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Why doesn't Brazil take off on a long-haul flight?

EXECUTIVE SUMMARY

Fifteen years ago, Brazil seemed to have everything it needed to grow its economy. The supply of abundant natural resources in agriculture, energy and minerals, among others, at a time of strong growth in China met the huge demand for Brazilian commodities. Robust sales to the Asian giant also helped lift millions of Brazilians out of poverty. In 2001, the acronym "BRIC" – consisting of Brazil, Russia, India and China – was coined in response to the four countries' similar socioeconomic features and potential for investment and growth in future years. The four countries later took part in the inaugural BRIC summit in 2009. Several more countries have since joined the organisation.

Fifteen years later, it does not make any doubts that Brazil has underperformed. For example, average growth barely reached 1% over the period between 2013 and 2024. While GDP has picked up in recent years – the average for 2022-2024 was 3.2% – it is likely to lose steam again in 2025 when GDP is expected to grow by 2%. Brazil appears to be suffering from deindustrialisation even before having completed a complete industrial phase. The rising share of commodities in the country's exports is sending a clear message in this regard.

The purpose of this publication is to understand the reasons for the failure of Brazil's economic promise. Should the country's difficulties be interpreted as a paradoxical effect of the abundant natural resources in the Brazilian subsoil? Following the example of what is known as the "Dutch disease", is this a case of "Brazilian disease" where the export of commodities is offset by weak performances in other sectors of the economy? Are the poor performances of Brazil's neighbours and the continent's political environment also to blame? Might the explanation not also be found in Brazil's social and political structures?

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- In order to answer these questions, we compared the country's trends for the 2013-2024 period with those of a sample of countries that had comparable GDP per capita in 2013, namely two countries which have prospered significantly since then (Bulgaria and Serbia), two countries which have prospered moderately (Costa Rica and Thailand) and one country, Mexico, whose ten-year growth is almost as sluggish as Brazil's. Five explanations for Brazil's trajectory emerged from the comparisons:
 - 1) the high interest rate environment which discourages investment;
 - 2) the limited number of trade agreements and the existing Mercosur agreement, of which most members have reported lacklustre growth;
 - 3) the high corporate tax burden;
 - 4) underperformance by the education system;
 - 5) major political fragmentation that makes it difficult to agree on structural reforms.

While there are still hurdles to overcome, some generally positive developments and opportunities have recently emerged for the Brazilian economy. Recent approval of a tax reform to consolidate five existing taxes into a single consumption levy, with separate federal and regional rates, constitutes a step in the right direction to ensure robust long-term growth. In addition, a potential agreement with the EU could also bring greater export opportunities for South American countries in sectors such as agribusiness – especially for meat, livestock, fruit and vegetable produces – and the footwear industry. Brazil also has the potential to become a global leader in renewable energy, bioenergy and carbon markets.

SOME OF THE THINGS YOU'LL LEARN...

In ten years, Brazil's imports of manufactured goods from Russia have increased by more than 300% in value.

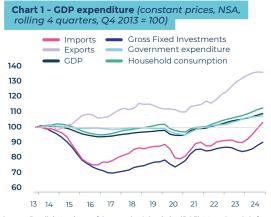
> The current level of industrial production in Brazil per capita is identical to that of ten years ago.

Trade negotiations between the European Union and Mercosur began 25 years ago... and the ratification of the agreement finally signed in 2024 remains uncertain. The more parties there are in a parliament, the more difficult it is to pass major reforms. Brazil has more than ten effective political parties, compared with fewer than four in Mexico or Costa Rica.

