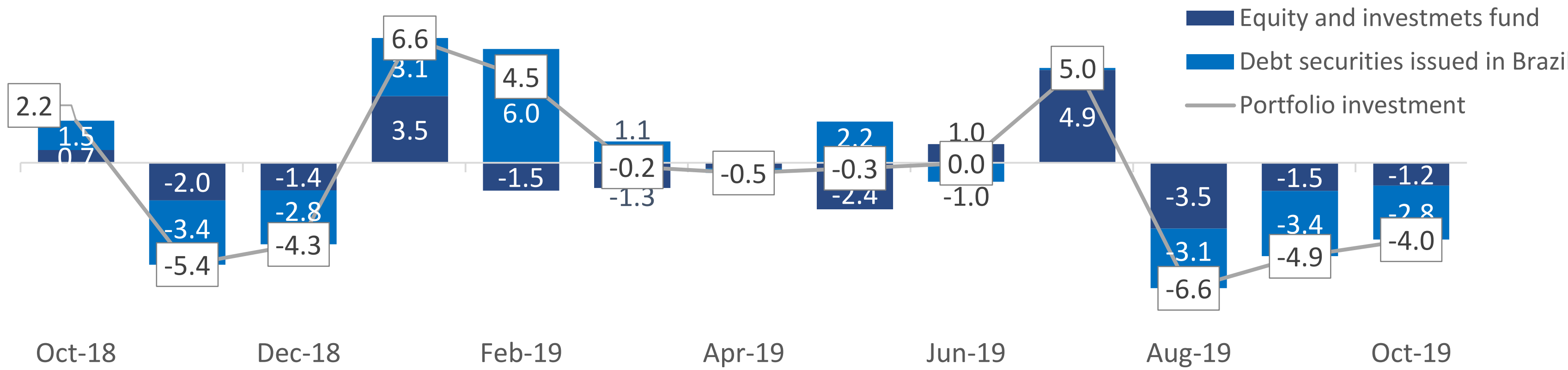
Current account balance and foreign direct investment (US$ bn)



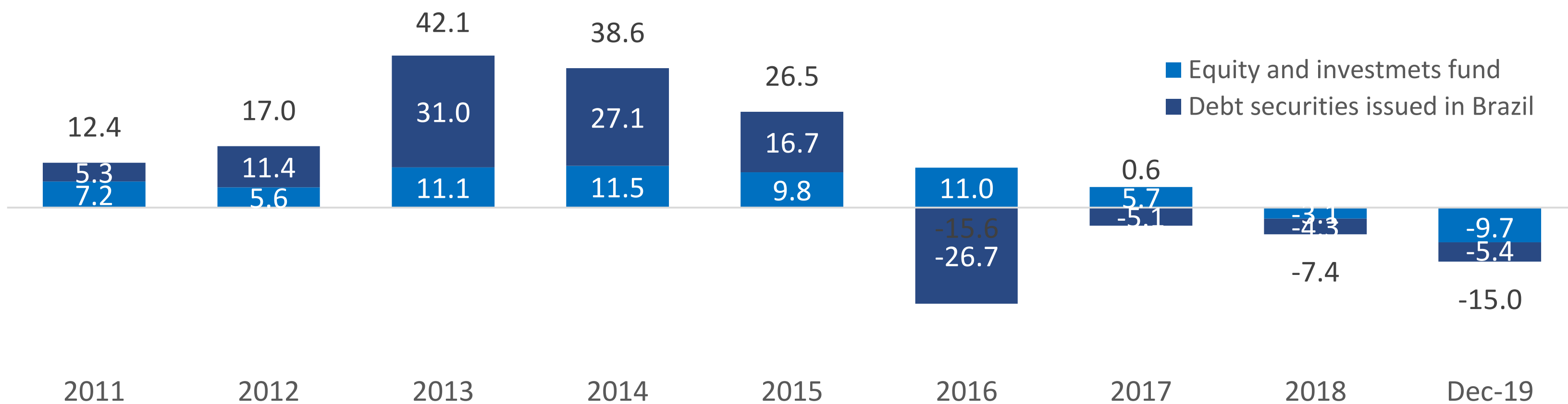
Source: Brazil's Central Bank, BTG Pactual

Foreign investments in equities remain very low in 2019

Foreign investment in portfolio (US$ bn)



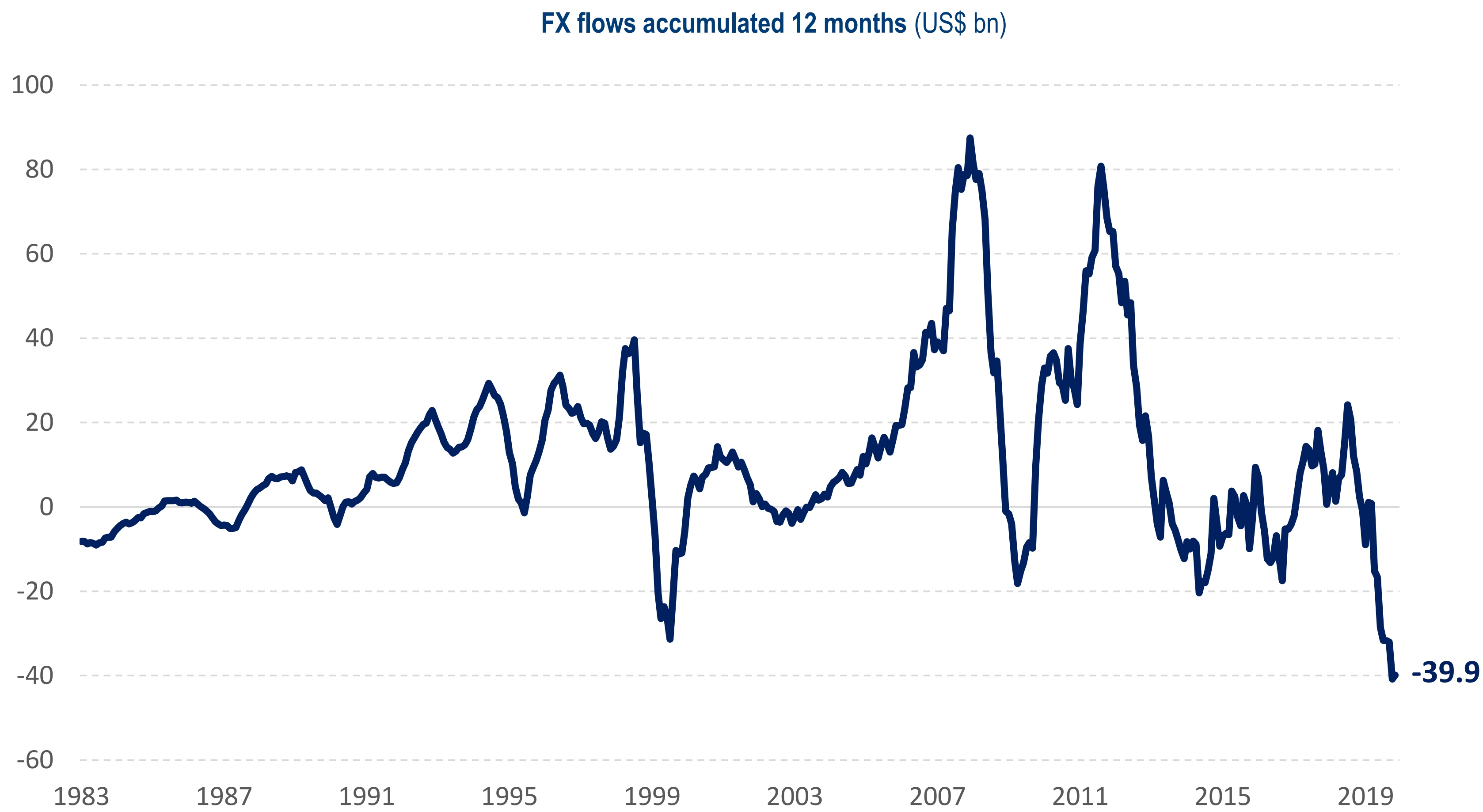
Foreign investment in portfolio (12m, US$ bn)



BTG Pactual

Source: Brazil's Central Bank, BTG Pactual

FX outflow accumulated in 12-months through November still close to the highest in the data series reached in October



Source: Brazil's Central Bank, BTG Pactual

Net FX outflow of US$27.2 billion YTD through November

Monthly total FX flows (US$ bn)

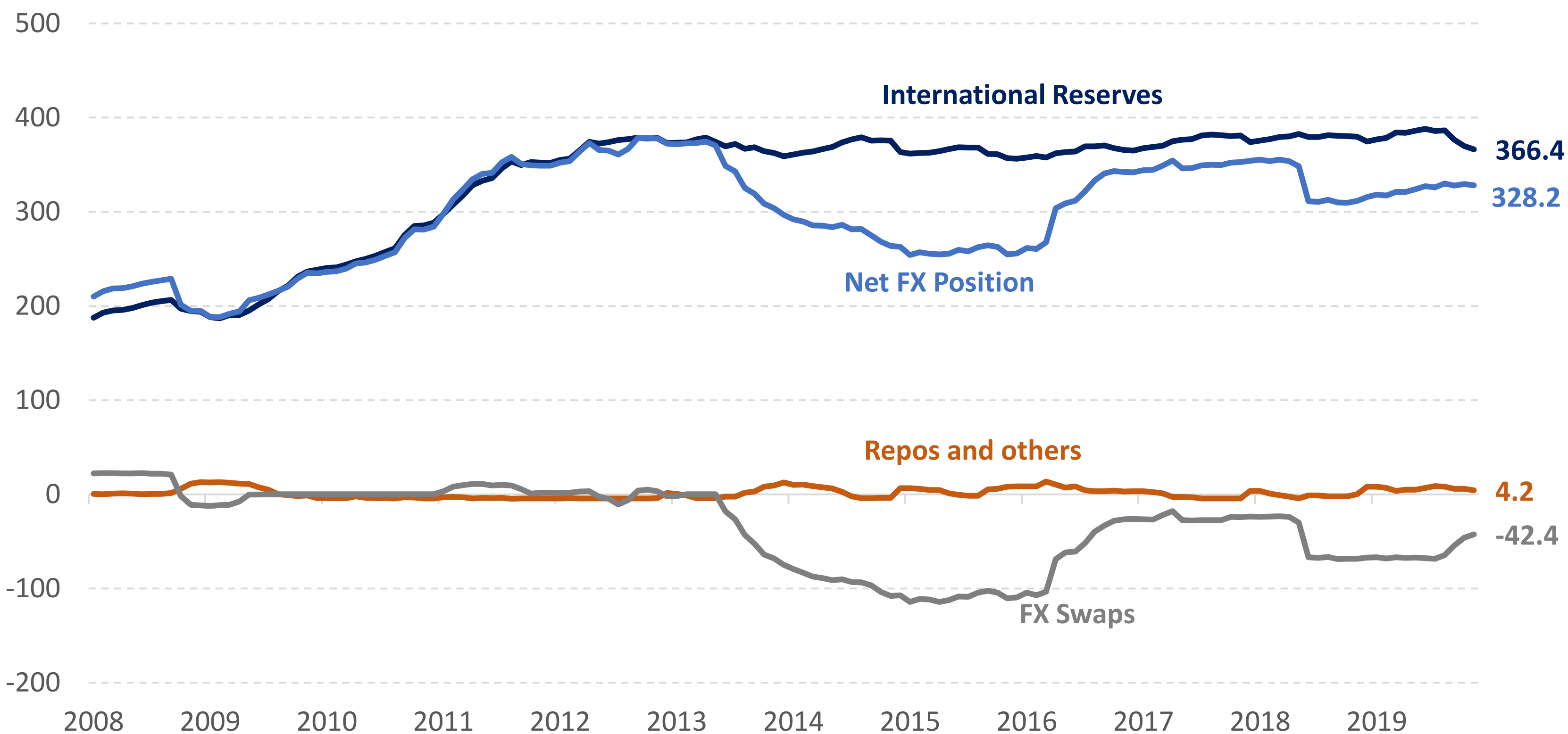
Period	Trade-related flows						Financial flows			Net flows
	Exports				Imports	Net flows	Inflows	Outflows	Net flows	
US$ billion	Total	ACC[1]	PA[2]	Others		A			B	C = A + B
2011	251.2	51.8	50.5	149.0	207.2	**43.9**	394.0	372.7	**21.3**	**65.3**
2012	224.6	47.6	40.2	136.8	216.2	**8.4**	391.6	383.2	**8.4**	**16.8**
2013	232.9	38.3	62.5	132.2	221.8	**11.1**	451.7	475.1	**-23.4**	**-12.3**
2014	222.3	39.1	62.4	120.7	218.1	**4.1**	513.2	526.6	**-13.4**	**-9.3**
2015	181.7	34.8	47.5	99.4	156.2	**25.5**	522.7	538.8	**-16.1**	**9.4**
2016	173.6	29.9	53.8	89.9	126.3	**47.3**	448.4	499.9	**-51.6**	**-4.3**
2017	195.6	28.5	53.8	113.3	142.7	**52.9**	482.7	535.0	**-52.3**	**0.6**
2018	226.8	34.2	74.9	117.7	179.1	**47.7**	524.7	573.4	**-48.7**	**-1.0**
2019 (YTD)	**177.9**	**29.8**	**49.5**	**98.7**	**162.8**	**15.2**	499.2	541.5	**-42.3**	**-27.2**
Jan 2019	13.5	2.6	2.8	8.1	14.0	**-0.5**	53.9	53.3	**0.6**	**0.1**
Feb 2019	14.4	2.7	3.3	8.3	12.3	**2.1**	51.7	45.2	**6.6**	**8.6**
Mar 2019	15.7	2.9	3.9	8.8	12.8	**2.9**	42.3	49.4	**-7.1**	**-4.2**
Apr 2019	17.8	3.2	4.0	10.6	13.7	**4.1**	38.1	43.9	**-5.8**	**-1.6**
May 2019	16.7	3.2	4.5	9.0	15.3	**1.5**	44.1	45.2	**-1.1**	**0.3**
Jun 2019	14.4	2.3	5.0	7.1	14.3	**0.1**	42.3	50.7	**-8.4**	**-8.3**
Jul 2019	15.1	2.5	4.3	8.3	15.8	**-0.7**	55.5	51.9	**3.6**	**2.9**
Aug 2019	19.2	3.1	4.9	11.3	15.0	**4.2**	39.8	48.3	**-8.5**	**-4.3**
Sep 2019	18.8	2.5	7.2	9.0	19.2	**-0.4**	45.9	51.9	**-6.0**	**-6.4**
Oct 2019	17.2	2.3	5.4	9.5	16.9	**0.3**	41.1	49.8	**-8.8**	**-8.5**
Nov 2019	15.2	2.5	4.1	8.6	13.6	**1.6**	44.6	51.9	**-7.3**	**-5.7**

BTG Pactual

Source: Brazil's Central Bank, BTG Pactual

High demand for dollar in the spot market lead the Central Bank to change its policy

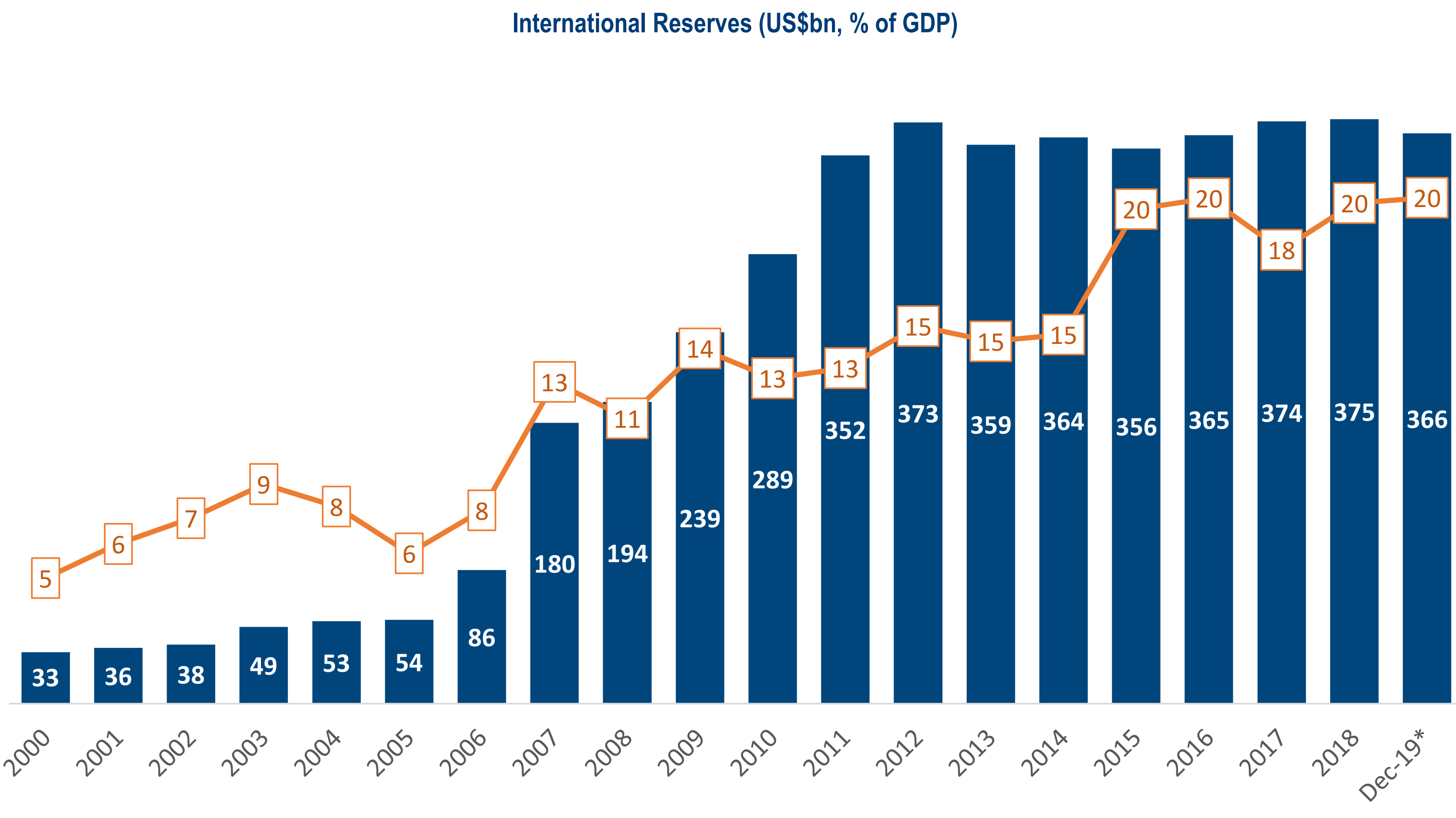
Net FX position (international reserves – swap position – repos position and others) (US$ bn)



*Up to November 29.

Source: Brazil's Central Bank, BTG Pactual

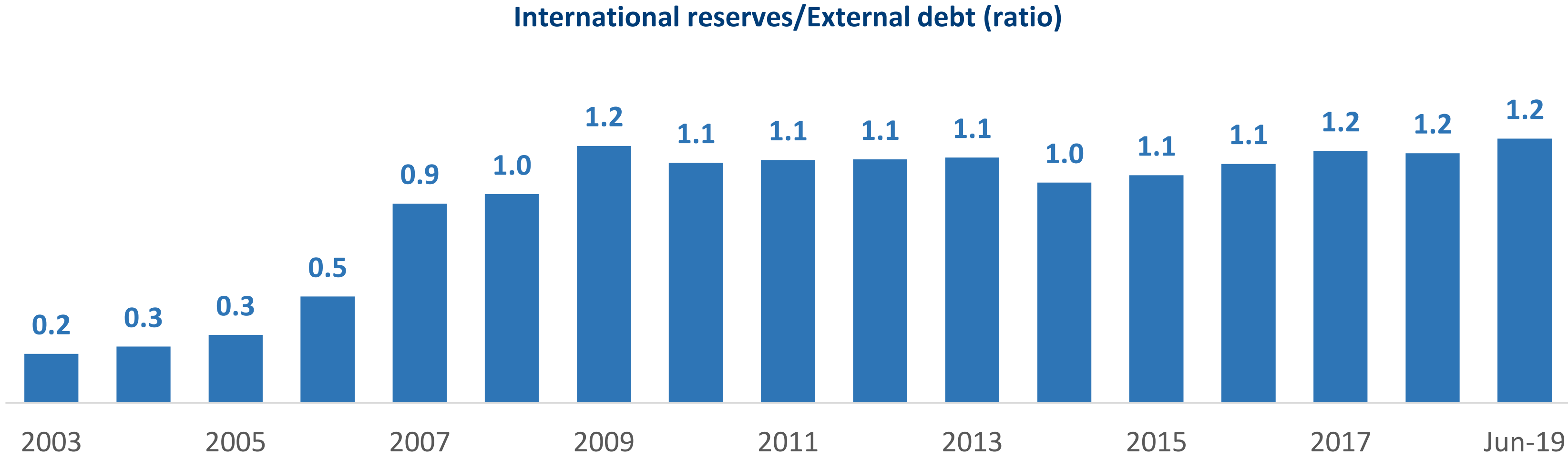
International Reserves still at a high level

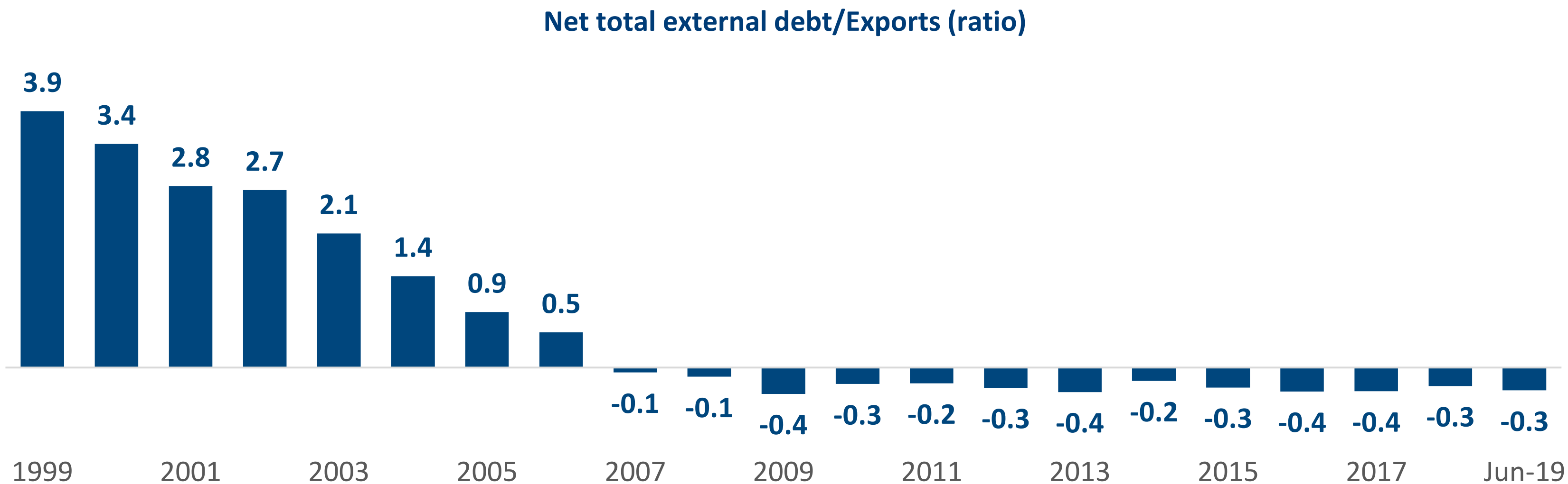


*Up to December 3.

