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BRICS: Lessons for Mexico

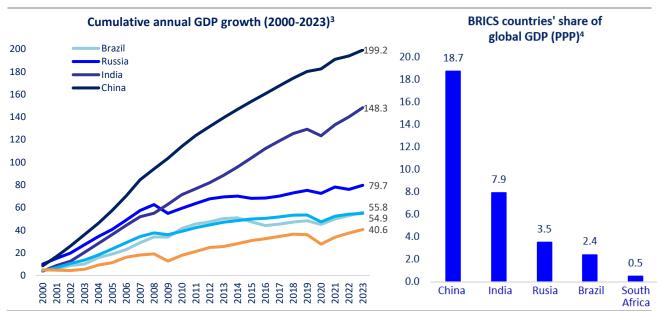
- The BRICS bloc is an economic and political alliance of emerging countries, initially made up of Brazil, Russia, India, China and South Africa.
- Over the past 20 years, the GDP of the BRICS has grown at an average rate of 4.4% per year, higher than that recorded by Mexico (1.7%) and the G7 (1.4%).
- Mexico could learn from the experience of the BRICS and implement some of the strategies that
 explain their success, such as: 1) trade diversification; 2) greater spending on research and
 development (R&D); and 3) a high level of investment in infrastructure.

BRICS: An economic bloc of global relevance

The BRICS (Brazil, Russia, India, China and South Africa) have established themselves as one of the most important economic groupings in the world, representing 33.2% of global GDP in terms of purchasing power parity (PPP) in 2023, according to data from the International Monetary Fund (IMF)¹, significantly surpassing the G7 (29.5%) and the European Union (14.7%). Furthermore, the volume of BRICS+ exports represents 24.5% of the world total and together they account for 45.2% of the world's population². The group has grown so influential that it has put forward an initiative to create a common currency, with the aim of reducing dependence on the dollar in international trade and challenging its hegemony. In this context, it is essential to analyze the global economic implications of the BRICS, the reasons behind their accelerated growth in recent years and the possible lessons that Mexico, as an emerging economy, could draw from this group, whose achievements demonstrate the potential of a joint and multipolar strategy.

Key lessons for Mexico

As an emerging economy, Mexico faces similar challenges and opportunities to the BRICS, although it has opted for an approach that differs from the model of this bloc, which has resulted in lower economic growth. Over the past two decades, the GDP of the BRICS has grown at an average annual rate of 4.4%, significantly higher than Mexico's 1.7% (World Bank, 2024). In this note we will analyze some of the key lessons that the country could adopt from the BRICS, such as: 1) trade diversification; while the BRICS have boosted their exports in different parts of the world, Mexico remains strongly linked to the US, with nearly 84.0% of its exports destined for that country (this lack of diversification inhibits Mexico's export potential and leaves it exposed to geopolitical and economic tensions); 2) greater investment in research and development (R&D) to boost technological innovation, increase global competitiveness and raise productivity levels; and 3) a robust infrastructure investment strategy, focused on optimizing the country's transportation networks and strengthening electricity generation capacity, thereby encouraging private investment and promoting economic development in less favored regions.



Source: Own elaboration using data from the World Bank and the International Monetary Fund.

Notes: ^{1/} When considering Iran, Egypt, the United Arab Emirates (UAE) and Ethiopia, new members of the bloc (BRICS+) from 2024, the figure rises to 35.8%, although in this analysis we will limit ourselves to the five original members; ^{2/} According to the BRICS Pay website (2023); ^{3/}Figures in percentage; ^{4/}Purchasing power parity (PPP), 2023 figures.



In the face of EU sanctions, Russia has stepped up its trade diversification: in 2023, bilateral trade with China grew by 26.3% annually, reaching US\$240 billion (a historic record).

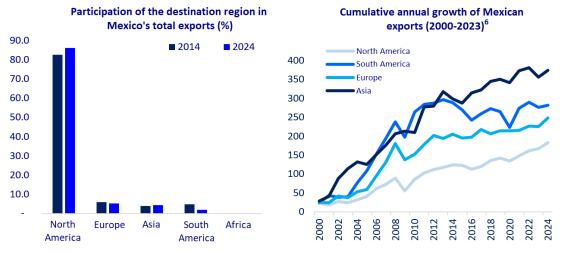
Trade diversification

One of the reasons behind the success of the BRICS lies in their ability to diversify their exports and not depend commercially on a single country or region. According to data from the World Integrated Trade Solution (WITS), in 2022, the BRICS countries directed on average 40.8% of their exports to their five main trading partners, reflecting a "healthy" balance in their foreign trade. For example, China mainly exports to the United States (16.2%), Hong Kong (8.3%) and Japan (4.8%), while Russia exports mostly to China (14.0%), the Netherlands (8.6%) and Germany (6.0%). In addition, in 2023, China, Russia and Brazil were among the six countries with the largest trade surpluses worldwide, with \$823.2, \$120.1 and \$87.0 billion, respectively (WTO, 2023). This is thanks to the fact that China has consolidated its presence in Asia, Africa and Latin America; Russia has been able to redirect most of its exports to India and China, following sanctions from the European Union (EU); and Brazil has positioned itself as a key supplier of raw materials for Asia, the US and Europe.