Breaking down the poor performance of Brazil's economy

Brazil is renowned for its vast natural resources that comprise energy (oil), agriculture (soybean, sugar, coffee, corn, among others) and mineral deposits (including iron ore), to name just a few. During the first decade of the 21st century, Brazil's economy was considered a prime candidate for a take-off. It was reaping the benefit of new deep-sea oilfields discovered in 2006 (the so-called Pre-salt fields) and of robust growth in China throughout the same period, which implied high demand for Brazil's commodities. In the years between 2000 and 2012, the economy grew by an average of 3.6% per year. However, the country subsequently posted a lacklustre economic performance from 2013 to 2024, registering an average annual growth rate of a meager 1.0%. The average was further eroded during the 2015-2016 period when Brazil experienced its worst-ever recession, accumulating a 6.7% contraction in GDP. In addition, the economy slumped by 3.3% in the first year of the Covid-19 pandemic in 2020, although it recovered by 4.8% in 2021, clawing back a 1.3% increase for those two years, amid significant fiscal stimuli introduced during the period. Afterwards, growth picked up somewhat (GDP growth averaged 3.2% over 2022-2024)1 but should start to lose steam in 2025. Activity grew above potential² (estimated by the OECD at 1.8% and 1.9% in 2023 and 2024, respectively), which sparked upward inflation pressure. As a result, GDP growth is expected to decelerate to the tune of 2% in 2025 on back of the central bank's successive hikes since September 2024 of the Brazilian Selic interest rate by a sharp 375 basis points to 14.25%, in a bid to curb rising inflation and its unanchored inflation expectations³. Inflation is expected to end 2025 at 5.7% – above the central bank's 3% target – with a 1.5 percentage-point tolerance range.

On the demand side **(Chart 1)**, gross fixed investments have dragged on activity. As at Q4 2024, investment was 10% below the Q4 2013 level. Furthermore, over full-year 2024, investments represented 17% of GDP, down from 20.9% in 2013.

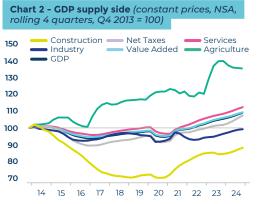


Source: Brazilain Institute of Geography & Statistics (BGE), Macrobond, Coface

1 - Growth over the 2022-2024 period was mostly driven by the lack of fiscal consolidation, including income support measures, a tight job market (albeit high informality) and a record agriculture crop in 2023. 2 - Potential GDP represents the maximum level of economic activity that can be sustained over the long term, i.e., without generating inflationary pressures, determined by factors such as the labour force, capital stock and productivity.

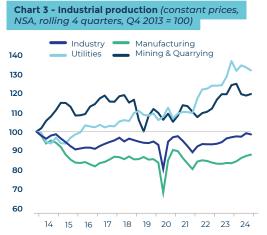
3 - This is explained by the overheated domestic activity, high food prices, concerns over fiscal policy and its side effects on the exchange rate.

On the supply side **(Chart 2)**, weak economic development can be notably attributed to construction, which was 12% below the Q4 2013 level in Q4 2024. An important factor, construction was significantly affected by the economic crisis of 2015-2016 which was sparked by the Operation Car Wash (Operação Lava Jato) scandal⁴ that affected many companies in the sector at the time. In 2015-2016, construction contracted by a cumulative 18%. Industry also performed poorly (currently 1% below Q4 2013).



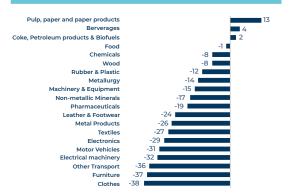
Source: Brazilain Institute of Geography & Statistics (BGE), Macrobond, Coface

Excluding mining and energy (Chart 3), the performance driven by industry poses much more of a concern: manufacturing production has fallen 13% compared with the level posted eleven years ago. Out of 20 sectors, 17 recorded worse performances than those of 2013 (Chart 4). Of particular note, large industries such as metal products (-26%) and motor vehicles (-31%) are among the low performers.