Source: Brazil's Central Bank, BTG Pactual

Brazil's exports are higher than the net external debt

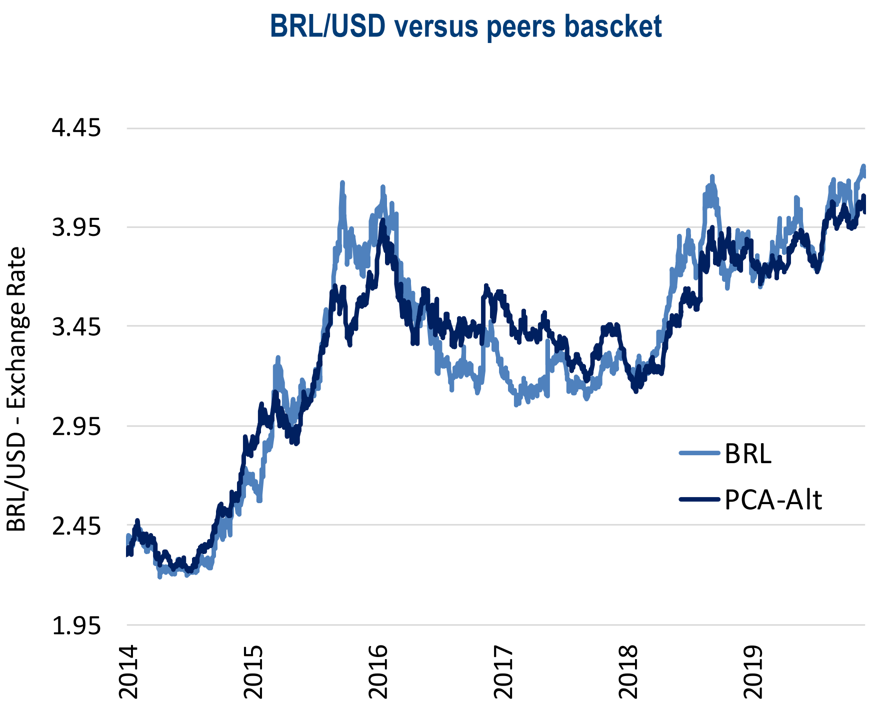


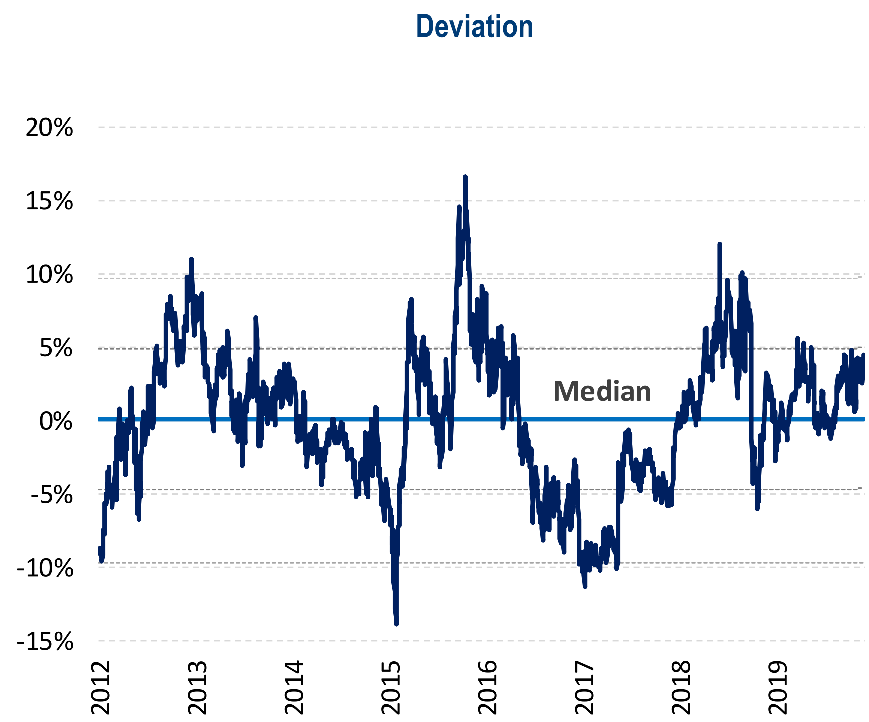


Source: Brazil's Central Bank, BTG Pactual

Exchange Rate

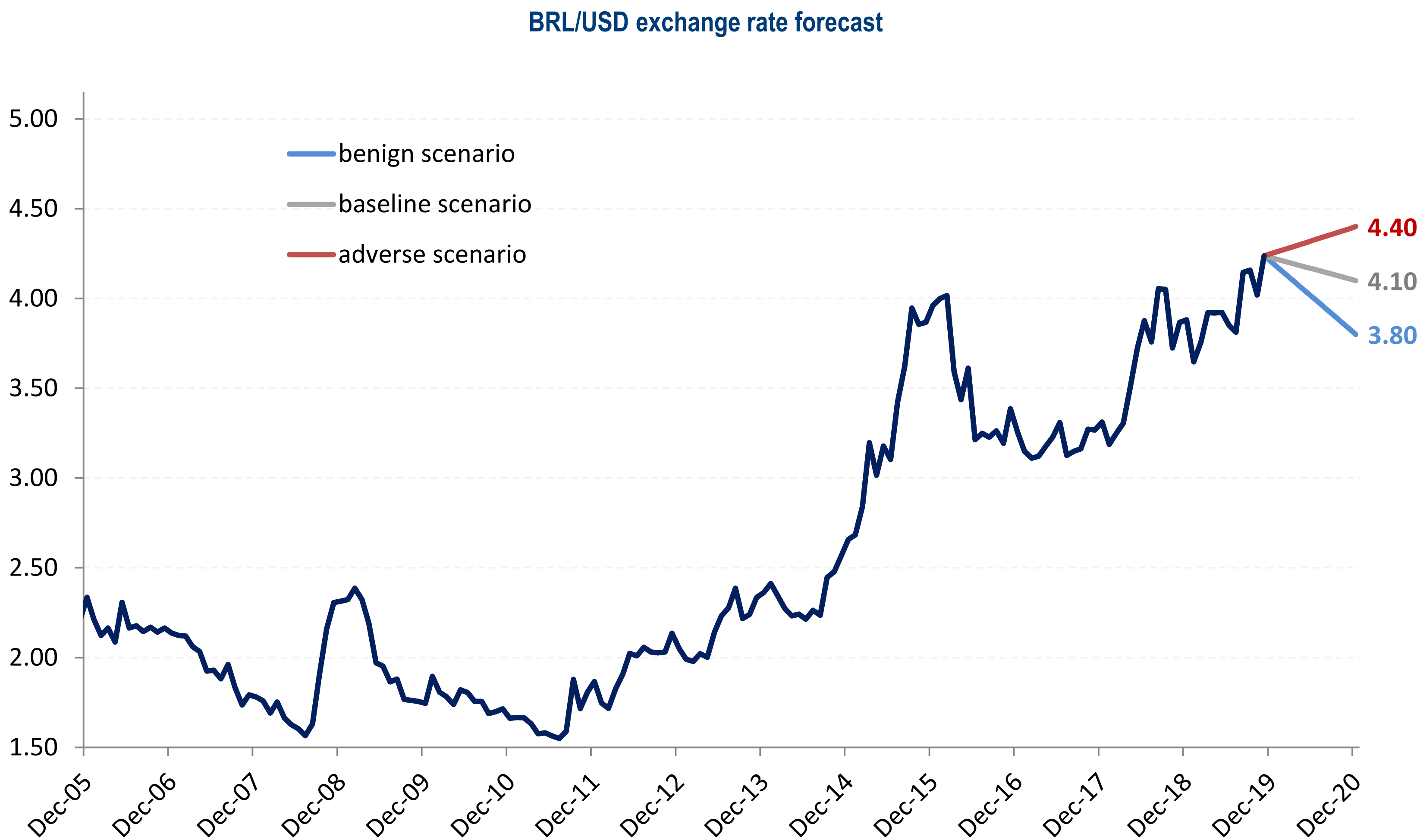
Exchange rate: BRL versus peers





Cesta-PCA alt: AUD, CAD, CLP, COP, NZD, ZAR, TRY, RUB, INR, MXN

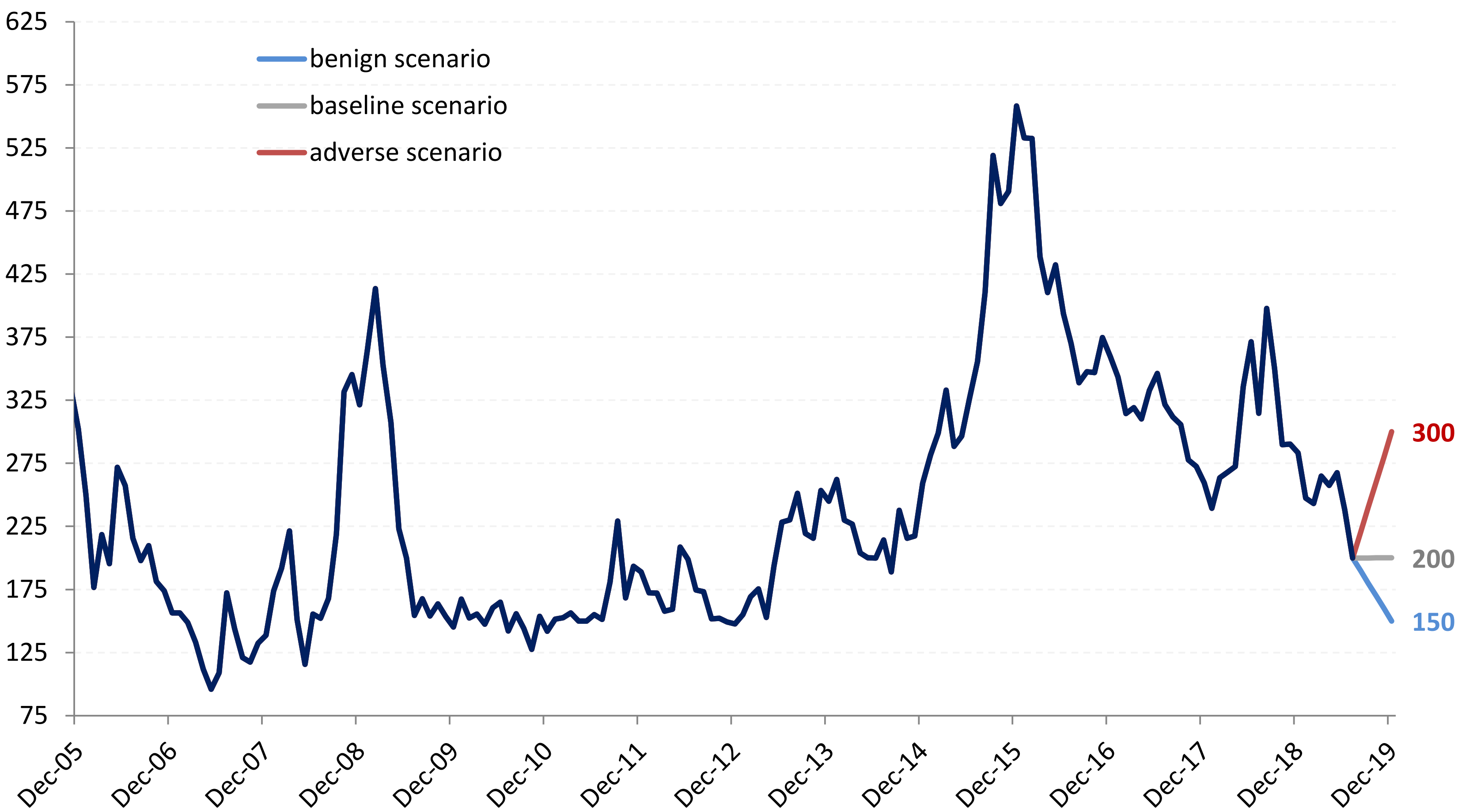
Exchange rate of BRL4.10/USD YE 2020



Source: Brazil's Central Bank, BTG Pactual

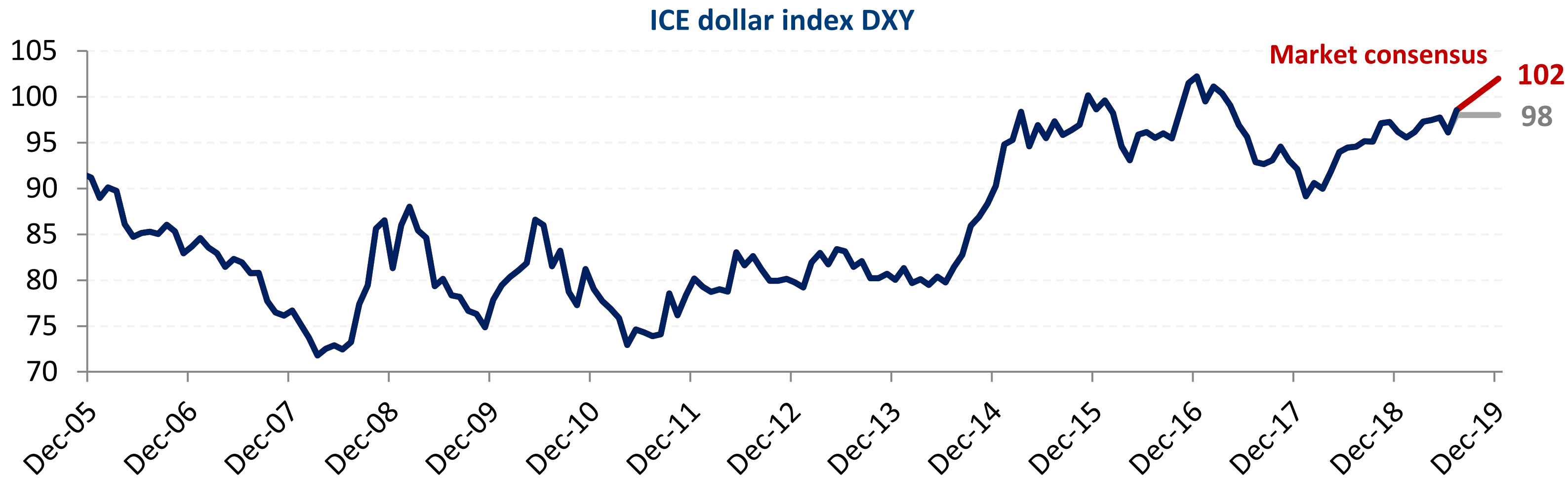
Approval of the social security reform could reduce Brazil country risk

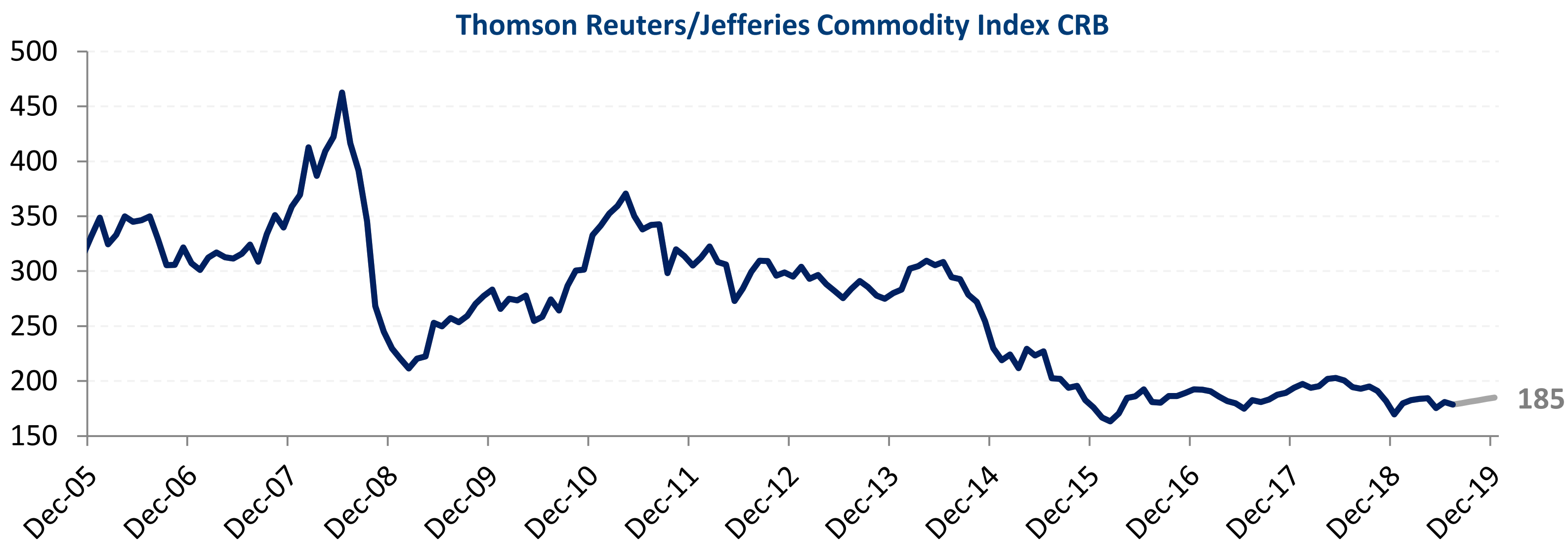
10-year CDS spread (index)



Source: Brazil's Central Bank, BTG Pactual

Futures market - Strengthening dollar up to YE20?





Source: Brazil's Central Bank, BTG Pactual

Investment Themes, by sector

Financials

In Financials, our top picks for Brazil are B3, Bradesco and Stone

✓ **Stocks that benefit from Brazil's financial deepening should keep performing well: B3, BPAC11 and XP**

- The structural fall in long-term interest rate is leading to a financial deepening of Brazil's capital market. In this scenario we like stocks that benefit from such financial deepening, in our view: B3, BPAC and XP. As B3 is the only under our coverage, it is our chosen horse. Albeit B3's shares were up more than 85% in 2019, we believe there is still alpha in the name. Over the last 10 years Brazil suffered from a major crowding-out effective, but dynamics definitely changed and we may be at the verge of a new, long and virtuous cycle that will be superb for the exchange revenues, allowing investors to still dream very big with B3.

✓ **Attractive bank stock valuations. Bradesco is our preferred name**

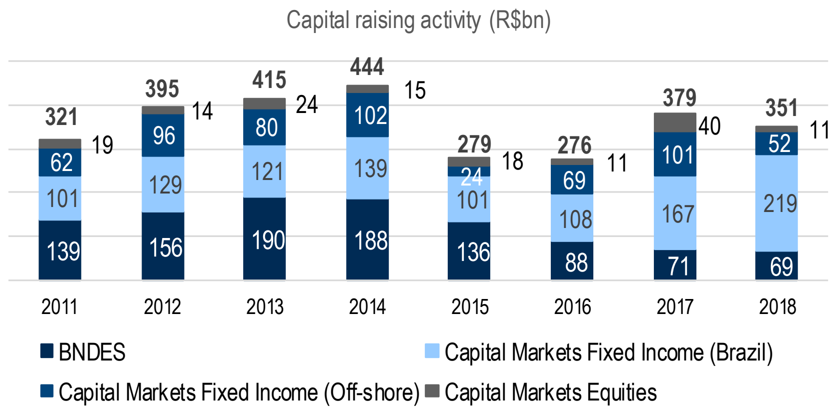
- Positive outlook for lending operating with demand for credit rising. Loan portfolio mix change towards more Individuals and SMEs should give some support to NIM and drive NII acceleration. In addition, gap between ROE and CoE is at an all-time high, but valuations aren't. Bradesco is our preferred name. It is better positioned to benefit from the cyclical recovery in the credit business, reflecting (i) high exposure to BZ; (ii) operational leverage from HSBC M&A, (iii) "late-cycle" status, allowing for lower NPLs/provisions; and (iv) more exposure to SMEs and regions that suffered more in the crisis.

✓ **In payments, Stone is our Top Pick**

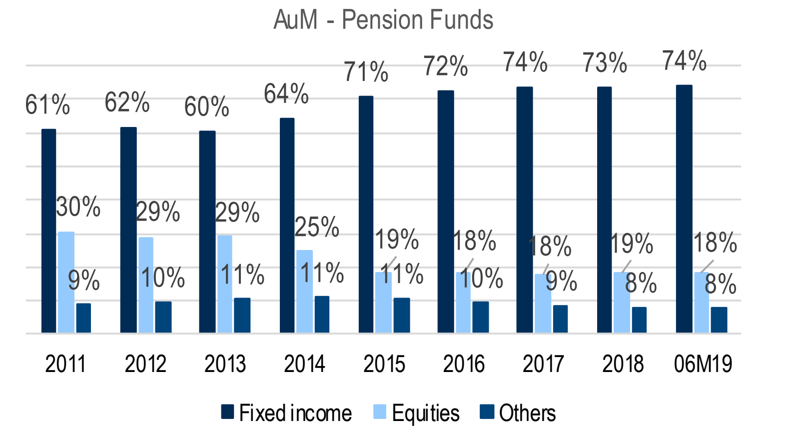
- Stone has a business model difficult to replicate, based on good costumer services and software solutions that ensure a more complete way of serving the client. Thus, although competition has been intense, with incumbents more aggressive on prices to defend market share, Stone's operating and financial figures are not being impacted, and renegotiation requests continue at normalized levels. The qualitative side of the story also remain very solid. In 2019 Stone focused on a number of new initiatives, from banking accounts to credit, and 2020 looks like the year to scale those initiatives via a fully integrated platform (Payments, Banking and Credit).

B3: Strong earnings momentum powered by a crowing-in effect

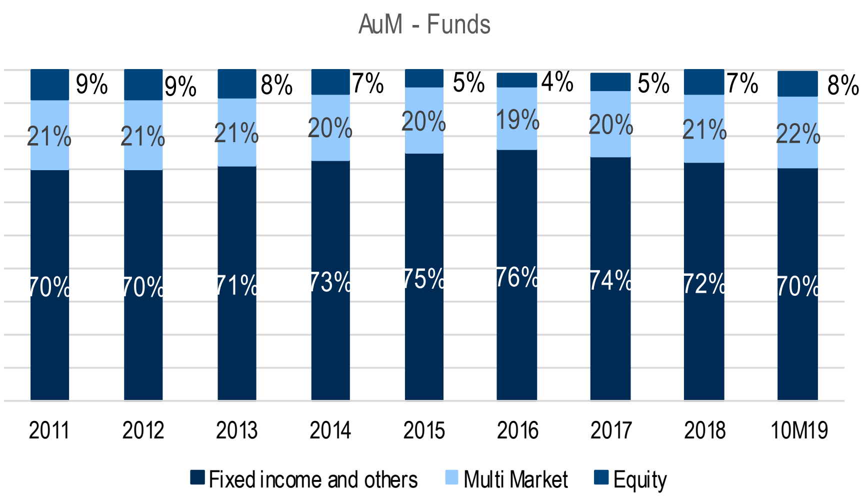
Capital markets more active, particularly in fixed income



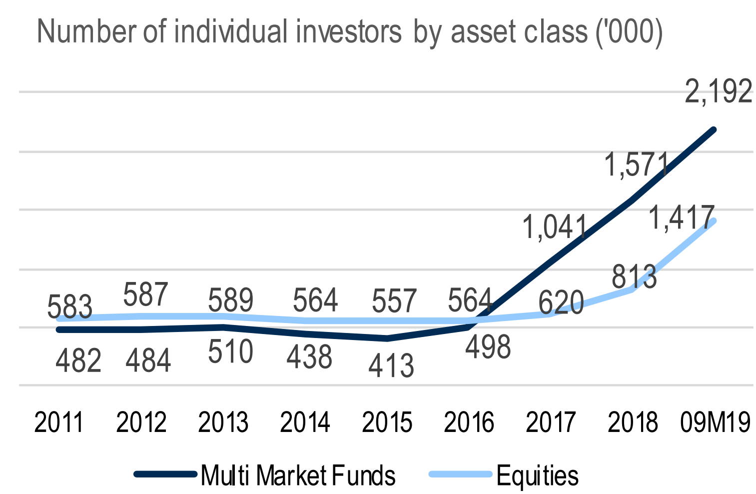
Domestic pension funds allocation in equities has a lot of room to increase…



… funds as well



With lower interest rates, more individual investors are buying more equity-related products



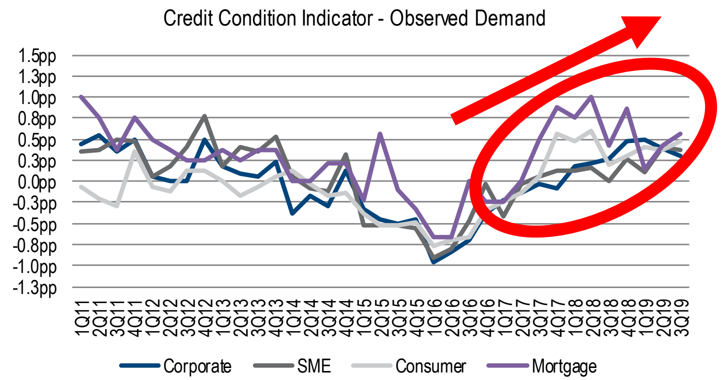
BTG Pactual

Scenario remains positive for banks: we prefer Bradesco

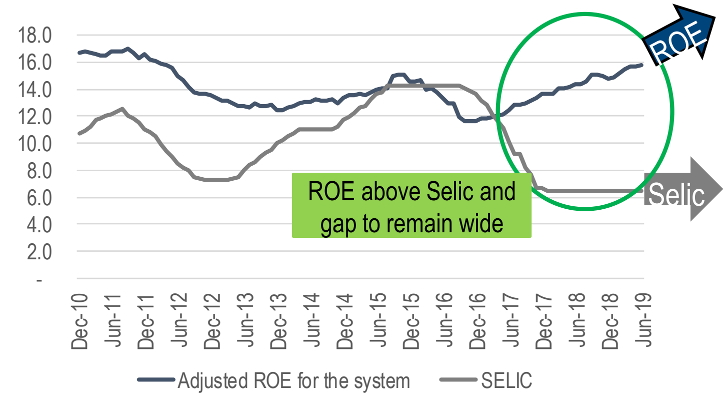
✓ ROE-CoE gap has never been higher

- Gap between ROE and CoE is at an all-time high, but valuations aren't. Thus, investors are clearly worried about disruption in the system.
- Fintechs´ impact in the ST shouldn't be that strong. To build stickiness, digital banks will need to learn how to give credit and that is not an easy task.
- Credit demand, supply and approvals are all on the rise
- Banks traded at higher levels in the past (12M TTM P/BV)

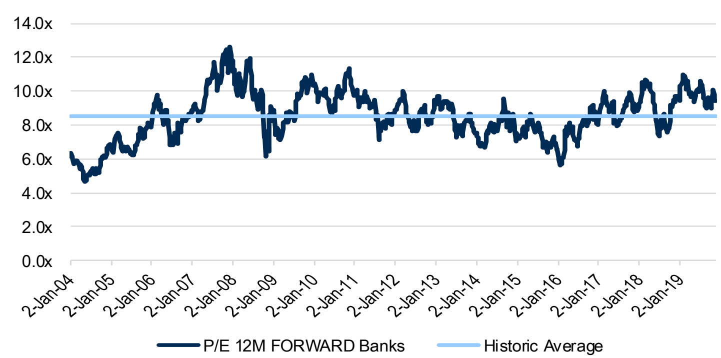
Although credit is booming…



…and ROE and CoE gap is at an all time high,…



…valuation is not at its pick

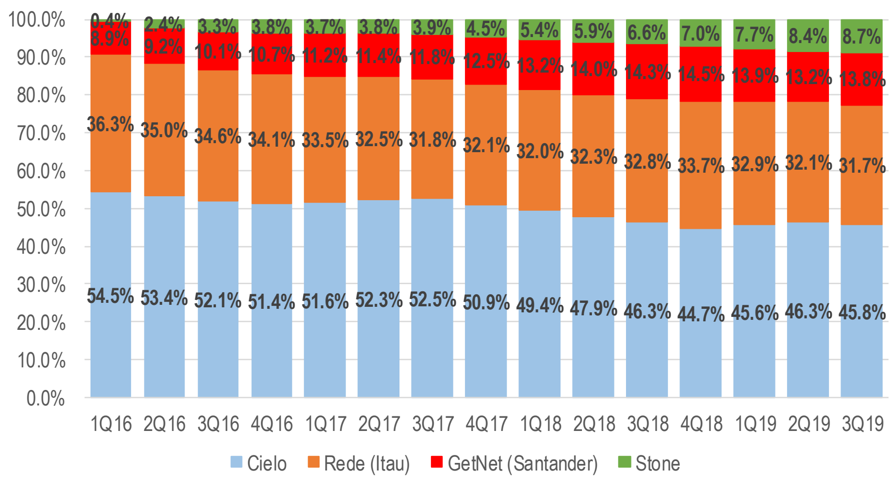


Stone: Decent prospects for 2020

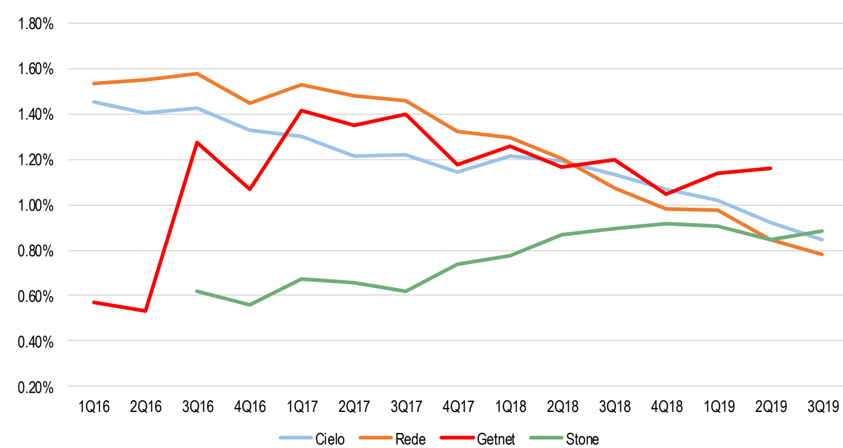
✓ Good dynamics for 2020

- Our perception is that 2020 should bring good dynamics, both for the core (payments) business and new initiatives in banking and credit
- Stone still sees room for nice TPV and client growth in 2020. The company continues opening hubs at the same pace as previous quarters and sees no room for deceleration.
- Stone believes that an effective pricing policy, with fast response/pricing adjustments to competition in the field, has been helping a lot to keep take-rate at similar levels in recent quarters.

TPV market share – Cielo, Rede, GetNet, Stone



Revenue yield – Cielo, Rede, GetNet, Stone



Retail

Brazilian Retail – what to watch

Exposure to staples segment and cheap valuation theses does not always pay off during economic downturns. We prefer top-notch execution! Premium companies should continue outperforming, even during more volatile times (with Renner as a Top Pick).

Economic recovery should play a big role on retail sector's rebound from 2H19 onwards; discretionary players such as CVC, B2W, MGLU, HGTX and VVAR should be the largest beneficiaries.

Turnaround stories, such as NATU and HGTX, should be kept on the radar screen. However, Natura's demanding valuation, coupled with the execution risks brought by the acquisition of Avon and the turnaround of The Body Shop, prevent us being more bullish on the name.

E-commerce should post secular growth in the coming years, but only with a few potential winners. We are bullish on e-commerce and its consolidation trend among MGLU, MELI and B2W.

Dynamic periodic table 2020 – our main calls

Premium Companies	Exposure to Internet Secular Growth	Good operating Momentum	Economic recovery	Short term portfolio (3-6 months)	Mid-term portfolio (1-2 years)	Long-term portfolio
LREN	MGLU	MGLU	CVC	LREN	MGLU	MGLU
RADL	MELI	RADL	B2W	MGLU	LREN	MELI
MELI	B2W	LREN	MGLU	B2W	MELI	LREN
ARZZ		B2W	VVAR	LAME	B2W	RADL
LAME		LAME	HGTX	CVC		
MGLU		CNTO				

Our calls: Short term portfolio (3-6 months), Mid-term portfolio (1-2 years), Long-term portfolio

Asymmetric ST calls (risk/reward): LAME, CVC

Retailnomics – a statistical approach

Correlations	AMAR	ARZZ	HGTX	HYPE	MEAL	LAME	LLIS	LREN	MGLU	NATU	PCAR	RADL	VULC	VVAR	BTOW	Median	Combined
Revenue x GDP	0.55	0.41	0.59	0.17	0.60	0.25	0.23	0.42	0.57	0.32	0.12	(0.71)	(0.10)	0.13	0.28	0.28	0.54
Revenue x IPCA	(0.29)	(0.24)	(0.34)	0.03	0.07	0.09	(0.28)	(0.20)	(0.87)	(0.60)	0.01	0.76	(0.32)	(0.44)	(0.09)	(0.24)	(0.62)
Revenue x Selic	(0.49)	(0.45)	(0.49)	(0.12)	(0.27)	(0.15)	(0.33)	(0.26)	(0.71)	(0.60)	(0.10)	0.92	0.03	(0.31)	0.16	(0.27)	(0.70)
Revenue x Unemployment	(0.47)	(0.30)	(0.28)	(0.33)	(0.86)	(0.38)	(0.08)	(0.45)	0.29	0.35	0.01	(0.05)	0.28	0.25	0.80	(0.08)	0.13
Revenue x Uncertainty	(0.55)	(0.55)	(0.64)	(0.21)	(0.38)	(0.14)	(0.44)	(0.29)	(0.70)	(0.30)	(0.12)	0.72	0.04	(0.31)	0.33	(0.30)	(0.63)
Revenue x Purchase Intention	0.69	0.68	0.57	0.38	0.80	0.34	0.39	0.46	0.24	(0.05)	0.08	(0.35)	(0.29)	0.05	0.53	0.38	0.36
Revenue x Consumer Confidence	0.67	0.77	0.67	0.39	0.59	0.23	0.53	0.28	0.31	(0.03)	0.14	(0.36)	(0.33)	0.19	0.42	0.31	0.51
Revenue x Household debt	(0.01)	(0.19)	(0.19)	0.00	0.51	0.25	(0.33)	0.28	(0.68)	(0.51)	(0.12)	0.38	(0.09)	(0.52)	0.14	(0.09)	(0.49)
SSS x GDP	0.50	0.34	0.47		0.51	0.38	(0.04)	0.25	0.64		0.10	(0.39)		0.56		0.38	
SSS x IPCA	(0.32)	(0.45)	(0.56)		0.16	0.16	(0.60)	(0.17)	(0.80)		0.00	0.74		(0.76)		(0.32)	
SSS x Selic	(0.50)	(0.29)	(0.67)		(0.30)	(0.17)	(0.21)	(0.18)	(0.67)		(0.16)	0.77		(0.65)		(0.29)	
SSS x Unemployment	(0.35)	(0.01)	0.10		(0.74)	(0.47)	0.57	(0.30)	0.12		0.02	(0.41)		0.10		(0.01)	
SSS x Uncertainty	(0.48)	(0.54)	(0.40)		(0.20)	(0.13)	(0.25)	(0.13)	(0.75)		(0.20)	0.46		(0.77)		(0.25)	
SSS x Purchase Intention	0.56	0.39	0.25		0.65	0.40	(0.18)	0.22	0.35		0.21	0.03		0.39		0.35	
SSS x Consumer Confidence	0.55	0.47	0.29		0.47	0.26	(0.06)	0.04	0.38		0.37	(0.03)		0.51		0.37	
SSS x Household debt	(0.05)	(0.38)	(0.37)		0.47	0.35	(0.66)	0.32	(0.51)		(0.28)	0.55		(0.58)		(0.28)	

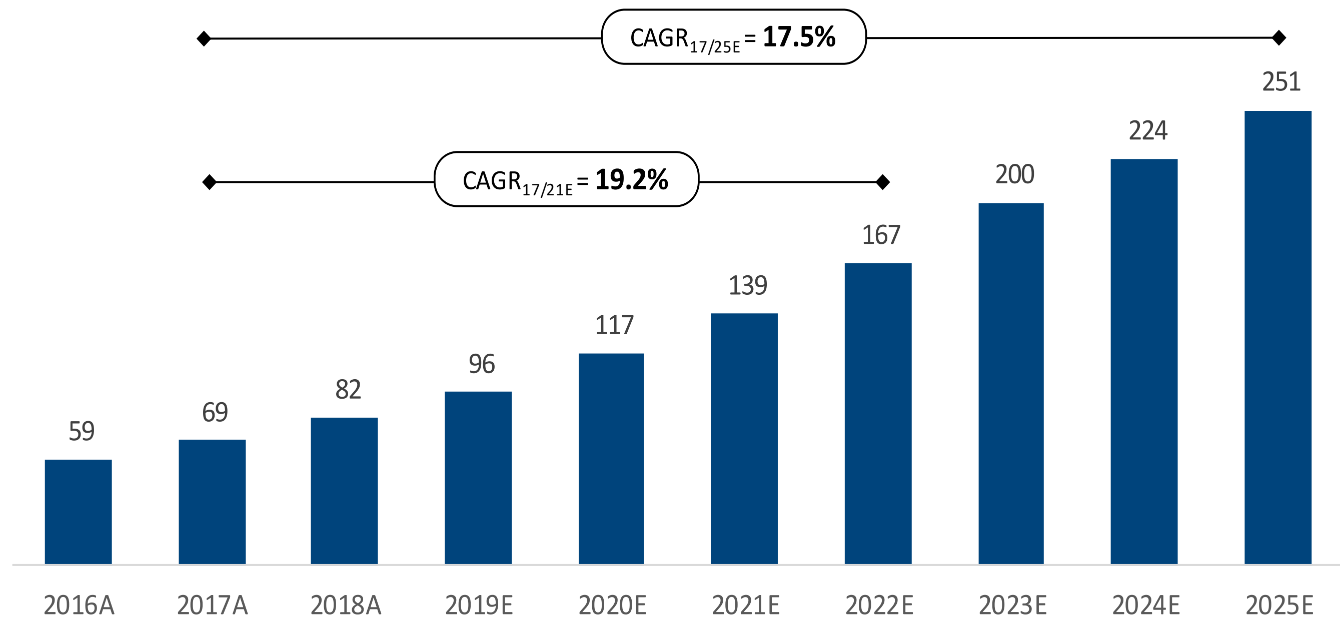
Highest correlations were between combined top line growth, with: (i) purchasing intentions (0.36), consumer confidence (0.51), GDP growth (0.54), Selic rate (-0.70) and uncertainty index (-0.63).

