Strengthening India-Brazil Economic Relations through Sustainable Cooperation

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Strengthening India-Brazil Economic Relations through Sustainable Cooperation

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Project Team: Research and Analysis Group

Mr. David Sinate, Chief General Manager

Dr. Viswanath Jandhyala, Assistant General Manager

Ms. Srejita Nandy, Manager

Ms. Vishakha Bhagwat, Officer

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Executive Summary

The Federative Republic of Brazil is the largest and most populous country in South America. According to the International Monetary Fund (IMF) database, Brazil is ranked as the ninth largest economy in the world, with a nominal Gross Domestic Product (GDP) of approximately US$ 2.2 trillion in 2023. It is also the seventh most populous nation, with a total population of 211.7 million recorded in the same year.

The economy relies heavily on sectors like agriculture, mining, and other resource-intensive activities. Forests cover approximately three-fifths of Brazil's land area, making up about one-seventh of the world's total forest coverage. Additionally, Brazil is endowed with vast mineral reserves including iron ore, tin, copper, manganese and granite among others. Since the discovery of substantial resources in the pre-salt oil region in 2006, oil production in Brazil has also seen significant growth and Brazil became a net oil exporter in 2017.

Brazilian economy is estimated to grow by 3% in 2024 driven by robust private consumption in the context of a strong labour market before expecting to moderate to 2.2% in 2025 amid still restrictive interest rates aimed at completing the convergence of inflation to target; a lower fiscal deficit; the flood calamity in Rio Grande do Sul, and slower agricultural output. Meanwhile, Brazilian Central Bank has implemented aggressive monetary tightening measures to control the inflation levels which are expected to reach 4.3% in 2024 and 3.6% in 2025.

Merchandise Trade of Brazil

Brazil has emerged as a significant player in the international trade arena. Renowned for its agricultural exports, Brazil is a leading producer and exporter of a diverse range of crops, including oranges, soybeans, coffee, and cassava. Additionally, the country boasts substantial mineral reserves, including iron ore, tin, copper, pyrochlore, and bauxite, which have contributed significantly to its economic growth.

Brazil's total merchandise trade has increased from US$ 484.8 billion in 2013 to US$ 580.5 billion in 2023, after peaking to US$ 607.2 billion in 2022. Merchandise exports increased at an annual average growth rate (AAGR) of 4.8% from US$ 232.5 billion in 2013 to US$ 339.7 billion in 2023, whereas the imports moderated at an AAGR of 1.5% from US$ 252.3 billion in 2013 to US$ 240.8 billion in 2023. Over this period, Brazil's trade balance improved significantly, transitioning from a deficit of US$ 19.7 billion in 2013 to a surplus of US$ 98.9 billion in 2023.

Brazil ranks as the second-largest merchandise exporter in the Latin America and Caribbean region, accounting for 24.2% of the total regional exports to the world in 2023, following Mexico (42.5%). In 2023, the total global exports of Brazil amounted to US$ 339.7 billion of which mineral fuels and oils constituted 16.2% that is, US$ 55.2 billion. Other significantly exported commodities were oil seeds and oleaginous fruits and ores, slag and ash, among others. In 2023, 30.7% of Brazil's exports headed to China, while the USA was the second largest destination for Brazilian exports, followed by Argentina. India was Brazil's 13th largest export destination in 2023, accounting for a share of 1.4% of Brazil's total merchandise exports.

Brazil's import basket remains more diversified due to the demand for consumer as well as industrial goods compared to its export basket owing to its geography. In 2023, mineral fuels and oils were Brazil's most imported commodity, accounting for 15.3% of all imported commodities. Other top imported commodities in 2023 include machinery and mechanical appliances and electrical machinery and equipment, among others. China has emerged as Brazil's top import source as well, accounting for a share of 22.1% in 2023. USA and Germany are Brazil's other most important import sources. In 2023, India became Brazil's 6th largest source of imports, advancing from its 7th position in 2019.

Services Trade of Brazil

According to the United Nations National Accounts Statistics, services contributed 68.2% to the country's gross value added in 2022. However, commercial services in Brazil primarily cater to the domestic market, with a relatively modest exports performance.

Brazil's total trade in services experienced a slight decline from US$ 130.2 billion in 2013 to US$ 128 billion in 2023. Servies exports increased at an AAGR of 2.6% from US$ 37.6 billion in 2013 to US$ 45.2 billion in 2023. Meanwhile, services imports have been consistent with a meagre growth of less than a percent in the past decade, leading to services trade deficit ranging from US$ 55 billion in 2013 to US$ 37.6 billion in 2023.

Brazil's commercial services exports demonstrate a diversified profile, with transport and travel accounting for significant shares of 15% and 15.3%, respectively, in 2023. Leveraging its extensive Atlantic coastline, Brazil effectively utilizes maritime transport for its cargo exports which accounts for 12% of the total services exports. Other commercial services contributed substantially to the export mix, 65.1% of the total exports. Within this category, business services dominated with a 43.4% share, followed by telecommunications and IT services, and insurance and pension services.

Brazil's commercial services imports constituted the predominant portion of these imports, representing 97.3% of the total in 2023. Within this category, transportation and travel accounted for significant shares, at 23.8% and 17.6%, respectively. Other commercial services reached US$ 45.9 billion in 2023, with business services comprising 25.7% of the total imports, followed by telecommunications and IT services, and charges for the use of intellectual property.

Foreign Direct Investment in Brazil

According to the United Nations Conference on Trade and Development (UNCTAD) in 2023, FDI in the Latin America and the Caribbean (LAC) region stood at US$ 193 billion. Brazil received a total of US$ 65.9 billion in FDI inflow, making it the largest recipient of FDI in the LAC region and 5th largest FDI recipient globally in 2023. Meanwhile, Brazil ranked 13th globally in terms of FDI outflows in 2023 and largest among the LAC economies. Its outward investment grew from US$ 20.5 billion in 2021 to US$ 29.9 billion in 2023.

According to Financial Times' database - fDi Markets, Brazil has received well-diversified investments across sectors during 2013-2023. Its renewable energy sector attracted the highest envisaged capital expenditure amounting to US$ 47.2 billion (21.1% of the total inflows), followed by coal, oil and gas, and financial services, among others. Based on the envisaged FDI received, the United States has been the largest source of inward FDI to Brazil during the period of analysis, contributing a total of US$ 46.9 billion across various sectors. France ranked second, accounting for 9.2% of the total capital expenditure invested in the country, followed by China with 7.2%.

In terms of FDI outflows, the metals sector accounted for the maximum investment of US$ 7.6 billion, representing 21% of the total FDI outflows during 2013-23. This was followed by investments in coal, oil and gas, and food and beverages, among others. The United States continues to be the most important destination attracting maximum investments from Brazil of US$ 7.2 billion and accounting for a fifth of the total outward FDI made by Brazil during the period of analysis. Colombia and Canada follow the list with 14% and 7.9% respectively, of the total investments from Brazil.

Bilateral Merchandise Trade of India and Brazil

The trade relationship between India and Brazil has steadily grown over the past decade, with Brazil emerging as India's 20th largest export destination and 25th largest import source in 2023. Despite India maintaining a modest trade surplus since 2019, bilateral trade remains below its full potential due to factors such as geographical distance, technical regulations, high transport and logistics costs.

The total bilateral merchandise trade has fluctuated over the years, increasing from US$ 9.9 billion in 2013 to US$ 13.1 billion in 2023. India's exports to Brazil have grown at an AAGR of 8.2%, increasing from US$ 6.1 billion a decade ago to US$ 6.7 billion in 2023. On the other hand, imports from Brazil have nearly doubled over the past decade, rising from US$ 3.8 billion in 2013 to US$ 6.5 billion in 2023, with an AAGR of 9.9%.

India's export basket to Brazil remains well-diversified, with refined mineral fuels and oils comprising about a quarter of the total exports. This category was followed by other chemical products, machinery and mechanical appliances and pharmaceutical products in 2023. The composition of imports was diverse, with animal, vegetable fats and oils accounting for 24.6% of the total, followed closely by mineral fuels and oils (crude) and sugar and sugar confectionery, among others.

India-Brazil Services Trade

Bilateral services trade between India and Brazil has been obtained from the OECD-WTO Balanced Trade in Services (BaTIS) dataset. According to the source, the total trade between the two nations reached US$ 3 billion in 2021 (based on latest data available), increasing from the US$ 2.3 billion recorded a decade ago.

India's exports of services to Brazil have shown substantial growth, increasing at an AAGR of 28.6% from US$ 1.7 billion in 2013 to US$ 2.2 billion in 2021. Among India's commercial services exports, "other commercial services" comprised the major share, representing 81.5% of the total. Within this category, telecommunication, computer, and information services dominated, contributing 46.3% of services exports, followed by other business services at 30.4%. Financial services, along with personal, cultural, and recreational services, each accounted for a modest 1.4% of the services export in 2021.

In 2021, India imported services worth US$ 807 million from Brazil, accounting for less than a percent of India's total services imports from the world. Travel and transport services together made up 52.6% of the total commercial services imports from Brazil. The remaining 43.4% of imports were classified as other commercial services. Breaking this down further, other business services represented 27.1% of the total imports, while telecommunication, computer, and information services accounted for 9.5%. Both financial and insurance services each comprised 1.6% of the total service imports.

India's Bilateral Investment Relations with Brazil

According to Financial Times' fDi Markets, during January 2013 to December 2023, total capital investment of India in Brazil stood at a cumulative amount of US$ 2,038 million making India the 22nd largest investing country in Brazil through 57 projects. In terms of envisaged capital expenditure, majority of the investments were undertaken in metals sector amounting to US$ 577.7 million (28.3% of total Indian investments in Brazil) in the last decade. This was followed by chemicals (US$ 429.3 million) and automotive sector (US$ 340.4 million).

India was the 20th largest FDI destination of Brazilian investments during January 2013 to December 2023. India accounted for US$ 324.2 million of FDI receipts from Brazil coming through 11 projects during this period. Metals sector received one-third of the total investments amounting to US$ 107.8 million in the last decade. This was followed by space and defence sector (US$ 83.8 million) and automotive components (US$ 74.2 million).

Potential for Enhancing India's Trade with Brazil

The study has identified potential items of exports which could be targeted by Indian exporters. To identify the products based on their export competitiveness in Brazil, a four-quadrant analysis has been undertaken based on the HS Code classifications at 6-digit level by calculating their Normalised Revealed Comparative Advantage (NRCA) and mapping them against AAGR of global imports of Brazil for all products. The quadrants are drawn by comparing the overall AAGR of global imports of Brazil for all products during 2019-2023 (which was 7.6%), to the NRCA of India's exports to Brazil during the same period. This exercise aims to identify products whose imports in the Brazil over the period 2019-2023 have performed better than the overall average of Brazil for all products during this period, implying that the share of such products in Brazil's import basket has witnessed an increase, a reflection of their rising demand and dynamism. At 6-digit HS Code, with minimum exports of US$ 0.5 million from India to Brazil, 699 products have been identified with the total exports from India to Brazil amounting to US$ 6.5 billion (98.1% of India's exports to Brazil in 2023), while the total world imports by Brazil for the same products stood at US$ 103.4 billion in 2023 (43% of Brazil's global imports in 2023).

Out of the 699 items at the HS 6-digit level, 285 items belonged to the category of the Product Champions. The combined exports of these items from India to Brazil were US$ 3.4 billion in 2023, representing approximately 59% of India's exports to Brazil during the year. The study highlights that in the short term it is important to strengthen the existing products in the category of Product Champions to harness the full potential for the products which are already showing a robust growth in Brazil, where India's exports also hold a comparative advantage. This category includes products such as medium oils and preparations, medicaments, herbicides, parts and accessories of motor vehicles, automotive parts like engines and tyres, tractors, parts of electric motors, heterocyclical compounds, among others.

The Underachievers segment consisted of 127 items, with India's exports worth US$ 414.5 million to Brazil. These products constitute a share of 6.2% in India's total exports to Brazil. These are the product items in which import demand in Brazil is rising, but India does not have the required competitiveness in the export of these items. Concerted efforts could be made to develop capacities in products in the Underachievers category, which will help in meeting the demands of Brazil in a more competitive manner. In the medium to long run, efforts and investments could be enhanced in the Underachievers category products to develop capacities in these products, which will help in meeting the demands of Brazil in a more competitive manner. These include turbojets, gears, appliances for pipes, immunological products, internal combustion piston engine, articles of iron and steel, suspension systems of motor vehicles, gaskets, parts of pumps, static converters, parts of machines, chemical products, ball bearings, parts of valves, among others.