Source: Brazilain Institute of Geography & Statistics (BGE), Macrobond, Coface

Chart 4 - Manufacturing activity 2024 vs 2013 (NSA, %)

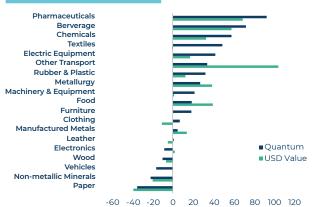


Sources: IBGE, Coface

Although manufacturing industry activity fell during the period under review, imports of manufactured product increased by 20% on the same basis of comparison (in quantum terms) and 16% in USD value terms. For example, while manufacturing activity in the pharmaceutical and chemical industries are currently well below their respective levels of 2013, imports for both sectors increased dramatically over the 2013-2024 period **(Chart 5)**. Comparing 2024 with 2013, 14 out of 19 sectors reported increased activity in quantum terms and 12 in USD value terms.

In relation to the origin of the manufactured imports **(Table 1)**, the increase was mainly driven by growth in imports from China and Russia (in USD terms). Increased imports from the Asian giant over the 2013-2024 period impacted 16 out 19 sectors (in value terms). Vehicles (+ 406%), Pharmaceuticals (+192%) and chemicals (+139%) were among the leading sectors for imports. Meanwhile, imports of Russian chemicals rose by 98% for the same period (representing the lion 's share of the imports coming from the country: 77% of the total) and involved mostly fertilisers.





Sources: Ministry of Development, Industry, Commerce and Services, Coface

 Table 1 - Top ten countries of manufacturing imports

 (in FOB USD value terms)

	% of total imports in 2024 (USD revenue terms)	% 2024/2013 (USD revenue terms)
1 - China	27	72
2 - United States	15	7
3 - Germany	6	-9
4 - Argentina	5	-24
5 - Russia	4	321
6 - India	3	7
7 - Italy	3	-5
8 - France	3	-7
9 - Mexico	2	-2
10 - Japan	2	-23

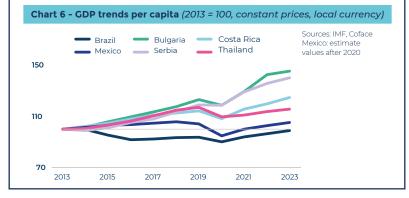
Sources: Ministry of Development, Industry, Commerce and Services, Coface

4 - Brazil's Operação Lava Jato ("Operation Car Wash"), launched in 2014, was a landmark corruption probe that resulted in the conviction of over 360 people for corruption, money-laundering, procurement fraud and other crimes. Over the last few years, however, the Operation has unravelled, with several sentences being overturned.

On the supply side, construction and manufacturing were the main drags on activity overall. In addition, the decline in manufacturing activity went hand in hand with higher manufacturing imports, suggesting a possible lack of competitiveness in the local industry. Poor investment was the chief brake on GDP on the demand side, lending weight to this assumption.

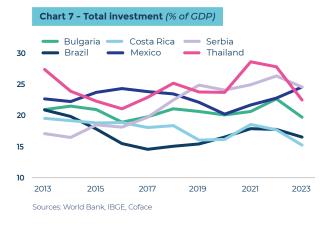
Our comparative design

To understand the negative trend, we compared Brazil with countries that had a similar GDP per capita in USD purchasing power parity (ppp) in 2013, and also took into account geographical diversity. We selected five countries (Costa Rica, Mexico, Bulgaria, Serbia and Thailand) and observed how the ratio evolved in local currency and in ppp terms over the 2013-2023 period (Chart 6). The outcome was roughly similar regardless of the criteria used. Brazil's GDP per capita dipped mildly over the period, but grew in the other countries, especially in Bulgaria and Serbia. After selecting the sample countries, we proceeded to analyse how they performed according to various criteria that contribute to economic growth.



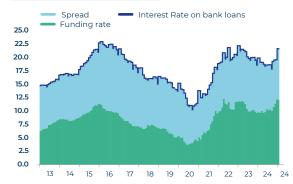
High cost of capital and tax burden drag on investment (and therefore on growth)

The primary causes of Brazil's poor economic performance reside in the high interest-rate environment, and in the country's cumbersome and complex tax system. Brazil's sensitive fiscal framework on top of increased mandatory spending have restricted the government's capacity to invest. In 2023, public investment represented only 2.6% of GDP, down from 4.2% of GDP in 2013. However, the problem is not only one of public investment, as when we look at total investment, the figures also show a decline over the period under review, with Brazil performing worse than its peers (Chart 7). Private investment as a share of GDP fell from 17% in 2013 to 14% of GDP in 2023.