Our regression shows that the four variables (uncertainty index, purchasing intention, household debt and unemployment) are statistically significant

BTG Pactual

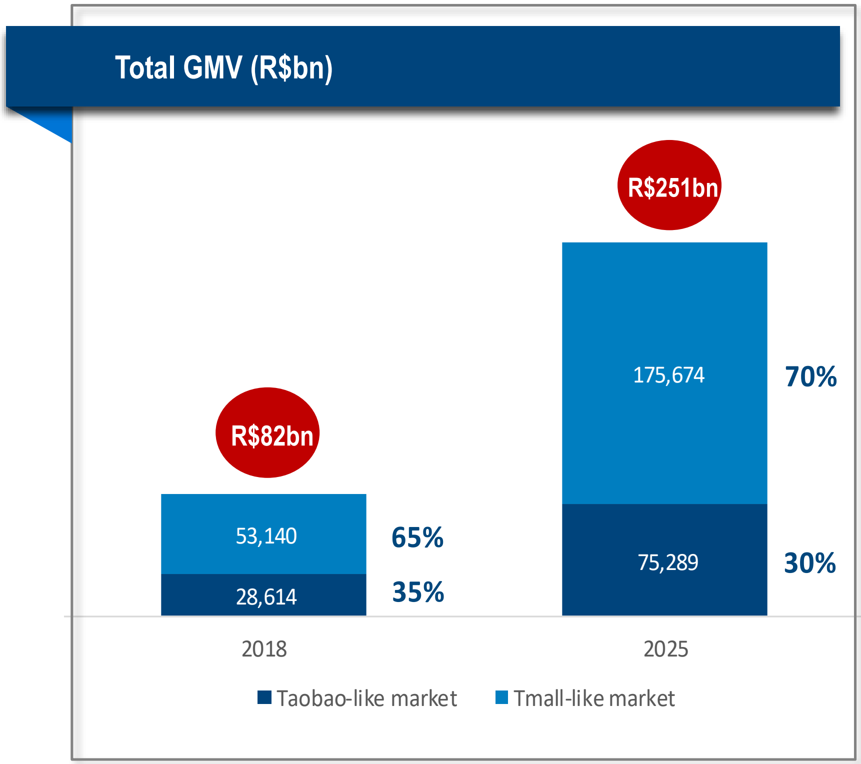
Brazilian e-commerce – secular growth ahead

Brazilian e-commerce sales (R$bn) to triple until 2025

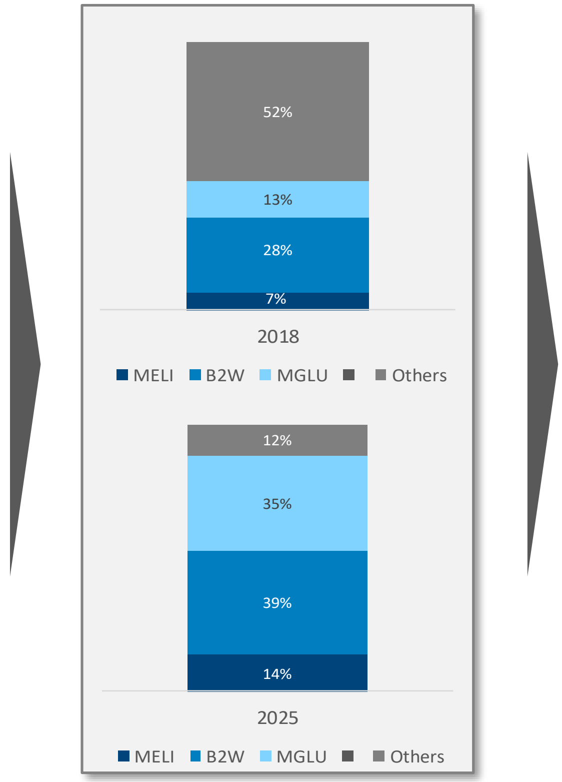


Source: Forrester and BTG Pactual

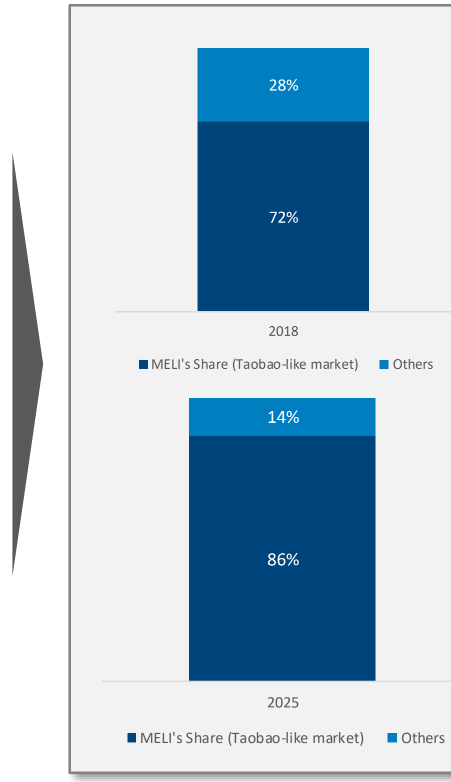
Brazilian e-commerce – only a few potential winners



Tmall-like market



Taobao-like market



Source: BTG Pactual

Food and Beverage

Our main Food & Beverage calls

In a low beta sector, we favor stocks that benefit from undemanding valuations and positive cyclical effects

- ✓ **Proteins: ASF, deleveraging, and positive cycles to drive stronger performance**
  - JBS: one of our Top Picks, with the YTD stock rally still not translating into demanding valuations. The company should continue to benefit from a solid sector backdrop, with the 13% LTM FCF yield suggesting an attractive carryover. Also, further de-risking could mean that the discount at which JBS' shares have historically traded to peers will continue to narrow.
  - Minerva: one of our Top Picks, and set to benefit from still solid cattle availability across most regions, favorable beef prices and strong demand coming from China. We see Minerva trading at 6x EV/2020EBITDA (still within historical range), while the pre-tax 15% 2020 FCFE yield still signals a nice carry.
  - BRF: delivering on key initiatives to the LT sustainability of the business and also a beneficiary from ASF, but we remain neutral on valuation (as current share price implies an above-historical LT margin) and signs that the poultry cycle could be turning.
  - Marfrig: exposure to stronger US and Brazil beef outlook, but weaker track record of execution and lower clarity on further deleveraging after recent acquisitions makes us prefer to surf the sector's positive backdrop through other vehicles.

- ✓ **Ambev (Neutral) seems unattractive as the company continues to struggle to fix the core segment, which we view as key for them to consistently deliver on margin and ROIC expansion, both demanded by current valuations**

- ✓ **M.Dias Branco: lower visibility on a historically stable top line performance, changes in the top management, and uncertainty on what a new commercial approach will mean margin-, return-, and volume- wise leaves us Neutral, with MDB being our bottom F&B pick in Brazil**

2020: Sector outlook – ASF, Brazil Beef & Poultry cycles

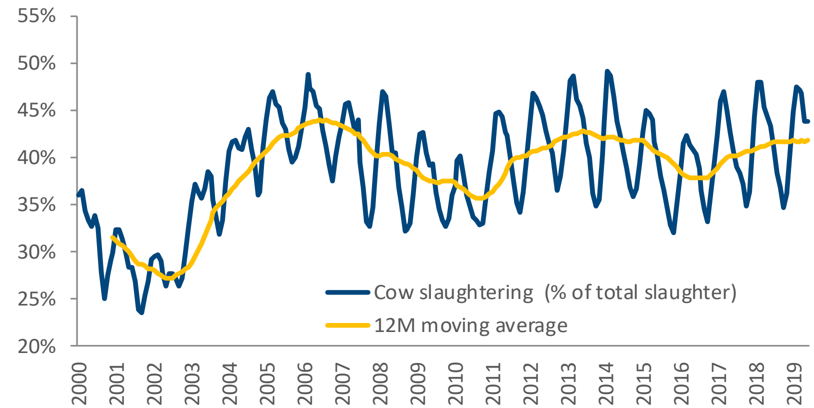
ASF is set to have its strongest impact for global meatpackers in 2020. Cattle cycle could be turning in Bz, but overseas demand is set to remain solid. Poultry production is booming, and prices have so far failed to catch up.

ASF: we estimate an 8.5% global price gain

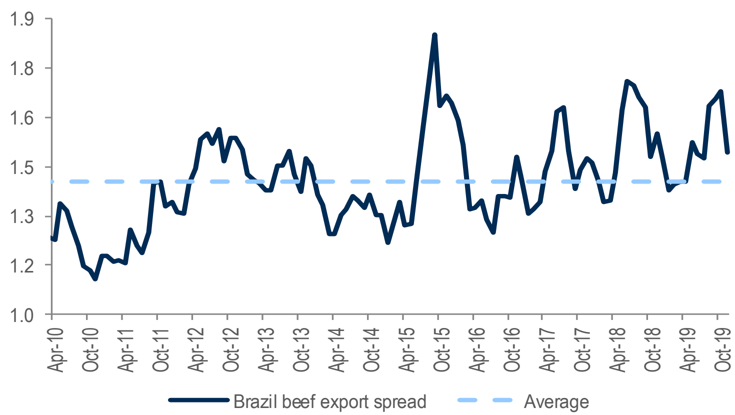
Pre-ASF impact		OECD 2018
1. Consumption ('000 ton)		311,504
2. Average price (USD/ton)		2,076
3. Market size (U$mn)	*(1x2)*	646,763
Protein as % of global GDP		***0.8%***

Post-ASF impact		Bear Case	Base Case	Bull Case
4. Production drop (%)		-30%	-45%	-60%
5. Production drop ('000 ton)		(16,212)	(24,318)	(32,424)
6. Consumption ('000 ton)	*(1+5)*	295,292	287,186	279,080
7. Market size (U$mn)	*(=3)*	646,763	646,763	646,763
8. Average price (USD/ton)	*(7÷6)*	2,190	2,252	2,317
Price change		**5.5%**	**8.5%**	**11.6%**

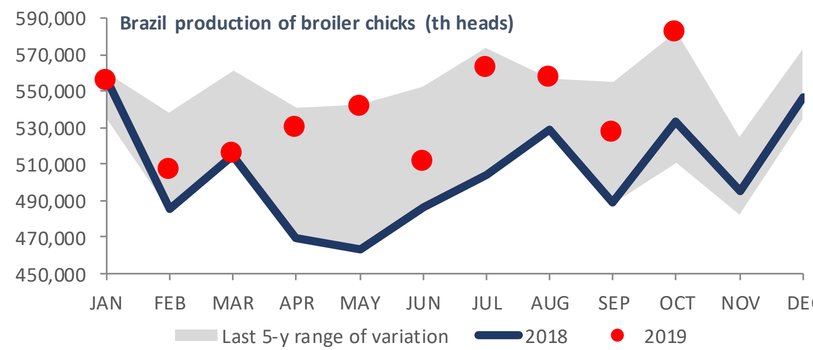
Beef: Female slaughtering has stabilized in Brazil…



… but spreads remain a solid 6% above average



Poultry: booming output could limit price growth

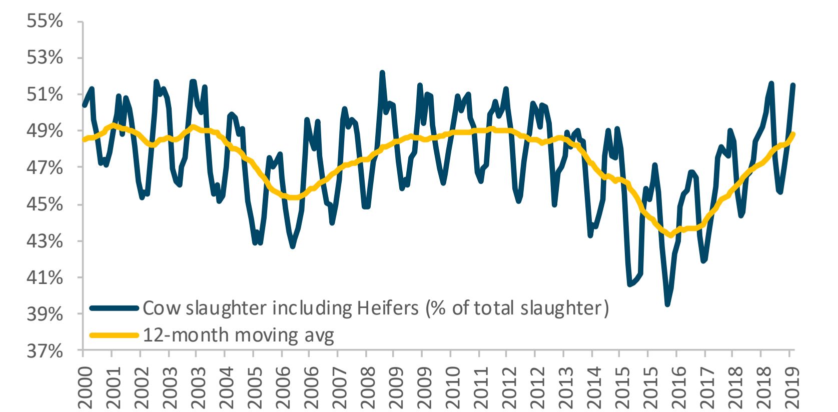


Source:
Bloomberg / OECD / Cepea / APINCO / Secex / IGBE / USDA / BTG Pactual

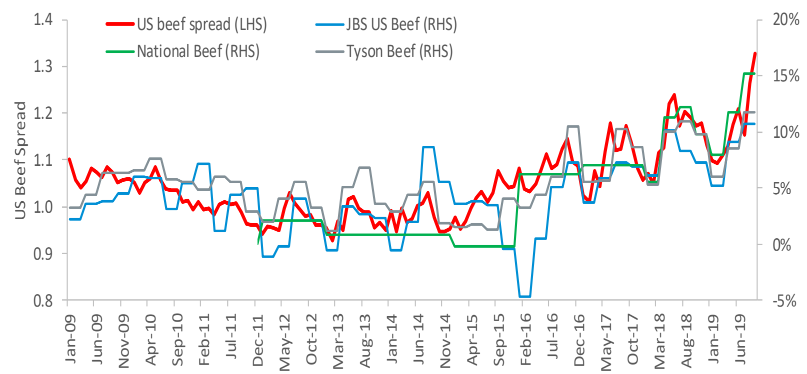
JBS: Our Top Food Pick

Strong momentum and attractive valuation, well positioned to benefit from a solid sector backdrop

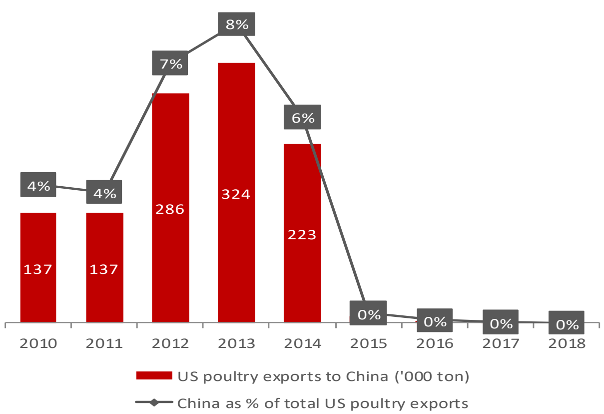
38% of JBS' EBITDA comes from its US beef business, where growing cattle supplies…



… should translate into higher spreads, which are already 21% above historical average



Reopening of China could be a catalyst for PPC's margins



And shares still trade at a discount to historical

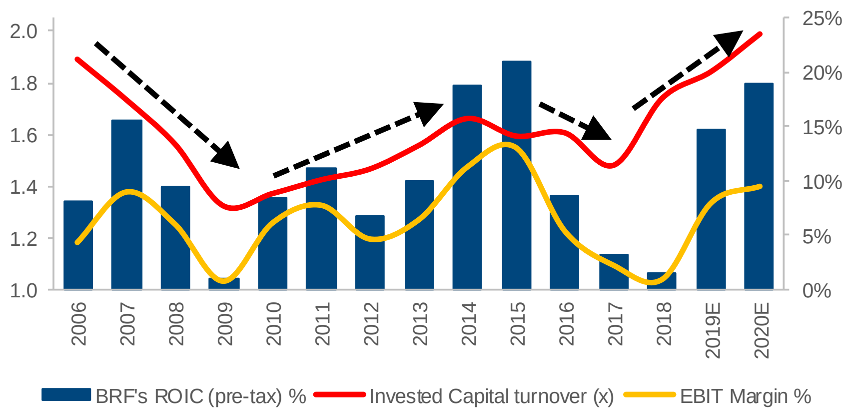
BTG Pactual

Source:
Companies data / USDA / Bloomberg / BTG Pactual

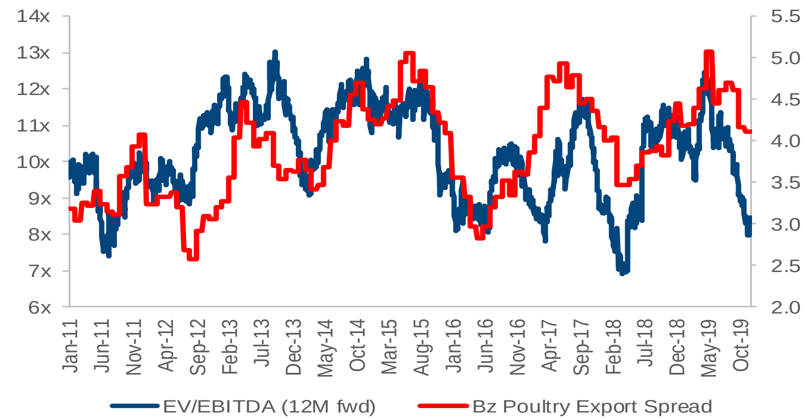
BRF: The Momentum vs Valuation dilemma

Asset turnover and operating margin seem to have suffered a downshift in recent years

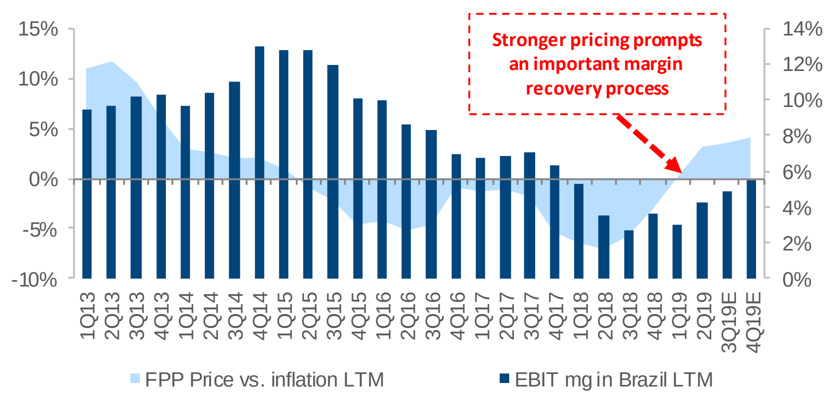
BRF is beginning to show improvements on both fronts…



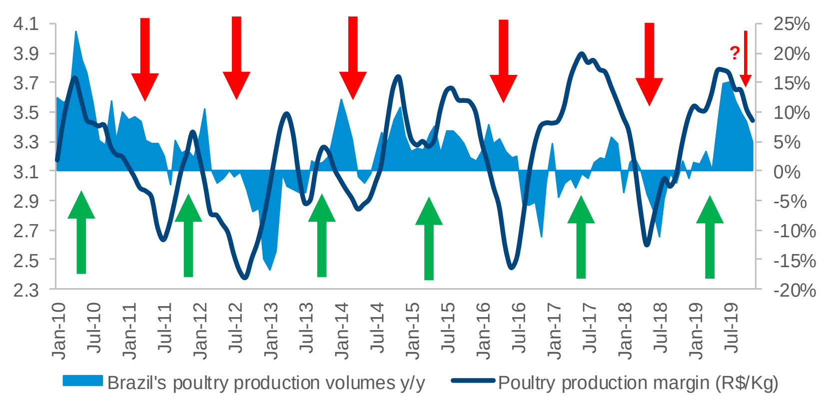
…and shares have historically traded pro-cyclically



But margins and prices are still far from good…



…and spreads are contracting on growing supply

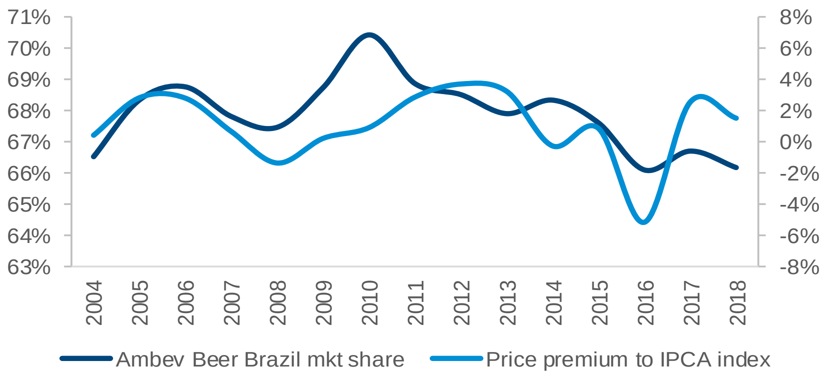


Source:
Company data / Bloomberg / Secex / IBGE / APINCO / BTG Pactual

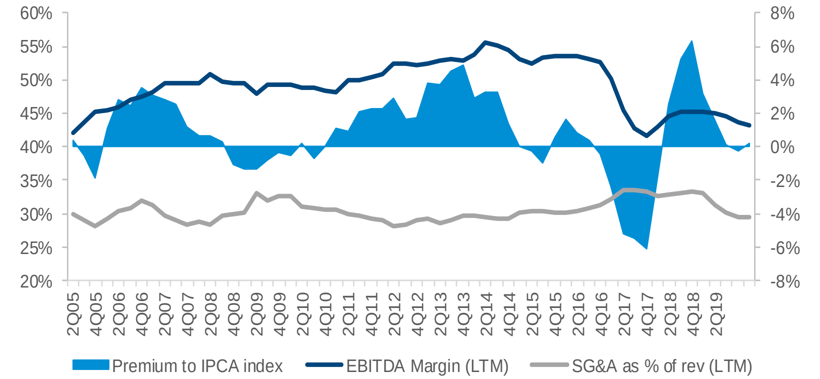
Ambev: The price conundrum

Pricing power is down as the company continues to struggle with a changing industry landscape

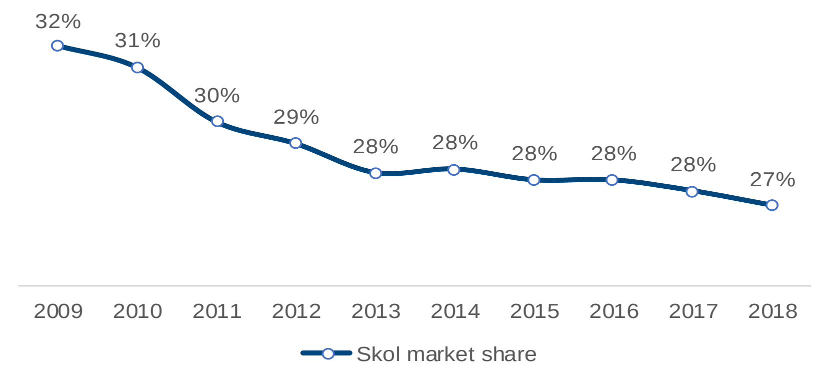
Volume growth typically precedes stronger pricing



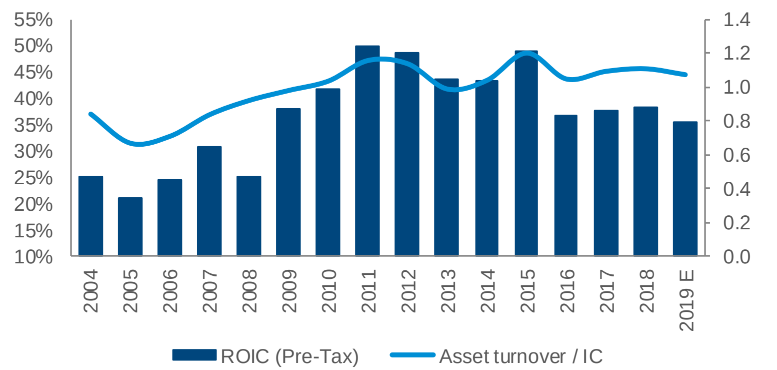
Margin resilience based on pricing power is under threat



Skol has lost 5p.p. of market share over the decade



Duopolistic market challenges Ambev's high returns



Source:
Company data / IBGE / Euromonitor / BTG Pactual

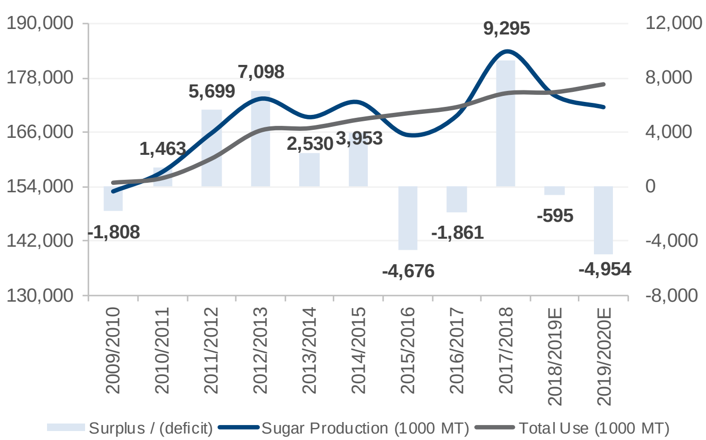
Agribusiness

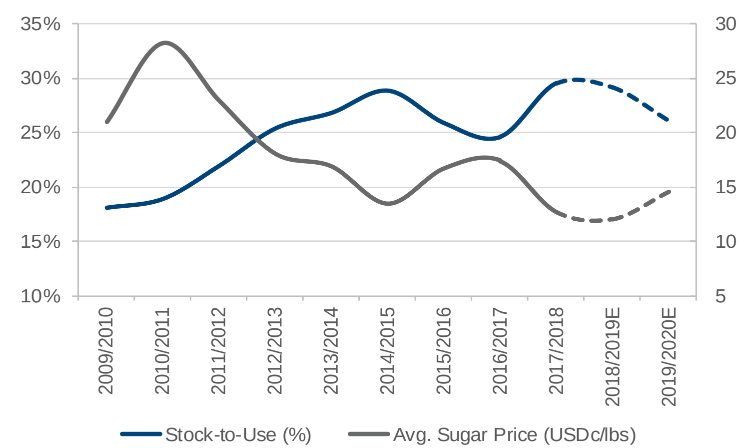
S&E

Sugar market fundamentals are starting to prevail

We're becoming more bullish that 19/20 harvest-year will point to a hard to ignore deficit of ~5.0mn tons, which should continue to support sugar prices recovery

Attribute	Country	2009/2010	2010/2011	2011/2012	2012/2013	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019E	2019/2020E
Sugar Production (1000 MT)	Brazil	36,400	38,350	36,150	38,600	37,800	35,950	34,650	39,150	41,204	29,040	29,780
	China	11,429	11,199	12,341	14,001	14,263	11,000	9,050	9,300	10,300	10,600	10,700
	India	20,637	26,574	28,620	27,337	26,605	30,460	27,385	22,200	34,309	32,830	29,990
	Thailand	6,930	9,663	10,235	10,024	11,333	10,793	9,743	10,033	14,710	14,190	13,100
	EU-28	16,897	15,939	18,320	16,655	16,020	18,449	14,283	18,314	20,823	17,640	17,120
	Others	60,825	55,676	60,250	66,918	63,469	66,140	70,451	70,734	62,594	70,000	71,000
	World	153,118	157,401	165,916	173,535	169,490	172,792	165,562	169,731	183,940	174,300	171,690
Total Use (1000 MT)	World	154,926	155,938	160,217	166,437	166,960	168,839	170,238	171,592	174,645	174,895	176,644
	% y/y	0.3%	0.7%	2.7%	3.9%	0.3%	1.1%	0.8%	0.8%	1.8%	0.1%	1.0%
Surplus / (deficit)	World	-1,808	1,463	5,699	7,098	2,530	3,953	-4,676	-1,861	9,295	-595	-4,954
Ending Stocks (1000 MT)	World	28,028	29,491	35,190	42,288	44,818	48,771	44,095	42,234	51,529	50,934	45,980
Stock-to-Use (%)	World	18.1%	18.9%	22.0%	25.4%	26.8%	28.9%	25.9%	24.6%	29.5%	29.1%	26.0%
Avg. Sugar Price (USDc/lbs)	World	20.9	28.2	22.9	18.0	16.8	13.4	16.6	17.4	12.7	12.0	14.5
Avg. BRL/USD	World	1.77	1.65	1.89	2.11	2.29	3.01	3.62	3.20	3.52	3.84	3.90
Avg. Sugar Price (BRLc/lbs)	World	37.0	46.4	43.2	37.9	38.5	40.3	60.2	55.6	44.6	46.1	56.6
Avg. Sugar Price (BRL/ton)	World	815.95	1,023.99	952.10	836.38	849.17	889.21	1,327.99	1,225.42	982.45	1,015.89	1,246.71

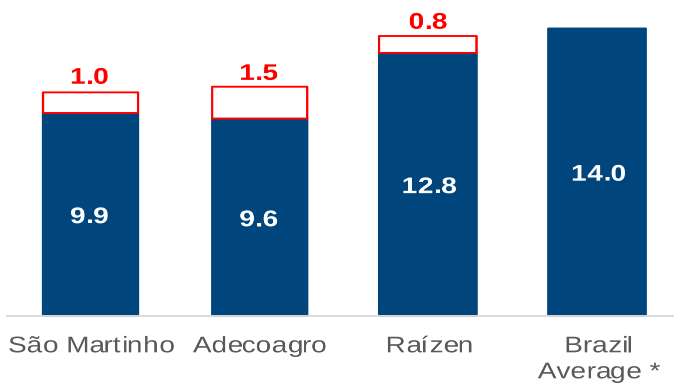




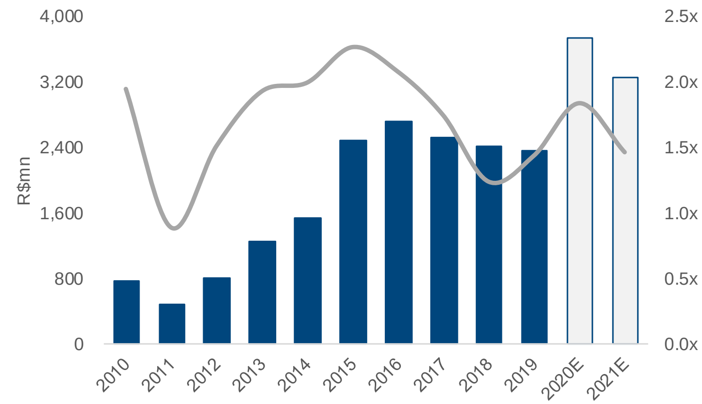
São Martinho: our Top Agri Pick

When asset quality pays off: strong FCF, even during sugar price lows

SMTO is one of the most efficient sugar/ethanol



Low leverage ratio may allow stronger dividends



We see SMTO trading at a compelling 10% FY2021E FCF yield, despite recent stock rally of +20% since October

(R$mn)	FY2015A	FY2016A	FY2017A	FY2018A	FY2019A	FY2020E	FY2021E
Net Revenues	**2,294**	**2,727**	**3,003**	**3,436**	**3,360**	**3,705**	**4,094**
EBIT	**587**	**570**	**850**	**1,049**	**706**	**740**	**829**
EBIT Margin	*25.6%*	*20.9%*	*28.3%*	*30.5%*	*21.0%*	*20.0%*	*20.2%*
Cash net fin expenses	(158)	(247)	(264)	(209)	(284)	(282)	(205)
Cash Income Tax	(32)	8	(162)	(131)	(65)	(25)	(156)
Earnings	**397**	**331**	**424**	**708**	**357**	**433**	**468**
D&A	599	736	739	896	1,045	1,287	1,390
Cash Earnings	**996**	**1,067**	**1,163**	**1,604**	**1,402**	**1,720**	**1,858**
CAPEX	(687)	(751)	(869)	(1,168)	(1,282)	(1,280)	(1,222)
FCF	**309**	**315**	**294**	**436**	**120**	**440**	**636**
Adjusted Market Cap *	7,438	7,438	7,438	7,438	7,438	6,294	6,294
Adjusted FCF Yield	**4%**	**4%**	**4.0%**	**5.9%**	**1.6%**	**7.0%**	**10.1%**