Potential Areas of Cooperation and Recommendations

India and Brazil, which are strategic partners, share wide ranging complementarities and robust collaborations across various sectors. India's strengths in digital infrastructure and IT services align well with Brazil's vast natural resources and economic influence in Latin America. India and Brazil's strategic partnership has immense potential to grow through expanded trade, collaborative research, sustainable energy projects, and technological innovation. To unlock trade potential, expanding the scope of the India-MERCOSUR Preferential Trade Agreement into a comprehensive free trade agreement could be considered.

Boosting Services Trade

India has consistently run a services trade surplus with Brazil between 2013 and 2021 (based on latest data available by WTO). India's major services exports to Brazil comprised telecommunication, computer, and information services contributing 46.3% of services exports, followed by other business services (which include research and development services; professional and management consulting services and technical, trade-related, and other business services) at 30.4%. Both these sectors account for a considerable share in Brazil's global services imports with business services accounting for 25.7% and telecommunication and IT services accounting for 14.1%. These areas could be further explored by India to increase services exports to Brazil.

Collaboration in Agriculture and Food Processing

India and Brazil play key roles in the global agriculture landscape, being among the largest producers of essential crops such as rice, wheat, soybeans, and sugar. Further cooperation in this area could be explored through joint ventures and technological and marketing collaboration. Their diverse climates and farming practices provide a rich opportunity for collaboration to address hunger and food security challenges. By sharing knowledge on sustainable farming techniques, investing in agricultural research, and leveraging technology, both nations can enhance crop yields and resilience against climate change thereby contributing to mutual and global food security. Joint initiatives focused on improving supply chain efficiency and access to markets could further ensure that surplus production effectively reaches vulnerable populations. Collaborating on policy frameworks and agricultural education can empower farmers, ultimately working towards the common goal of eradicating hunger in both countries. Recent agreements, such as the MoU between the Food Safety and Standards Authority of India (FSSAI) and Brazil's Ministry of Agriculture, pave the way for greater cooperation in this sector. Further, as both India and Brazil continue to thrive in the food processing sector, there is a growing opportunity for them to explore mutual investment and collaboration in advanced technologies in post-harvest management, food processing model and logistics.

Cooperation in Biofuels and Renewable Energy Transition

Global ethanol production reached a record 29.5 billion gallons in 2023, with Brazil and India ranked as the second and third-largest producers, respectively. Brazil's "Fuel of the Future" program targets increasing ethanol blending with gasoline from 22% to 27% by 2025, aiming to reach 35% by 2030. Brazil remains the largest exporter of sugarcane accounting for 41.6% global share in 2023. India, contributing 5% to global ethanol production, has significantly expanded its Ethanol Blended Petrol (EBP) Program, doubling production capacity in four years to support its 20% blending target by 2025. India and Brazil collaborate on biofuel initiatives, including the Global Biofuels Alliance (GBA), launched during India's G20 presidency. The GBA, presently comprising 27 member countries and 12 international organizations, promotes sustainable biofuels, trade, and technical support. Brazil's flex-fuel technology and expertise in sugarcane ethanol production offer valuable insights for India's biofuel production goals. The GBA benefits India by enhancing its global position, fostering export opportunities in terms of technology and equipment, thereby contributing to sustainability and energy security.

Brazil became a member of the International Solar Alliance in February 2024 underscoring its commitment to promote solar energy. India can leverage its expertise in solar technologies to assist Brazil in expanding its renewable energy infrastructure, facilitating knowledge transfer on best practices, project implementation, and innovative financing models. Additionally, both countries can collaborate on the critical minerals needed for electric vehicle (EV) production, ensuring a sustainable supply chain that supports their growing EV markets. By sharing research and expertise, they can bolster their energy transition goals while fostering economic growth and reducing carbon emissions in both nations.

Cooperation in Promoting Sustainable Finance and Development

India and Brazil have rolled out national strategies or frameworks on sustainable finance. As both nations work toward their respective net-zero goals, they can leverage this emerging market to finance sustainable projects and infrastructure development. India and Brazil could collaborate in sustainable financing by leveraging expertise of national and regional development finance institutions, such as Brazil's BNDES (Brazilian Development Bank), the NDB (New Development Bank) and India Exim Bank (Export Import Bank of India) in high-impact sustainable development projects. Both countries could jointly finance eligible projects in renewable energy, clean technology, and sustainable infrastructure. By pooling resources and expertise, both countries could significantly enhance the impact of their sustainability initiatives. Additionally, they could facilitate exchange programs and provide technical assistance to share best practices in green finance, project evaluation, and risk management. Supporting sustainable industrial value chains across Latin America in the form of trilateral cooperation is another area of potential cooperation, with focus on sectors such as bioenergy, electric vehicles, and waste-to-energy technologies. Collaboration on carbon trading mechanisms and funding climate-resilient projects, such as reforestation and water management, could help align with global climate goals. Finally, India and Brazil could co-invest in research for sustainable and innovative technologies, particularly in areas such as green hydrogen, biofuels, and circular economy practices.

Easing Cross-Border Payments

India and Brazil could explore Local Currency Settlement System (LCSS), a framework that allows the settlement of a bilateral transaction between two countries using their respective domestic currencies, leading to potentially lower transaction costs, faster settlement times and increase bilateral trade predictability. This initiative aims to enhance trade efficiency and strengthen economic ties between the two nations. Setting up or increasing Indian bank branches could facilitate increased use of this mechanism by Indian exporters. India has built a strong digital economy, driven by robust Digital Public Infrastructures (DPIs), which have been contributing significantly to economic development. The two nations can significantly boost trade by introducing interoperability between their real-time payment systems, India's Unified Payment Interface (UPI) and Brazil's Pix. By enabling seamless transactions between the two countries, businesses and individuals could experience efficient and secure cross-border payments.

Aerospace, Defense, and Space Cooperation

Brazil's interest in India's defense equipment technology, coupled with India's expertise in indigenously developed systems, fosters a mutually beneficial relationship. India and Brazil also share a history of robust space collaboration, with significant potential for deeper cooperation in areas like rocket launches, satellite communications, and payload development. Both countries have also been collaborating in data sharing and satellite navigation. Cooperation could be extended to joint ventures, technology transfers, and shared manufacturing, enhancing defense and space capabilities and strategic ties. Brazil's expertise in advanced aviation also presents opportunities for joint aircraft development to bolster India's defense aviation capabilities.

In conclusion, with natural complementarities, India and Brazil thus, offer immense opportunities for closer collaboration with each other in various sectors of mutual interest and expertise. India Exim Bank's commitment towards fostering relationships with institutions and countries in the LAC region is reflected through its various activities and programmes, which support Government of India's initiatives in promoting strategic partnerships with countries in the region.

Chapter

1

Macro Economic Scenario of Brazil

The Federative Republic of Brazil is the largest and most populous country in South America. It features a coastline of 7,400 kms along the Atlantic Ocean and shares over 15,700 kms of inland borders with all South American countries except Chile and Ecuador. According to the International Monetary Fund (IMF) database[1], Brazil ranked as the ninth largest economy in the world, with a nominal Gross Domestic Product (GDP) of approximately US$ 2.2 trillion in 2023. It was also the seventh most populous nation, with a total population of 211.7 million recorded in the same year.

Brazil's economic landscape is significantly influenced by its rich biodiversity, which houses 15-20% of the world's biological diversity[2]. The economies of the region, and Brazil overall, heavily depend on sectors like agriculture, mining, and other resource-intensive activities. Forests cover approximately three-fifths of Brazil's land area, making up about one-seventh of the world's total forest coverage. Additionally, Brazil is endowed with vast mineral reserves that remain only partially tapped, including iron ore, tin, copper, pyrochlore, and bauxite. Other valuable resources include granite, manganese, asbestos, gold, gemstones, quartz, tantalum, and kaolin (china clay). In 2022, the gross value added (GVA) by sectors in Brazil reflected a diverse economy: the services sector contributed 68.2% of the total GVA, followed by industry at 23.9%, and agriculture and related activities at 7.9%[3].

Brazil has an exceptionally clean energy mix, with clean energy sources accounting for 90% of total electricity production. Large hydropower plants generate approximately 80% of Brazil's domestic electricity. They produced 428.7 terawatt-hours of hydroelectricity in 2023, nearly triple the amount generated by India during the same year[4]. However, further expansion of hydropower faces challenges due to the remoteness and environmental sensitivity of much of the remaining potential. In the coming years, utility-scale and distributed photovoltaic (PV) projects are expected to account for nearly 70% of new capacity additions. Meanwhile, reliance on other energy sources, including natural gas, onshore and offshore wind, and bioenergy, is also increasing. Brazil is the second largest producer of ethanol after US , with a robust domestic market for flex-fuel vehicles[5].

[1] IMF World Economic Outlook Database, October 2024
[2] Megadiverse Brazil: Giving Biodiversity an Online boost, UN Environment Programme
[3] National Income Statistics, United Nations
[4] BP Statistical Review of World Energy 2023
[5] www.iea.org/countries/brazil

The country is also one of the region's largest oil producers and relies heavily on hydroelectric power. Since 2008, countries beyond OPEC+ have been steadily increasing their share of oil production with the US, Canada, and Brazil making notable increases. Brazil holds the second-largest oil and gas reserves in South America, following Venezuela, and is increasingly positioned as a significant player in the global oil export market. Since the discovery of substantial resources in the pre-salt oil region in 2006, oil production in Brazil has seen significant growth. The deep-water pre-salt fields in the Santos and Campos basin have contributed notably to this increase, accounting for 75% of national production and helping to offset declining output from older fields. As a result of these developments in deep-water production, Brazil became a net oil exporter in 2017, with nearly half of these exports destined for China. Other destinations include the US, India, Spain, Portugal, Chile and Singapore.

According to the BP Statistical Review of World Energy 2023, Brazil produced 183.7 million tonnes of crude oil in 2023, reflecting a growth rate of 5.2% over the past decade and accounting for 4.1% of global crude oil production. Brazil's 2022-2032 Energy Expansion Plan forecasts that the country's oil production will reach 4.9 million barrels of oil per day by 2032 with the pre-salt fields accounting for nearly 80% of total production. Further, Rystad Energy projects a 56% increase in Brazil's oil output from 2023 to 2031, positioning the country as the fourth largest oil producer globally, following the United States, Saudi Arabia, and Russia[6]. Brazil accounts for lowest per capita emissions among the G20 member countries supported by its clean and renewable energy growth. Looking ahead, Brazil is well-positioned to benefit from the global shift away from crude oil and conventional energy sources toward sustainable energy options.

Table 1.1: Macroeconomic Snapshot of Brazil - Select Economic Indicators

Economic Indicators	2020	2021	2022	2023	2024[e]	2025[f]	2026[f]
GDP, current prices (US$ billion)	1,476.1	1,670.7	1,951.8	2,173.7	2,188.4	2,307.2	2,444.9
Real GDP Growth (% change)	-3.3	4.8	3.0	2.9	3.0	2.2	2.3
GDP per capita, current price (US$)	7,057.1	7,951.6	9,256.5	10,267.9	10,296.4	10,815.5	11,422.8
Inflation (avg, % change)	3.2	8.3	9.3	4.6	4.3	3.6	3.1
Population (million)	209.2	210.1	210.9	211.7	212.5	213.3	214.0
General Government Gross Debt (% of GDP)	96.0	88.9	83.9	84.7	87.6	92.0	94.7
Current account balance (US$ billion)	-24.9	-40.4	-40.9	-21.7	-38.2	-40.9	-44.4
Current account balance (% of GDP)	-1.7	-2.4	-2.1	-1.0	-1.7	-1.8	-1.8
Merchandise Exports (US$ billion)	209.2	280.8	334.5	339.7	-	-	-
Merchandise Imports (US$ billion)	158.8	219.4	272.7	240.8	-	-	-
Total International Reserves (US$ billion)	355.6	362.2	324.7	355.0	364.4	367.8	380.4
Exchange rate (avg;R$:US$)	5.2	5.4	5.2	4.9	5.3	5.3	5.3

Note: [e]- Estimates; [f]- Forecasts

Source: IMF WEO October 2024, EIU, ITC Trade Map and India Exim Bank Research

Brazil's announced new set of climate targets under the Paris Agreement during the 29th Conference of the Parties (COP29) - in the United Nations Framework Convention on Climate Change (UNFCCC), that took place in Azerbaijan in November 2024. Brazil's second Nationally Determined Contribution (NDC) has committed to

[6] IMF Article IV for Brazil, July 2024

reduce net greenhouse gas emissions by 59% to 67% by 2035, compared to 2005 levels. This target represents an absolute reduction of 850 million to 1.05 billion tons of carbon dioxide equivalent by 2035. Aligned with the outcomes of the Global Stocktake agreed upon at COP28 in Dubai in 2023, the new NDC covers all economic sectors and supports the Paris Agreement's goal of limiting global temperature rise to 1.5^{o}C above pre-industrial levels. This commitment positions Brazil to progress toward its long-term target of achieving climate neutrality by 2050. Brazil will be hosting the next UN climate summit, COP30, in November 2025.