In contrast, Mexico allocates about 84.0% of its total exports to the US, constantly registers trade deficits (\$-5,464.0 million dollars in 2023) and its export model is highly dependent on automotive manufacturing, which represents more than 90.0% of the total (INEGI, 2024). Although NAFTA/T-MEC has been fundamental for the country's sustained economic growth in the last three decades, this commercial (and sectoral) dependence leaves it vulnerable to geopolitical and economic pressures - such as Donald Trump's recurring threats to impose 25.0% tariffs - and inhibits the export growth of other sectors of the economy.



82.7% to 86.1%.



Source: Own elaboration using data from INEGI (2024). Notes: 6/Figures in percentage, July of each year.

To realize Mexico's export potential and reduce exposure to U.S. economic cycles, the country must diversify its trading partners by: 1) making the most of existing bilateral and regional treaties to open up markets that are still underexploited; 2) increasing efficiency in the extraction of key natural resources, such as crude oil, minerals (lithium, nickel, zinc, and copper), and agricultural products; and 3) increasing the added value of its exports (production of technology and high-end electronic equipment). Although joining the BRICS is not feasible due to various geopolitical risks, Mexico has a great opportunity to diversify its exports by accessing alternative markets. Countries such as India and Brazil represent valuable trade opportunities; Mexico could deepen bilateral agreements with these countries to promote the exchange of manufacturing, technology, and agricultural products.

Although Mexican exports to Asia increased by 82.2% in the last decade, their share as a percentage of the total only increased by 0.5 pp.

Furthermore, revitalizing trade relations with South America and Africa would boost diversification, considering that in the last decade Mexican exports to these regions fell by 32.5% and 43.7%, respectively (INEGI, 2024). This reflects a significant setback in two regions with high economic dynamism and great commercial opportunities, which Mexico has missed, unlike the BRICS, which have managed to consolidate greater integration with these strategic markets.



Mexico's level of investment in R&D as a percentage of GDP is comparable to that of Oman, Georgia and Burkina Faso.

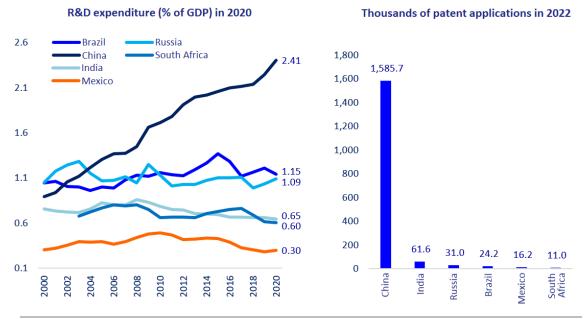
Research and Development (R&D)

Investment in Research and Development (R&D) is a differentiating element that explains the economic success of the BRICS compared to other emerging economies. In 2020, the countries of the bloc invested on average 1.2% of their GDP in R&D, led by China with 2.4% (World Bank, 2020). This effort has allowed Beijing to consolidate itself as a global leader in strategic sectors, such as semiconductors, batteries for electric vehicles and 5G technology. Companies such as Huawei, Tencent and BYD stand out not only for their capacity for innovation, but for their international leadership in their respective sectors.

India, although with a more modest investment (0.7% of GDP), has stood out in pharmaceutical technology, consolidating itself as the leading emerging economy in pharmaceutical product exports, with 2.6% of the global total (TrendEconomy, 2023). It has also become one of the world leaders in satellite launches: in 2023, the Indian Space Research Agency carried out more orbital launches (7) than the European Space Agency (3).

For its part, Brazil has prioritized biotechnology and agribusiness, developing genetically modified varieties that increase agricultural productivity and reduce environmental impact. In 2023, it established itself as the world's largest exporter of soybeans (39.0% of the global total), thanks to its focus on agricultural R&D (USDA, 2023).

Between 2013 and 2023, patent applications in Mexico fell by 13.1%



Source: Own elaboration using data from the World Bank and the World Intellectual Property Organization (WIPO).

In contrast, Mexico only allocates 0.3% of its GDP to R&D, one of the lowest levels among OECD members, which limits technological innovation and contributes to the country continuing to lag behind in terms of competitiveness and productivity. This figure is also reflected in the number of patent applications: in 2022, China led with 1,585,663 applications (first place worldwide), India registered 61,573, and Russia and Brazil reached 30,977 and 24,232, respectively. Meanwhile, Mexico registered 16,161 applications, barely surpassing South Africa, which had 10,960 (WIPO, 2023). This low level of intellectual property activity shows the need for greater investments in R&D, as well as policies that encourage the generation of proprietary technologies to improve the country's global competitiveness.