* Market cap adjusted for the NPV of the government indemnity net proceeds

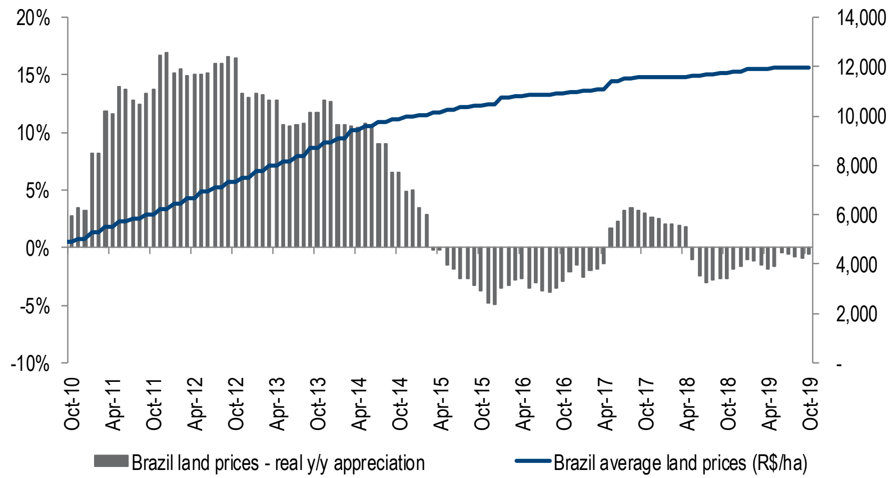
BTG Pactual

Source: Company / Bloomberg / BTG Pactual - * BTGe for 2018

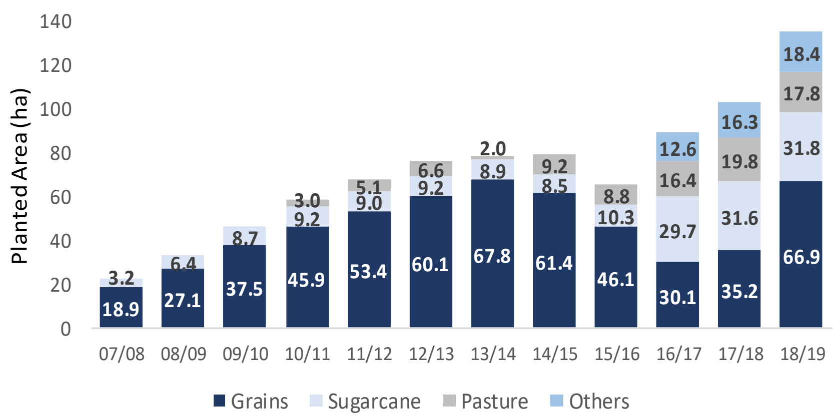
BrasiAgro: A return oriented company

Land market to soon show some recovery on combination of stronger farming yields and low interest rates. AGRO3 is the best positioned company to capture land appreciation

Land



Farming: AGRO3 has also successfully diversified FCF generation by increasing exposure to farming activities

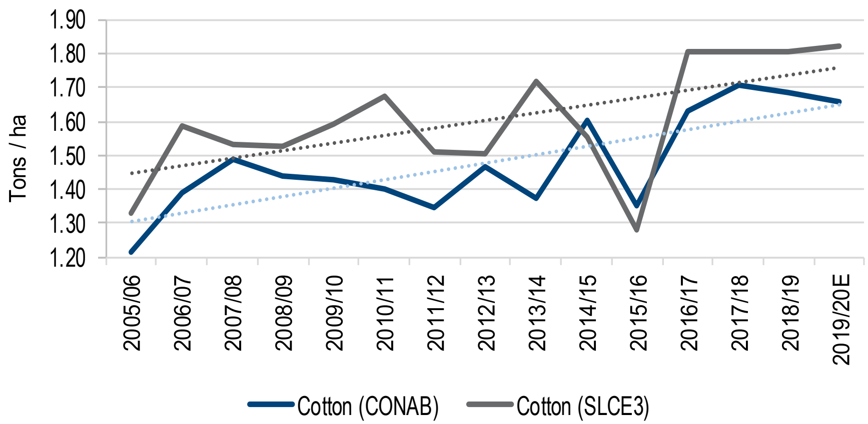


Source:
FNP / Company data / BTG Pactual

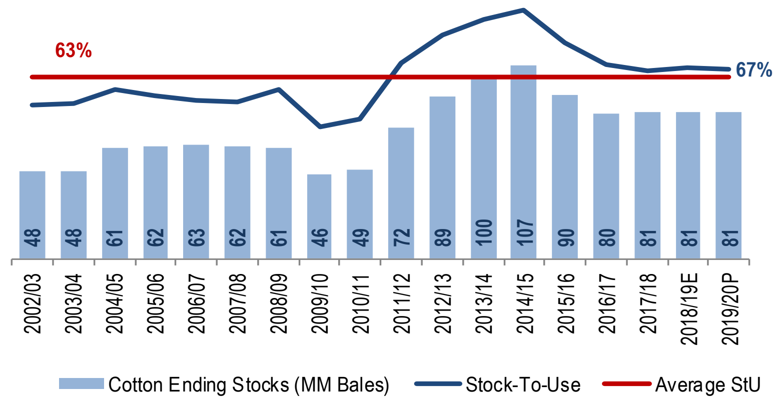
SLC Agrícola: Higher yield translated into higher returns

There are times when execution is not enough - upsides are now more difficult to find

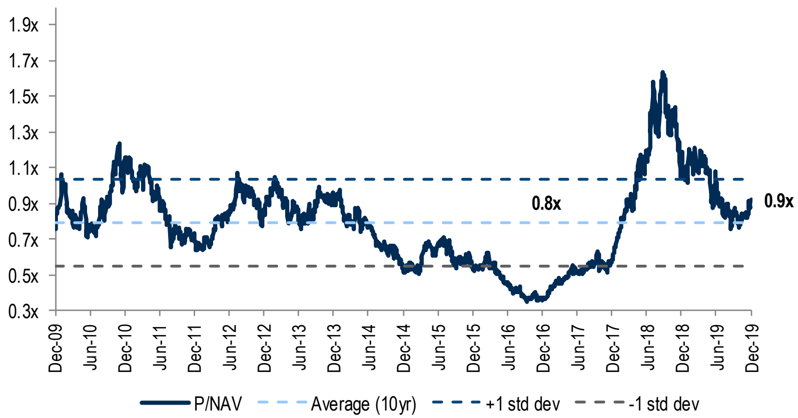
Mature areas for cotton crop enables SLC to have higher productivity vs Brazil's average…



… but cotton prices are under pressure and we expect little to none smoothing up until 2H20



In our view, current P/NAV of 0.9x is above the company's average and seems fair in light of a relatively quiet land market in Brazil



R$k	P/NAV
Market Cap	3,872,890
(-) Leased area NPV	*1,597,608*
Market Cap adjusted for NPV of leased areas	2,275,282
NAV	2,997,610
(+) Land + Machinery	*4,240,681*
(-) Net Debt as of 2020E	*1,243,071*
P/NAV - Adjusted by leased areas	**0.8x**

BTG Pactual

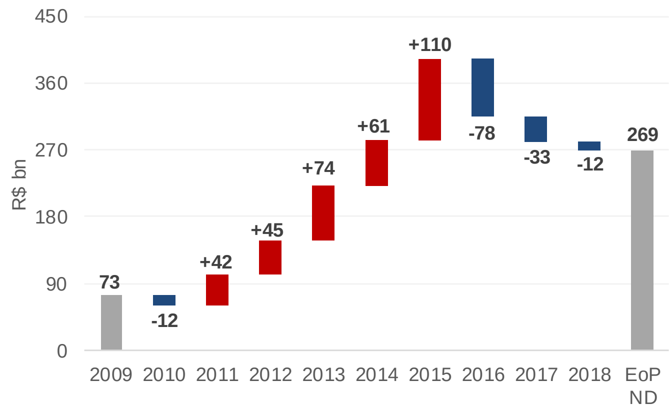
Source: USDA / CONAB / Bloomberg / Company Data / BTG Pactual

Oil & Gas

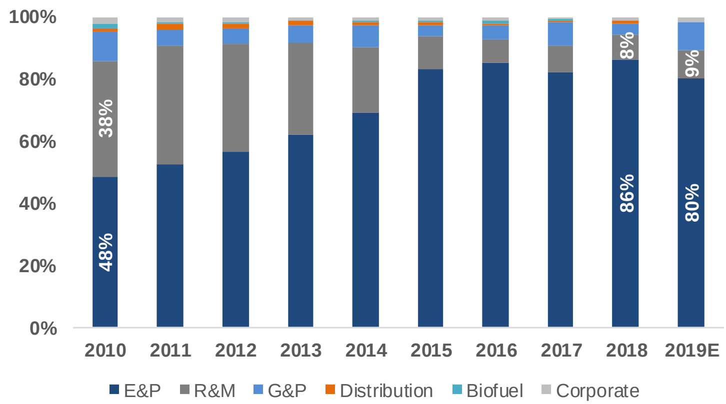
Petrobras: our O&G Top Pick

Petrobras continues to be a triple-alpha play

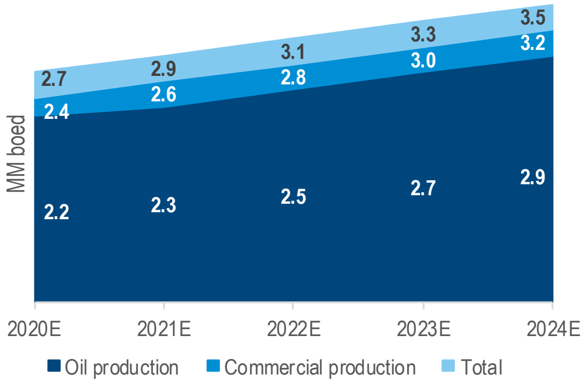
Divestments should continue to drive the company's deleverage process…



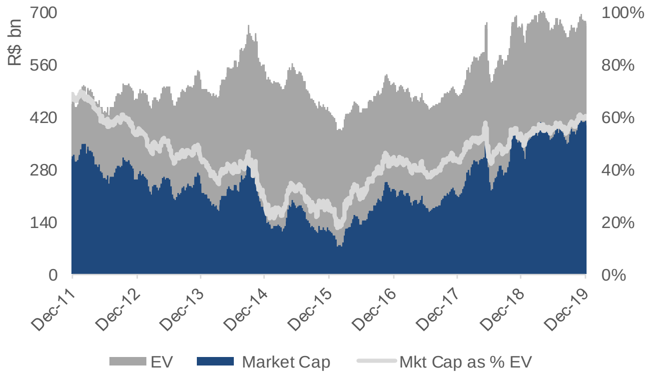
… while investments are now much more focused in PBR's core E&P business, where returns are higher



PBR is one of the few cases of strong production growth worldwide: 5% CAGR in 2020-24



Altogether, PBR should continue to gradually transfer value from debt to equity

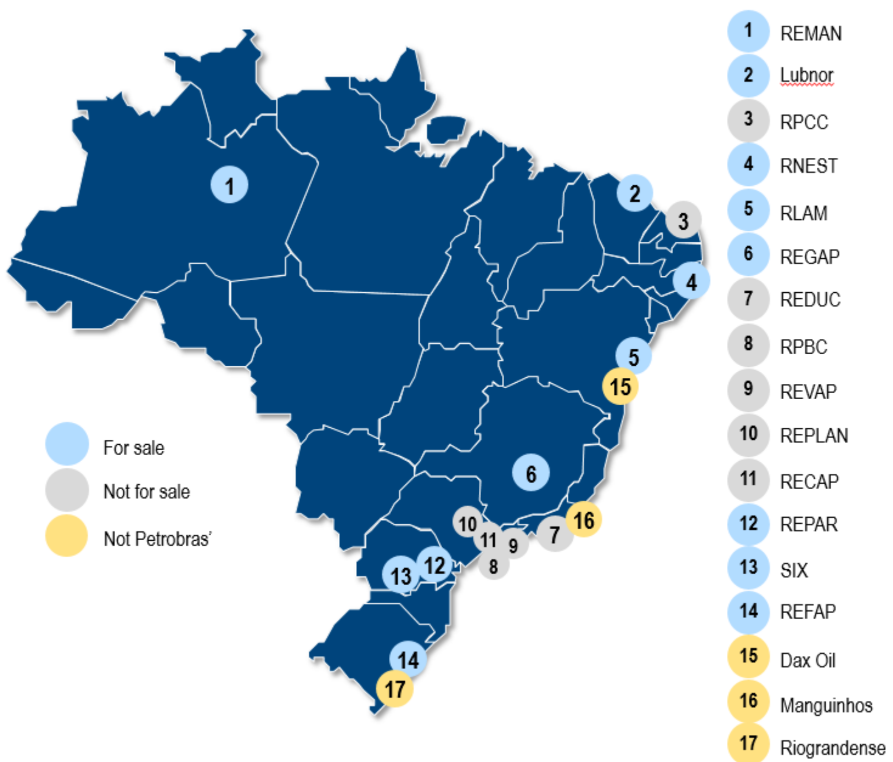


Source: Company data / Bloomberg / BTG Pactual

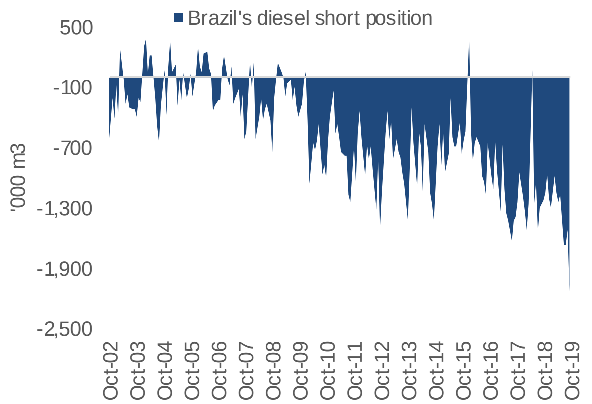
Downstream dreams

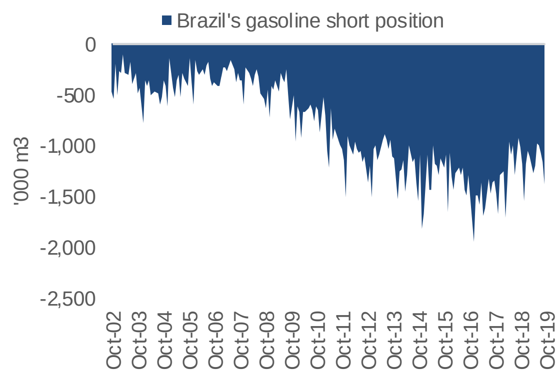
Privatizing a system that was built to be a monopoly – The sale of PBR's refineries should be the most important event of Brazil's O&G industry in 2020-21

Castello Branco's divestment plan will transfer 8 refineries to the private sector



Brazil will remain a net importer of oil products, underscoring the scarcity value of domestic refineries





Source: ANP / Company Data / BTG Pactual

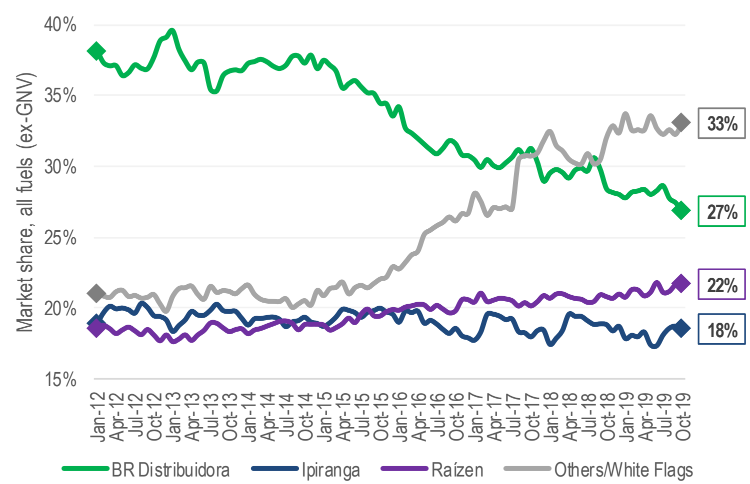
Downstream dreams

Owning a refinery in an open and soon-to-be privatized market has become a necessary evil for large fuel distributors

The lack of coordination will likely force a second best-outcome…

		Raízen	
		Buy	**Don't buy**
Ipiranga	**Buy**	ROIC dillutive for both, but enabling potential sourcing gains and preserving market share	Ipiranga dilutes ROIC but gains share in the LT/ Raízen maintains asset-light but compromises share in the LT
	Don't buy	Raízen dilutes ROIC but gains share in the LT/ Ipiranga maintains asset-light but compromises share in the LT	Better ROIC for both; all distributors would face the same fuel sourcing hurdles

… but that could prove to be very important to preserve large distributor's most important asset: market share

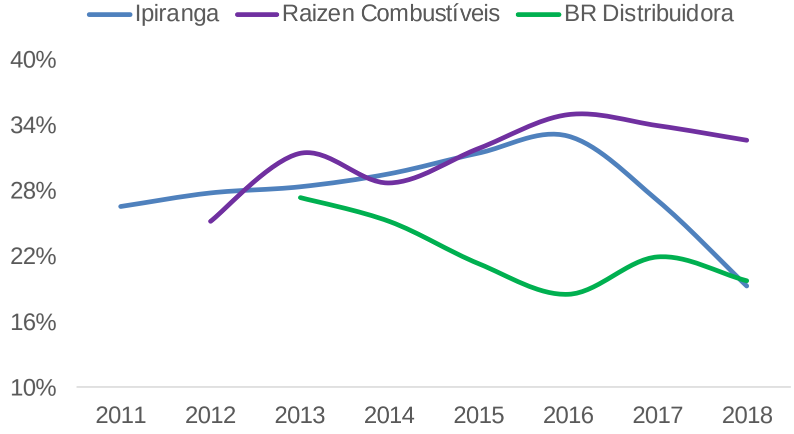


Source: Company Data /Plural / ANP / BTG Pactual

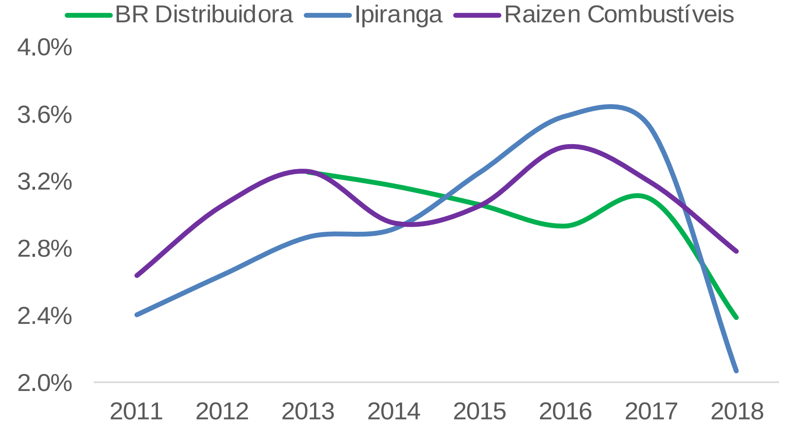
Cosan: our Top Fuel Distribution Pick

Cosan is better positioned in a scenario of increasing competition

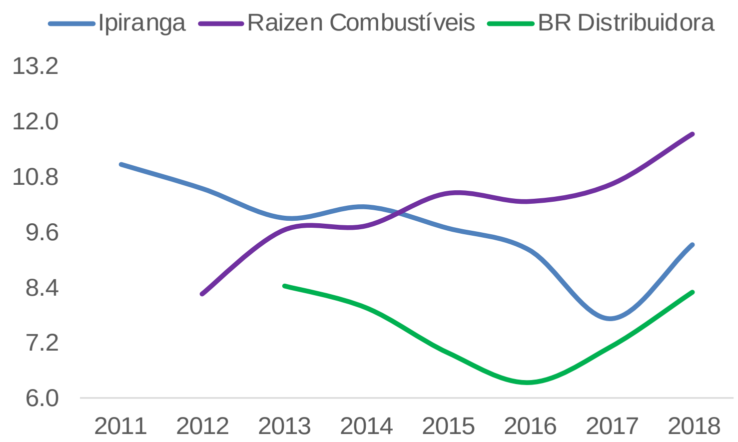
Pre-tax ROIC has trended higher for private Co's…



… driven mainly by higher EBIT margins



Asset turnover, in turn, has failed to impress, with Raízen being the only exception

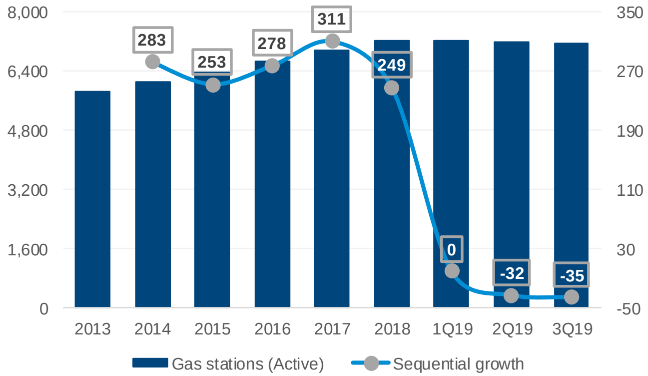


Source: Company data / BTG Pactual

Ultrapar – Still between a rock and a hard place

Although we welcome management's capital allocation rationality, we believe the decision to reduce conversion of new stations will slowdown a faster recovery

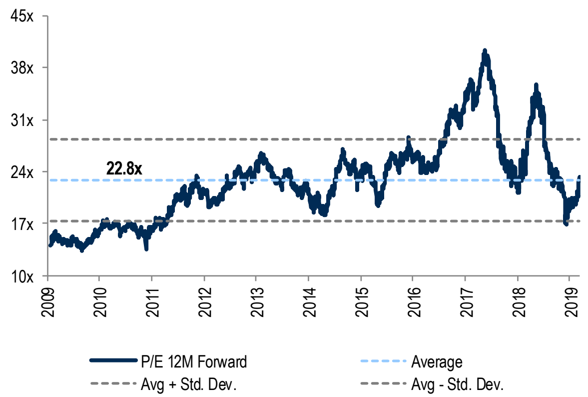
Ipiranga's gas station conversion pace is currently at the lowest level during this decade



Recently announced '20 capex guidance suggests no-growth mode shall persist

Capex	UGP 2020E			BTG 2020E	Diff.
R$mn	**Expansion**	**Maintenance**	**Consolidated**		
Ipiranga	528	345	**873**	970	-10%
Oxiteno	19	209	**228**	213	7%
Ultragaz	179	135	**314**	280	12%
Ultracargo	103	135	**238**	111	113%
Extrafarma	15	39	**53**	150	-64%
Others	0	65	**65**	0	n.m.
Total	**843**	**927**	**1,771**	**1,725**	**3%**

Valuations seem to fairly reflect company's lower growth



Our UGPA valuation is SOTP derived, using a 7% WACC (in real terms)

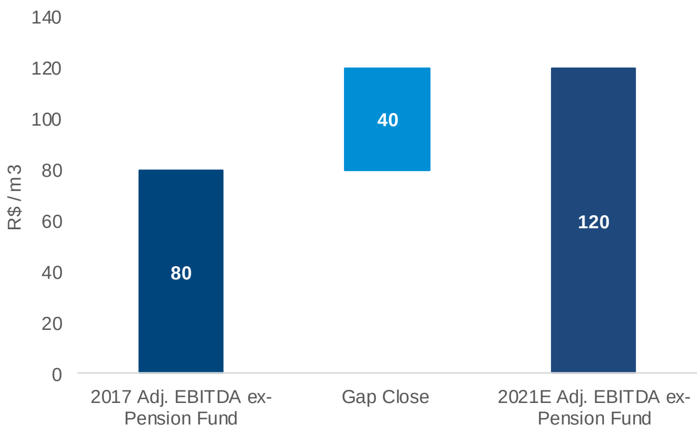
SOTP	EBITDA	2020 Multiple	Unit	R$m	R$/share	US$/ADR
Total assets						
Ultragaz	598	7.9x	EV/EBITDA	4,726	4.4	1.1
Oxiteno	344	10.0x	EV/EBITDA	3,442	3.2	0.8
Ultracargo	253	5.6x	EV/EBITDA	1,418	1.3	0.3
Ipiranga	2,606	9.2x	EV/EBITDA	23,925	22.0	5.6
Extrafarma	47	4.7x	EV/EBITDA	220	0.2	0.1
(-) Net debt (2020)				(10,274)	(9.5)	(2.4)
Net asset value				**23,456**	**22.0**	**6.0**

Source: Company Data / Bloomberg / BTG Pactual

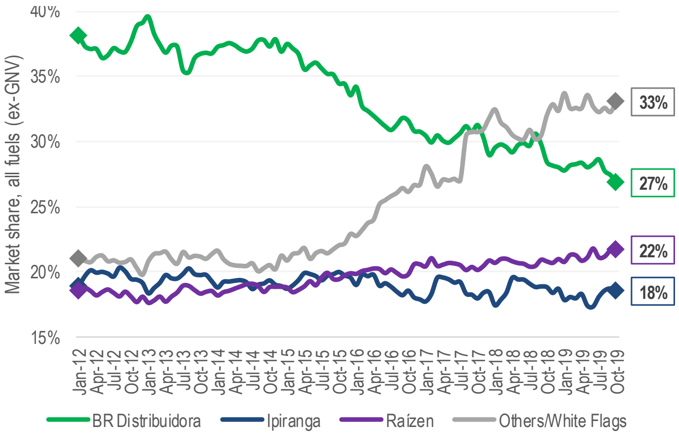
BR Distribuidora – A binary story!

BR Distribuidora remains a turnaround story, but with unattractive risk-reward

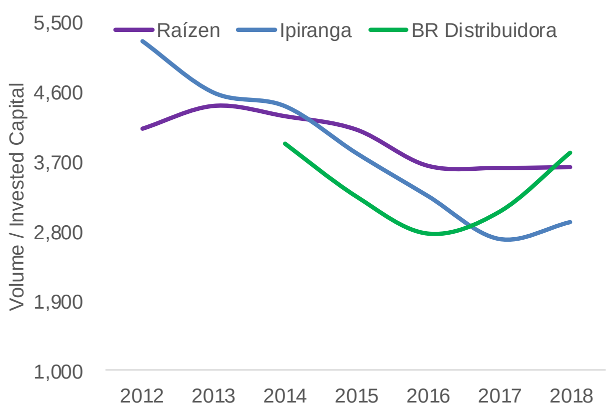
The company aims to close R$40/m3 gap margin vs peers…

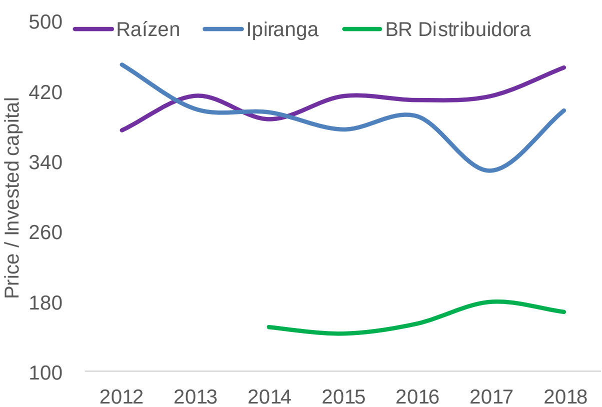


… but we see high execution risks as the company continues to lose market share



Moreover, it's not on volumes where BRDT's asset turnover truly underperforms, but instead on pricing





Source: Company Data / Plural / ANP/ BTG Pactual

BR Distribuidora – A binary story!

We run a DCF-based valuation for BRDT shares, using a real WACC of 7.6% and real perpetuity of 3%

DCF, BRL mn	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E
EBIT (ex-PF)	2,703	3,142	3,565	3,825	4,103	4,401	4,720	5,062	5,428
(-) Tax	(919)	(1,068)	(1,212)	(1,301)	(1,395)	(1,496)	(1,605)	(1,721)	(1,845)
NOPLAT	**1,784**	**2,074**	**2,353**	**2,525**	**2,708**	**2,905**	**3,115**	**3,341**	**3,582**
(+) Depreciation	560	542	526	513	501	492	485	480	476
(-) NWC	304	(110)	(425)	(455)	(486)	(520)	(556)	(594)	(635)
(-) Capex	(330)	(343)	(356)	(369)	(383)	(398)	(413)	(428)	(445)
Cash Flow	**2,318**	**2,163**	**2,098**	**2,213**	**2,340**	**2,479**	**2,632**	**2,798**	**2,978**
Cash flow (real)	**2,318**	**2,084**	**1,947**	**1,979**	**2,016**	**2,058**	**2,104**	**2,155**	**2,210**
Inflation factor	100	104	108	112	116	120	125	130	135
Discount factor	1.00	0.93	0.86	0.80	0.75	0.69	0.65	0.60	0.56
DCF	2,318	1,937	1,683	1,590	1,506	1,429	1,359	1,294	1,234
PV to 2028	14,352								
Perpetuity	25,168								
DCF valuation	**39,519**								

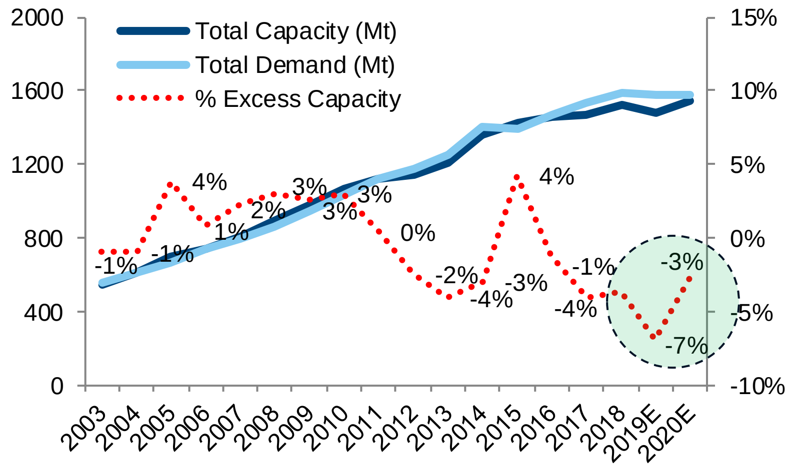
Adj. Net Debt (BRL) (2020)	(8,749)
Recovery of ELET's rec.	262
Equity Value (BRL)	31,032
Number of Shares	1,165
Target per share	**27.0**

Source: Company Data / BTG Pactual

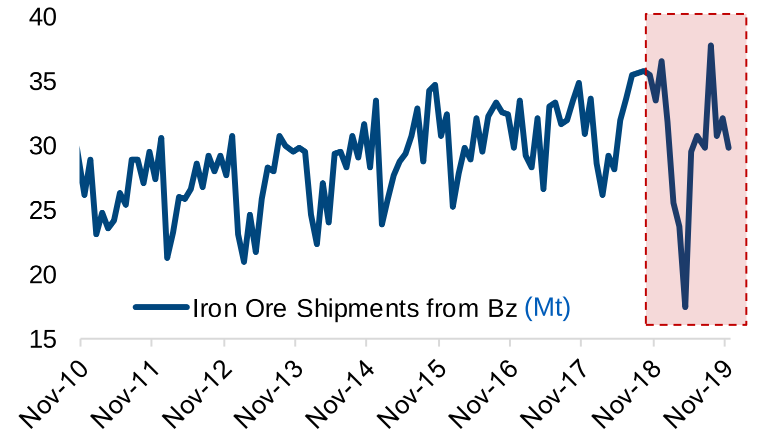
Basic Materials

Iron ore: Markets gradually normalizing

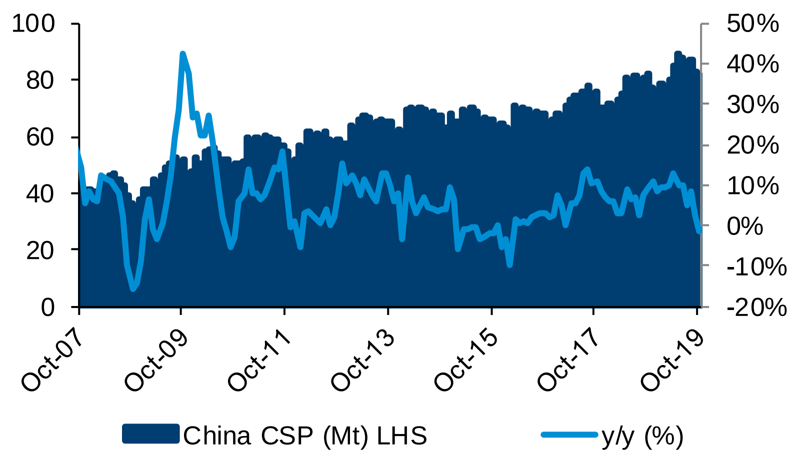
We still expect a deficit in 2020…



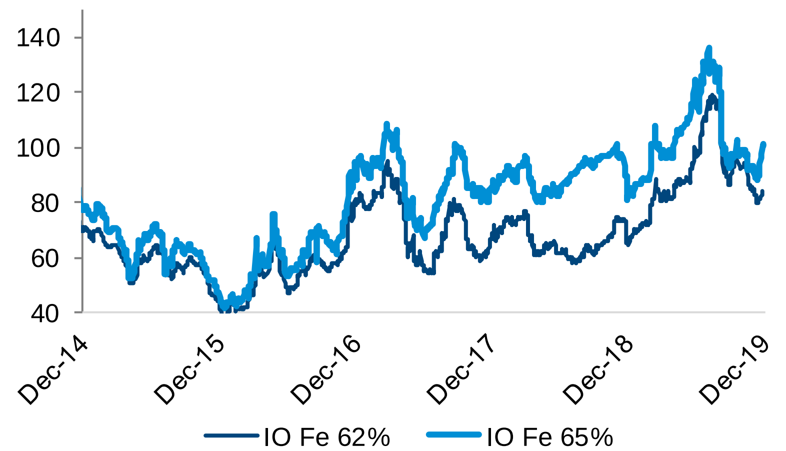
… largely driven by lower volumes from Brazil



Chinese CSP growing ~8% YTD!