Brazil's economy has shown resilience during the disinflation process of the last two years. During 2023, the real GDP grew by 2.9% despite the tight monetary policy to reduce inflation, reflecting supportive demand conditions including higher government spending and robust private consumption. It also reflected a supply side expansion, including record agricultural and hydrocarbon output. Growth is estimated to be 3% in 2024 driven by robust private consumption in the context of a strong labour market before expecting to moderate to 2.2% in 2025 amid still restrictive interest rates aimed at completing the convergence of inflation to target; a lower fiscal deficit; the flood calamity in Rio Grande do Sul, and slower agricultural output.

Brazil has made significant progress in curbing inflation, with the rate falling from 9.3% in 2022 to 4.6% in 2023 almost approaching the target tolerance interval (3.0 percent ± 1.5 percentage points). According to the national statistical agency, IBGE[7], the surge in prices for food, beverages, and healthcare products in 2022 was the primary driver of inflation. To combat this, the central bank implemented aggressive monetary tightening measures, raising interest rates to cool down the economy. With inflation showing a clear downward trend, the Central Bank of Brazil began reducing interest rates in August 2023 and introduced forward guidance. The forecasts by the IMF indicate that inflation is expected to remain within the target range in 2024 and 2025, reaching 4.3% and 3.6%, respectively.

The trade balance rose in 2023, driven by strong exports in agriculture and crude oil. The current account deficit narrowed from 2.1% of GDP in 2022 to 1% of GDP in 2023 on the back of the larger trade surplus. The current account deficit was entirely financed by robust net Foreign Direct Investment (FDI) inflows and portfolio inflows. As per the IMF's analysis, progress in trade liberalization (including lowering import tax rates and reducing non-tariff barriers), financial market development, and regulatory reform over the past decade were key structural drivers that attracted FDI. The current account deficit is expected to widen to 1.7% of the GDP in 2024 and 1.8% of GDP in 2025 as the import growth may outpace exports growth of Brazil. The FDI inflows are however, expected to cover the current-account shortfall, reflecting ample market opportunities.

Domestically, Brazil's near-term growth outlook is bolstered by robust household consumption, fueled by a tight labour market and rising real incomes. However, this could lead to inflationary pressures, necessitating a tighter monetary policy stance. On the structural front, accelerated reform implementation and increased investment in green growth initiatives could further enhance the country's economic potential. Brazil also remains burdened by high public debt.

Comparative Analysis of Latin American Economies

Brazil is the most populous country and the largest country in terms of economic size within the Latin American and Caribbean (LAC) region. **Table 1.2** presents a macroeconomic comparison of the major six LAC

[7] Brazilian Institute of Geography and Statistics

economies, in terms of their economic size in 2024. In this cluster, Brazil stands out as the largest economy in terms of total nominal GDP, though it ranks fourth in GDP per capita. According to statistics, Brazil is the second largest merchandise exporter within the region, with a total value of US$ 339.7 billion in 2023. The economy also holds the second position for merchandise imports valued at US$ 240.8 billion, following behind Mexico.

Table 1.2: Macroeconomic Indicators of LAC Nations in 2024

Indicators	Argentina	Brazil	Chile	Colombia	Mexico	Peru
GDP, current prices (US$ billion)	604.4	2,188.4	328.7	417.2	1,848.1	283.3
Real GDP Growth (% change)	-3.5	3.0	2.5	1.6	1.5	3.0
GDP per capita, current price (US$)	12,814.4	10,296.4	16,365.3	7,917.2	13,971.9	8,315.9
Inflation (avg, % change)	229.8	4.3	3.9	6.7	4.7	2.5
Population (million)	47.2	212.5	20.1	52.7	132.3	34.1
Current account balance (US$ billion)	0.3	-1.7	0.6	-13.7	-7.5	3.6
Current account balance (% of GDP)	0.8	-0.7	-2.5	-2.3	-10.6	-38.2
Merchandise Exports (US$ billion)	66.7	339.7	100.3	49.5	593.0	64.4
Merchandise Imports (US$ billion)	73.7	240.8	80.5	62.8	598.5	52.2

Note: Note: Data for Merchandise exports and imports pertain to 2023. For rest of the macroeconomic indicators, estimated value for 2024 has been considered.

Source: IMF WEO October 2024, ITC Trade Map and India Exim Bank Research

Brazil on the World Stage

Mercosur

Mercosur, or the Southern Common Market, is a regional trade bloc in South America established in 1991. Its founding members—Argentina, Brazil, Paraguay, and Uruguay—sought to create a common market to stimulate development and strengthen democracy in the region. Associate members, including Chile, Colombia, Ecuador, Guyana, Peru, and Suriname, benefit from tariff reductions when trading with full members, although they do not have full voting rights or unrestricted access to the markets of the core members.

The bloc aims to facilitate free trade and the movement of goods, services, and people, fostering economic integration and cooperation among member countries. The four founding nations agreed to eliminate customs duties and implement a common external tariff (CET) of 35 percent on select imports from outside the bloc, as well as to adopt a unified trade policy toward external partners. By mirroring aspects of the European Union's common market, they hoped to enhance business and investment opportunities for regional industries and promote local development. In addition to its economic objectives, Mercosur addresses social, cultural, and political issues, working to promote regional stability and development through various agreements with other countries and regions. This comprehensive approach underscores Mercosur's commitment to both economic and social advancement within its member states.

Group of 20 Nations (G20)

The Group of Twenty (G20) is the premier forum for international economic cooperation. It plays an important role in shaping and strengthening global architecture and governance on all major international economic issues. The group's members represent 85% of the world's GDP, 75% of international trade, and two-thirds of the world's population[8]. The G20 was founded in 1999 after the Asian financial crisis as a forum for the Finance Ministers and Central Bank Governors to discuss global economic and financial issues. Brazil has taken over the presidency of the G20 from India on December 1, 2023, ushering in a troika with three member countries from the Global South (India, Brazil and South Africa) that also comprise of the IBSA, holding consecutive presidencies of the G20. The country has declared a three-point agenda, namely combating hunger, poverty and inequality; focusing on three dimensions of sustainable development (economic, social, and environmental); and the reform of global governance (G20 Brasil 2024). These topics have been chosen keeping the objective of reducing inequalities at the heart of the reform effort as is reflected in the motto of the Brazilian presidency, 'Building a Just World and a Sustainable Planet'.

BRICS

BRICS, comprising Brazil, Russia, India, China, and South Africa, was established in 2009 to foster cooperation among major emerging economies and to address common challenges. By coordinating economic and diplomatic policies, BRICS aims to promote a multipolar world that enhances the influence of its members on the global stage. Its significant achievements include the establishment of the New Development Bank (NDB), which finances infrastructure and sustainable development projects, and the Contingent Reserve Arrangement (CRA), designed to provide financial stability among member nations. These institutions are meant to serve as alternatives to the World Bank and International Monetary Fund, reflecting the group's commitment to strengthening South-South cooperation and reducing reliance on traditional funding sources. Additionally, BRICS has facilitated collaboration in various sectors, including agriculture, science and technology, and health, notably during the COVID-19 pandemic when member countries worked together on vaccine distribution and research efforts.

Lately, the bloc has been expanding its memberships to several additional nations including UAE, Saudi Arabia, Iran, Egypt and Ethiopia. The inclusion of these countries reflects BRICS+'s aim to enhance cooperation among emerging economies and strengthen their collective voice on global issues. With its commitment to fostering economic collaboration, BRICS+ could make significant global impact in energy, trade, infrastructure, development financing, monetary policy and technological cooperation[9]. Brazil would be hosting the 17th BRICS summit in 2025. The motto for Brazil's presidency is "Strengthening Global South Cooperation for More Inclusive and Sustainable Governance".

Conference of the Parties (COP 30)

The United Nations Framework Convention on Climate Change (UNFCCC) Conference of the Parties (COP) is the primary international platform for global climate negotiations. With 197 parties (countries and the European Union) having ratified the treaty, COP is the largest multilateral framework for addressing climate change. Since its inception in 1995, annual COP meetings have brought together world leaders, policymakers, and experts to discuss and set international climate policies. These summits have played a crucial role in

[8] Department of Foreign Affairs and Trade, Australia
[9] An Evolving BRICS and the Shifting World Order, BCG (April 2024)

shaping major global climate agreements, such as the Kyoto Protocol (1997), which established legally binding emissions reduction targets for developed countries, and the Paris Agreement (2015), a landmark accord aiming to limit global temperature rise to well below 2°C above pre-industrial levels. Notably, the conference encourages collaboration between governments, the private sector, and civil society to address the urgent challenges posed by climate change. The 2025 UN Climate Change Conference (COP 30) will be held in Brazil in November 2025, continuing the global effort to strengthen climate policies and accelerate the transition to a sustainable, low-carbon future.

Chapter 2

Brazil's International Trade Landscape

Brazil, the largest economy in South America in terms of nominal GDP and merchandise trade, has emerged as a significant player in the international arena. Its influence in global trade, particularly in merchandise and services, has been steadily increasing. The country's economic prowess is underpinned by its robust mining, agriculture, and rapidly expanding services sectors.

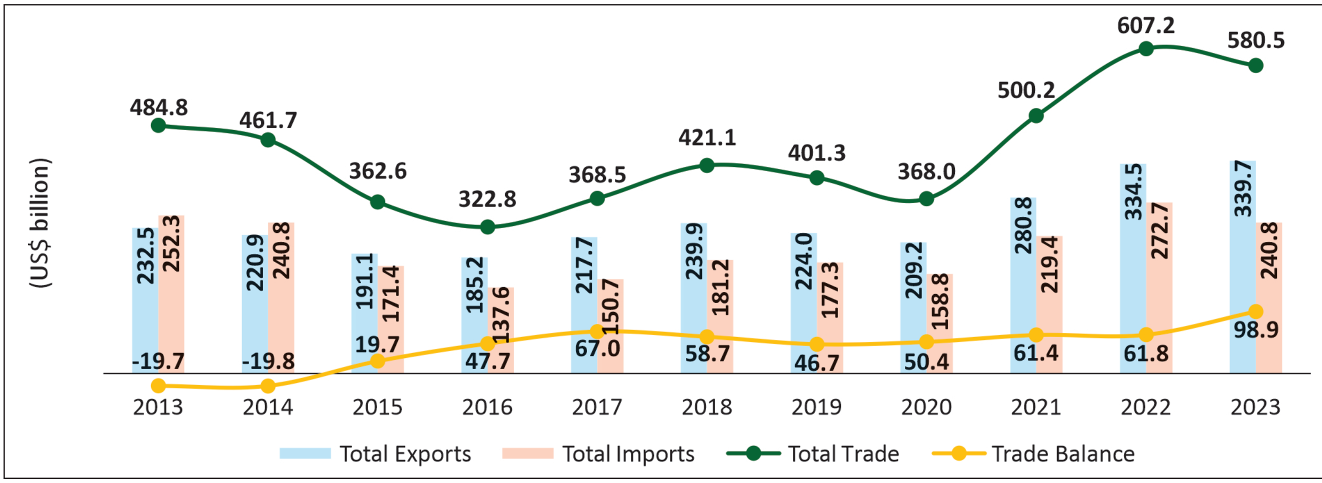
Renowned for its agricultural exports, Brazil is a leading producer and exporter of a diverse range of crops, including oranges, soybeans, coffee, and cassava. Additionally, the country boasts substantial mineral reserves, including iron ore, tin, copper, pyrochlore, and bauxite, which have contributed significantly to its economic growth.

Foreign trade has been a cornerstone of Brazil's economic development. However, the country has historically faced challenges in maintaining a favorable trade balance, primarily due to substantial foreign debt payments.

Throughout its history, Brazil's economy has experienced cyclical booms driven by various commodities, including brazilwood, sugar, gold, diamonds, coffee, and rubber. In the 20th century, the Brazilian government implemented strategies to diversify the country's production base and reduce its reliance on agricultural exports. By encouraging manufacturing, Brazil aimed to strengthen its domestic industries and improve its economic resilience. With a decline in foreign debt and increased access to foreign markets, Brazil's exports have flourished in the 21st century. The country has consistently maintained a positive balance of trade, reflecting its growing economic strength and competitiveness.