The cost of financing in Brazil is a serious hindrance to investment. Bank lending rates depend on the funding rate, which is tied to the central bank's benchmark interest rate(referred to as the Selic rate in Brazil) and bank spreads⁵. In Brazil, both indicators remained very high over the 2013-2024 period (Chart 8).

Chart 8 -Interest rate on new bank loans to non-financial companies (average rate, %)



Sources: Central Bank of brazil, Macrobond, Coface

When setting the policy rate⁶, central banks consider the neutral interest rate, which, in Brazil's case, was set by the central bank in December 2024 at very high 5%. Although the neutral rate is an unobservable variable, estimation models usually take into account structural factors, economic fundamentals and the country risk premium, the latter being an indicator of sovereign solvency. The upward trajectory of Brazil's gross public debt over the last decade (from 51% of GDP in 2013 to 76% of GDP in 2024), even though it is largely dominated in the domestic currency, has weighed on the indicator.

Moreover, Brazil's credit spreads are among the highest in the world. Over the last decade, the bank spread has averaged 9%. Why is this the case? According to the central bank⁷, the largest component in 2023 was corporate default risk (31%), followed by administrative expenses (27%), taxes and contributions to the credit guarantee fund⁸ (22%) and the financial margin (21%). The heavy contribution of corporate default risk is underpinned by the high financial cost for banks in the event of insolvency, due to the low credit recovery rate. According to the World Bank, the insolvency recovery rate in Brazil for 2019 was estimated at a mere 18%, well below the world average of 37%.

A country's tax burden is also an important factor in attracting investment. Analysis of the combined (corporate and shareholder) statutory tax rates on dividend income9 (Chart 9) among the sample countries shows that Brazil has by far the highest rate and, furthermore, that it is well above both the OECD rate (24%) and the average for Asian countries (19%). Not only are taxes high but, into the bargain, the country's tax system is complex and includes many different taxes, which complicates compliance with the Brazilian Tax Code. According to World Bank estimates, Brazilian firms spent 1,501 hours in 2018 to pay taxes and prepare for them, which was well above the region's average of 371 hours.

Chart 9 - Combined (corporate and shareholder) statutory tax rates on dividend income (%) 0,4 🗕 OECD 🛛 🛑 Asia 0.34 0,3 0,3 0.3 0,2 0,2 0.15 0,1 0,1 0 Brazil Costa Rica Thailand Mexico Serbia Bulgaria

Sources: OECD. Coface

- 5 Bank spread refers the interest rate charged by banks on loans to private sector minus the average interest rate paid by a commercial bankfor its funding 6 Neutral interest rate: It is the level that does not slow down or accelerate inflation, as it is in line with the economy's potential growth.

- 7 Banking Economics Report, central bank, June 2024. <u>https://www.bcb.gov.br/contendo/home-ptb//TextosApresentaccoes/Apresenta</u>

Few foreign trade agreements and low-growth partners

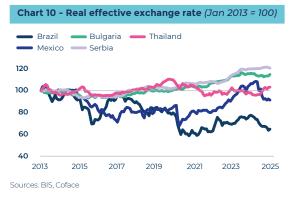
The second series of explanations relates to foreign trade, the lack of trade agreements with its main trading partners and poor growth trends in the Mercosur countries. The fall in manufacturing production throughout the 2013-2024 period at a time of strong external demand for Brazil's agricultural and mineral resources lends the assumption that the country fell victim to Dutch disease following the appreciation of its exchange rate, which, in turn, dented the competitiveness of its industrial exports. However, this was not Brazil's predicament. Looking at the real effective exchange rate, the Brazilian Real depreciated by 35% after January 2013 (Chart 10), which is the weakest performance among the sample countries.