Prices to remain in the US$75-85/t range



Source: Bloomberg, LBH, BTG Pactual | CSP: Crude Steel Prodution

VALE | Risk/return profile looking attractive

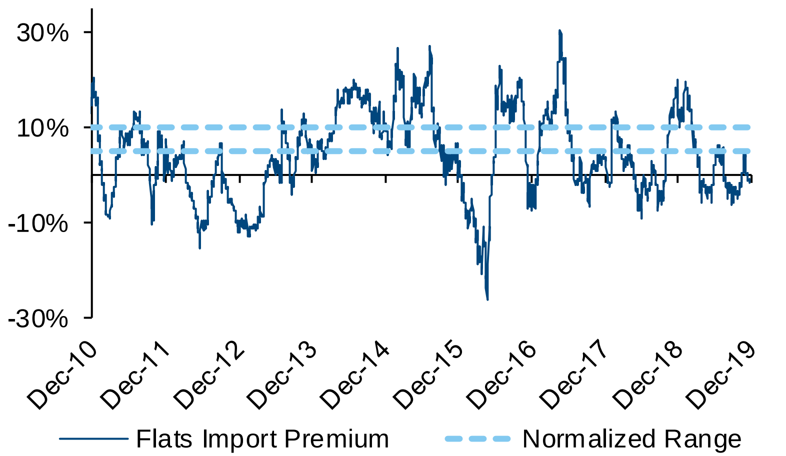
Simplified risk/return analysis for Vale - stock currently pricing in ~US$65/t

IO price	55	60	65	70	75	80	85	90	95
Implied EBITDA/t	22	27	32	37	42	47	52	57	62
Volumes - Mt	370	370	370	370	370	370	370	370	370
IO EBITDA - US$mn	7,955	9,805	11,655	13,505	15,355	17,205	19,055	20,905	22,755
Bmetals/others EBITDA - US$mn	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500	2,500
TOTAL EBITDA	**10,455**	**12,305**	**14,155**	**16,005**	**17,855**	**19,705**	**21,555**	**23,405**	**25,255**
EV/EBITDA target	5.5x	5.5x	5.5x	5.5x	5.5x	5.5x	5.5x	5.5x	5.5x
Implied EV	**57,503**	**67,678**	**77,853**	**88,028**	**98,203**	**108,378**	**118,553**	**128,728**	**138,903**
Net Debt (includes Refis)	14,810	13,608	12,405	11,203	10,000	8,798	7,595	6,393	5,190
Brumadinho / Capex NPV / Other	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000	6,000
Implied Equity value - 2019	**36,693**	**48,070**	**59,448**	**70,825**	**82,203**	**93,580**	**104,958**	**116,335**	**127,713**
Equity value/shr - 2019	**7.1**	**9.2**	**11.4**	**13.6**	**15.8**	**18.0**	**20.2**	**22.4**	**24.6**
Upside/downside	**-41%**	**-23%**	**-5%**	**14%**	**32%**	**50%**	**68%**	**87%**	**105%**

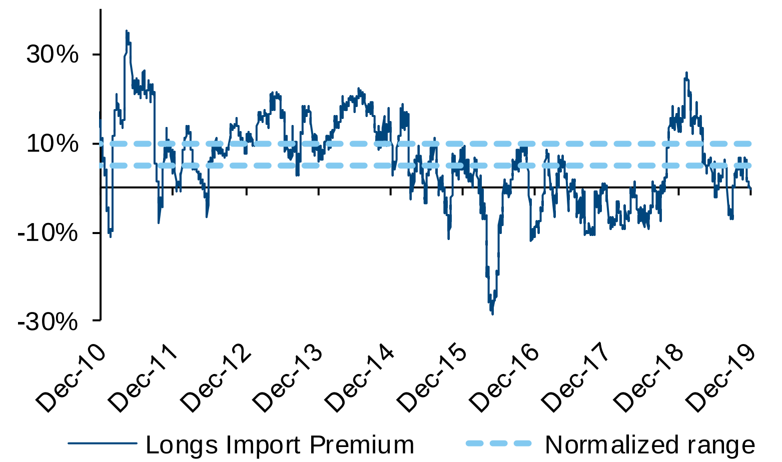
Source: BTG Pactual

Brazilian Steels: Recovery in all fronts

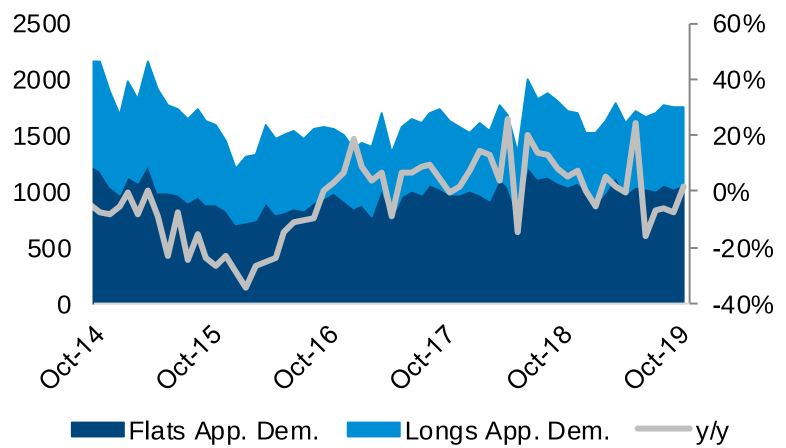
Import parity premiums have been negative…



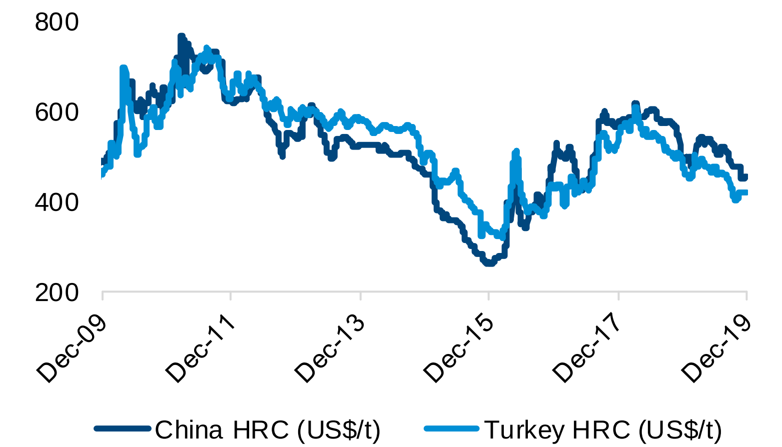
… and price hikes are expected ahead…



… helped by a rebound in demand…



… and stronger international prices + FX!

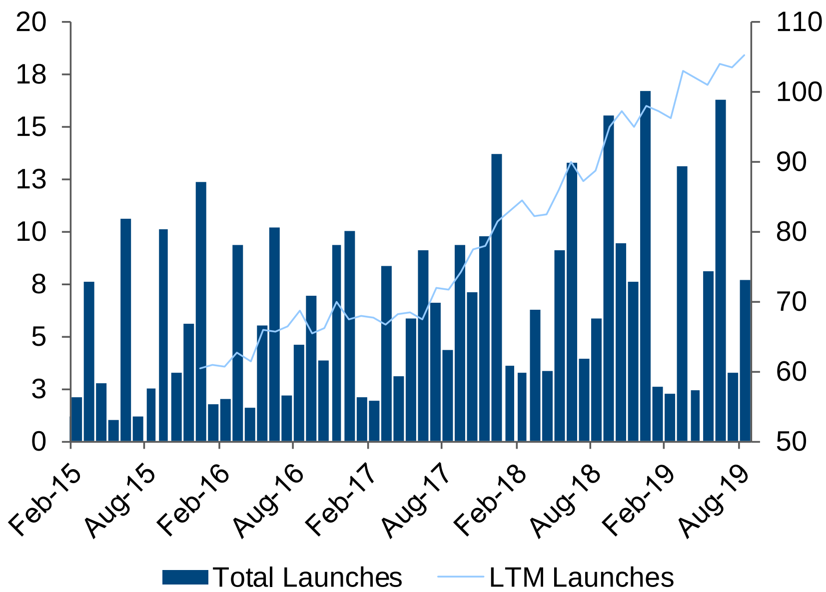


Source: Bloomberg, Platts, IABr, BTG Pactual

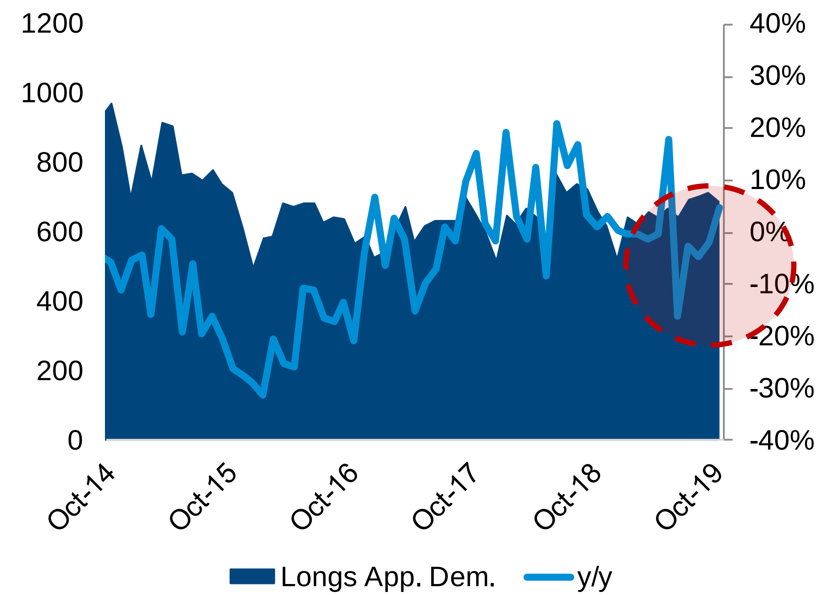
Gerdau

Volumes set to increase on booming real estate market. Top pick!

New launches in Brazil growing ~20% y/y…



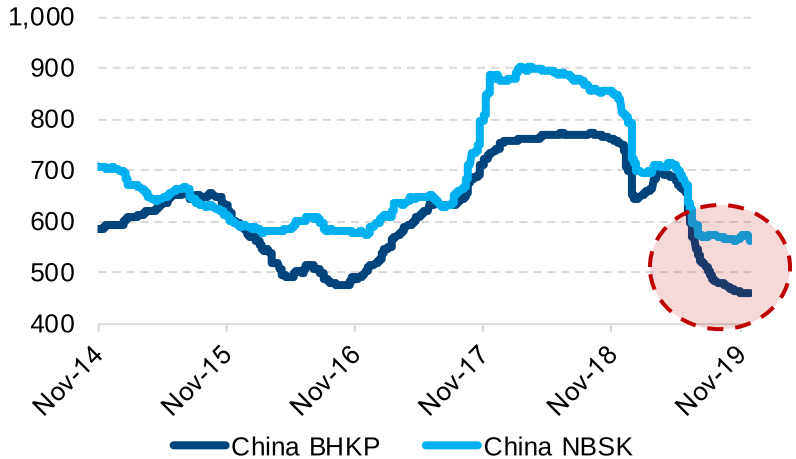
… and its starting to show in steel demand!



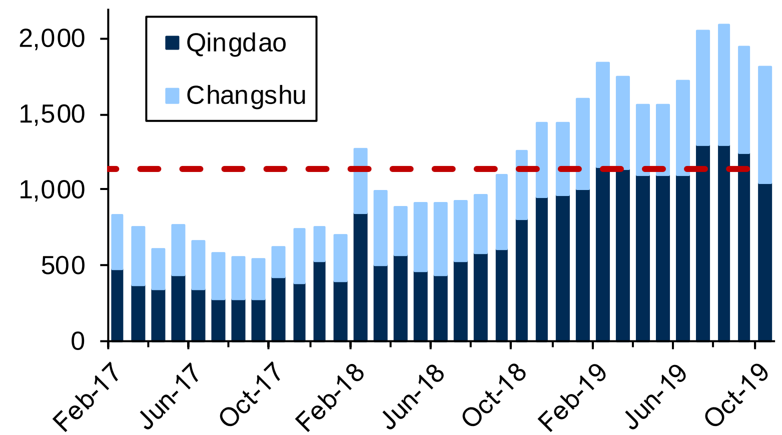
Source: Abrainc, IABr, BTG Pactual | Note: Figures are shown in '000

Pulp: Rebound at sight in 2020. SUZB top pick!

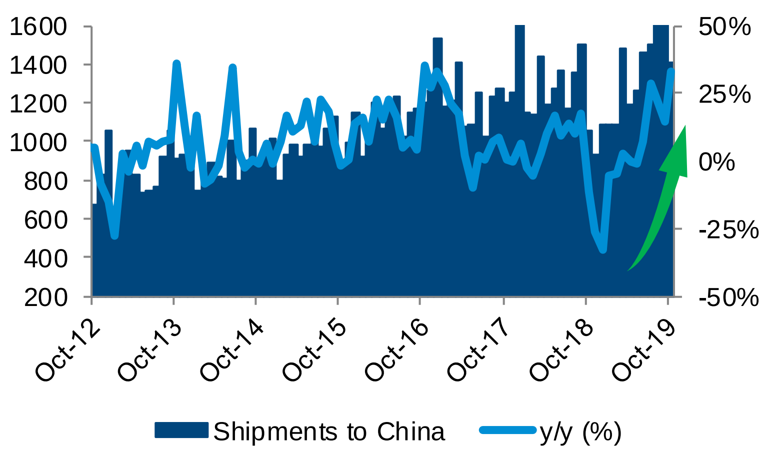
Prices currently below marginal costs



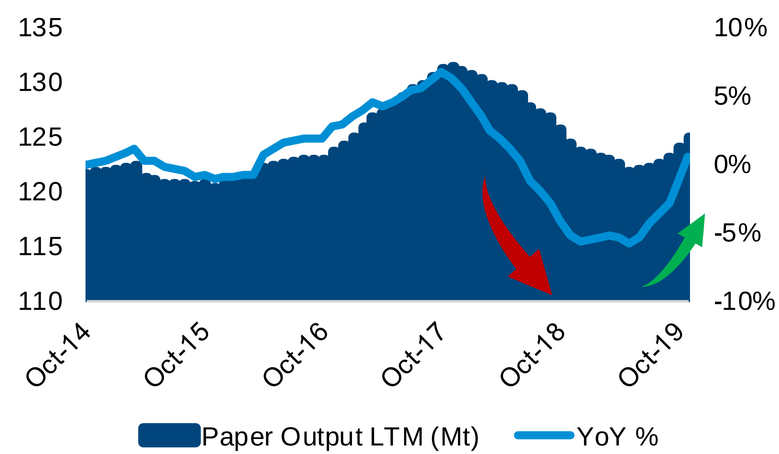
High inventories being worked lower…



… driven by strong Chinese demand (up 10% YTD!)…



… to be supported by a recovering paper mkt



Source: FOEX, RISI, PPPC, NBS, BTG Pactual

Transportation & Capital Goods

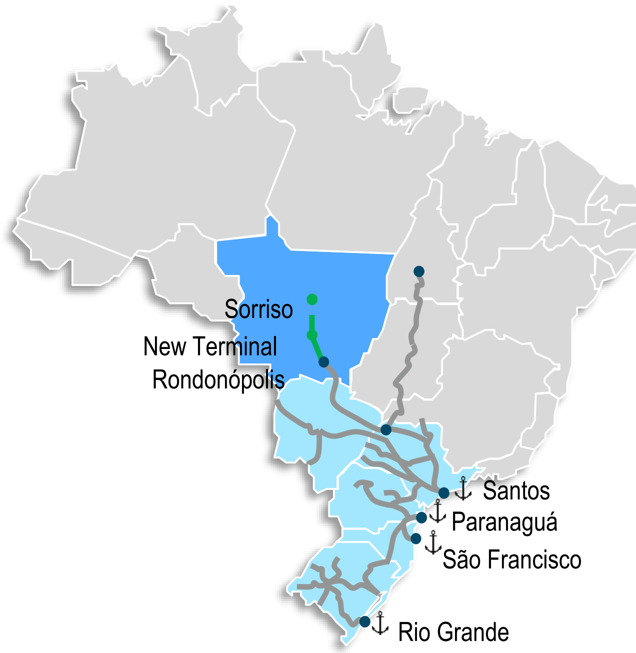
Transportation and Capital Goods Best Ideas

- ✓ Rumo: Still our top pick
- ✓ Bz Airlines: We remain positive on the sector
- ✓ Marcopolo: Improving fundamentals
- ✓ Car Rentals: Opportunities following recent profit taking
- ✓ Embraer: Good risk/return from Boeing outcome
- ✓ CCR: Good upside from new projects
- ✓ JSL: Growing upside from long-term rental contracts

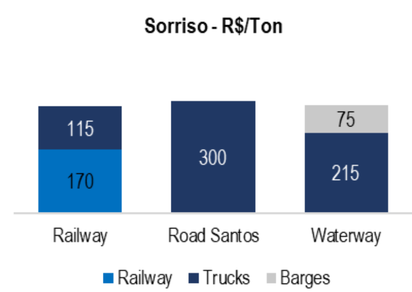
Rumo: Still top pick

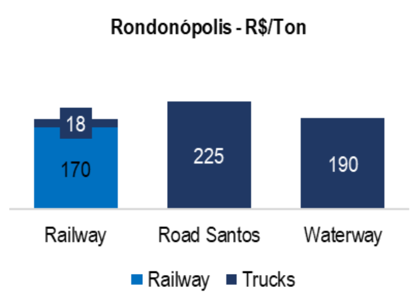
- 2019 to remain strong: market share gains, new projects
- Highest long term EBITDA / earnings CAGR in coverage universe (5-year CAGR of 16% and 59% respectively)
- Exponential FCFE ramp-up
- Malha Paulista's renewal was already approved by the Federal Audit Court; we believe the likelihood of approval by the other entities is still high.
- Sorriso Project is material upside risk

	R$mn
EBITDA	4,455
Capex, pre expansion	1,954
Net financials expenses, cash	(1,054)
Taxes	(400)
Working capital change	230
FCFE	1,311
Market cap	39,350
FCFE yield (early 2021s)	2.7%
P/CF	**21.5x**



Competitive Advantage

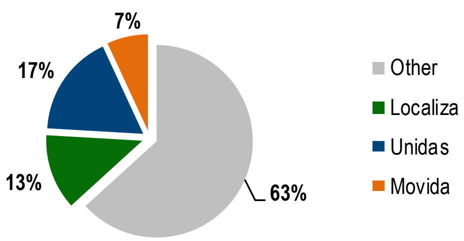




Car Rental

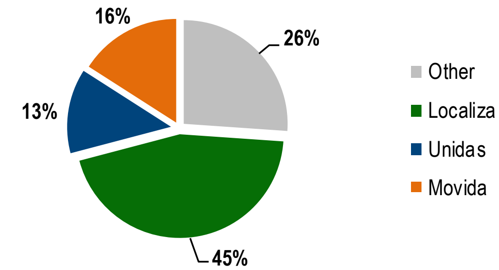
- Still positive on the car rental sector
- Consolidation thesis playing out
- Still low penetration of fleet rental segment
- Improving GDP and activity data
- Changing consumer behavior is a positive
- Vehicle purchasing conditions remain favorable
- Increasing product digitalization

Consolidated Fleet Rental Market Share in 2018
(in terms of fleet size)



Source: ABLA and BTG Pactual
*not including CNAE secondary figures

Consolidated Market Share in 2018
(in terms of fleet size)



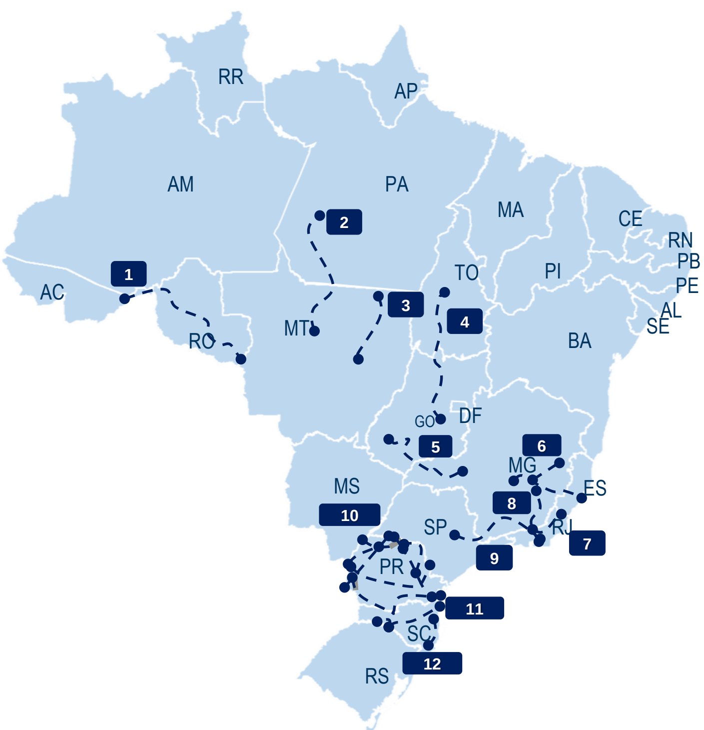
Source: ABLA and BTG Pactual
*not including CNAE secondary figures

Volumes - Y/Y growth	2016	2017	1Q18	2Q18	3Q18	4Q18	2018	1Q19	2Q19	3Q19
1. Unidas/Locamerica										
Number of Rental Days - RAC	4,797	6,486	1,965	1,809	2,138	2,642	8,554	3,156	3,328	3,578
y/y growth	**20.7%**	**35.2%**	**27.2%**	**23.6%**	**28.1%**	**46.0%**	**31.9%**	**60.6%**	**84.0%**	**67.3%**
Number of Rental Days - Fleet	20,045	18,840	5,593	5,595	5,684	5,753	22,624	6,069	6,420	6,461
y/y growth	**148.8%**	**-6.0%**	**12.0%**	**10.8%**	**8.9%**	**7.8%**	**9.8%**	**8.5%**	**14.8%**	**13.7%**
2. Movida										
Number of Rental Days - RAC	8,217	11,311	3,199	3,253	3,617	3,721	13,790	3,728	3,744	4,178
y/y growth	**61.8%**	**37.7%**	**23.1%**	**20.0%**	**21.3%**	**23.3%**	**21.9%**	**16.5%**	**15.1%**	**15.5%**
Number of Rental Days - Fleet	5,231	5,099	1,640	1,703	2,014	2,254	7,610	2,426	2,547	2,953
y/y growth	**-7.4%**	**-2.5%**	**38.2%**	**38.4%**	**66.1%**	**53.3%**	**49.2%**	**48.0%**	**49.6%**	**46.6%**
3. Localiza										
Number of Rental Days - RAC	18,681	25,264	8,139	8,234	8,974	9,937	35,285	10,278	10,636	12,062
y/y growth	**19.9%**	**35.2%**	**53.3%**	**47.9%**	**36.2%**	**27.4%**	**39.7%**	**26.3%**	**29.2%**	**34.4%**
Number of Rental Days - Fleet	11,240	12,752	3,576	3,658	3,908	4,094	15,236	4,386	4,611	4,911
y/y growth	**3.2%**	**13.5%**	**22.1%**	**21.4%**	**20.6%**	**14.7%**	**19.5%**	**22.6%**	**26.1%**	**25.7%**

BTGPactual

Toll roads: Positive pipeline of investments opportunities

- Abundant pipeline of new investment opportunities, including contract amendments, new toll roads, airports and urban mobility projects
- Improvements on the regulatory front, such as rebalancing negotiations and problematic assets return
- Expected improvements on traffic performance with the economic recovery
- Abundance of projects enables players to become selective in terms of investments, increasing rationality



#	Description	Extension
1	Rodovia BR 364/RO/MT - Porto Velho/RO a Comodoro/MT	806,3 km
2	Concessão das rodovias BR-163/230/MT/PA - Trecho entre Sinop/MT e Miritituba/PA	970 km
3	Rodovia Federal BR-158/MT	417,80 km
4	Rodovia - BR-153/080/414/GO/TO - Aliança do Tocantins a Anápolis	850,7 km
5	Rodovia BR-364/365/MG/GO - Uberlândia a Jataí	437 km
6	Concessão das rodovias BR-381/262/MG/ES - Trecho da BR-381/MG entre Belo Horizonte e Gov. Valadares e BR-262/MG/ES entre João Monlevade/MG e Viana/ES	672 km
7	Rodovia - BR 116/493/RJ/MG (CRT)	711 km
8	Rodovia - BR-040/495/MG/RJ (Concer) - Juiz de Fora a Rio de Janeiro	211 km
9	Rodovia - BR-116/465/101-SP/RJ (Dutra) - Rio de Janeiro a São Paulo	402 km
10	Estudos para concessão das Rodovias Integradas do Paraná - BR - 153/158/163/272/277/369/373/376/476/PR e estaduais relevantes	4100 km
11	Concessão das Rodovias BR - 153/282/470/SC e SC-142	544 km
12	Rodovia - BR-101/SC - Paulo Lopes a São João do Sul	220,42 km

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Real Estate

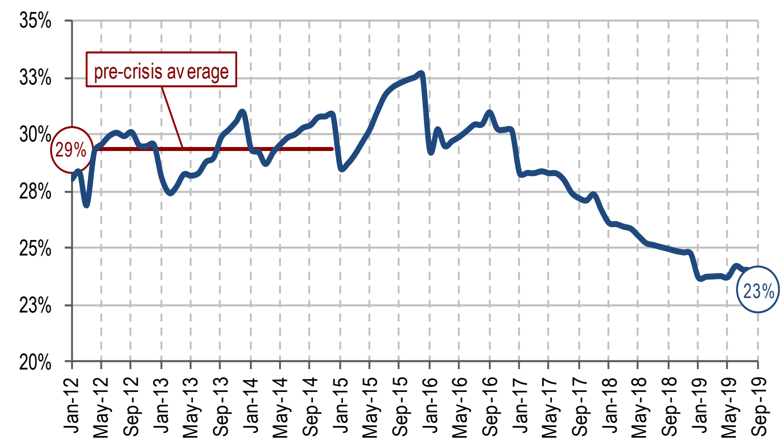
Housing: 2020 is shaping up much better

Mid/high-income is getting better all the time. MCMV program remains a government priority

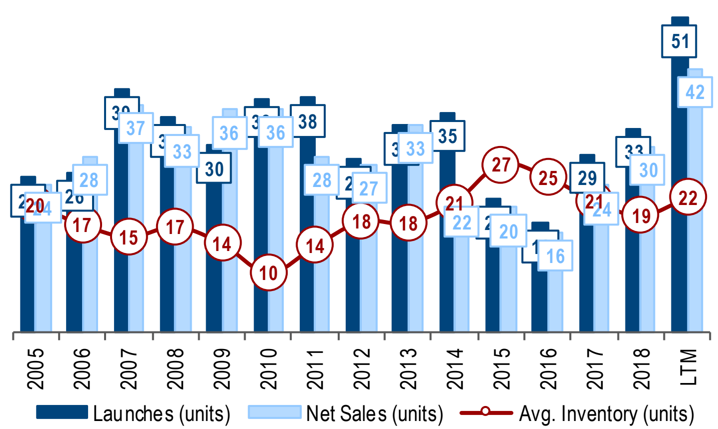
- ✓ In a scenario of much lower interest rates and rising consumer confidence, home launches/sales in mid/high-income segment grew a lot in 2019 and expect this positive scenario to continue in 2020. Thus, we are more positive on mid/high-end homebuilders and brokers (Trisul is our top pick)

- ✓ Low-income homebuilders has been under pressure, as MCMV housing program should face some changes (= likely lower subsidies). But, with a huge pent-up demand and since the government is committed with MCMV program, we expect the continuity of the program.