Brazil's total merchandise trade has increased from US$ 484.8 billion in 2013 to US$ 580.5 billion in 2023, peaking to US$ 607.2 billion in 2022 **(Chart 2.1)**. Merchandise exports increased at an annual average growth rate (AAGR) of 4.8% from US$ 232.5 billion to US$ 339.7 billion in 2023, whereas the imports moderated at an AAGR of 1.5% from US$ 252.3 billion in 2013 to US$ 240.8 billion in 2023. Brazil's exports experienced a notable surge following 2015, driven by a confluence of factors. A currency devaluation incentivized farmers to expand production, while favorable global market conditions further boosted export performance. During the 2017-2019 period, Brazil's external accounts demonstrated a resurgence in domestic demand of partner economies and benefited from rising commodity prices, particularly oil. Despite a dip in 2020, the country's exports consistently outpaced imports, resulting in a steadily increasing trade surplus. Over this period, Brazil's trade balance improved significantly, transitioning from a deficit of US$ 19.7 billion in 2013 to a surplus of US$ 98.9 billion in 2023.

Chart 2.1: International Merchandise Trade of Brazil (US$ billion)



Source: ITC Trade Map and India Exim Bank Research

Merchandise Exports of Brazil

Brazil, a prominent player in the global trade landscape, has witnessed a steady rise in its export profile over the past several decades. Brazil ranks as the second-largest merchandise exporter in the Latin America and Caribbean region, accounting for 24.2% of the total regional exports to the world in 2023, following Mexico (42.5%). Chile and Argentina held the next positions with 7.2% and 4.7% of the total exports respectively. The country's diverse economic base, coupled with its abundant natural resources and strategic geographic location, has enabled it to establish a strong presence in international markets. In 2023, the total global exports of Brazil amounted to US$ 339.7 billion of which mineral fuels and oils constituted 16.2% that is, US$ 55.2 billion **(Table 2.1)**. At a disaggregated level, major exports included petroleum oils obtained

Table 2.1: Major Merchandise Export Commodities of Brazil (US$ billion)

HS Code	Product	2014	2019	2022	2023	% Share in 2023
	Total Exports	**220.9**	**224.0**	**334.5**	**339.7**	**100.0**
27	Mineral fuels, mineral oils and products	25.2	30.0	56.9	55.2	16.2
12	Oil seeds and oleaginous fruits and seeds	23.5	26.5	47.2	54.0	15.9
26	Ores, slag and ash	28.4	25.3	32.4	35.1	10.3
02	Meat and edible meat offal	15.3	15.2	24.0	22.0	6.5
17	Sugars and sugar confectionery	9.6	5.4	11.2	16.0	4.7
10	Cereals	4.4	7.9	13.9	15.0	4.4
72	Iron and steel	9.6	10.9	16.7	14.6	4.3
84	Machinery and mechanical appliances	12.3	12.5	12.4	14.1	4.1
87	Vehicles other than railway	9.8	9.2	12.4	12.6	3.7
23	Residues and waste from the food industries	7.4	6.3	11.2	12.5	3.7
47	Pulp of wood	5.3	7.5	8.4	7.9	2.3
09	Coffee, tea, maté and spices	6.5	4.9	9.0	7.8	2.3
85	Electrical machinery and equipment	4.2	3.4	4.3	4.5	1.3
28	Inorganic chemicals	3.3	3.8	5.2	4.2	1.2
71	Pearls, precious stones and metals	2.9	4.2	5.6	4.1	1.2

Source: ITC Trade Map and India Exim Bank Research from bituminous minerals, crude (HS 2709), petroleum oils obtained from bituminous minerals, excluding crude (HS 2710) and petroleum coke (HS 2713). Other significantly exported commodities were oil seeds and oleaginous fruits (15.9% of the total exports in 2023), ores, slag and ash (10.3%), meat and edible meat offal (6.5%) and sugars and sugar confectionary (4.7%).

Merchandise Imports of Brazil

Table 2.2 below highlights trends in the major imported products of Brazil. Brazil maintains its position as the second-largest importer in the Latin America and Caribbean region, representing 17.1% of the total imports of the region from the rest of the world in 2023. Mexico leads with 42.5% share in the region's total global imports. Brazil is followed by Chile (5.7%) and Argentina (5.2%) as the other leading importers in the region[10]. Brazil's import basket remains more diversified due to the demand for consumer as well as industrial goods compared to its export basket owing to its geography. In 2023, mineral fuels and oils were Brazil's most imported commodity, accounting for 15.3% of all imported commodities. Other top imported commodities in 2023 include machinery and mechanical appliances (14.4%), electrical machinery and equipment (11.9%), vehicles other than railways (7.7%) and fertilizers (6.1%), among others.

Table 2.2: Major Merchandise Import Commodities of Brazil (US$ billion)

HS Code	Product	2014	2019	2022	2023	% Share in 2023
	Total Imports	**240.8**	**177.3**	**272.7**	**240.8**	**100.0**
27	Mineral fuels, mineral oils and products	48.4	24.0	49.5	36.7	15.3
84	Machinery and mechanical appliances	33.1	21.3	33.9	34.7	14.4
85	Electrical machinery and equipment	28.0	22.1	31.6	28.7	11.9
87	Vehicles other than railway	20.1	12.2	16.4	18.6	7.7
31	Fertilizers	9.2	9.1	24.8	14.6	6.1
29	Organic chemicals	11.0	11.0	18.3	13.5	5.6
30	Pharmaceutical products	7.6	7.3	9.9	11.0	4.6
39	Plastics and articles thereof	9.3	7.4	10.3	9.2	3.8
90	Optical, photographic, surgical instruments	6.9	5.3	6.9	7.5	3.1
38	Miscellaneous chemical products	5.6	5.4	9.5	7.1	3.0
72	Iron and steel	3.6	2.2	4.3	4.6	1.9
73	Articles of iron or steel	4.4	2.4	3.8	4.4	1.8
40	Rubber and articles thereof	4.3	3.0	4.5	4.1	1.7
28	Inorganic chemicals	2.4	2.1	4.4	3.0	1.2
88	Aircraft, spacecraft, and parts thereof	2.7	1.3	2.8	2.9	1.2

Source: ITC Trade Map and India Exim Bank Research

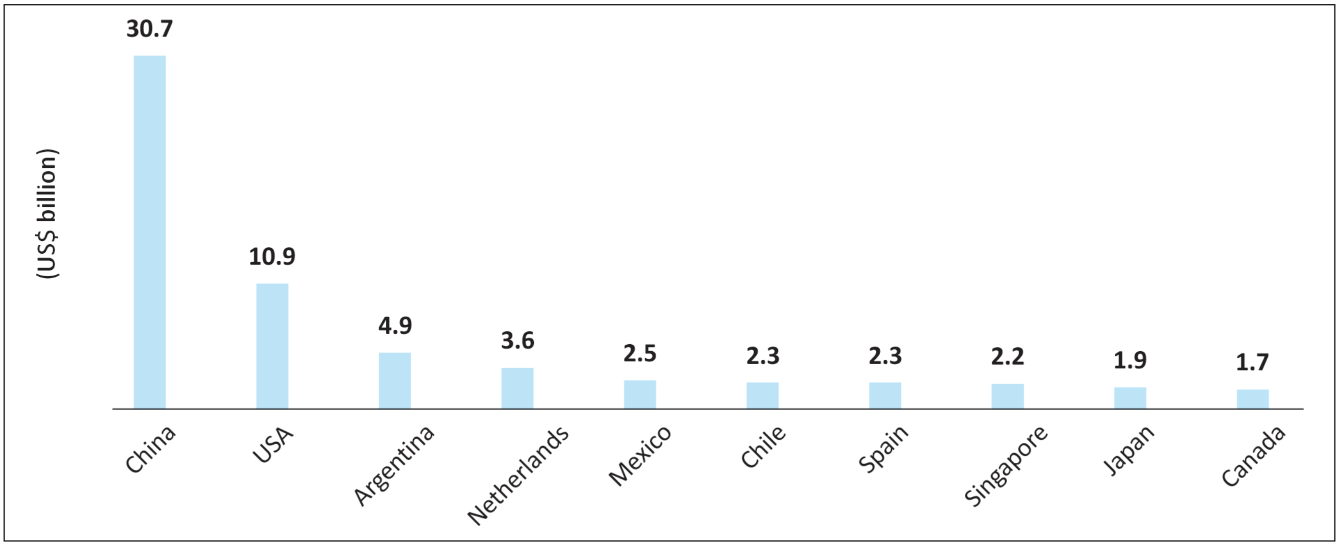
Brazil's Major Merchandise Trade Partners

In 2023, 30.7% of Brazil's exports headed to China which amounted to US$ 339.7 billion. USA was the second largest destination for Brazilian exports worth US$ 104.3 billion (10.9% of the total exports), followed by

[10] Sourced from ITC Trade Map

Argentina (4.9%), Netherlands (3.6%) and Mexico (2.5%) in 2023. Brazil's exports to India in 2023 amounted to US$ 4.7 billion which was only 1.4% of Brazil's total exports in the same year. India was Brazil's 13th largest export destination in 2023, moving upwards from its 18th position in 2019 **(Chart 2.2)**.

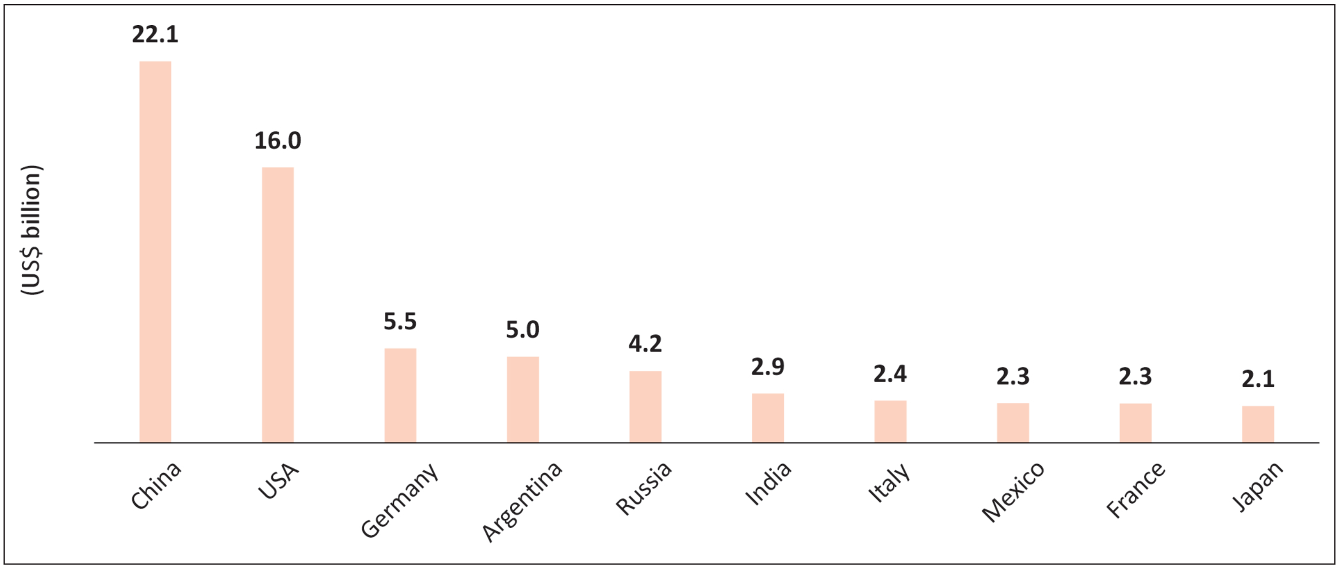
Chart 2.2: Brazil's Major Merchandise Export Destinations in 2023



Source: ITC Trade Map and India Exim Bank Research

China has emerged as Brazil's top import source as well, supplying more than a fifth of the country's global merchandise imports in 2023, marking a share of 22.1% in 2023. USA, Germany, Argentina and Russia are found to be Brazil's other most important import sources. Notably, Brazil's imports from India reached US$ 6.9 billion in 2023. In 2023, India became Brazil's sixth-largest source of imports, advancing from its seventh position in 2019 **(Chart 2.3)**.