To close this gap, Mexico must: 1) increase investment in R&D, with a goal of reaching 1.0% of GDP by 2030; 2) create technology parks and innovation hubs that foster collaboration between universities, research centers and the private sector; and, 3) promote the attraction of international talent and retain national talent, offering tax and labor incentives in strategic sectors. In this way, investment in R&D will not only boost the country's economic growth, but will also prepare it to compete in emerging high-tech sectors, reducing its dependence on automotive manufacturing.

In the last decade, approved spending in Mexico for Branch 38 "Humanities, Sciences, Technologies and Innovation" has only increased 6.1% in nominal terms.



Although South Africa has 37.9% less territory than Mexico, it has 11.4 times the extension of high-speed rail lines than the latter.

In 2023, the installed capacity of the National Electric System (SEN) grew 0.6% annually, while electricity demand grew 3.5%.

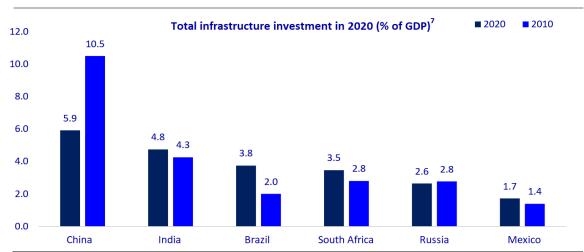
In 2022, 78.6% of the population in Mexico had access to the internet, a figure lower than the OECD average (89.8%) and comparable to countries such as Iraq (78.7%) and Botswana (77.3%).

Investment in infrastructure

Infrastructure is a key factor for sustainable economic growth and global competitiveness, an area in which the BRICS have shown significant progress. In recent years, these countries have prioritized large-scale infrastructure projects, supported by national programs and multilateral cooperation, such as the New Development Bank (NDB), which offers financing to BRICS members and by 2023 had approved \$33.0 billion dollars (m) for key transport, energy and technology projects. China leads this effort with its Belt and Road Initiative, allocating between 2013 and 2023 a total of \$1.05 trillion dollars in investment to build logistics infrastructure in various countries with which it has strong commercial relations (Green Finance & Development Center, 2023). This strategy has not only modernized its internal transport network (with 40,500 km of high-speed railway lines, the longest in the world), but has also strengthened its commercial and diplomatic ties.

India, for its part, has implemented programs such as the National Infrastructure Pipeline (NIP), with an estimated budget for the period 2020-2025 of US\$1.5 trillion, aimed at developing roads, airports and seaports (Government of India, 2024). This approach has allowed India to improve its logistics performance index, rising to 38th place in 2023 from 44th in 2018 (World Bank, 2023). On the other hand, in 2023 Brazil announced the New Growth Acceleration Program (Novo PAC), which will focus investments in infrastructure, housing and sustainability through public-private partnerships (PPP), with a budget of 1.7 trillion Brazilian reals (around US\$274.0 billion), of which the private sector will contribute 36.0%.

On the contrary, Mexico faces significant challenges in terms of infrastructure. According to the World Economic Forum (2023), Mexico ranks 56th in infrastructure quality, behind emerging economies such as India and Brazil. Furthermore, its total investment in infrastructure as a percentage of GDP, at just 1.7% in 2020, is one of the lowest in the world and is below the average of 4.1% observed in the BRICS. This limited level of investment has made it difficult for Mexico to fully capitalize on nearshoring opportunities. For example, it currently does not have sufficient electricity generation capacity to meet the energy requirements of leading transnational companies, and this situation could worsen if measures are not taken, considering that electricity demand is growing at a rate 5.8 times higher than the installed capacity of the National Electric System (SEN).



Source: Own elaboration using data from the World Bank. 7/Constant 2015 dollars.

To reverse this gap, Mexico must: 1) increase public and private investment in infrastructure to levels close to 4.0% of GDP, aligning with international standards (which would strengthen PPP mechanisms to attract private capital); 2) modernize the internal transportation system, with priority given to key logistics corridors such as the Interoceanic Corridor of the Isthmus of Tehuantepec, which seeks to compete with the Panama Canal and connect the Atlantic and Pacific oceans; 3) expand the country's electricity generation capacity, taking advantage of opportunities in renewable energy (in 2022, only 32.0% of the installed electricity generation capacity came from clean sources, compared to SENER's goal of 50.0% for 2050); and, 4) strengthen digital infrastructure, investing in the deployment of 5G networks and broadband connectivity.





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