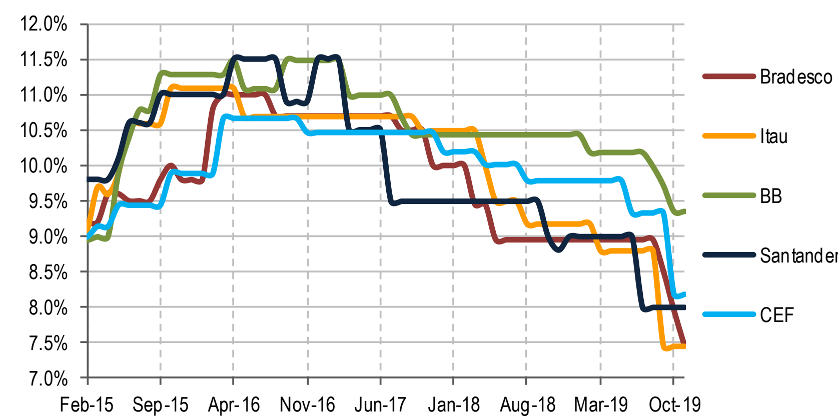
Affordability for homebuyers has never been so good…



Launches / sales of residential units in the city of São Paulo



Interest rates on new mortgage loans ("taxa balcão")



Note: Assuming a hypothetical purchase of a R$500k house in the state of São Paulo for an individual earning R$10k per month. 360-month duration contract using SAC financing scheme

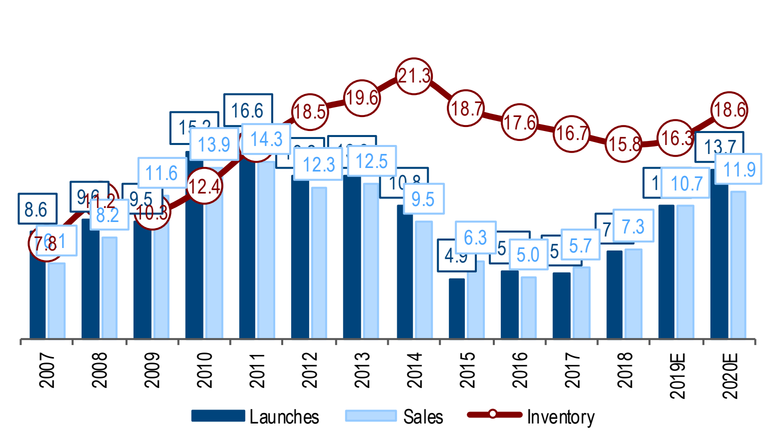
Housing: we prefer mid/high-income

Launches/sales are set to grow a lot in mid/high-end segment (= higher ROEs!)

- ✓ On the back of a positive sector scenario, mid/high-income homebuilders are set to grow launches and sales a lot. Consequently, we forecast aggregate ROEs to grow a lot in the coming years. Trisul is our top pick.

- ✓ Low-income homebuilders are facing more restrictive credit conditions in MCMV, which has been impacting margins. We find valuation attractive, but we need more color on changes MCMV to assess risk-returns (government will unveil changes in December/January)

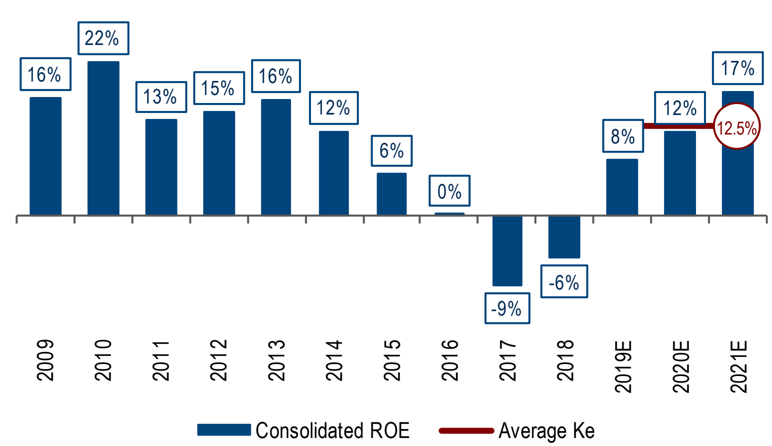
Aggregate launches and sales – mid/high-end segment



Brazilian Housing – Valuation multiples

Company	Price	P/E			P/TBV
	6-Dec	19E	20E	21E	Last
MRV	19.26	**12.1x**	**11.4x**	**8.1x**	**2.01x**
Cyrela	28.77	**26.2x**	**15.4x**	**9.4x**	**2.20x**
Tecnisa	1.66	**nm**	**nm**	**20.4x**	**1.29x**
Even	13.28	**20.4x**	**15.1x**	**7.9x**	**1.74x**
Eztec	46.60	**36.0x**	**18.1x**	**12.2x**	**2.73x**
Helbor	3.79	**nm**	**20.6x**	**12.3x**	**2.03x**
Direcional	13.20	**18.4x**	**9.5x**	**7.3x**	**1.48x**
Trisul	14.60	**17.5x**	**13.8x**	**10.1x**	**2.53x**
Lopes	8.89	**nm**	**18.5x**	**11.9x**	**nm**
Average		**21.7x**	**15.3x**	**11.1x**	**1.92x**

Homebuilders aggregate ROE



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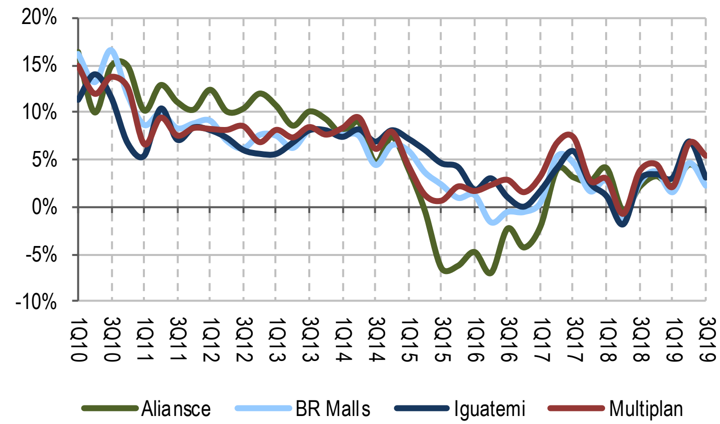
Malls: sales to grow in 2020; Offices: rents and occupancy growth

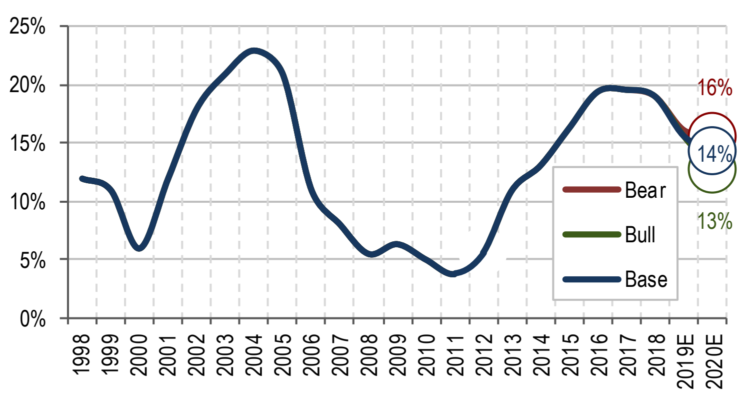
We expect malls sales to recover in 2020; Growth in rents SP and occupancy in Rio's office markets

- ✓ We expect nice Same-Store-Sales for malls: (i) retail sales improving and (ii) easy comps. In this scenario, we hopefully should see some growth in the sector (via higher rents and start of new projects).
- ✓ In office spaces, we expect growth in rents in offices in São Paulo (explained by low vacancy rates in the prime regions) and occupancy to increase in AAA properties in Rio (due to fly-to-quality movement). Our preferred pick in the office space is BR Properties.

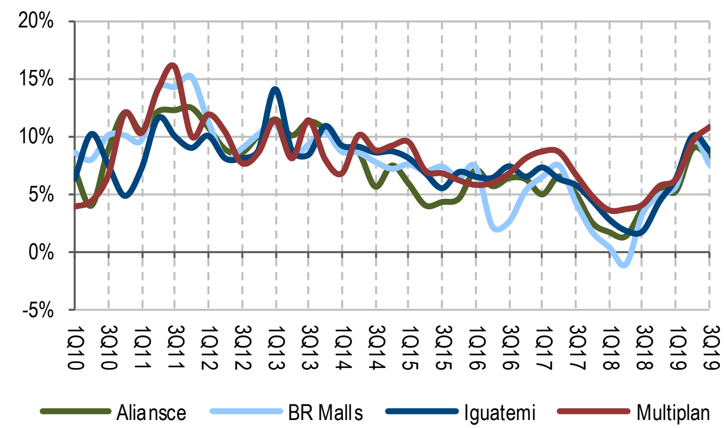
Same-Store-Sales (SSS) growth of listed shopping malls



Historical and projected vacancy rate in offices in São Paulo



Same-Store-Rents (SSR) growth of listed shopping malls



Properties: solid outlook for malls & offices

Retail sales & rents recovering + low interest rates = Buy malls & offices

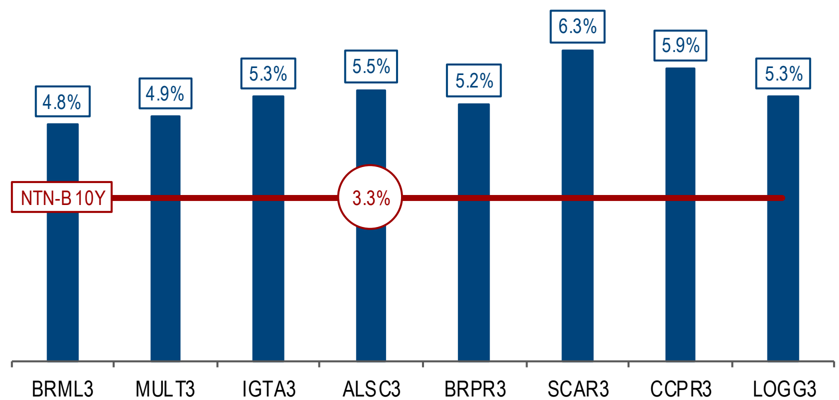
- ✓ We expect a solid 2020 for shopping malls: (i) retail sales recovering, top line growth (higher sales and some reduction of discounts to tenants), adjusted Ebitda growth (lower vacancy and NPLs).

- ✓ We prefer more premium portfolios (AAA-oriented), that we believe are in better shape to surf a recovery of tenants' sales (it should be translated into higher rents faster).

- ✓ For the office companies, we expect vacancy to decrease in Rio's AAA market (fly-to-quality) and rents increasing in São Paulo (due to low vacancy rate).

- ✓ In terms of valuation, we see malls trading at attractive valuations (nice premium to long-term real interest rates vs. historical levels). In offices we see expensive short-term multiples, but top line/earnings should growth a lot on higher rents and occupancy. Our preferred pick is BR Properties.

Brazilian Properties – Implied IRR vs. long-term interest rates



Brazilian Properties – Valuation multiples

Company	Price 6-Dec	IRR (%)	P/FFO 19E	P/FFO 20E	P/FFO 21E
BR Malls	16.55	4.6%	**20.1x**	**20.8x**	**19.4x**
Multiplan	30.53	4.8%	**26.3x**	**22.5x**	**20.3x**
Iguatemi	49.49	5.3%	**23.1x**	**20.6x**	**18.6x**
Aliansce Sonae	44.17	5.5%	**26.7x**	**19.8x**	**16.0x**
Parque Arauco	1,835.0	6.5%	**17.3x**	**15.7x**	**13.7x**
BR Properties	13.93	5.3%	**110.5x**	**27.6x**	**19.1x**
São Carlos	44.01	6.2%	**32.5x**	**22.4x**	**16.6x**
CCP	23.02	5.9%	**69.4x**	**26.6x**	**23.8x**
LOG CP	27.87	5.3%	**31.9x**	**22.9x**	**18.6x**
Average			**39.7x**	**22.1x**	**18.5x**

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Summary of our calls

Who to own?

- Mid/high-income homebuilders focused on São Paulo, with low leverage, less problematic inventories, large landbank and solid track-record;
- Commercial properties with exposure to the office sector as offices in São Paulo are posting high leasing spreads and AAA offices in Rio should benefit from fly-to-quality;

Who to avoid?

- Low-income homebuilders with high exposure to Level 1.5, since subsidies should be downsized in this bracket;

Top stock ideas

- **Mid/high-end homebuilders: Trisul and EZTec**
- **Corporate offices: BR Properties**
- **Shopping malls: Aliansce Sonae and Iguatemi**

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Healthcare and Education

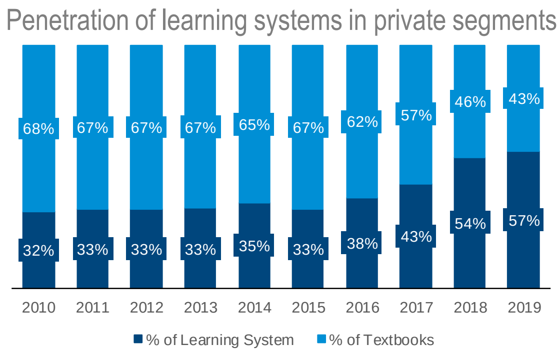
Education: All eyes on K12, DL and Medical Courses

Robust growth opportunity in K12 segment

Cogna is exposed to basic education (33% of 2019 revenues), where LT growth opportunities seem huge.

LS penetration remains relatively low - In the private segment, with 7.9mn K12 students (as of 2017), 43% are using learning systems (~3.4mn), and most of the rest uses textbooks. Cogna supplies both learning solutions.

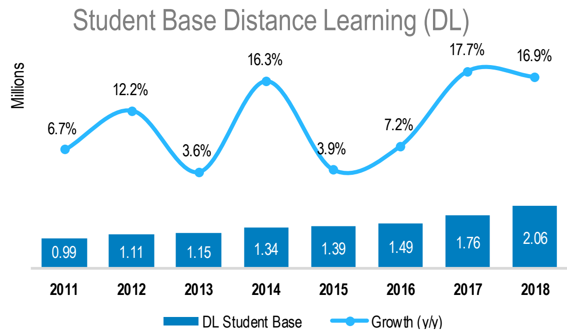
Cogna's 2020 sales cycle for Vasta (ie. its B2B niche for K12 segment) was R$687mn, up a strong 20%. A potential IPO of this business unit should be a major catalyst for Cogna.



Distance Learning: we are increasingly positive on DL expansion

The higher flexibility in the regulatory framework for DL was the main catalyst for the recent market growth acceleration. COGN is the market leader of the segment, but YDUQS has been narrowing the gap in terms of growth.

In 2019 on-site's weak student base figures were offset by more growth in DL segment, which in turn was driven by additional learning centers, higher portfolio of courses and better macro environment.

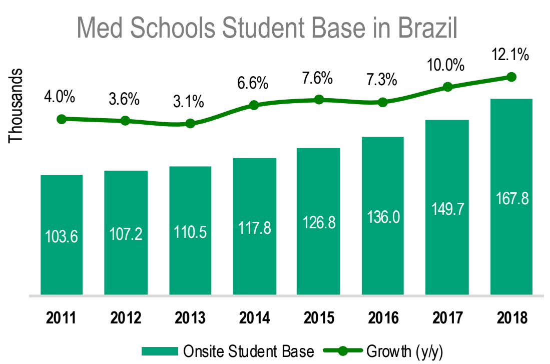


Med Schools: value generation via maturation + more M&As

YDUQS, SER and Anima are substantially exposed to medical courses, representing respectively ~10%, ~12% and ~9% of FY2018 revenues.

Medicine seats' maturation are certainly going to be accretive for abovementioned companies.

Further M&A moves in Medicine should bring relevant upside risks.



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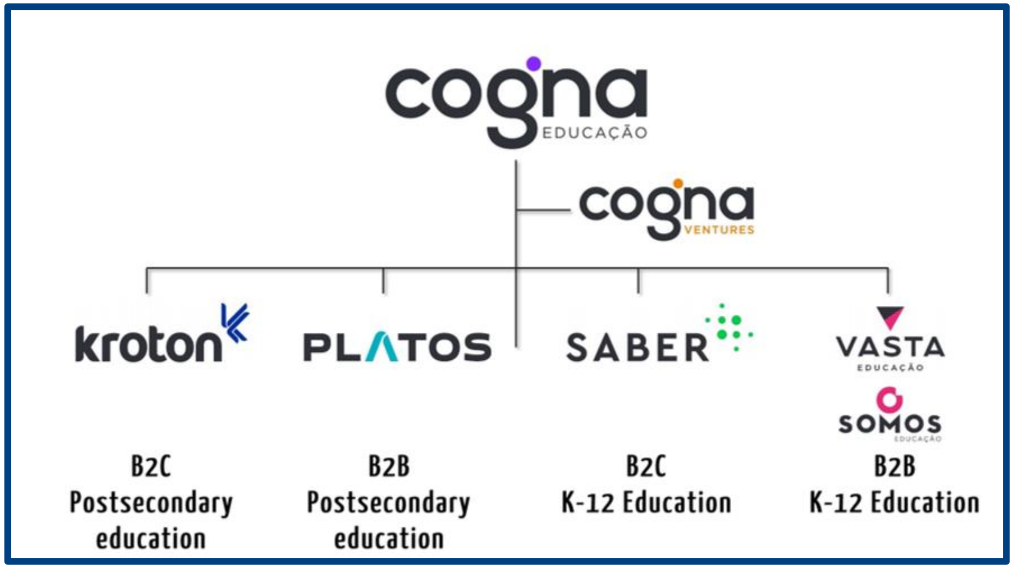
Cogna: Our Top Pick in Education

Our bullish view is based on:

- ✓ A nice valuation, trading at 13.5x P/E 2020 and 9x EV/EBITDA 2020;
- ✓ Stronger growth prospects in K12, which seems mispriced (especially Vasta);
- ✓ Cogna recently confirmed (through material fact) the of intention structuring Vasta's IPO;
- ✓ Leadership in onsite and DL (making it a price maker) in postsec education;
- ✓ Solid execution track record;



New holding entity "Cogna"

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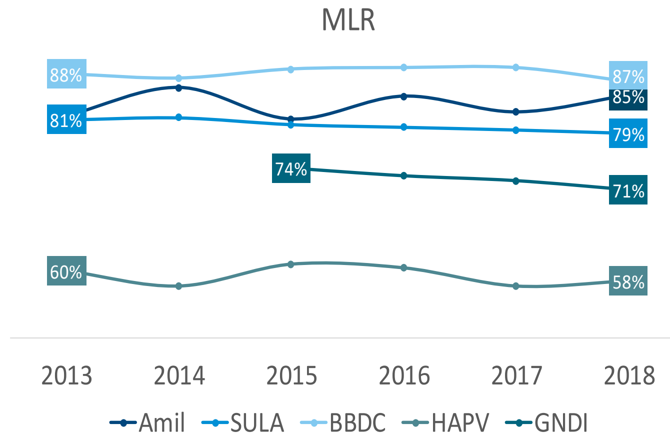
Healthcare – Vertical players still outperforming

Vertical players will keep consolidating the market

In a still very fragmented market (e.g. five largest players holding less than 30% share, excluding local medical cooperatives as a group), we see consolidation as a natural path, mainly bolstered by the following facts:

1. several players don't have scale to vertically integrate their operations, especially in countryside regions;
2. better MLR usually results in better pricing policies, thus resulting in market share gains by vertically integrated operators;
3. Private health insurance is a highly regulated business, so poor execution should (unsurprisingly) result in regulatory intervention.



Healthcare operators keep showing strong appetite for M&A

Recent robust M&A activity reflects that there is additional growth opportunities coming from further inorganic moves.

Main HC transactions in 2019:

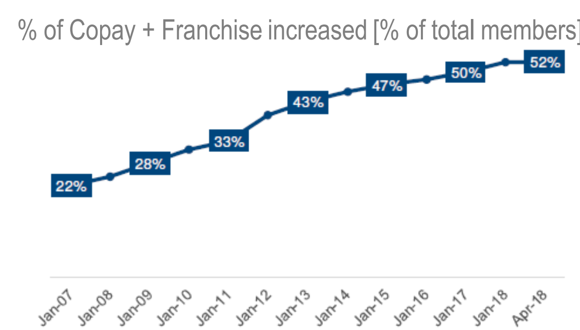
Hapvida: São Francisco, América, Medical

GNDI: Clinipam, São Lucas, SMEDSJ, Belo Dente

Arm wrestling - payers vs. providers

We see bargaining power moving even further away from providers and over to payers, especially HMOs (health maintenance organizations – e.g. vertically-integrated medical insurance groups).

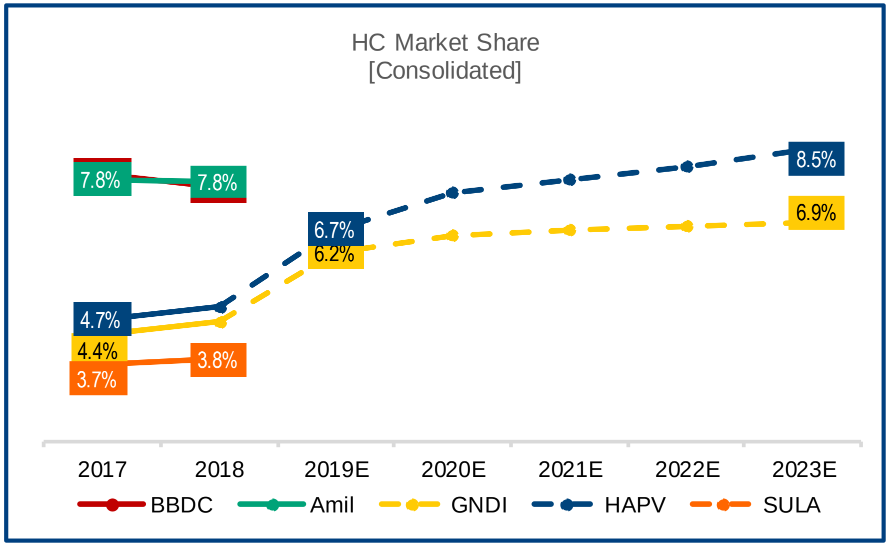
Although eliminating the level of waste in the industry should be a long-term positive for everyone in the HC chain, it should be negative for providers in the short term, likely reducing frequency levels on the back of soft earnings momentum



Hapvida: Our Top Pick in Healthcare

Our bullish view is based on:

- ✓ Discounted valuation vs. GNDI, trading at 35x P/E 2020 but a still attractive ~2x 3-year PEG ratio);
- ✓ HAPV is set to deliver the strongest non-adjusted earnings growth among healthcare listed companies;
- ✓ Robust earnings power;
- ✓ Bright LT growth prospects;
- ✓ Intense M&A activity;
- ✓ Less competitive landscape (GNDI is more exposed to Southeast), which in turn lead to further growth potential, especially given HAPV's exposure to the Individual HC plan market;



We see HAPV and GNDI gaining the most part of market share in private HC industry going forward mostly from regional players and PPOs

Telecom and Technology

A redefining moment for Brazil's telco sector

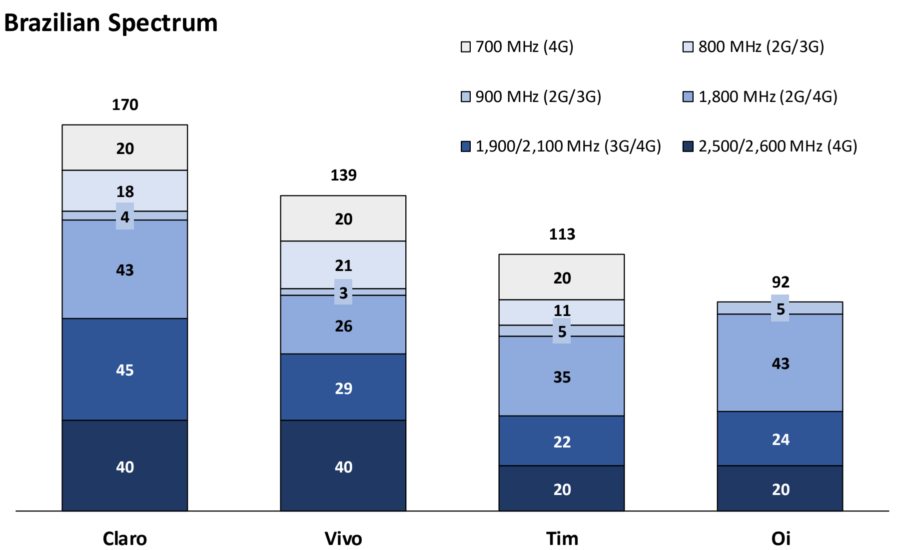
✓Brazil's telecom sector is at a strategic crossroad

- Oi, Brazil's third largest telecom operator (by revenues), with nationwide, integrated operations, announced it is looking for strategic alternatives involving its national mobile operations – number 4 in the country with 37.5mn mobile users (16.4% market share and 11% revenue share).
- In addition, approval of the Telecom Reform has created the conditions for potential new players to consider coming to Brazil.
- For existing operators (TIM, Vivo and Claro), buying Oi's mobile operations would make business sense. By buying Oi's mobile operations, existing players would block the entrance of a newcomer in the market, guaranteeing a 3-player market in the long term, with the 4th player (Oi) being a provider of wholesale fiber capacity to the market and operating a B2C FTTH broadband business.
- A scenario in which Oi is sold to a new, big, well-capitalized operator could put tremendous pressure on margins and profitability across the sector.

✓ Spectrum is probably Oi's most valuable mobile asset

- One of Oi's most valuable assets is its spectrum holdings.
- This is especially true now that Claro bought Nextel Brazil, increasing its spectrum holdings in the country to 170Mhz (ex-trunking), from 136Mhz before, and opening a big gap to its main competitor Vivo (which controls 139Mhz) and TIM, which is a distant third with 113Mhz.

Brazil's spectrum holdings by operator and spectrum band



Source: Anatel

A redefining moment for Brazil's telco sector

✓Vivo & TIM could buy Oi and still comply with spectrum cap rules

- Anatel's new spectrum cap regulation, approved in October last year, changed the way spectrum caps are defined in Brazil.
- Now, spectrum caps are defined based on coverage (lower frequencies) and capacity (higher frequencies), rather than solely based on bands.
- The changes made the rules more modern, efficient and flexible, paving the way for consolidation in the Brazilian mobile market (the first move under the new rules was the acquisition of Nextel Brazil by Claro).
- According to the new rules, an operator is allowed to have 35% of the entire lower/coverage spectrum (450/700/850/900Mhz) available in a specific region. The new rules also allow operators to exceed the 35% threshold, all the way up to 40%, if some conditions to be imposed by Anatel are met.
- Under the new spectrum cap rules, both Vivo and TIM would be able to buy Oi's mobile operations without exceeding the 40% cap, as shown in table 1 below – Claro would exceed the caps in some areas.

Oi + Vivo and Oi + TIM spectrum holdings

Region	Oi + Vivo											Oi + TIM										
	700	850	900	<1GB	%	1800	2100	2500x	2500p	>1GB	%	700	850	900	<1GB	%	1800	2100	2500x	2500p	>1GB	%
1 - São Paulo *capital*	20	25	5	**50**	24.5%	60	50	60	40	**210**	36.5%	20	0	10	**30**	14.7%	80	50	40	20	**190**	33.0%
2 - São Paulo *country-side*	20	25	5	**50**	24.5%	75	50	60	0	**185**	32.2%	20	0	10	**30**	14.7%	100	40	40	0	**180**	31.3%
2' - São Paulo *Algar area*	20	0	5	**25**	12.3%	70	30	60	0	**160**	27.8%	20	0	10	**30**	14.7%	90	20	40	0	**150**	26.1%
3 - Rio de Janeiro / Espírito Santo	20	25	10	**55**	27.0%	65	60	60	20	**205**	35.7%	20	0	10	**30**	14.7%	85	50	40	20	**195**	33.9%
4 - Minas Gerais	20	25	10	**55**	27.0%	60	50	60	0	**170**	29.6%	20	25	10	**55**	27.0%	70	40	40	20	**170**	29.6%
4' - Minas Gerais *Algar area*	20	0	10	**30**	14.7%	70	50	60	0	**180**	31.3%	20	25	10	**55**	27.0%	60	20	40	0	**120**	20.9%
5 - Paraná / Santa Catarin	20	25	10	**55**	27.0%	60	60	60	40	**220**	38.3%	20	25	10	**55**	27.0%	70	50	40	40	**200**	34.8%
5' - Londrina & Tamarana	20	25	5	**50**	24.5%	30	50	60	20	**160**	27.8%	20	0	10	**30**	14.7%	60	50	40	20	**170**	29.6%
6 - Rio Grande do Sul	20	25	10	**55**	27.0%	65	60	60	40	**225**	39.1%	20	0	10	**30**	14.7%	90	50	40	20	**200**	34.8%
6' - Região Pelotas	20	0	5	**25**	12.3%	90	60	60	20	**230**	40.0%	20	25	10	**55**	27.0%	60	50	40	20	**170**	29.6%
7 - Mid-west	20	25	10	**55**	27.0%	65	60	60	20	**205**	35.7%	20	0	10	**30**	14.7%	90	50	40	20	**200**	34.8%
7' - Region Itumbiara	20	0	5	**25**	12.3%	80	50	60	0	**190**	33.0%	20	0	10	**30**	14.7%	60	40	40	0	**140**	24.3%
8 - North	20	25	10	**55**	27.0%	65	40	60	20	**185**	32.2%	20	0	10	**30**	14.7%	80	50	40	40	**210**	36.5%
9 - Bahia / Sergipe	20	25	10	**55**	27.0%	65	60	60	20	**205**	35.7%	20	25	10	**55**	27.0%	65	50	40	20	**175**	30.4%
10 - Northeast	20	0	5	**25**	12.3%	90	50	60	20	**220**	38.3%	20	25	10	**55**	27.0%	60	40	40	40	**180**	31.3%

Source: Anatel, companies´ websites and BTG Pactual estimates

BTG Pactual

A redefining moment for Brazil's telco sector

✓R$8bn in sales: Scale gains and synergies

- Spectrum is not the only reason why current operators would be interested in Oi.
- The company has 37.5mn mobile users and generates R$8bn in sales every year. TIM, for instance, would increase its sales by close to 50% if it buys Oi's mobile operations.
- Given the synergies and scale gains, the impact on EBITDA would be even greater -- the marginal EBITDA margin for TIM is certainly higher than Oi's current margin.
- If we conservatively assume that the marginal EBITDA margin on Oi's R$8bn in sales is 50%, TIM would see its consolidated EBITDA jump by more than 60% -- from R$6.5bn to more than R$10bn. It would significantly reduce the operating free cashflow gap to Claro, which is expected to post R$12bn EBITDA in 2019.
- Even for Vivo, which is already the largest telecom operator in the country, the gains are relevant. Vivo's sales would exceed R$50bn and its EBITDA would approach the R$20bn mark if it buys Oi's mobile operations.

Revenues, EBITDA and mobile clients of the big-4 telcos

2019E R$mn	Vivo	Claro	TIM	Oi
Net Revenues	43,774	35,559	17,260	20,171
EBITDA	15,649	12,069	6,591	4,989
EBITDA mg.	35.7%	33.9%	38.2%	24.7%
Mobile subs. (mn)	73.9	60.0	54.9	37.5
Market share	32.3%	26.2%	24.0%	16.4%
Postpaid subs (mn)	42.0	29.0	21.2	11.6
Market share	39.9%	27.6%	20.2%	11.0%
Prepaid subs (mn)	32.0	30.9	33.7	26.0
Market share	25.9%	25.1%	27.3%	21.0%

Source: Company reports and BTG Pactual estimates

A redefining moment for Brazil's telco sector

✓ Oi's mobile business could be worth north of R$15bn

- Given the economic and strategic benefits of a deal with Oi, we wouldn't be surprised to see the existing telecom operators willing to pay a 6-8x EV/EBITDA multiple for Oi's mobile operations, as they would ultimately be eliminating a relevant player and consolidating Brazil's historically competitive mobile market.
- Oi's mobile revenues reached R$8bn in 2018 and we estimate its mobile EBITDA to be some R$2.5bn (Oi does not report EBITDA by business). If it sells its mobile operations for 6-8x EV/EBITDA, it would raise between R$15bn-R$20bn.
- While some may think 7-8x EV/EBITDA may be too much to pay for Oi's mobile operations, if the acquirers are the other existing Brazilian telecom operators, the synergies would be so big that the implicit multiple would be much lower than this.
- The incremental margins for existing operators could range from 50% to 70%, which would bring the implied multiple paid down to a range of 3.0-5.0x, including synergies.