Chart 2.3: Brazil's Major Merchandise Import Sources in 2023



Source: ITC Trade Map and India Exim Bank Research

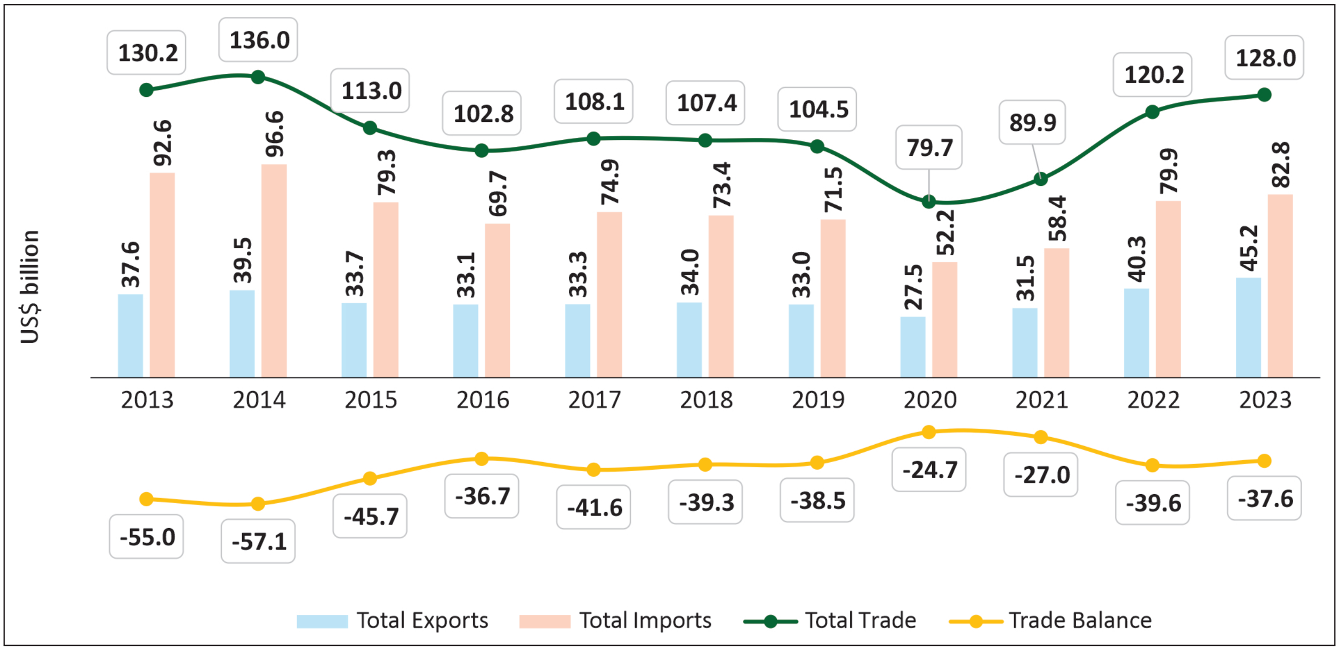
Services Trade of Brazil

The Brazilian economy has undergone a significant transformation, with the services sector now occupying a central role in economic activity, investment, and job creation. According to the United Nations National Accounts Statistics, services contributed 68.2% to the country's gross value added in 2022. The global trend towards a service-based economy, driven in part by the evolving nature of manufacturing, has also influenced Brazil.

As Brazil prioritizes the development and diversification of its industrial sector, the role of intermediate services in supporting manufacturing industries has become increasingly critical. The integration of goods and services in production and sales processes has led to a surge in business services, information technology, finance, and transport. However, commercial services in Brazil primarily cater to the domestic market, with a relatively bleak exports performance. As per the World Development Indicator statistics, trade in services accounted for only 5.9% of the GDP in 2023. Brazilian services suffer from structural weaknesses, chief among which are low productivity and high inflation, compared to its regional peers.

Brazil's total trade in services, as depicted in **Chart 2.4**, experienced a slight decline from US$ 130.2 billion in 2013 to US$ 128 billion in 2023, plummeting to as low as US$ 79.7 billion in 2020. Servies exports increased at an annual average growth rate (AAGR) of 2.6% from US$ 37.6 billion in 2013 to US$ 45.2 billion in 2023. Meanwhile, services imports have been consistent with a meagre growth of less than a percent in the past decade. The growth of Brazil's services exports has not kept pace with other large emerging economies, leading to a services trade deficit ranging from US$ 55 billion in 2013 to US$ 37.6 billion in 2023.

Chart 2.4: International Services Trade of Brazil (US$ billion)



Source: WTO Stats and India Exim Bank Research

Services Exports of Brazil

Total services exports of Brazil increased from US$ 39.5 billion in 2014 to US$ 45.2 billion in 2023. Brazil's commercial services exports demonstrate a diversified profile, with transport and travel accounting for significant shares of 15% and 15.3%, respectively, in 2023. Leveraging its extensive Atlantic coastline, Brazil effectively utilizes maritime transport for its cargo exports which accounts for 12% of the total services exports. Other commercial services contributed substantially to the export mix, reaching US$ 29.4 billion or 65.1% of the total exports. Within this category, business services dominated with a 43.4% share, followed by telecommunications and IT services at 12.9%, and insurance and pension services at 2.5% **(Table 2.3)**.

Table 2.3: Services Exports of Brazil (US$ million)

Product/ Sector	2014	2019	2022	2023	% Share in 2023
Total Services Exports of Brazil	**39,498**	**33,033**	**40,291**	**45,194**	**100.0**
Government goods and services	919	680	732	923	2.0
Commercial services	38,579	32,353	39,559	44,271	98.0
Transport	4,619	4,283	6,466	6,784	15.0
Sea Transport	3,667	3,613	5,190	5,407	12.0
Air Transports	737	447	524	465	1.0
Other Modes of Transport	161	100	184	176	0.4
Postal and courier services	54	123	569	737	1.6
Travel	6,843	5,995	4,952	6,907	15.3
Other Commercial Services	26,326	21,580	26,789	29,437	65.1
Construction	288	30	27	14	0.0
Insurance and pension services	669	970	1,322	1,140	2.5
Financial services	1,176	1,011	997	1,075	2.4
Charges for the use of intellectual property	375	641	745	921	2.0
Telecommunications, computer, and information services	1,446	2,574	4,674	5,825	12.9
Other business services	21,691	15,835	18,178	19,605	43.4
Personal, cultural, and recreational services	681	518	846	858	1.9

Source: WTO Stats and India Exim Bank Research

Services Imports of Brazil

From **Table 2.4**, Brazil's services imports have exhibited a moderating trend, declining from US$ 96.5 billion in 2014 to US$ 82.8 billion in 2023. Commercial services imports constituted the predominant portion of these imports, representing 97.3% of the total in 2023. Within this category, transportation and travel accounted for significant shares, at 23.8% and 17.6%, respectively. Maritime transport remained the dominant mode for both services exports and imports, followed by air transport and other modes. Other commercial services reached US$ 45.9 billion in 2023, with business services comprising 25.7% of the total imports, followed by telecommunications and IT services (14.1%), and charges for the use of intellectual property (7.6%).

Table 2.4: Services Imports of Brazil (US$ million)

Product/ Sector	2014	2019	2022	2023	% Share in 2023
Total Services Imports of Brazil	**96,550**	**71,514**	**79,909**	**82,790**	**100.0**
Government goods and services	2,157	2,017	1,910	2,259	2.7
Commercial services	94,394	69,497	77,999	80,530	97.3
Transport	17,680	13,612	25,900	19,698	23.8
Sea Transport	10,479	7,777	18,488	12,714	15.4
Air Transport	6,667	5,388	7,026	6,627	8.0
Other Modes of Transport	531	446	385	355	0.4
Postal and courier services	3	2	1	2	0.0
Travel	25,567	17,593	12,185	14,531	17.6
Other Commercial Services	50,948	37,952	39,640	45,939	55.5
Construction	21	2	1	2	0.0
Insurance and pension services	1,684	1,592	2,299	3,001	3.6
Financial services	992	661	659	695	0.8
Charges for the use of intellectual property	6,147	5,246	7,300	6,312	7.6
Telecommunications, computer, and information services	3,987	5,401	8,923	11,697	14.1
Other business services	35,893	24,499	19,979	21,311	25.7
Personal, cultural, and recreational services	2,222	549	479	2,921	3.5

Source: WTO Stats and India Exim Bank Research

Brazil, as the largest South American economy, recognizes trade as a vital and expanding component of its economic landscape, contributing to 33.9% of the total GDP. Merchandise trade comprises a significant portion of this contribution, accounting for 27.3% of the GDP, while services trade adds another 5.9%. Prioritizing several strategic areas, Brazil could further enhance its international trade position. These include diversifying its export markets beyond traditional partners, investing in infrastructure and logistics to improve trade efficiency, promoting trade facilitation measures to reduce bureaucratic hurdles, and fostering innovation and competitiveness within key sectors. By implementing these strategies, Brazil could further strengthen its role as a major player in the global economy and capitalize on the opportunities presented by international trade.

Chapter 3

Overview of India-Brazil Bilateral Trade Relations

India and Brazil, two of the world's largest and most vibrant democracies, share a profound and multifaceted relationship that spans a wide range of domains. In 2006, the two nations elevated their ties to the status of a Strategic Partnership, heralding a new chapter of deeper economic collaboration. The year 2023 marked the 75th anniversary of India-Brazil diplomatic relations, underscoring the enduring strength of their bilateral bond. Beyond their direct interactions, both countries are influential members of several key multilateral fora, including BRICS, IBSA, G4 nations, Group of Twenty (G-20), and the International Solar Alliance. Through these platforms, India and Brazil engage in robust discussions on global economic challenges, advocate for meaningful reforms in international financial institutions, and jointly advance the Sustainable Development Goals. The two nations have also forged a series of bilateral agreements covering diverse areas such as cybersecurity, hydrocarbons, bioenergy, science and technology, culture, animal husbandry, healthcare, and traditional medicines, reflecting the breadth and depth of their cooperation.

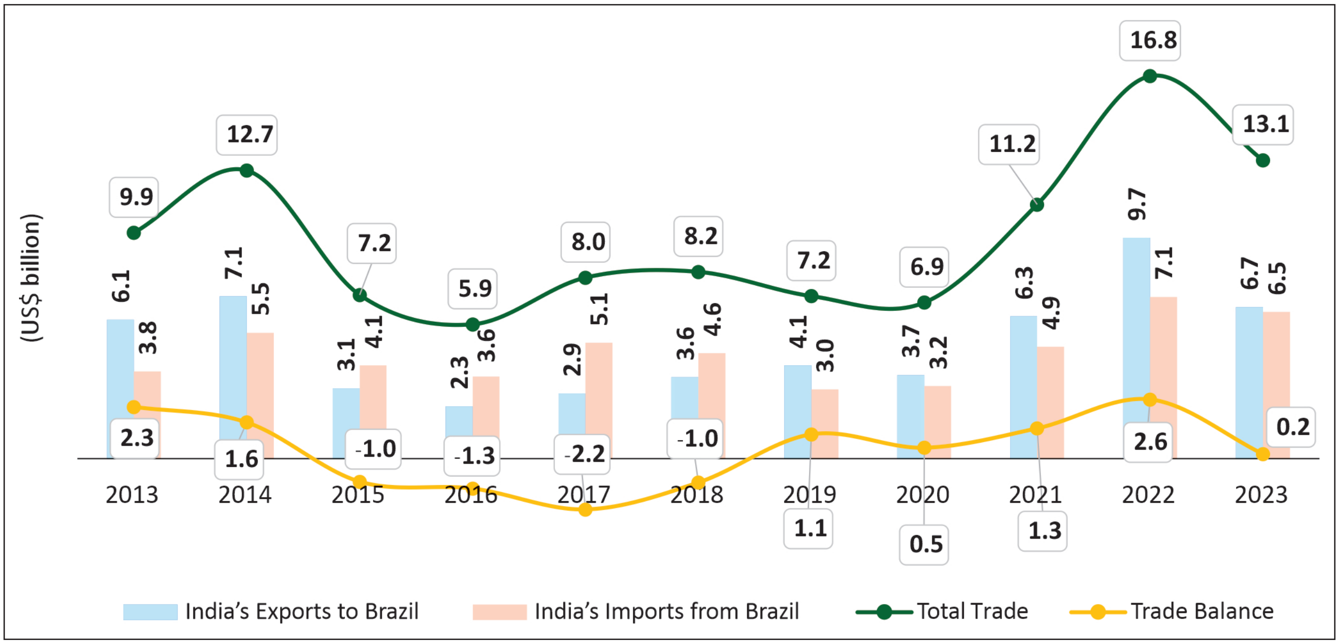
Brazil is a strategic trade partner for India, with both countries seemingly benefiting from a growing economic relationship based on shared interests, complementary strengths, and strategic positioning. Brazil, rich in natural resources such as minerals, oil, and agricultural products, can accommodate India's demand for raw materials, while India, with its expanding economy, has the potential to offer expertise in information technology, pharmaceuticals, and manufacturing. This might create a natural synergy, with India likely importing key commodities from Brazil and exporting technology, machinery, and services in return. Both nations are also collaborating on energy-related projects, particularly in renewable energy and biofuels, with Brazil's advancements in bioenergy aligning with India's interest in sustainable energy solutions. India's growing engagement with Brazil is also seen as a way to diversify its trade portfolio in Latin America and Caribbean region.