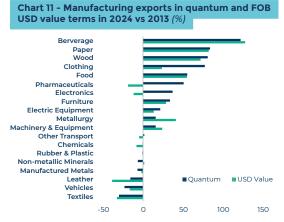
Brazil's export growth between 2013 and 2024 (+52% by quantum and 45% by USD revenue) was mostly driven by agricultural exports - these roughly doubled over the period both by quantum and USD value - and extractive industry performances (+104% and 66%, respectively). Meanwhile, over the same period the pace of growth for manufacturing exports grew by a smaller amount, both by quantum (+26%) and value (+29%). In addition, the rise in manufacturing exports was primarily driven by commodity-related sectors such as paper, wood and food, which have lower processing levels (Chart 11). By contrast, greater weakness was observed among vehicles (-23% by quantum and 17% by value) and manufactured metals (-7% and -2%, respectively). Both were particularly dented by sluggish demand from Argentina, its main market for both sectors (by value). Successive crises in the neighbouring economy led to substantial decline in Brazilian exports to the country (Table 2). Among other main markets for exports, sales to Europe¹⁰ also fell over the period on back of less exports of food, paper and refined oil, the sales of which had contracted.

Another important consideration is the low representativeness of exports to GDP in Brazil: the average share of exports to GDP was only 13% during the 2013-2023 period, which is far below the ratio observed in the other five sample countries. Brazil is very closed to foreign trade, with low representativeness of imports to GDP as well (averaging only 10% of GDP in 2013- 2023). The trade flow (Chart 12) of Costa Rica, the second most closed economy (48% of GDP), is more than double that of Brazil. Over and above the weak competitiveness of local industry, the obstacle blocking the country's manufacturing export performance is its limited markets for foreign sales.

Brazil does not currently have any free trade agreements with the main recipients of its exports - China, the European Union and the US. However, the country is part of the Southern Common Market (abbreviated to Mercosur in Spanish and Mercosul in Portuguese) which was created in 1991 and whose other members are Argentina, Paraguay, Uruguay, Venezuela (suspended since 2017) and Bolivia since July 2024.

Of particular note, during the 2013-2023 period these countries experienced more or less recurring economic crises - the case of Argentina and Venezuela - and some are smaller economies such as Uruguay and Paraguay. Moreover, Bolivia's entry to the bloc is unlikely to be a game-changer as the market is small and the country is mired in a troubled political and economic landscape, facing the implosion of its growth model amid declining gas output, lack of foreign currency reserves and ballooning public debt. Furthermore, Mercosur's rules prevent member countries from making bilateral free trade agreements without the approval of the bloc's other partners, which limits progress when negotiating



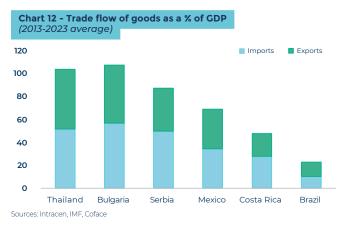


sources:: Ministry of Development, Industry, Commerce and Services, Coface

Table 2 - Top ten destinies for manufacturing exports (in USD revenue terms)

	% of total exports in 2024 (USD revenue terms)	% 2024/2013 (USD revenue terms)
1 - United States	17	68
2 - China	10	132
3 - Argentina	7	-31
4 - Mexico	4	92
5 - Netherlands	3	-33
6 - Singapore	3	228
7 - Canada	3	208
8 - Chile	3	40
9 - United Arab Emirates	2	89
10 - Indonesia	2	208

Sources: Ministry of Development, Industry, Commerce and Services, Coface



9 - Combined (corporate and shareholder) statutory tax rates: effective statutory tax rates on distributions of domestic source income to a resident individual shareholder, taking account of corporate income tax, personal income tax and any type of integration or relief to reduce the effects of double taxation.

10- The Netherlands is the only European country in the table, as most exports are shipped to the port of Rotterdam, Europe's largest port, before being transported to other European markets.