✓ AMX acquisition of Nextel Brasil: Positive read-through for Oi

- AMX bought Nextel Brazil operations in March, paying US$954mn. Considering Nextel Brazil standalone, the price paid implied a valuation of ~46x EV/EBITDA, as subscale Nextel Brazil reported EBITDA margin of only 3.7% in 2018.
- However, assuming a marginal EBITDA margin of 50-70%, AMX actually paid an implied multiple in the 2.4-3.4x EV/EBITDA range.
- The valuation AMX paid for Nextel Brazil supports our view that Oi's mobile operations standalone could be worth between R$15bn-20bn.
- Applying the same EV/sales multiple AMX paid for Nextel Brazil to Oi's R$8bn/year mobile sales, we would get an EV of R$14.4bn. In addition, Oi has more than twice the spectrum of Nextel in the main Brazilian states (in some areas it has 5x more) and a mobile base that is 13x larger.

✓ AMX paid close to 10x EV/EBITDA for Telefonica's assets in Central America

- Back in Janauary, AMX announced the acquisition of Telefonica's operations in Guatemala and El Salvador (the latter has never been approved by local anti-trust authorities, though) for US$650mn.
- In a release issued by Telefonica, it said AMX paid the equivalent of 9.7x EV/EBITDA for Telefonica's operations in these two countries. As was the case with Nextel Brazil, market consolidation usually commands big valuation premiums as synergies more than compensate the potential excess payment.

✓ Market concentration could be addressed by current operators

Totvs is our top pick in the software universe

✓ **We have recently revised our estimates for Totvs…**

- Our new target price points to a fair value of R$70 per share.
- We are valuing the company in two separate blocks: i) Core business, which we think is worth R$55; ii) Techfin, which we believe has the potential to add na extra R$15 to our target price;

✓ **Core business: Big room for improvement**

- Macro recovery: remains the main top line driver for the company over the next few years
- Cross-selling opportunities: but we have also grown confident in the cross-selling potential of Totvs' CRM & Analytics platforms.

✓ **Flying with two engines again: Franchises back on board**

- Totvs' relationship with some of its franchises had become strained in recent years. Problems ranged from sales inadequate sales model to lack of of new solutions/products being launched. On Totvs' side, the company noted that a number of franchises were under delivering on several fronts.
- At this point, these issues have been addressed… and Totvs has started to reap the benefits of this realignment in its relationship with franchises. 1H19 confirm this. We expect this to continue helping results throughout 2019.

✓ **As Brazil's leading ERP player (~50% share), Totvs is clearly in a unique position to pursue Fintech opportunities**

- Its client base (>32,000 clients) accounts for 25% of Brazil's GDP, with sales equivalent to approximately R$1.6trn per year
- Its payroll system provides services to 10mn payroll employees (via Totvs' HR platforms), or 25% of all payroll workers in Brazil
- It is the 2nd largest provider of management solutions to retailers in Brazil, with close to 20% of the market
- Its education vertical serves schools & universities that combined have 3.5mn students and a R$30bn TPV
- Its medical solutions are used by more than 10,000 doctors across Brazil.

Utilities

Highlights for 2020

After several follow-on offers in 2019 (Eneva, CPFL, Light, Omega) and a sluggish macroeconomic rebound, we expect progress on the regulatory agenda in 2020, with a new sector structure surfacing sooner than expected.

Coverage

AES TIETE
ALUPAR
CEMIG
CESP
COPEL
COPASA
CPFL
EDP DO BRASIL
ENERGISA
ENEVA
ENGIE BRASIL
EQUATORIAL
LIGHT
OMEGA
SANEPAR
SABESP
TRANSMISSÃO PAULISTA
TAESA

Relevant topics

Tough hydrological conditions: GSF still expected @ 84%

Potential privatizations (Eletrobras?)

Consolidation of distribution segment

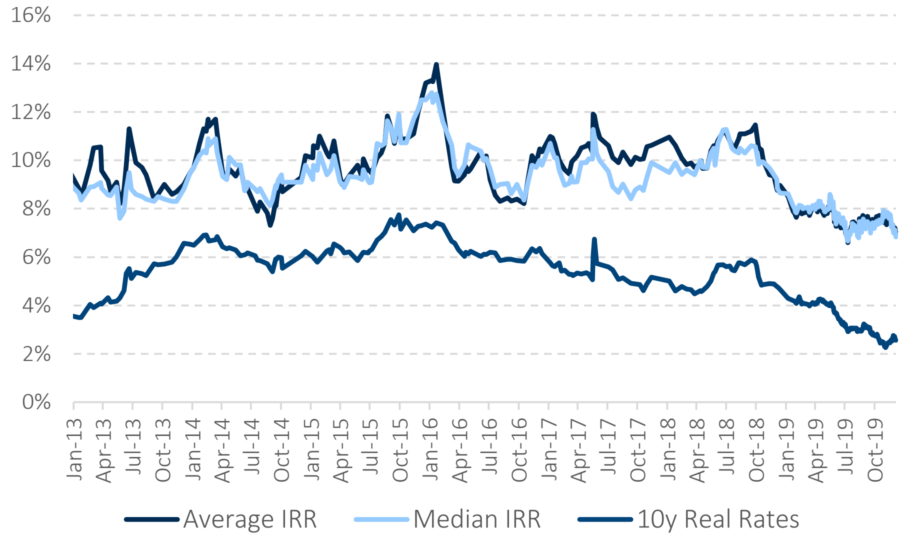
Sector regulatory framework to be reshaped by Bill #232

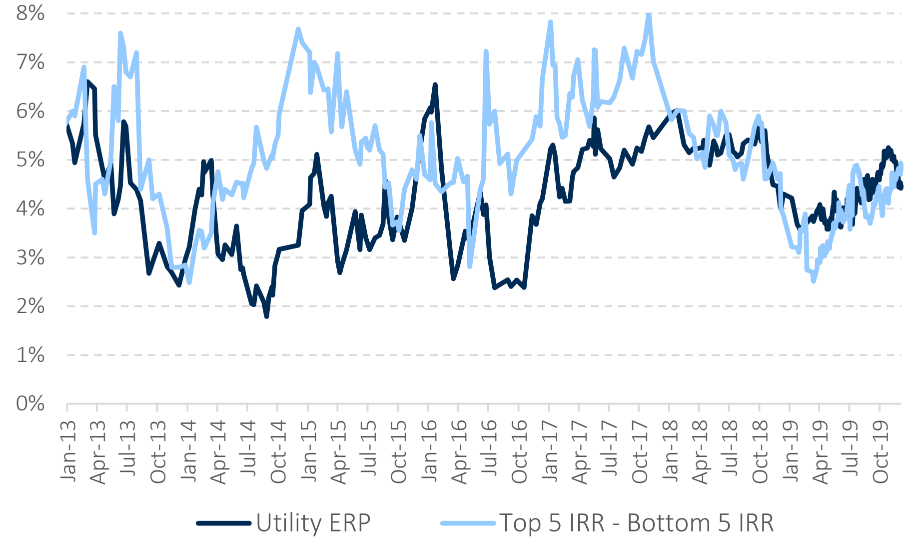
Sanitation bill to be voted in Lower House and Senate

New Gas Market could create opportunities in Utilities sector

Municipal elections

Utilities´ IRR and ERP





IRR

Utilities´ average IRR is close to 7%, reflecting the decline in Brazilian 10y real rates to 2.6%

Utilities ERP

We see Utilities´ ERP close to 4.5%

Top Picks: CPFL

1 Solid cashflow generation and potential dividends

- Its distribution assets are located in rich concession areas, with very low energy theft and delinquency, but this hasn't stopped it outperforming regulatory EBITDA in most of its concessions.
- In generation, they have low exposure to the hydro deficit as most hydro plants are fully hedged against GSF.
- CEEE's privatization is expected to be concluded in 1H20, and CPFL is the most prepared player to acquire it, consolidating its distribution footprint in Rio Grande do Sul and benefiting from operating synergies at RGE. CEB is another potential acquisition target.
- As a strong cashflow generator, we see room for a higher dividend payout if they can´t find M&A opportunities.

2 Valuation

- CPFL is our Top Pick in the sector, as we see it trading at an attractive real IRR of 9.0% and an EV/RAB 2020 of 2.04x, a significant discount to other top-quality operators, whilst delivering strong cashflow generation via top-quality assets.

Top Picks: Light

1 Alignment of interest seems on point

- Light is our most challenging Top Pick, but we believe the company has the best combination of factors to deliver on its long-awaited turnaround.
- The company now has a much lower influence from Cemig, senior management now has the proper incentives via its stock option plan, and the profile of the Board is slowly becoming more market-oriented.
- Potential gains (not included in our numbers) from PIS/Cofins tax dispute could be very positive.
- We believe the new management team has the expertise to deliver on the company's energy loss guidance.

2 Valuation

- We see Light trading at 1.06x EV/RAB and, once it becomes a sustainable concession, it could morph into an M&A target for other groups.

Top Picks: Cemig

1 Recent sell-off seems overcooked

- We now see lower chances of Cemig being privatized, with a lack of political support the main obstacle.
- The recent sell-off was overcooked. While a privatized Cemig could be worth R$21/share, we believe a state-owned, well-run company (our base case) is worth R$15/share, offering upside to current prices.
- We believe Governor Zema is doing his best to continue pushing the privatization agenda. He recently published Decree #47,766, regulating the privatization of public-sector companies. The decree aims to regulate state privatization policy by creating a state privatization board, charged with reorganizing the state's strategic position by transferring to 'private initiative' those activities that can be better explored by the private sector.

2 Valuation

- We see Cemig trading at a 9.0% real IRR and, in our TP, we assume a well-managed (albeit still state-owned) company.

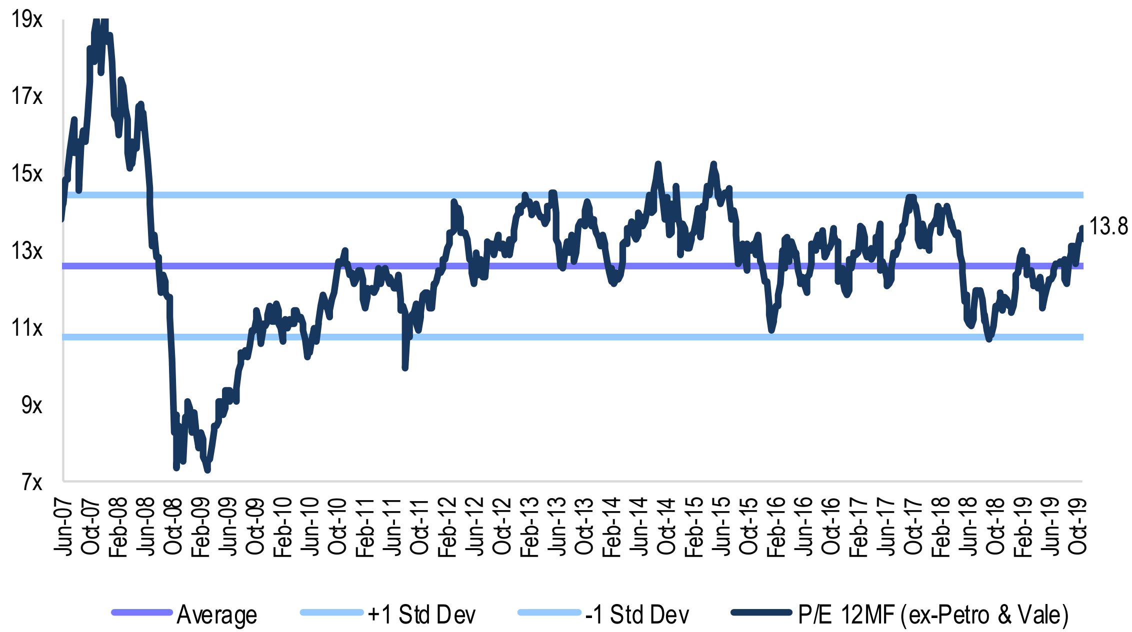
Ibovespa: Looks attractive, and under-owned

Valuations are relatively attractive

✓ The Ibovespa is now trading at 13.8x 12-month forward P/E, above its historical average

- Some may argue that the Ibovespa has moved up too much in recent months, but we disagree. It is indeed trading above its historical average (13.8x vs. 12.6x 12-month forward P/E), but with a whole different scenario.
- This average of 12.6x was built based on an historical setup of relatively high long-term real interest rates, expectations of consistently lower rates could drive the Ibovespa to trade at a premium to its average.
- Long-term real interest rates were at 5.9% before the elections and have since plummeted to 3% on expectations of structural changes.
- We believe that under this scenario of structural low long-term interest rates, the Ibovespa could quickly trade at one-standard deviation above average. Using our 12-month forward earnings, this puts the index at ~118k points.

Brazil's 12-month forward P/E



Source: Economática, BTG Pactual estimates

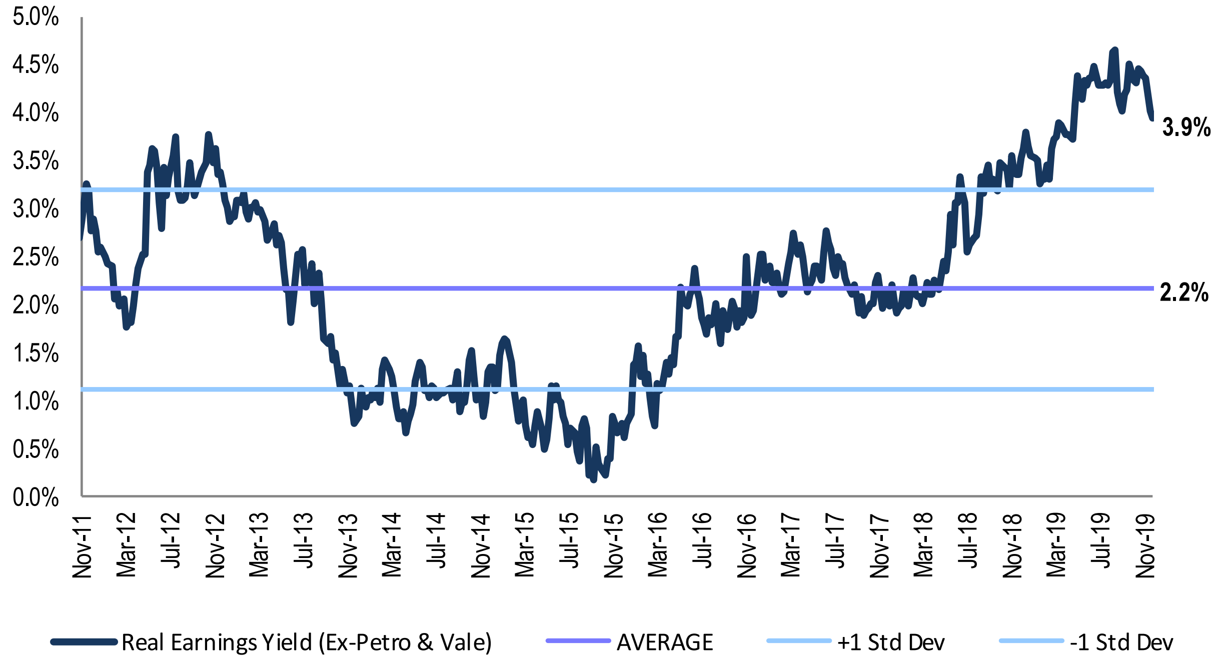
BTG Pactual

Premium to hold equities moving up

✓ Equity Risk Premium soared after strong decline in long-term real rates

- Earnings yield, i.e. the inverse of the P/E (Earnings / market cap) minus ten-year / one-year real interest rates, is above one-standard deviation above its historical average, suggesting room for stock prices to move up further and bring the yield back to average.

Earnings yield (E/P minus 10-year interest rates)



Source: Bloomberg, Tesouro Direto, BTG Pactual estimates

Long positive cycles can yield outstanding performances

- ✓ **We looked at an Ibovespa series (in USD) dating back to the 1980s (chart 1 below) and identified lengthy rallies, usually triggered by key political events that drove the Ibovespa to post outstanding performances.**
- ✓ **The impeachment of President Dilma may have started a new cycle.**

Source: BTG Pactual and Bloomberg

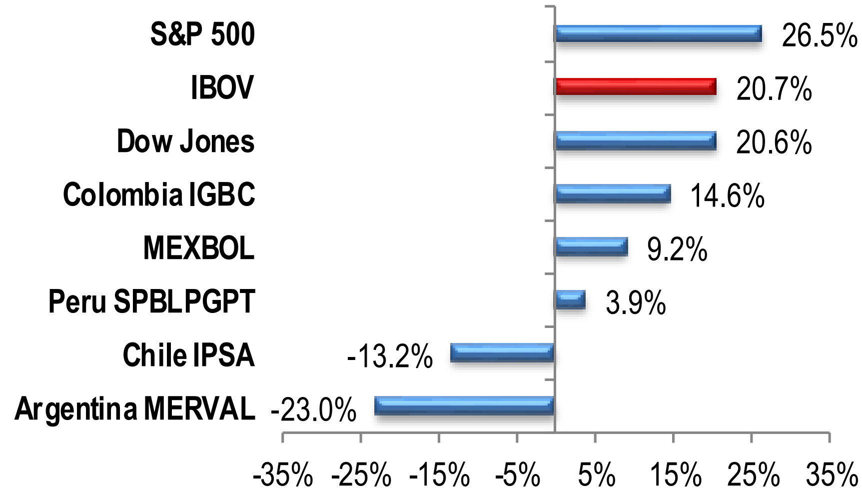
BTG Pactual

Ibovespa recent performance

What a rally!

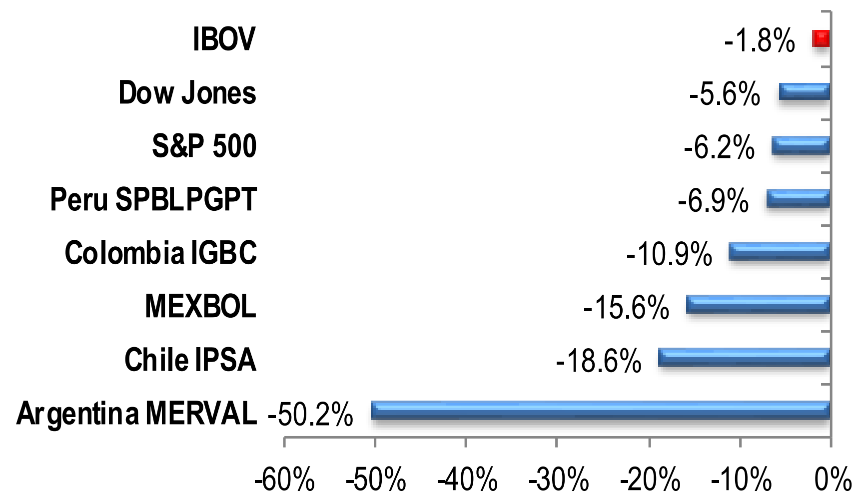
Ibovespa performance 2019

Stock market performance YTD (in US$)



Ibovespa performance (2008 – 2019)

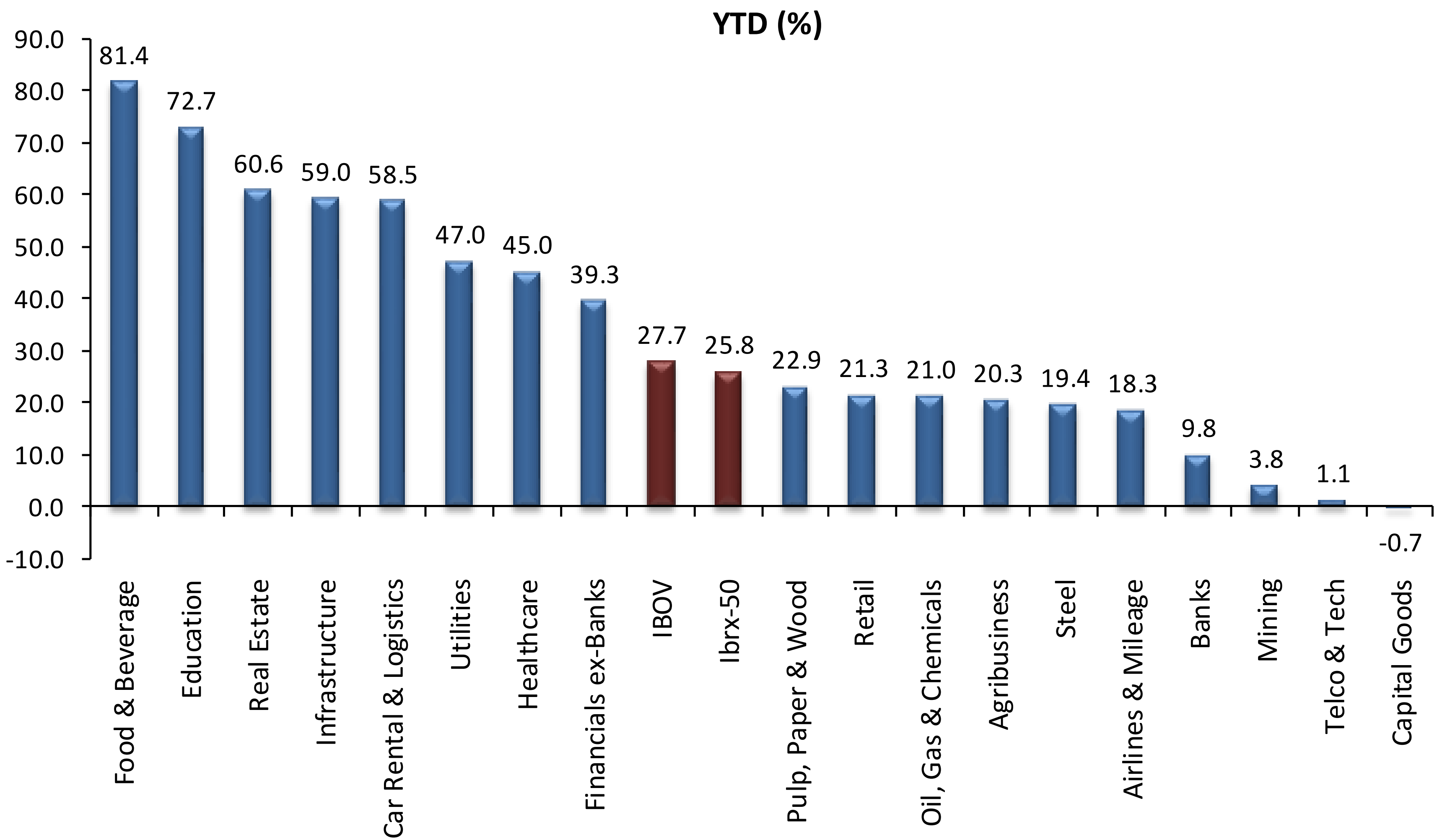
Stock market performance in 2018 (in US$)



BTG Pactual

Source: BTG Pactual, Bloomberg and Economatica

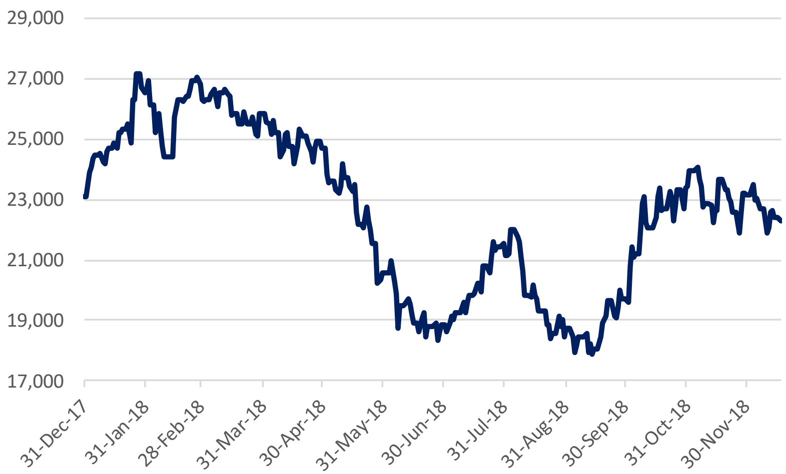
Performance by sector YTD in 2019



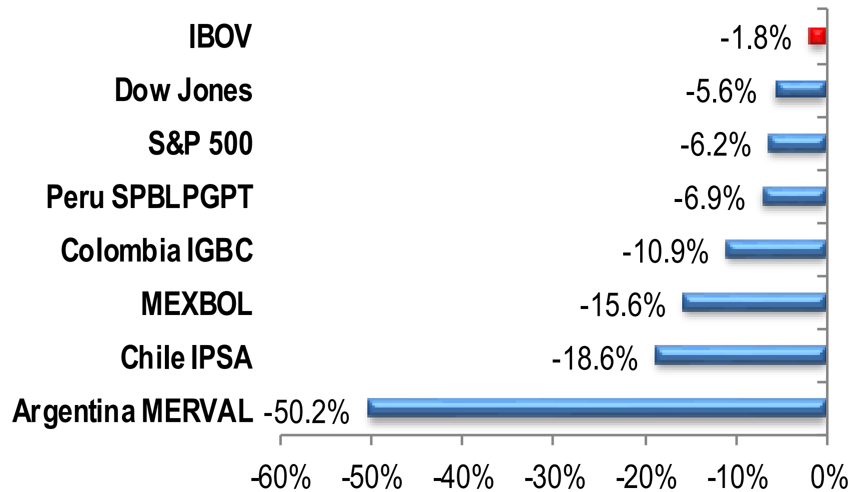
Source: BTG Pactual, Bloomberg and Economatica

In 2018, IBOV performed better than other LatAm indexes

Ibovespa performance 2018

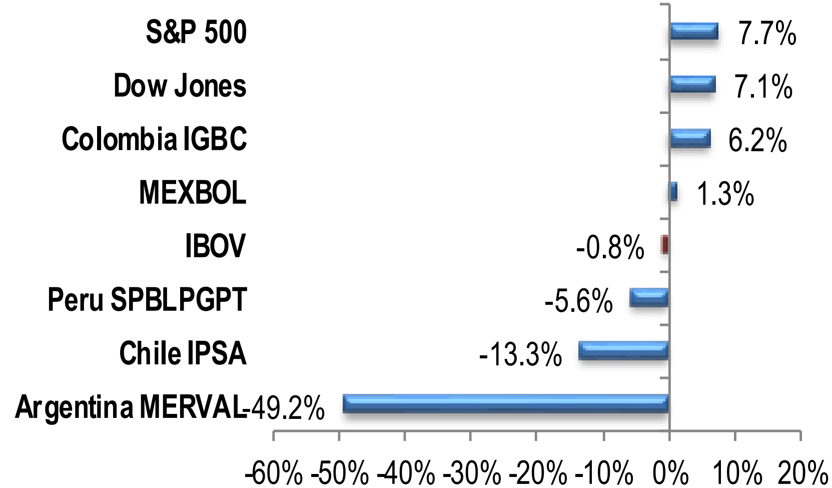


Stock market performance in 2018 (in US$)



Ibovespa performance (2008 – 2018)

Stock market performance in 2017 (in US$)