Bilateral Merchandise Trade Relations of India and Brazil

The trade relationship between India and Brazil has steadily grown over the past decade, with Brazil emerging as India's 20th largest export destination and 25th largest import source in 2023. Despite this strong foundation, bilateral trade remains below its full potential due to factors such as geographical distance, technical regulations, and high transport and logistics costs. Notwithstanding these challenges, Brazil is the largest trade partner of India in the LAC region accounting for 33.2% of India's exports to the region and 26% of India's imports from the region in 2023.

The total bilateral merchandise trade has fluctuated over the years, increasing from US$ 9.9 billion in 2013 to US$ 13.1 billion in 2023 **(Chart 3.1)**. While the trade volume has seen significant growth, it has also been impacted by global economic slowdowns and disruptions caused by the COVID-19 pandemic. India's exports to Brazil have grown at an annual average growth rate (AAGR) of 8.2%, increasing from US$ 6.1 billion a decade ago to US$ 6.7 billion in 2023. Exports peaked at US$ 9.7 billion in 2022, following a recovery from pandemic-induced trade restrictions. On the other hand, imports from Brazil have nearly doubled over the past decade, rising from US$ 3.8 billion in 2013 to US$ 6.5 billion in 2023, with an AAGR of 9.9%. While the overall trade balance has consistently favoured India—apart from a brief period between 2015 and 2018—there remains significant potential for India to increase its exports to Brazil, particularly in sectors such as pharmaceuticals, automobiles, and information technology.

Chart 3.1: Bilateral Merchandise Trade between India and Brazil (US$ billion)



Source: ITC Trade Map and India Exim Bank Research

India's Merchandise Exports to Brazil

In 2023, Brazil was India's 20th largest export destination globally and the top export destination in Latin America. India's exports to Brazil in 2023 totaled US$ 6.7 billion, a 31.4% decline compared to the previous year. The export basket to Brazil remains well-diversified, with mineral fuels and oils comprising about a quarter of the total exports. This category was followed by other chemical products (15.7% of total exports), machinery and mechanical appliances (10%), organic chemicals (9.7%), and vehicles other than railway (6.9%) in 2023 **(Table 3.1)**. Within the mineral fuels and oils category, key exports included petroleum oils derived from bituminous minerals, petroleum coke, and other residues of petroleum oils, such as pitch coke.

Table 3.1: India's Major Export Commodities to Brazil (US$ million)

HS Code	Products	2014	2019	2022	2023	% Share in 2023
	India's Exports to Brazil	**7,140.5**	**4,114.0**	**9,724.3**	**6,670.2**	**100.0**
27	Mineral fuels, oils and products	4,296.1	510.6	4,322.4	1,564.8	23.5
38	Miscellaneous chemical products	333.2	722.9	1,448.8	1,049.8	15.7
84	Machinery and mechanical appliances	221.0	331.1	598.3	668.0	10.0
29	Organic chemicals	359.0	508.5	738.4	649.1	9.7
87	Vehicles other than railway	235.2	321.6	529.1	460.9	6.9
30	Pharmaceutical products	212.4	278.7	375.9	421.9	6.3
85	Electrical machinery and equipment	93.3	109.2	170.7	198.1	3.0
40	Rubber and articles thereof	98.8	100.3	200.4	186.8	2.8
72	Iron and steel	96.0	90.0	144.4	163.4	2.5
73	Articles of iron or steel	86.1	73.4	101.8	142.2	2.1
32	Tanning or dyeing extracts	138.4	141.4	126.5	115.5	1.7
76	Aluminium and articles thereof	36.1	109.8	77.1	113.6	1.7
90	Optical, photographic, surgical instruments	46.2	56.4	97.7	97.4	1.5
39	Plastics and articles thereof	88.8	62.9	79.6	82.3	1.2
62	Articles of apparel, not knitted or crocheted	148.2	58.8	66.0	74.3	1.1

Source: ITC Trade Map and India Exim Bank Research

India's Merchandise Imports from Brazil

In 2023, Brazil remained the largest source of imports for India from Latin America, surpassing Mexico in 2020. Total imports from Brazil amounted to US$ 6.5 billion, a decline from US$ 7.1 billion in the previous year. The composition of imports was diverse, with animal, vegetable, and microbial fats and oils accounting for 24.6% of the total, followed closely by mineral fuels and oils at 22.8%. Other significant imports included sugar and sugar confectionery (20.8%), iron and steel (6.1%), and pearls, precious stones, and metals (4.8%) in 2023 **(Table 3.2)**.

Table 3.2: India's Major Import Commodities from Brazil (US$ million)

HS Code	Products	2014	2019	2022	2023	% Share in 2023
	India's Imports from Brazil	**5,544.0**	**3,042.3**	**7,116.2**	**6,467.0**	**100.0**
15	Animal, vegetable or microbial fats and oils	373.1	226.2	2,205.9	1,591.0	24.6
27	Mineral fuels, oils and products	3,051.1	1,002.4	2,472.0	1,477.2	22.8
17	Sugars and sugar confectionery	541.9	256.5	244.9	1,343.3	20.8
72	Iron and steel	187.4	100.2	134.2	391.4	6.1
71	Pearls, precious stones and metals	271.6	385.3	823.6	310.1	4.8
26	Ores, slag and ash	394.4	116.3	192.0	211.2	3.3
84	Machinery and mechanical appliances	67.2	171.9	125.6	131.6	2.0

HS Code	Products	2014	2019	2022	2023	% Share in 2023
25	Salt; sulphur and plastering materials	54.9	18.2	115.8	110.1	1.7
44	Wood and articles of wood	28.9	80.4	68.4	99.8	1.5
29	Organic chemicals	105.2	89.7	103.8	94.7	1.5
12	Oil seeds and oleaginous fruits	0.2	0.1	4.4	90.7	1.4
30	Pharmaceutical products	59.3	80.5	72.7	73.6	1.1
7	Edible vegetables and roots	19.6	58.8	81.6	68.6	1.1
22	Beverages, spirits and vinegar	0.0	0.0	0.0	65.0	1.0
38	Miscellaneous chemical products	34.7	61.8	61.4	48.3	0.7

Source: ITC Trade Map and India Exim Bank Research

Table 3.3 provides a breakdown of Brazil's top imports by product category, along with details about the global import value, and India's share in Brazil's global imports. China and the US are the leading source of imports for Brazil across multiple categories, highlighting their dominant position in bilateral trade. Other countries like Germany, Argentina, and Russia also play a significant role in supplying various products like mineral fuels and oils, vehicles other than railways, iron and steel and cereals. India's share in Brazil's global imports is generally low for most product categories, indicating limited trade between the two countries. There are however, some exceptions where India has a more significant presence, such as in the categories of chemicals, iron and steel, aluminium and its products and man-made filaments.

Table 3.3: Mapping of Brazil's Top 20 Imported Products with India's Exports

HS Code (2-digit level)	Product	Brazil's Global Imports (US$ million)	Brazil's Imports from India (US$ million)	Product's Share in India's Global Exports (%)	India's Share in Brazil's Global Imports	Brazil's Top 5 Import Sources
	All Products	**2,40,792.8**	**6873.1**	**1.6**	**2.9**	**China (22.1%), USA (16%), Germany (5.5%), Argentina (5.0%), Russia (4.2%)**
27	Mineral fuels, oils and products of distillation	36,730.4	945.4	1.1	2.6	USA (25.8%), Russia (15.5%), Saudi Arabia (7%), Australia (4.8%), Algeria (4.1%)
84	Machinery and mechanical appliances	34,652.6	772.4	2.6	2.2	USA (26.4%), China (23.7%), Germany (9.1%), Italy (5.2%), France (4.6%)
85	Electrical machinery and equipment	28,675.4	208.4	0.6	0.7	China (54.0%), USA (5.9%), Vietnam (5.4%), South Korea (5.2%), Taiwan (4.6%)
87	Vehicles other than railway or tramway rolling stock	18,581.0	365.7	1.8	2.0	Argentina (27.6%), China (15.6%), Mexico (9.2%), Germany (7.4%), USA (7.3%)

HS Code (2-digit level)	Product	Brazil's Global Imports (US$ million)	Brazil's Imports from India (US$ million)	Product's Share in India's Global Exports (%)	India's Share in Brazil's Global Imports	Brazil's Top 5 Import Sources
31	Fertilisers	14,642.7	12.0	9.8	0.1	Russia (24.2%), Canada (13.4%), China (11.2%), Morocco (8.2%), USA (4.6%)
29	Organic chemicals	13,532.8	1618.7	8.3	12.0	China (34.1%), USA (13.6%), **India (12.0%)**, Germany (9.8%), Switzerland (5.5%)
30	Pharmaceutical products	10,977.3	506.8	2.4	4.6	USA (16.3%), Germany (14.8%), Belgium (11.0%), Switzerland (8.3%), Ireland (6.5%)
39	Plastics and articles	9,223.1	72.4	1.0	0.8	USA (25.8%), China (19.7%), Germany (6.2%), Colombia (5.1%), South Korea (4.8%)
90	Optical, cinematographic and surgical instruments	7,465.3	129.5	2.6	1.7	USA (24.9%), China (16.9%), Germany (11.4%), Japan (5.5%), Mexico (5.3%)
38	Miscellaneous chemical products	7,121.5	598.7	9.0	8.4	USA (25.6%), China (25.2%), **India (8.4%)**, Germany (6.4%), France (4.3%)
72	Iron and steel	4,603.5	170.9	1.4	3.7	China (51.4%), South Korea (6.4%), Germany (5.7%), Russia (3.9%), **India (3.7%)**
73	Articles of iron or steel	4,432.1	149.8	1.5	3.4	China (26.4%), Germany (12.6%), USA (12.3%), Spain (7.1%), Italy (6.2%)
40	Rubber and articles	4,133.8	204.0	4.6	4.9	China (24.8%), USA (14.4%), Vietnam (7.4%), Thailand (6.4%), Malaysia (5.7%)
28	Inorganic chemicals	2,959.1	56.4	1.7	1.9	USA (35.0%), China (15.8%), Türkiye (5.3%), Trinidad and Tobago (4.8%), Spain (4.0%), Germany (3.7%)

HS Code (2-digit level)	Product	Brazil's Global Imports (US$ million)	Brazil's Imports from India (US$ million)	Product's Share in India's Global Exports (%)	India's Share in Brazil's Global Imports	Brazil's Top 5 Import Sources
88	Aircraft, spacecraft, and parts	2,890.0	4.7	0.2	0.2	USA (46.5%), France (7.8%), Sweden (7.0%), Canada (5.8%), Portugal (5.3%)
74	Copper and articles	2,443.6	3.8	0.2	0.2	Chile (69.7%), Peru (14.7%), China (3.7%), Mexico (2.2%), Germany (2.2%)
10	Cereals	2,362.9	0.1	0.0	0.0	Argentina (42.9%), Paraguay (26.8%), Uruguay (16.8%), Russia (9.9%), Canada (1.3%)
76	Aluminium and articles	1,902.9	130.3	1.8	6.8	China (21.7%), Argentina (10.3%), Mexico (8.3%), **India (6.8%)**, USA (6.6%)
15	Animal, vegetable fats and oils	1,464.3	4.6	0.2	0.3	Portugal (24.7%), Indonesia (23.0%), Colombia (9.3%), Argentina (6.7%), Spain (6.3%)
54	Man-made filaments	1,388.7	68.2	3.8	4.9	China (74.0%), **India (4.9%)**, USA (3.9%), Taiwan (3.7%), Israel (2.2%)

Note: Data for Brazil's imports from India may be different from India's exports to Brazil due to difference in reporting by the two countries. For this particular table, Brazil's imports direction has been considered for comparing India's position against other import sources of Brazil.

Source: ITC Trade Map and India Exim Bank Research

Bilateral Services Trade Relations of India and Brazil

Bilateral services trade between India and Brazil has been obtained from the OECD-WTO Balanced Trade in Services (BaTIS) dataset[11].