WHY DOESN'T BRAZIL TAKE OFF ON A LONG-HAUL FLIGHT?

agreements with other markets. The underlying reason is the necessity to align the interests of the various countries which can sometimes be on different political spectrums, making it even harder to reach a consensus. In recent years, Uruguay (under the 2020-2025 Lacalle Pou presidency) attempted to negotiate a stand-alone free trade agreement with China. The plan, however, ran up against the Mercosur rule. The rule has meant that Brazil has secured only a few trade agreements, which has dented the opportunities to expand trade beyond the Mercosur bloc

Regarding the 25-year negotiations between Mercosur and the European Union, both parties announced in December 2024 the signing of a free trade agreement to reduce export tariffs between the two blocs. This came five years after an initial deal which had been stalled by the European Union notably owing to environmental concerns over deforestation in Mercosur countries. However, the agreement is awaiting ratification by the Congresses of Mercosur member countries and, on the European side, the Council of the European Union and the European Parliament. Gaining final approval would appear somewhat uncertain, particularly given the objections that have been chiefly posed by France, which could also stir up opposition by other European countries.

Lack of educational progress in the last decade has contributed to poor worker productivity

More specifically than the other explanatory factors mentioned above, Brazil's education system is a primary cause of its underperformance. The educational level of the population plays a key role in achieving a high productivity rate per worker, thus contributing to growth. According to the PISA¹¹ index and its scores for mathematics, science and reading, the scores obtained by Brazil remained generally stable between the 2012 and 2022 assessments, i.e., at low levels. In comparative terms, Brazil was the worst-placed for mathematics and science among the six sample countries in the 2022 assessment (Table 3).

the 2022 assessment (out of 81 countries)				
Mathematics	Science	Reading		
1 Singapore	1 Singapore	1 Singapore		
42 Serbia	41 Serbia	40 Serbia		
49 Bulgaria	50 Bulgaria	49 Costa Rica		
57 Mexico	56 Costa Rica	50 Mexico		
58 Thailand	57 Mexico	52 Brazil		
63 Costa Rica	58 Thailand	57 Bulgaria		
65 Brazil	61 Brazil	64 Thailand		

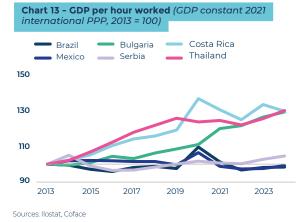
Table 3 - Pisa index - sample countries' scores from

Sources: OECD, Coface

One of the principal explanations for the rankings is education spending per student, which is very low in Brazil - the amount only increases at tertiary level, which is positive, but those students who manage to get accepted into public universities due to their good examination results are notably from private school students.

In addition to low public spending per student compared to other countries, other reasons can explain the low educational performance in Brazil. A study by the Lemann Foundation¹² of the state of education in Brazil cites that many schools do not have the right infrastructure for learning - a contributing factor to student discouragement - and a significant percentage of teachers do not have the correct training. There is also the problem of truancy, which particularly impacts the poorest students.

Brazil's low investment rate during the 2013-2024 period, in addition to its weak position in the education rankings and lack of improvement during the intervening years, has resulted in poor worker productivity (Chart 13). According to the index, productivity in Brazil stalled during the period in question. It registered the worst performance of all six countries in the sample and trended well below the those of Costa Rica, Thailand and Bulgaria.



However, despite the poor productivity per worker in Brazil as a whole, there are few sectors that have managed to buck the trend. FGV data on productivity per hours worked for 12 sectors of the Brazilian economy (in constant prices) between 2013 and 2023 pinpointed four sectors that recorded growth during the period . Unsurprisingly, the agricultural sector was among the four and recorded the highest productivity growth over the period (+67%), in line with the strong GDP growth for that time. At the other end of the spectrum, transport (-20%), financial information (-16%) and the manufacturing industry (-13%) recorded the worst performances.