BTG Pactual

Source: BTG Pactual, Bloomberg and Economatica

Valuation maps

Valuation Summary

Stock Guide	General Data		Market Cap.	ADTV (R$mn)	Price (R$)		P/E			EV/EBITDA			P/BV			Dividend Yield (%)			Net Debt/EBITDA		
	Ticker	Rating	(R$ mn)	12M Average	Last	Target	2019E	2020E	2021E	2019E	2020E	2021E	2019E	2020E	2021E	2019E	2020E	2021E	2019E	2020E	2021E
Banks																					
Itaú	ITUB4	Buy	330,688	3,617	36.31	45.00	12.3x	10.9x	10.2x	n.a.	n.a.	n.a.	2.7x	2.5x	2.3x	4.5%	5.1%	5.5%	n.a.	n.a.	n.a.
Bradesco	BBDC4	Buy	270,346	3,155	34.80	44.00	11.1x	10.0x	9.2x	n.a.	n.a.	n.a.	2.0x	1.9x	1.7x	5.5%	5.4%	5.9%	n.a.	n.a.	n.a.
Banco do Brasil	BBAS3	Neutral	135,266	2,754	48.53	57.00	6.9x	6.2x	5.5x	n.a.	n.a.	n.a.	1.2x	1.1x	1.0x	5.1%	6.0%	6.7%	n.a.	n.a.	n.a.
Santander Brasil	SANB11	Neutral	166,289	366	44.71	52.00	11.3x	10.5x	9.5x	n.a.	n.a.	n.a.	2.3x	2.1x	1.9x	4.2%	4.6%	5.1%	n.a.	n.a.	n.a.
Banco ABC	ABCB4	Buy	4,166	48	19.36	23.00	8.2x	7.7x	6.6x	n.a.	n.a.	n.a.	1.0x	1.0x	0.9x	5.6%	6.0%	7.0%	n.a.	n.a.	n.a.
Banco Inter	BIDI11	Buy	10,338	209	44.25	63.00	163.2x	52.6x	30.8x	n.a.	n.a.	n.a.	5.1x	4.8x	4.4x	0.5%	0.7%	1.2%	n.a.	n.a.	n.a.
Banrisul	BRSR6	Neutral	8,936	140	20.60	25.00	7.0x	6.4x	5.9x	n.a.	n.a.	n.a.	1.1x	1.0x	0.9x	6.1%	6.7%	7.2%	n.a.	n.a.	n.a.
Median							**11.1x**	**10.0x**	**9.2x**	**n.a.**	**n.a.**	**n.a.**	**2.0x**	**1.9x**	**1.7x**	**5%**	**5%**	**6%**	**n.a.**	**n.a.**	**n.a.**
Financials (ex-Banks)																					
B3	B3SA3	Buy	94,926	1,900	46.40	59.00	n.a.	n.a.	n.a.	24.4x	21.1x	18.9x	3.7x	3.6x	3.6x	2.4%	2.8%	3.4%	n.a.	n.a.	n.a.
Cielo	CIEL3	Neutral	23,818	681	8.78	8.00	14.1x	15.4x	14.2x	8.8x	9.1x	9.2x	1.7x	1.6x	1.5x	2.6%	2.1%	3.8%	1.4	2.2	1.9
IRB Brasil	IRBR3	Neutral	34,158	862	36.68	40.00	21.2x	17.9x	15.8x	n.a.	n.a.	n.a.	7.7x	7.0x	6.3x	3.5%	4.2%	4.7%	n.a.	n.a.	n.a.
BB Seguridade	BBSE3	Buy	74,573	587	37.35	39.00	8.5x	25.3x	23.5x	n.a.	n.a.	n.a.	10.2x	9.2x	8.3x	4.9%	4.9%	5.3%	n.a.	n.a.	n.a.
Wiz	WIZS3	Neutral	2,181	35	13.64	11.00	9.5x	8.1x	7.3x	n.a.	n.a.	n.a.	46.7x	40.3x	44.4x	8.3%	10.8%	12.6%	n.a.	n.a.	n.a.
Porto Seguro	PSSA3	Neutral	19,459	208	60.26	64.00	14.0x	13.0x	11.6x	n.a.	n.a.	n.a.	2.5x	2.3x	2.1x	4.3%	4.7%	5.2%	n.a.	n.a.	n.a.
Sul America	SULA11	Neutral	22,238	415	53.70	45.00	19.0x	8.4x	16.0x	n.a.	n.a.	n.a.	2.9x	2.7x	2.5x	1.4%	10.9%	2.7%	n.a.	n.a.	n.a.
Median							**14.1x**	**14.2x**	**15.0x**	**16.6x**	**15.1x**	**14.1x**	**3.7x**	**3.6x**	**3.6x**	**4%**	**5%**	**5%**	**1.4**	**2.2**	**1.9**
Retail																					
B2W Digital	BTOW3	Buy	34,613	600	66.20	74.00	n.a.	822.2x	145.3x	69.1x	47.9x	34.0x	5.6x	5.6x	5.4x	0.0%	0.0%	0.0%	3.6	n.a.	n.a.
CVC Brasil	CVCB3	Buy	6,435	467	43.63	64.00	27.5x	20.0x	17.4x	13.6x	10.6x	9.5x	4.5x	3.8x	3.3x	1.3%	1.1%	1.5%	2.2	1.6	1.5
Lojas Americanas	LAME4	Buy	39,463	472	26.74	28.00	67.4x	43.3x	30.7x	16.2x	13.8x	11.6x	7.1x	6.4x	5.6x	1.0%	0.8%	0.9%	1.8	1.2	0.9
Magazine Luiza	MGLU3	Buy	79,726	1,545	49.07	44.00	96.8x	153.1x	150.0x	53.6x	55.6x	50.4x	21.8x	19.5x	17.6x	0.1%	0.2%	0.2%	n.a.	0.0	n.a.
Natura	NATU3	Neutral	31,778	634	36.71	25.00	45.2x	36.3x	27.6x	20.6x	17.7x	15.4x	9.6x	7.9x	6.4x	0.6%	0.7%	0.9%	3.2	2.3	1.7
Via Varejo	VVAR3	Neutral	14,115	918	10.87	8.00	48.0x	24.7x	19.8x	12.5x	9.1x	7.9x	4.2x	3.7x	3.2x	0.0%	0.7%	1.3%	1.2	0.9	0.7
Centauro	CNTO3	Buy	6,935	198	33.00	18.00	49.9x	31.1x	21.0x	18.0x	15.2x	12.5x	5.9x	4.9x	3.9x	0.0%	0.0%	0.0%	0.3	n.a.	n.a.
Cia Hering	HGTX3	Neutral	5,453	247	33.57	26.00	18.7x	16.9x	15.3x	18.4x	16.4x	14.7x	4.3x	4.2x	4.1x	4.7%	5.2%	5.7%	n.a.	n.a.	n.a.
Lojas Renner	LREN3	Buy	43,043	904	54.25	51.00	36.1x	29.0x	23.5x	24.1x	19.7x	16.4x	8.0x	6.6x	5.4x	0.9%	1.1%	1.3%	0.3	0.2	0.1
Hypera	HYPE3	Buy	20,881	310	33.12	30.00	17.2x	16.9x	15.5x	16.4x	16.5x	15.0x	2.3x	2.2x	2.0x	3.1%	2.9%	3.1%	n.a.	n.a.	n.a.
Pão de Açucar	PCAR4	Buy	22,970	666	83.99	106.00	18.9x	16.5x	15.3x	7.1x	6.7x	6.3x	2.6x	2.4x	2.2x	3.1%	3.2%	3.7%	0.3	0.2	0.1
Raia Drogasil	RADL3	Buy	35,274	498	107.01	90.00	67.6x	49.9x	37.4x	21.6x	18.4x	15.8x	8.8x	7.8x	6.8x	0.7%	0.7%	0.8%	0.4	0.2	0.0
Carrefour BR	CRFB3	Neutral	41,269	285	20.80	20.00	21.8x	18.4x	15.9x	11.4x	10.2x	9.0x	2.6x	2.4x	2.2x	1.6%	2.4%	2.8%	0.4	0.0	n.a.
BK Brasil	BKBR3	Buy	3,766	103	16.60	26.00	22.6x	14.9x	10.7x	10.6x	8.2x	6.5x	1.9x	1.7x	1.5x	0.9%	1.2%	1.8%	n.a.	n.a.	n.a.
Lojas Marisa	AMAR3	Neutral	2,390	47	11.72	12.00	n.a.	n.a.	114.9x	14.3x	12.0x	10.9x	3.0x	3.4x	3.3x	0.0%	0.0%	0.0%	2.3	3.6	3.1
Median							**36.1x**	**26.9x**	**21.0x**	**16.4x**	**15.2x**	**12.5x**	**4.5x**	**4.2x**	**3.9x**	**1%**	**1%**	**1%**	**1.2**	**0.6**	**0.8**

Source: BTG Pactual estimates

Valuation Summary

Stock Guide	General Data		Market Cap. (R$ mn)	ADTV (R$mn)	Price (R$)		P/E			EV/EBITDA			P/BV			Dividend Yield (%)			Net Debt/EBITDA		
	Ticker	Rating		12M Average	Last	Target	2019E	2020E	2021E	2019E	2020E	2021E	2019E	2020E	2021E	2019E	2020E	2021E	2019E	2020E	2021E
Housing																					
Eztec	EZTC3	Buy	11,146	145	49.10	39.00	44.1x	25.3x	17.5x	97.4x	29.8x	20.8x	3.2x	3.2x	3.0x	0.4%	4.4%	4.8%	n.a.	n.a.	n.a.
Lopes Brasil	LPSB3	Buy	1,400	15	9.49	6.70	162.6x	24.4x	18.5x	36.7x	16.9x	14.3x	16.1x	10.7x	8.6x	0.0%	2.1%	4.5%	n.a.	n.a.	n.a.
Cyrela Realt	CYRE3	Buy	11,314	380	29.43	27.00	33.0x	20.5x	14.5x	36.5x	23.2x	16.9x	2.3x	2.4x	2.3x	5.2%	8.4%	5.1%	2.5	1.0	0.2
MRV	MRVE3	Buy	9,814	428	22.16	23.00	12.1x	10.9x	9.9x	14.1x	13.1x	12.4x	1.8x	1.6x	1.5x	3.8%	6.6%	8.0%	0.5	0.4	n.a.
Even	EVEN3	Buy	3,075	73	14.65	12.00	24.4x	18.4x	10.9x	23.8x	24.7x	16.7x	1.8x	1.7x	1.5x	1.1%	2.8%	4.8%	4.6	3.3	1.0
Direcional	DIRR3	Buy	2,134	38	14.44	15.00	17.2x	9.5x	7.3x	10.6x	8.8x	7.5x	1.5x	1.4x	1.3x	4.3%	7.9%	10.3%	0.7	0.2	0.2
Helbor	HBOR3	No Rating	2,833	37	4.27	n/a	n.a.	28.1x	23.5x	555.5x	30.2x	28.0x	2.5x	2.2x	2.0x	0.0%	0.0%	1.6%	207.6	7.0	4.4
Tecnisa	TCSA3	Buy	1,229	64	1.67	2.00	n.a.	n.a.	22.0x	-7.2x	-11.6x	-61.9x	1.3x	1.4x	1.3x	0.0%	0.0%	1.1%	n.a.	n.a.	n.a.
Trisul	TRIS3	Buy	2,710	34	14.52	16.00	20.2x	14.1x	10.8x	19.0x	14.5x	11.0x	2.5x	2.2x	2.0x	0.8%	1.8%	3.8%	1.3	n.a.	0.9
Median							**28.7x**	**20.5x**	**16.0x**	**30.2x**	**20.1x**	**15.5x**	**2.0x**	**1.9x**	**1.8x**	**1%**	**4%**	**5%**	**2.5**	**1.0**	**0.6**
Commercial Properties																					
BR Malls Par	BRML3	Buy	14,662	508	17.39	15.00	23.2x	20.4x	18.0x	18.4x	17.3x	15.9x	1.4x	1.3x	1.3x	1.8%	2.5%	2.8%	2.4	1.9	1.9
Iguatemi	IGTA3	Buy	8,821	301	50.02	46.00	31.9x	29.9x	25.6x	19.9x	18.5x	16.8x	2.9x	2.8x	2.6x	1.6%	1.7%	1.9%	2.6	1.9	1.5
Multiplan	MULT3	Buy	18,394	388	30.85	27.00	34.7x	30.0x	25.9x	22.7x	20.9x	18.4x	3.2x	3.1x	2.9x	1.4%	1.6%	1.7%	0.7	0.3	0.1
Alianscsonae	ALSO3	Buy	10,395	74	43.66	22.00	n.a.	n.a.	n.a.	29.1x	27.1x	25.0x	2.1x	2.0x	2.1x	1.1%	1.9%	6.1%	3.4	2.4	1.9
BR Propert	BRPR3	Buy	7,144	59	14.64	15.00	n.a.	32.5x	20.4x	35.4x	27.2x	19.8x	1.0x	1.0x	0.9x	0.0%	0.9%	1.5%	6.2	4.1	2.9
Log Com Prop	LOGG3	Buy	3,079	53	30.14	29.00	48.3x	35.6x	29.0x	45.6x	35.0x	27.0x	0.9x	0.9x	0.9x	0.5%	1.0%	1.2%	8.4	6.0	4.9
Sao Carlos	SCAR3	Neutral	2,419	2	43.00	42.00	28.5x	39.1x	24.9x	21.6x	18.4x	16.2x	1.6x	1.6x	1.5x	0.8%	0.6%	1.0%	5.6	4.2	3.4
Median							**31.9x**	**31.3x**	**25.3x**	**22.7x**	**20.9x**	**18.4x**	**1.6x**	**1.6x**	**1.5x**	**1%**	**2%**	**2%**	**3.4**	**2.4**	**1.9**
Utilities																					
CPFL Energia	CPFE3	Buy	38,485	287	33.40	37.00	15.3x	13.2x	12.2x	10.4x	9.7x	9.0x	2.5x	2.3x	2.1x	3.4%	3.9%	4.2%	3.2	1.8	1.6
Equatorial	EQTL3	Buy	22,882	552	22.67	23.00	15.9x	18.5x	n.a.	12.0x	14.5x	n.a.	3.4x	3.1x	n.a.	1.6%	2.7%	n.a.	2.1	4.5	n.a.
Energisa	ENGI11	Buy	19,603	305	51.36	50.00	37.5x	16.4x	25.3x	12.7x	11.6x	10.5x	3.2x	2.9x	2.7x	1.4%	3.3%	2.1%	n.a.	n.a.	n.a.
Light S/A	LIGT3	Buy	6,696	195	22.03	22.00	11.4x	6.2x	5.8x	8.5x	7.8x	7.2x	1.2x	1.0x	0.9x	2.2%	4.1%	4.4%	4.7	2.9	2.6
Cemig	CMIG4	Buy	19,883	689	13.03	15.50	5.0x	7.1x	n.a.	7.1x	7.6x	n.a.	1.1x	1.0x	n.a.	5.2%	3.7%	n.a.	3.5	2.9	n.a.
Copel	CPLE6	Neutral	18,242	208	65.49	64.00	9.1x	5.7x	5.5x	7.4x	6.2x	6.4x	1.0x	1.0x	0.9x	5.7%	9.0%	9.4%	2.4	1.6	1.4
Energias BR	ENBR3	Buy	12,507	249	20.68	22.00	12.9x	10.7x	9.1x	8.5x	7.8x	6.6x	1.4x	1.4x	1.3x	n.a.	n.a.	n.a.	2.3	1.8	1.6
AES Tiete E	TIET11	Neutral	5,762	74	14.45	14.00	18.0x	9.0x	9.1x	9.7x	6.8x	6.6x	3.6x	3.6x	3.6x	5.9%	11.6%	11.4%	3.5	2.2	1.9
Cesp	CESP6	Neutral	9,745	145	29.97	32.00	n.a.	26.3x	21.6x	21.7x	12.7x	11.4x	1.4x	1.4x	1.4x	0.0%	4.7%	5.7%	n.a.	1.1	0.3
Engie Brasil	EGIE3	n.a.	39,156	294	47.99	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Eneva	ENEV3	Buy	12,578	154	39.89	34.00	24.1x	21.8x	n.a.	12.6x	12.5x	n.a.	1.9x	1.7x	n.a.	0.0%	0.0%	n.a.	2.9	2.2	n.a.
Omega Ger	OMGE3	Buy	6,057	48	36.74	37.00	27.9x	20.6x	20.2x	15.6x	13.8x	13.3x	2.3x	2.1x	1.9x	1.1%	1.5%	1.5%	3.1	4.4	3.6
Alupar	ALUP11	Buy	8,457	87	27.06	27.00	13.1x	43.4x	12.9x	9.4x	15.5x	8.1x	1.7x	1.7x	1.5x	4.2%	1.3%	8.6%	1.9	4.3	3.1
Taesa	TAEE11	Neutral	10,373	197	30.36	31.00	9.6x	10.3x	10.3x	14.6x	16.7x	16.9x	2.2x	2.2x	2.2x	9.5%	9.9%	9.9%	2.4	3.3	4.4
Tran Paulist	TRPL4	Neutral	15,689	170	22.75	20.00	13.3x	10.8x	9.8x	12.7x	11.8x	11.0x	1.3x	1.3x	1.3x	7.2%	9.2%	10.1%	1.6	1.0	0.6
Copasa	CSMG3	Neutral	8,280	201	65.51	65.00	12.0x	9.9x	10.6x	7.2x	6.2x	6.1x	1.3x	1.3x	1.3x	3.2%	9.5%	8.9%	2.0	1.5	1.6
Sabesp	SBSP3	Buy	39,917	691	58.40	53.00	15.8x	13.6x	13.6x	9.9x	9.0x	8.5x	2.0x	1.8x	1.6x	1.5%	1.7%	1.7%	1.8	1.3	1.2
Sanepar	SAPR11	Neutral	9,361	240	94.42	114.00	8.7x	6.8x	6.2x	7.3x	6.0x	5.4x	1.6x	1.5x	1.3x	8.5%	7.2%	7.9%	2.0	1.8	1.7
Median							**13.2x**	**10.8x**	**10.4x**	**9.9x**	**9.7x**	**8.3x**	**1.7x**	**1.7x**	**1.5x**	**3%**	**4%**	**8%**	**2.4**	**2.0**	**1.6**

BTG Pactual

Source: BTG Pactual estimates

Valuation Summary

Stock Guide	General Data		Market Cap. (R$ mn)	ADTV (R$mn)	Price (R$)		P/E			EV/EBITDA			P/BV			Dividend Yield (%)			Net Debt/EBITDA		
	Ticker	Rating		12M Average	Last	Target	2019E	2020E	2021E	2019E	2020E	2021E	2019E	2020E	2021E	2019E	2020E	2021E	2019E	2020E	2021E
Metals and Mining																					
Vale	VALE3	Buy	275,696	5,029	53.76	56.28	19.5x	7.8x	8.9x	7.7x	5.3x	5.6x	1.4x	1.3x	1.2x	5.3%	5.3%	5.3%	1.3	0.4	0.3
CSN	CSNA3	Neutral	19,570	814	14.18	15.00	11.3x	9.1x	n.a.	9.5x	8.0x	n.a.	2.0x	1.6x	n.a.	9.6%	2.8%	n.a.	5.1	3.7	n.a.
Gerdau	GGBR4	Buy	29,551	888	18.49	19.00	11.1x	9.8x	n.a.	7.4x	6.8x	n.a.	1.1x	1.0x	n.a.	2.1%	2.2%	n.a.	2.0	1.5	n.a.
Usiminas	USIM5	Neutral	11,570	587	9.25	10.00	20.8x	n.a.	n.a.	9.5x	n.a.	n.a.	0.7x	n.a.	n.a.	0.0%	n.a.	n.a.	2.3	n.a.	n.a.
Median							**15.4x**	**9.1x**	**8.9x**	**8.6x**	**6.8x**	**5.6x**	**1.3x**	**1.3x**	**1.2x**	**4%**	**3%**	**5%**	**2.2**	**1.5**	**0.3**
Pulp and Paper																					
Suzano S.A.	SUZB3	Buy	52,458	1,238	38.88	44.00	n.a.	29.1x	18.3x	11.8x	11.4x	10.6x	2.8x	2.6x	2.3x	1.3%	1.3%	1.3%	1.1	5.1	4.4
Klabin S/A	KLBN11	Buy	20,600	346	18.83	20.00	n.a.	43.7x	45.7x	9.5x	10.8x	9.9x	3.6x	3.8x	4.0x	4.1%	3.6%	3.7%	3.3	4.2	4.6
Median							**n.a.**	**36.4x**	**32.0x**	**10.7x**	**11.1x**	**10.2x**	**3.2x**	**3.2x**	**3.2x**	**3%**	**2%**	**2%**	**2.2**	**4.7**	**4.5**
Healthcare and Education																					
Qualicorp	QUAL3	Neutral	9,605	299	34.22	32.00	24.6x	22.4x	18.1x	11.3x	11.0x	10.5x	4.0x	4.0x	3.9x	3.1%	4.3%	5.2%	0.3	0.6	0.6
Odontoprev	ODPV3	Neutral	8,371	120	15.81	16.00	31.3x	27.6x	19.7x	20.7x	19.7x	16.2x	7.7x	7.4x	7.1x	1.7%	2.8%	3.1%	n.a.	n.a.	n.a.
Hapvida	HAPV3	Buy	41,741	439	56.18	64.00	47.3x	41.3x	n.a.	42.8x	37.0x	n.a.	8.8x	7.5x	n.a.	0.6%	0.6%	n.a.	0.0	0.0	n.a.
Fleury	FLRY3	Neutral	9,116	217	28.78	25.00	23.7x	22.0x	n.a.	14.2x	13.2x	n.a.	5.2x	5.2x	n.a.	n.a.	n.a.	n.a.	0.8	0.8	n.a.
Intermedica	GNDI3	Buy	32,285	679	60.00	66.00	65.3x	44.8x	37.7x	33.0x	24.4x	20.8x	10.8x	9.1x	8.9x	0.0%	0.0%	0.0%	n.a.	0.6	0.5
Alliar	AALR3	Neutral	2,147	14	18.15	18.00	18.2x	14.9x	n.a.	9.6x	8.5x	n.a.	1.5x	1.4x	n.a.	n.a.	n.a.	n.a.	1.9	1.4	n.a.
Cogna	COGN3	Buy	19,943	748	12.20	16.00	21.8x	18.2x	15.4x	11.8x	11.1x	10.3x	1.2x	1.2x	1.1x	0.0%	0.0%	0.0%	2.0	3.5	3.1
Yduqs	YDUQ3	Neutral	14,191	445	47.20	39.00	18.8x	18.7x	16.3x	12.9x	12.7x	11.9x	4.3x	3.7x	3.3x	0.0%	0.0%	0.0%	1.0	0.7	0.5
Ser Educacional	SEER3	Buy	3,475	77	27.00	32.00	14.8x	13.4x	n.a.	10.4x	9.6x	n.a.	2.0x	1.8x	n.a.	1.7%	2.4%	n.a.	n.a.	n.a.	n.a.
Median							**23.7x**	**22.0x**	**18.1x**	**12.9x**	**12.7x**	**11.9x**	**4.3x**	**4.0x**	**3.9x**	**1%**	**1%**	**0%**	**0.9**	**0.7**	**0.6**
Oil																					
Petrobras	PETR4	Buy	401,112	7,252	29.98	32.00	14.6x	14.6x	13.5x	5.4x	5.9x	5.7x	1.3x	1.2x	1.1x	2.6%	2.0%	2.1%	1.9	2.2	1.8
BR Distribuidora	BRDT3	Neutral	32,061	817	27.52	27.00	12.8x	18.3x	16.9x	16.7x	13.3x	11.6x	3.8x	4.0x	3.9x	2.1%	2.1%	2.1%	1.2	1.4	1.2
Ultrapar	UGPA3	Neutral	24,175	627	22.26	22.00	24.3x	19.9x	17.9x	11.6x	10.4x	9.3x	2.3x	2.2x	2.1x	2.5%	3.1%	3.4%	2.7	2.7	2.4
Median							**14.6x**	**18.3x**	**16.9x**	**11.6x**	**10.4x**	**9.3x**	**2.3x**	**2.2x**	**2.1x**	**3%**	**2%**	**2%**	**1.9**	**2.2**	**1.8**
Agribusiness																					
SLC Agricola	SLCE3	Neutral	3,888	119	20.87	18.00	7.6x	14.2x	11.4x	6.8x	11.5x	9.9x	1.4x	1.3x	1.3x	4.4%	3.5%	4.3%	1.2	2.5	2.0
Sao Martinho	SMTO3	Buy	7,808	74	22.38	25.00	24.9x	26.9x	22.4x	8.2x	7.1x	6.4x	2.3x	2.2x	2.2x	1.0%	1.3%	4.5%	1.6	1.2	1.1
Brasilagro	AGRO3	Buy	968	6	17.99	18.00	7.3x	10.9x	n.a.	8.0x	12.7x	n.a.	1.1x	1.2x	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Cosan	CSAN3	Buy	27,211	384	69.30	70.00	12.8x	13.4x	11.5x	6.2x	6.2x	5.7x	1.0x	1.0x	1.0x	-2.2%	5.0%	6.9%	2.3	1.9	1.8
Median							**10.2x**	**13.8x**	**11.5x**	**7.4x**	**9.3x**	**6.4x**	**1.3x**	**1.2x**	**1.3x**	**1%**	**3%**	**4%**	**1.6**	**1.9**	**1.8**
Food and Beverage																					
BRF SA	BRFS3	Neutral	27,559	1,028	33.95	41.00	42.3x	20.5x	29.9x	9.4x	8.2x	8.7x	3.7x	3.5x	3.7x	0.6%	1.2%	0.8%	3.6	2.7	2.8
JBS	JBSS3	Buy	68,332	1,290	25.64	35.00	11.0x	7.9x	10.3x	7.3x	5.9x	6.7x	2.1x	1.9x	1.8x	2.4%	3.4%	2.7%	3.1	2.1	2.3
Marfrig	MRFG3	Neutral	6,679	202	10.91	12.00	12.8x	4.8x	9.4x	5.6x	5.3x	6.5x	1.7x	1.5x	1.5x	1.9%	5.1%	2.6%	2.1	3.0	3.6
Minerva	BEEF3	Buy	5,130	138	13.73	16.00	82.2x	8.0x	9.3x	7.3x	6.2x	6.5x	15.9x	6.8x	7.6x	0.2%	2.1%	1.8%	3.9	2.5	2.4
Ambev	ABEV3	Neutral	299,031	1,942	19.01	20.00	23.5x	20.0x	18.4x	14.3x	12.9x	12.1x	4.9x	5.0x	5.1x	3.5%	5.6%	6.0%	n.a.	n.a.	n.a.
M.Diasbranco	MDIA3	Neutral	11,977	142	35.33	35.00	26.2x	18.8x	14.8x	20.0x	15.1x	12.4x	1.9x	1.9x	1.8x	0.9%	1.3%	1.6%	1.3	0.6	0.5
Median							**24.8x**	**13.4x**	**12.6x**	**8.3x**	**7.2x**	**7.7x**	**2.9x**	**2.7x**	**2.8x**	**1%**	**3%**	**2%**	**3.1**	**2.5**	**2.4**

BTG Pactual

Source: BTG Pactual estimates

Valuation Summary

Stock Guide	General Data		Market Cap. (R$ mn)	ADTV (R$mn)	Price (R$)		P/E			EV/EBITDA			P/BV			Dividend Yield (%)			Net Debt/EBITDA		
	Ticker	Rating		12M Average	Last	Target	2019E	2020E	2021E	2019E	2020E	2021E	2019E	2020E	2021E	2019E	2020E	2021E	2019E	2020E	2021E
Car Rental & Logistics																					
Tegma	TGMA3	Buy	2,266	40	34.37	34.00	16.9x	15.4x	13.9x	11.6x	10.3x	9.3x	4.4x	4.3x	4.1x	5.5%	6.1%	6.7%	0.4	0.5	0.5
Localiza	RENT3	Buy	33,698	895	46.83	55.00	37.8x	28.7x	24.8x	21.5x	17.6x	15.0x	6.0x	5.1x	4.4x	0.7%	0.8%	1.1%	2.8	2.2	2.3
Locamerica	LCAM3	Buy	8,919	142	20.12	21.00	26.1x	19.0x	16.3x	12.1x	10.5x	9.1x	3.0x	2.6x	2.3x	0.0%	0.0%	0.0%	2.9	3.0	2.9
Movida	MOVI3	Buy	5,225	102	17.55	21.00	25.1x	17.0x	14.6x	n.a.	n.a.	n.a.	2.1x	2.0x	1.8x	1.0%	1.5%	1.8%	n.a.	n.a.	n.a.
JSL	JSLG3	Buy	4,984	30	24.11	24.00	25.1x	14.9x	11.0x	n.a.	n.a.	n.a.	2.6x	2.3x	2.0x	0.0%	0.0%	0.0%	n.a.	n.a.	n.a.
Median							**25.1x**	**17.0x**	**14.6x**	**12.1x**	**10.5x**	**9.3x**	**3.0x**	**2.6x**	**2.3x**	**1%**	**1%**	**1%**	**2.8**	**2.2**	**2.3**
Aerospace																					
Gol	GOLL4	Buy	12,861	680	36.18	60.00	35.2x	13.2x	6.6x	5.3x	4.9x	4.3x	-1.9x	-2.3x	-3.6x	0.0%	0.0%	0.0%	1.5	2.3	1.6
Embraer	EMBR3	Buy	14,005	274	19.03	28.64	12.0x	9.1x	n.a.	3.6x	3.1x	n.a.	0.7x	0.7x	n.a.	4.1%	5.4%	n.a.	1.5	1.2	n.a.
Median							**23.6x**	**11.2x**	**6.6x**	**4.4x**	**4.0x**	**4.3x**	**-0.6x**	**-0.8x**	**-3.6x**	**2%**	**3%**	**0%**	**1.5**	**1.7**	**1.6**
Capital Goods																					
Randon Part	RAPT4	Neutral	3,851	114	12.08	10.00	19.8x	17.6x	15.5x	12.3x	10.8x	9.9x	2.5x	2.3x	2.1x	2.2%	2.4%	2.8%	2.5	2.7	2.6
Marcopolo	POMO4	Buy	3,564	69	3.88	5.50	13.1x	8.3x	n.a.	13.5x	9.0x	n.a.	1.5x	1.4x	n.a.	4.0%	6.3%	n.a.	1.6	0.7	n.a.
Iochp-Maxion	MYPK3	Buy	3,093	98	20.30	33.00	9.1x	7.4x	6.1x	5.6x	5.0x	4.5x	1.0x	0.9x	0.8x	5.0%	6.1%	7.4%	2.2	1.5	1.3
Tupy	TUPY3	Buy	2,807	56	19.47	25.00	9.2x	9.2x	10.4x	5.8x	5.6x	5.6x	1.3x	1.3x	1.4x	11.2%	10.8%	9.5%	1.1	1.1	1.1
Weg	WEGE3	Neutral	71,420	353	34.05	25.00	47.5x	41.5x	37.0x	38.8x	33.8x	29.8x	8.2x	7.5x	6.9x	1.1%	1.2%	1.4%	n.a.	n.a.	n.a.
Median							**13.1x**	**9.2x**	**13.0x**	**12.3x**	**9.0x**	**7.8x**	**1.5x**	**1.4x**	**1.7x**	**4%**	**6%**	**5%**	**1.9**	**1.3**	**1.3**
Telecom,Media and Tech																					
Linx	LINX3	Buy	5,812	252	32.10	45.00	87.2x	37.6x	24.4x	24.3x	19.5x	12.6x	3.0x	2.8x	2.7x	0.4%	0.6%	1.2%	n.a.	n.a.	n.a.
Totvs	TOTS3	Buy	13,100	313	68.70	70.00	49.4x	35.6x	28.9x	28.3x	25.0x	20.6x	4.8x	4.5x	4.3x	0.3%	1.6%	2.5%	n.a.	n.a.	n.a.
Sinqia	SQIA3	Buy	1,543	29	21.87	22.00	n.a.	56.8x	39.9x	72.6x	35.1x	28.4x	3.0x	2.8x	2.7x	0.0%	0.0%	0.5%	n.a.	n.a.	n.a.
Time For Fun	SHOW3	Buy	379	4	5.63	11.00	10.1x	8.1x	7.3x	5.1x	4.6x	4.4x	1.0x	0.9x	0.8x	0.8%	2.7%	3.3%	n.a.	n.a.	n.a.
Valid	VLID3	Neutral	1,038	39	14.77	15.00	9.7x	7.2x	6.6x	5.5x	5.0x	5.0x	0.9x	0.8x	0.8x	5.3%	6.0%	7.0%	2.0	1.6	1.4
Tim Part S/A	TIMP3	Buy	35,534	271	14.68	16.00	21.7x	17.1x	15.1x	5.5x	5.1x	4.9x	1.7x	1.6x	1.6x	6.1%	3.5%	4.7%	0.4	0.2	0.1
Oi	OIBR3	Buy	5,763	488	0.96	3.50	n.a.	n.a.	n.a.	4.1x	3.7x	3.4x	0.2x	0.3x	n.a.	n.a.	n.a.	n.a.	2.9	3.3	3.2
Telef Brasil	VIVT4	Buy	90,097	434	56.33	54.00	17.4x	17.9x	15.8x	6.3x	6.1x	5.8x	1.4x	1.4x	1.4x	8.2%	6.0%	5.8%	0.8	0.8	0.7
Median							**19.6x**	**17.9x**	**15.8x**	**5.9x**	**5.6x**	**5.4x**	**1.5x**	**1.5x**	**1.6x**	**1%**	**3%**	**3%**	**1.4**	**1.2**	**1.0**
Infrastructure																					
Rumo S.A.	RAIL3	Buy	39,615	832	25.41	24.00	49.6x	24.7x	18.8x	n.a.	n.a.	n.a.	4.5x	4.0x	3.4x	0.0%	0.0%	0.0%	n.a.	n.a.	n.a.
CCR SA	CCRO3	Buy	35,431	580	17.54	18.00	22.2x	15.6x	15.5x	13.0x	9.7x	9.0x	3.8x	3.4x	3.4x	0.0%	0.0%	0.0%	3.7	2.4	2.0
Ecorodovias	ECOR3	Buy	8,230	183	14.79	15.00	24.1x	18.9x	13.2x	8.4x	7.0x	6.2x	9.2x	9.2x	9.2x	1.2%	5.3%	7.6%	2.7	2.9	2.7
Santos Brp	STBP3	Buy	5,312	56	7.95	8.00	123.0x	49.6x	37.6x	25.8x	19.2x	15.3x	3.8x	3.6x	3.3x	0.2%	0.5%	0.7%	0.1	n.a.	n.a.
Median							**24.1x**	**18.9x**	**15.5x**	**10.7x**	**8.3x**	**7.6x**	**4.5x**	**4.0x**	**3.4x**	**0%**	**0%**	**0%**	**3.2**	**2.7**	**2.3**

Source: BTG Pactual estimates

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