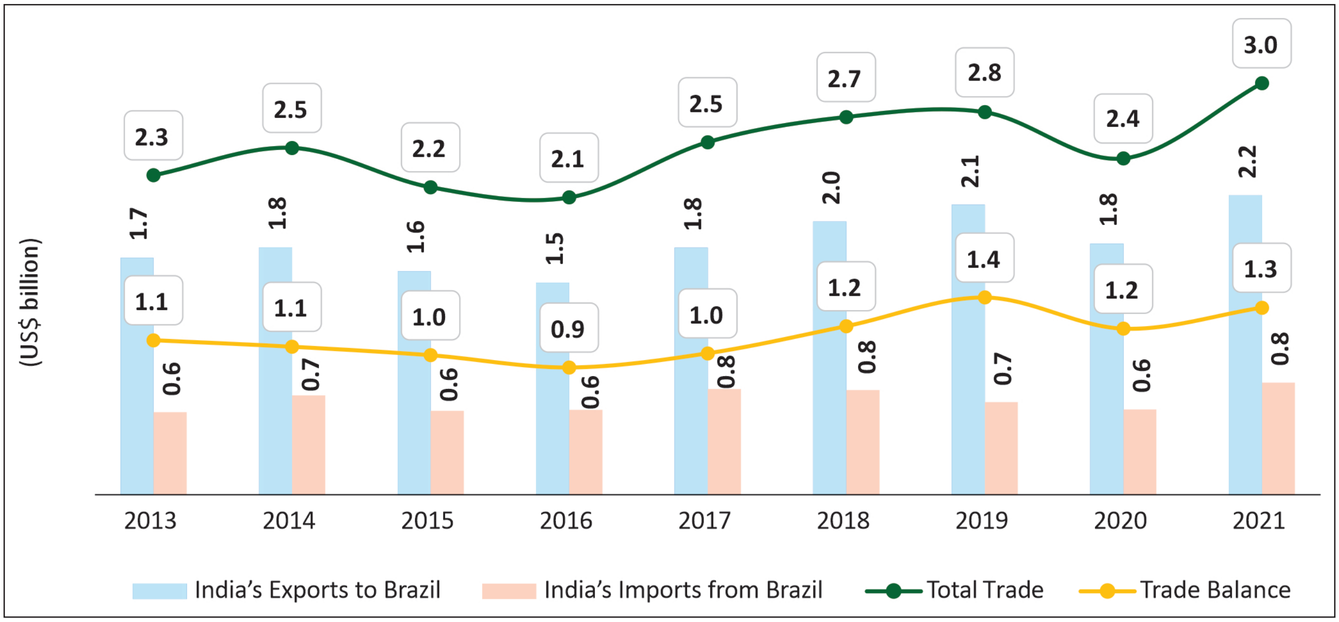
While India's trade volume with Brazil is driven largely by the exchange of physical goods, the picture for services trade remains comparatively less dynamic. In 2021, the total trade between the two nations reached

[11] BaTIS contains annual bilateral data covering 202 reporters and partners, broken down by the 12 main EBOPS2010 (BPM6) categories. BaTIS has been developed by the OECD and WTO.

BaTIS is considered to be a relatively complete and consistent database for bilateral services trade data. At present, only about 63% of world trade in services is bilaterally specified, and the percentage is even lower for the individual service categories. The OECD-WTO methodology leverages all available official statistics and combines them with estimations and adjustments to provide users with a complete matrix covering virtually all economies in the world. BaTIS is balanced. To resolve the asymmetries between reported and mirror flows, exports and imports are reconciled by calculating a symmetry-index weighted average between the two, following a similar approach to that developed for international merchandise trade statistics.

US$ 3 billion, marking a decent increase from the US$ 2.3 billion recorded a decade ago. While India's exports of services to Brazil have shown substantial growth, increasing at an AAGR of 28.6% from US$ 1.7 billion in 2013 to US$ 2.2 billion in 2021, the import of services from Brazil has remained relatively low, consistently below US$ 1 billion during the period of analysis. Notably, India has maintained a consistent trade surplus with Brazil.

Chart 3.2: Bilateral Trade in Services between India and Brazil (US$ billion)



Source: WTO Balanced International Trade in Services (BaTIS) and India Exim Bank Research

In 2021, India's exports to Brazil were valued at US$ 2.2 billion, marking an increase from US$ 1.8 billion in the previous year. Brazil ranked as India's 17th largest export destination, accounting for 1.6% of India's total global exports. Among India's commercial services exports, "other commercial services" comprised the lion's share, representing 81.5% of the total. Within this category, telecommunication, computer, and information services dominated, contributing 46.3% of services exports, followed by other business services at 30.4%. Financial services, along with personal, cultural, and recreational services, each accounted for a modest 1.4% of the services export pie in 2021.

Table 3.4: India's Major Services Export to Brazil (US$ million)

Product/ Sector	2013	2018	2020	2021	% Share in 2021
Total Services Exports to Brazil	**1704**	**1964**	**1806**	**2152**	**100.0**
Government goods and services	12	11	8	8	0.4
Commercial Services	1692	1952	1797	2144	99.6
Transport	192	195	175	308	14.3
Travel	269	368	114	79	3.7
Other Commercial services	1228	1388	1506	1754	81.5
Construction	6	15	14	15	0.7
Insurance and pension services	10	12	12	17	0.8

Product/ Sector	2013	2018	2020	2021	% Share in 2021
Financial services	31	34	25	31	1.4
Charge for the use of intellectual property	6	9	11	13	0.6
Telecommunications, computer, and information services	664	701	816	996	46.3
Other business services	491	593	606	654	30.4
Personal, cultural, and recreational services	18	23	22	30	1.4

Source: WTO Balanced International Trade in Services (BaTIS) and India Exim Bank Research

In 2021, India imported services worth US$ 807 million from Brazil, accounting for less than a percent of total services imports from the world. Although travel and transport services did not constitute a major portion of India's service exports to Brazil, together they made up 52.6% of the total commercial services imports from Brazil. The remaining 43.4% of imports were classified as other commercial services. Breaking this down further, other business services represented 27.1% of the total imports, while telecommunication, computer, and information services accounted for 9.5%. Both financial and insurance services each comprised 1.6% of the total service imports.

Table 3.5: India's Major Services Imports from Brazil (US$ million)

Product/ Sector	2013	2018	2020	2021	% Share in 2021
Total Services Imports to Brazil	**593**	**752**	**612**	**807**	**100.0**
Government goods and services	13	11	9	11	1.4
Commercial Services	580	742	603	796	98.6
Transport	212	252	198	306	37.9
Travel	135	177	102	119	14.7
Other Commercial services	223	283	278	350	43.4
Construction	3	3	3	3	0.4
Insurance and pension services	8	10	9	13	1.6
Financial services	20	10	10	13	1.6
Charge for the use of intellectual property	4	9	8	10	1.2
Telecommunications, computer, and information services	13	51	54	77	9.5
Other business services	164	193	185	219	27.1
Personal, cultural, and recreational services	11	7	8	16	2.0

Source: WTO Balanced International Trade in Services (BaTIS) and India Exim Bank Research

Chapter 4

Trends in Brazil's International Investment Flows and Bilateral Investment Relations with India

Brazil, the third-largest economy in the Western Hemisphere after the United States and Canada and the seventh most populous country in the world, has long been a magnet for foreign investment. In the early years following its independence in 1822, up until the 1850s, foreign capital—primarily from Britain—flooded the country. However, these investments were largely concentrated in finance and trade. While local landowners dominated the production of export commodities like coffee and sugar, foreign interests controlled key sectors such as shipping and trade financing.

In the second half of the 19th and in the 20th century, the Brazilian government actively encouraged foreign capital to help modernize and expand the country's infrastructure. Investments poured in to build railroads, ports, and urban public utilities, which were vital for integrating Brazil more effectively into the global trade network. These infrastructural projects were not just about modernizing the country; they were strategically designed to strengthen Brazil's role as a global supplier of raw materials and primary goods, laying the groundwork for the country's economic growth and development in the years that followed.

Since 2007, Brazil has emerged as a key destination for Foreign Direct Investment (FDI), with both FDI and portfolio investments[12] seeing significant growth. This surge in foreign capital continued robustly, with the notable exception of portfolio investments in 2008, which were negatively impacted by the global financial crisis. Several factors drove this influx of foreign investment, including Brazil's economic and political stability, a growing middle class, and expanding market opportunities, particularly in natural resources like agriculture, energy, and mining. At the same time, slow growth and low interest rates in the United States and the European Union made Brazil an attractive destination for foreign portfolio investment, especially given that the country experienced only a mild economic downturn during the global recession. While major investors came from the European Union and the United States, a significant shift occurred in 2010 when China surpassed these countries to become Brazil's largest investor, reflecting the growing importance of Brazil in the global economic landscape.

In recent years, Brazil has received more than half of South America's FDI inflows. Considered an economically liberal country, Brazil offers foreign investors the same legal protections as local investors in most sectors. However, there are restrictions on foreign investment in certain areas, including health, mass media,

[12] FDI includes equity capital, reinvested earnings, and other capital and financial derivatives associated with various intercompany transactions between affiliate enterprises. Portfolio investment includes transactions with nonresidents in financial instruments of any maturity such as corporate securities, bonds, notes, and money market instruments, other than those included in FDI (Source: International Financial Statistics, IMF).

telecommunications, aerospace, rural property, and maritime industries. While Brazil presents significant investment opportunities, there are challenges that some investors cite, including relatively high transportation and labour costs, as well as concerns about domestic productivity. Additionally, issues like infrastructure quality, complex tax and regulatory requirements, and the rigidity of labour laws can add to the costs and complexities of doing business in the country[13].

The United Nations Conference on Trade and Development (UNCTAD) named Brazil the sixth largest destination[14] for global foreign direct investment (FDI) flows in 2022 with inflows of US$ 73.3 billion, an increase of 44.8% in comparison to 2021 and above pre-pandemic levels (in 2019, inflows totaled US$ 65.4 billion). In 2023, FDI in Latin America and the Caribbean (LAC) remained stable, totaling US$ 193 billion. Brazil received a total of US$ 65.9 billion in FDI inflow, making it the largest recipient of FDI in the LAC region and fifth largest FDI recipient globally in 2023. This amount represented 34.1% of the region's total FDI inflows.

In January 2024, Brazil launched its new industrial policy "Nova Indústria Brasil" to boost national development through sustainability and innovation[15] by 2033. Brazil's new industrial policy is structured around six strategic missions aimed at fostering sustainable development and addressing key socio-economic challenges. Brazil's new industrial policy, "Nova Indústria Brasil" (NIB), aims to drive economic development through sustainability and innovation, reversing deindustrialization and boosting competitiveness by 2033. The policy targets strengthening agro-industrial value chains, pharmaceutical manufacturing and healthcare, urban development, digital transformation, bioeconomy, decarbonization and energy transition and security, and defense to enhance productivity, reduce carbon emissions, and strengthen national sovereignty. Financing support of BRL 300 billion is allocated until 2026 for projects under the Mais Produção Plan. Funds will be provided through development credit lines and non-refundable resources, managed by the Brazilian Development Bank or BNDES, Finep, and EMBRAPII, focusing on innovation, sustainability, and export promotion. An action plan with 2024-2026 roadmap sets priorities for mechanization, healthcare production, and digital transformation, supported by public-private partnerships and regulatory reforms. The Public Procurement Decrees prioritize national products and services in government purchasing to stimulate domestic industry, focusing on energy transition and low-carbon technologies. Innovation Initiatives and Programs like Mais Inovação Brasil and Mover focus on funding research, promoting electromobility, and renewing industrial infrastructure. The policy emphasizes sustainability, social responsibility, and positioning Brazil as a global leader in ecological and technological advancements.

Outward foreign direct investment from Brazil have shown significant fluctuations over the years, reflecting the sensitivity of investments to external economic conditions. The data indicates a high degree of volatility, suggesting that Brazilian companies' investment decisions are influenced by global economic shifts and uncertainties. However, following a series of economic and institutional reforms in the latter half of the decade, Brazilian firms began to internationalize more aggressively, using outward FDI as a strategy to enter and expand in foreign markets. Initially, FDI outflows were somewhat subdued, likely due to domestic economic slowdowns and global uncertainties. But since 2020, there has been a noticeable surge in outward investments. Over the past three years, FDI outflows grew from US$ 20.5 billion in 2021 to US$ 29.9 billion in 2023, signaling a renewed confidence among Brazilian firms in pursuing opportunities abroad **(Chart 4.1)**. Brazil ranked 13th globally in terms of FDI outflows in 2023 and largest among the LAC economies. Notwithstanding a decline in absolute value of outflows from Brazil, its position has improved from 15th largest in 2022.