Political fragmentation, an additional hindrance to growth

The final explanation for Brazil's economic (under) performances is the impact of politics. More specially, a country that is highly fragmented politically, i.e., where the political landscape is divided among many different parties, finds it harder to reach consensus when passing structural reforms¹⁴. This is especially the case for presidential systems such as Brazil's, where polarisation among numerous political forces can block policy changes or result in the passing of watered down reforms¹⁵. For example, it took 30 years to finally approve a tax reform in 2023 which consolidated five existing taxes into a single consumption levy comprising separate federal and regional rates.

11 - The Program for International Student Assessment (PISA) is an international assessment that measures 15-year-old students' reading, mathematics, and science literacy.

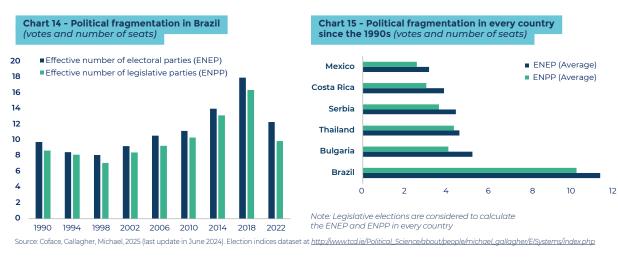
- 12 https://fundacaolemann.org.br/noticias/como-esta-a-nossa-educacao-basica 13 The other sectors that reported increases: public utility industrial services (+60%), mineral extraction (+28%) and real estate services (+1%)

13 - The Other Sectors that report team inclusion and the sectors of the Other Sectors that report team inclusion and the other Sectors that report team inclusion and the other Sectors that report team inclusion and tea University of Michigan Press; 2009.

Brazil's political fragmentation indicators have steadily increased from the 1998 elections to those of 2018, and reveal the following scores: in 1998, the Effective Number of Electoral Parties (ENEP) was 8.1 and the Effective Number of Political Parties (ENPP) was 7.1, while in 2018 the ENEP was 18.0 whereas the ENPP came to 16.5 (Chart 14).

The scores demonstrate the growing fragmentation of Brazil's political system in votes and seats alike. Since 2018, however, fragmentation has eased slightly owing to changes in the rules, such as the end of proportional coalitions and the creation of a performance clause¹⁶,

although it still remains sizeable compared to other countries such as Bulgaria, Costa Rica, Mexico, Serbia and Thailand. Brazil has the highest levels of political fragmentation (Chart 15) among these economies. From 1990 to 2022, Brazil's average ENEP was 11.3, while its ENPP averaged 10.2. By comparison, countries like Mexico (ENEP: 3.2, ENPP: 2.6) and Costa Rica (ENEP: 3.9, ENPP: 3.0) have much lower fragmentation levels. In addition, Brazil's median ENEP of 10.6 is still significantly above the regional median, which was around 3.0 between 1986 and 201617.



CONCLUSION

Looking ahead, Brazil will continue to be a relevant market owing to its vast natural resources, large population (guaranteeing a vast consumer market) and its place as the world's tenth largest economy. However, long-term structural factors continue to restrict growth. To achieve an increase in the country's growth potential, the country needs to address the obstacles.

The tax system has undergone some recent improvements. In 2023, Congress approved a long-awaited tax reform to consolidate five existing taxes into a single consumption levy with separate federal and regional rates. Although the move has not reduced the tax burden, the reform will simplify the tax system for companies, thereby facilitating compliance. It is also expected to reduce tax evasion. However, it will take time for the benefits to start trickling through to economic agents, as the reform will be gradually rolled out in phases from 2026 until the taxes are fully consolidated in 2033.

Apart from the abovementioned tax reform, no other recent relevant structural reform exists that could help dismantle the growth traps. For instance, government needs to curb the rise in compulsory expenditure and public debt. This would help limit the risk premium, which, in turn, would act as a lever to bring down Brazil's high interest rates. The central bank's quarterly Financial Stability Survey for February 2025¹⁸ cited the fiscal landscape as the main risk to financial stability over the next three years. Of the 91 financial institutions surveyed, 52 mentioned the fiscal framework, up from 42 in the previous guarterly survey in November 2024. However, no major fiscal consolidation reform is in sight for the medium term. In addition, it is unpopular and therefore difficult to achieve, especially given the country's high political fragmentation. As far as the current public debt picture is concerned, maintaining an expansionary fiscal policy aimed at accelerating growth would increase long-term interest rates and the cost of capital, resulting in lower private investment, which would ultimately dent growth in the Brazilian economy. Furthermore, the benefits of structural reforms go beyond the risk premium. Cuts to discretionary spending would also help increase public investment and spending to improve education.

With regards to foreign trade, it is unclear when the trade agreement with the EU will enter into force. Meanwhile, the escalation of protectionist trade policies enforced by the US under the second Trump administration could also hurt Brazil's exports. A 25% global tariff on steel and aluminium products that took effect on 12 March 2025 is applicable to South America's largest country. The impact is more limited in the case of aluminium (15% of Brazilian aluminium exports are destined for the US), but steel accounts for roughly 60% of the sector's exports to the US⁹. The signing in the US of a Presidential Memorandum directing federal agencies to investigate plans to introduce "reciprocal tariffs²⁰" on US trade partners in February 2025 could potentially affect Brazil. The US is Brazil's second-largest trading partner and was the final destination for 12% of total exports in 2024, for a total of US\$40.4 billion. The US also accounts for 16% of Brazil's imports, worth US\$40.7 billion. Using data from the World Bank, the average tariff applied by Brazil on US imports is 11.3%. Conversely, the tariffs imposed by the US on Brazilian goods are considerably lower, averaging out at 2.2%.

- According to the candidate performance clause, established by law 13.165/15, a candidate must have a number of votes equal to or greater than 10% of the electoral quotient to be considered elected to the legislative

 ^{19 -} Source: World Bank, Quality of Government - Basic Dataset | Download Dataset
 18 - The Financial Stability Survey seeks to gauge the perception of the sector's institutions about the stability of the National Financial System over the next three years. <u>https://www.bcb.gov.br/publicacces/pef</u> 19 - Brazil's steel exports to the US are equivalent to only 1% of Brazil's total exports. In addition, the impact may be mitigated by the fact that exports are concentrated on semi-finished steel products which serve as an input to US industry, so demand tends to have lower price elasticity.

APPENDIX

by Anna Farrugia

Political fragmentation, whether by votes or the distribution of seats in the lower house, is relevant to understand the workings of party systems and the governability of a country. Two key indicators are commonly used to quantify political fragmentation: the Effective Number of Electoral Parties (ENEP) and the Effective Number of Legislative Parties (ENPP).

• ENEP²¹ (fragmentation in terms of votes):

The ENEP is calculated based on the share of the vote obtained by each party and gives a value that reflects not only the number of parties in competition, but also their relative weight. Mathematically, it is defined as follows:

Where v_i is the proportion of votes and n is the total number of votes.

• ENPP (fragmentations in terms of seats in the lower house):

The ENPP measures the effective number of parties represented in the legislature, weighting their influence according to their weight in seats after the legislative elections. P_i is the proportion of seats of the *i*th party and *n* is the total of parties.

Both indicators refer to the same formula, which calculates the effective number of parties by taking the inverse of the sum of the squared proportions of votes or seats obtained by each party in a given electoral instance. The higher the indicators, the higher the political fragmentation, with many influential parties in place. This may mean that several parties are large, but none completely dominates. Systems with high ENE/PP scores also tend to favour coalitions, which makes governance more complex.

 Indices outlined in: Markku Laakso and Rein Taagepera, "Effective number of parties: a measure with application to west Europe", Comparative Political Studies 12:1 (1979), pp. 3-27.

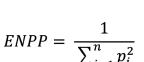
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 $ENEP = \frac{1}{\sum_{i=1}^{n} v_i^2}$