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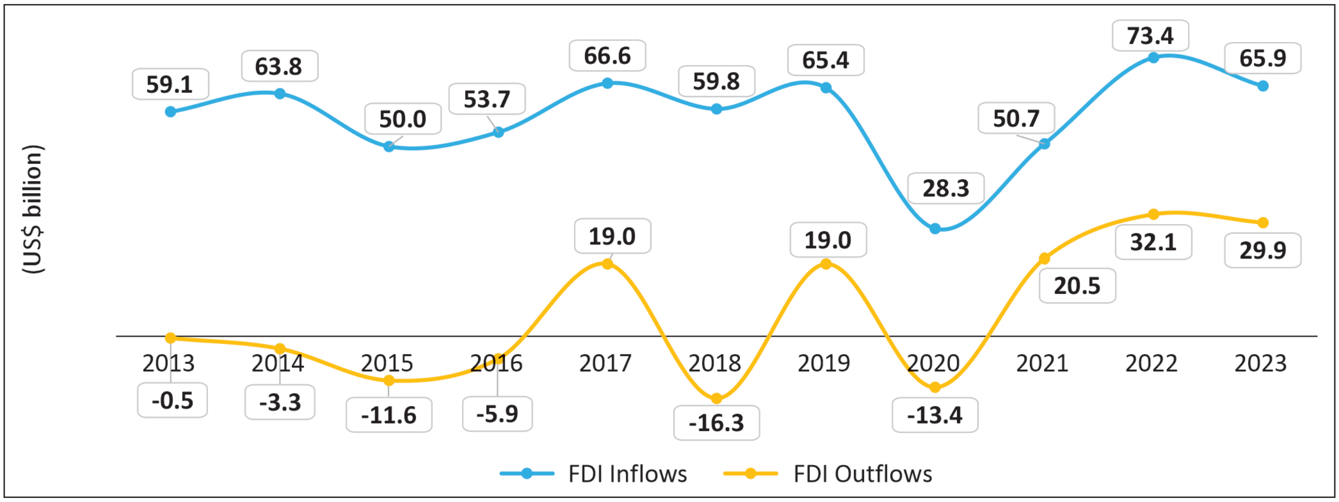
[13] 2024 Investment Climate Statements of Brazil by the U.S Department of State
[14] World Investment Report 2024 by UNCTAD
[15] Brazil launches new industrial policy with development goals and measures up to 2033, www.gov.br

Chart 4.1: Foreign Direct Investment Flows of Brazil (US$ billion)



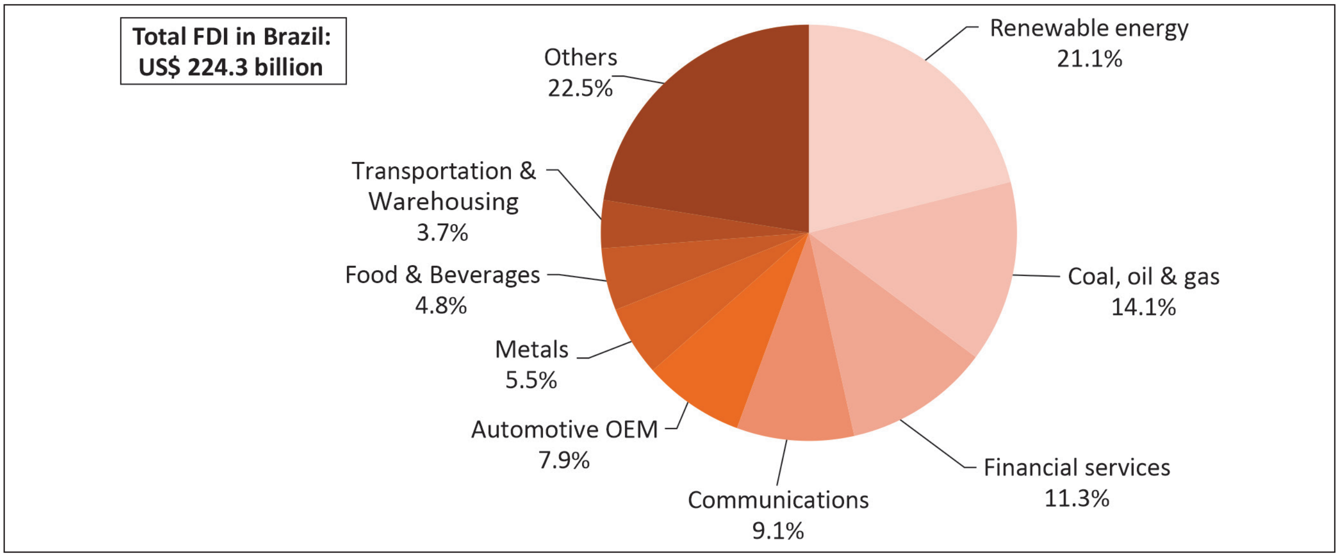
Source: UNCTADStat and India Exim Bank Research

Note: FDI flows with a negative sign indicate that at least one of the three components of FDI (equity capital, reinvested earnings or intra-company loans) is negative and not offset by positive amounts of the remaining components. These are instances of reverse investment or disinvestment.

Inward Foreign Direct Investments in Brazil

In order to gain a comprehensive picture of recent trends in Brazil's foreign direct investment (FDI), this study utilizes data compiled by the Financial Times' fDi Markets database. This online resource specifically tracks greenfield investments across borders, providing valuable insights into new investment projects. According to Financial Times' fDi Markets, Brazil has received well-diversified investments across sectors in the last decade. As shown in **Chart 4.2**, renewable energy sector attracted capital expenditure amounting to US$ 47.2 billion (21.1% of the total inflows), followed by coal, oil and gas (US$ 31.7 billion) and financial services (US$ 25.4 bilion), among others. In terms of the number of projects, software and IT services attracted 456 projects in the last decade trailed by communications (265 projects) and business services (253 projects), among others.

Chart 4.2: Major Sectors Attracting Investments in Brazil (2013-2023)



Source: fDi Markets and India Exim Bank Research

Based on the envisaged FDI received, the United States has been the largest source of inward FDI to Brazil during the period of analysis, contributing a total of US$ 46.9 billion across various sectors. France ranked second, accounting for 9.2% of the total capital expenditure invested in the country, followed by China with 7.2%. India was the 22nd largest investor, with FDI inflows of US$ 2 billion, representing 1% of the total investment, and invested in 57 projects in Brazil.

Table 4.1: Country-wise Major Investors in Brazil (2013-2023)

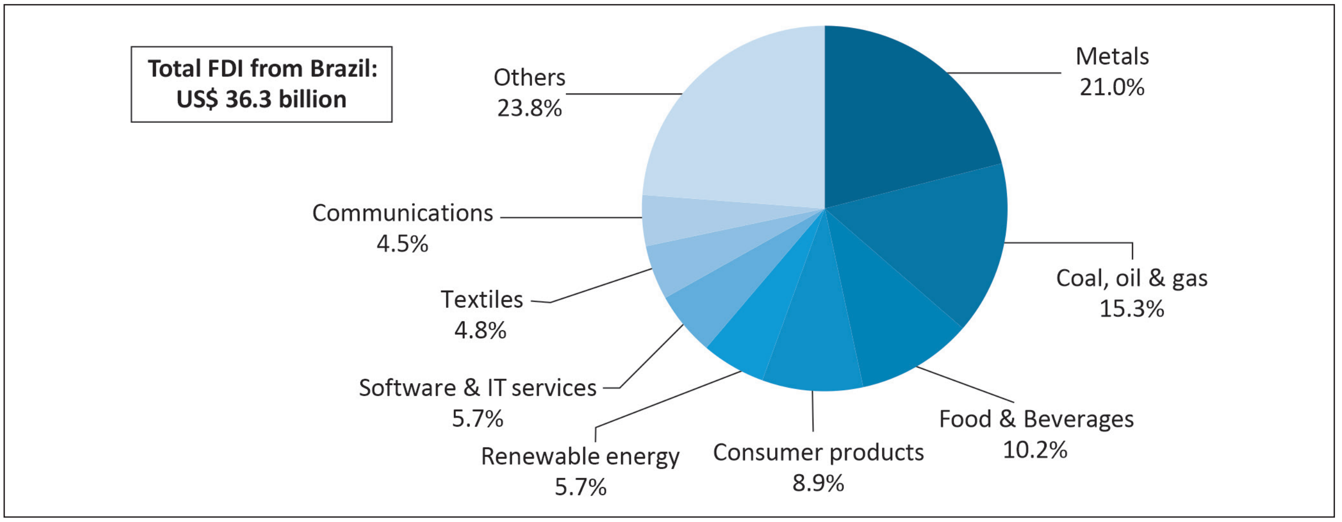
Source Country	Capital Expenditure (US$ million)	Number of Projects	Number of Companies Invested
USA	46,958.8	825	533
France	20,527.6	232	147
China	16,181.9	144	100
Spain	13,742.8	235	126
Germany	12,287.6	228	164
Norway	12,219.1	26	20
UK	11,955.1	208	161
Italy	11,287.8	140	86
Australia	7,569	32	30
Chile	7,446.4	52	21
Japan	6,954.5	125	92
Singapore	5,621.7	44	25
Switzerland	5,158.7	110	68
Canada	4,982.7	62	36
Netherlands	4,922.4	77	55
Total	**224,256.6**	**3,146**	**2,070**

Source: fDi Markets and India Exim Bank Research

Outward Direct Investment from Brazil

Metals accounted for the maximum investment of US$ 7.6 billion, representing 21% of the total FDI outflows during 2013-23 **(Chart 4.3)**. This was followed by investments in coal, oil and gas (US$ 5.6 billion) and food and beverages (US$ 3.7 billion) among others. Similar to the inflows, the largest share of investments made by Brazilian investors continues to be directed towards software and IT services projects (222 projects), trailed by consumer products (103 projects) and food and beverages (90 projects) in the same period.

Chart 4.3: Major Sectors Attracting Investments from Brazil (2013-2023)



Source: fDi Markets and India Exim Bank Research

The United States continues to be the most important destination attracting maximum investments from Brazil of US$ 7.2 billion and accounting for a fifth of the total outward FDI made by Brazil during the period of analysis. Colombia and Canada follow the list with 14% and 7.9% respectively, of the total investments from Brazil. India held the 20th position in Brazil's outward FDI with a cumulative total of US$ 324.2 million invested in 11 projects.

Table 4.2: Country-wise Major Destinations Attracting Brazilian Investments

Destination Country	Capital Expenditure (US$ million)	Number of Projects	Number of Companies Invested
USA	7,249.2	215	149
Colombia	5,090.7	42	35
Canada	2,869.0	22	18
Indonesia	2,551.8	2	2
Argentina	2,225.3	58	44
Chile	1,988.8	28	21
Mexico	1,979.4	55	40
China	1,675.0	19	17
UK	1,394.2	66	41
Paraguay	1,011.0	9	9
Peru	745.7	18	14
Portugal	634.9	49	44
Bolivia	608.9	3	3
France	594.4	29	19
Turkey	501.9	14	8
Total	**36,272.7**	**882**	**416**

Source: fDi Markets and India Exim Bank Research

India's Bilateral Investment Relations with Brazil

India has consistently been a major destination for foreign direct investment (FDI), driven by its large consumer market, robust economic growth, and favorable business environment. According to the UNCTAD World Investment Report 2024, the country continues to secure its position among the top 20 global recipients of FDI. Specifically, India ranked 8th in terms of FDI inflows and 23rd for FDI outflows during the same year.

In 2023, India attracted FDI inflows totaling US$ 28.2 billion subsiding from US$ 49.4 billion a year prior, while accounting for 78.3% of the total foreign investments received by the South Asian region. Additionally, India ranked among the top five global recipients of greenfield investments, with 1,058 new project announcements during the year. The country also saw 163 international project finance deals, positioning it just behind the United States in terms of deal volume[16].

In recent years, India has implemented significant economic reforms aimed at improving the business environment. These reforms include liberalizing foreign investment policies, modernizing bankruptcy and labour laws, eliminating retrospective taxation, and replacing a complex system of state-level border taxes with a unified Goods and Services Tax (GST). These changes have made India more attractive to global investors.

Indian Investments in Brazil

To get a more meaningful understanding of the trends in Indian overseas investments in Brazil, this study has drawn upon the data collated by the Financial Times through its online database tracking cross-border greenfield investment, viz. fDi Markets. According to Financial Times' fDi Markets, during January 2013 to December 2023, total capital investment of India in Brazil stood at a cumulative amount of US$ 2,038 million making India the 22nd largest investing country through 57 projects **(Table 4.3)**. There is a fluctuating trend in capital expenditure over the years. The average capital and average projects across the 11 years is US$ 185.3 million and 5 projects respectively. The year 2013 had the highest capital expenditure of US$ 470.1 million, while 2015 has the lowest at US$ 6.2 million.

Table 4.3: Indian Foreign Direct Investments in Brazil (2013-2023)

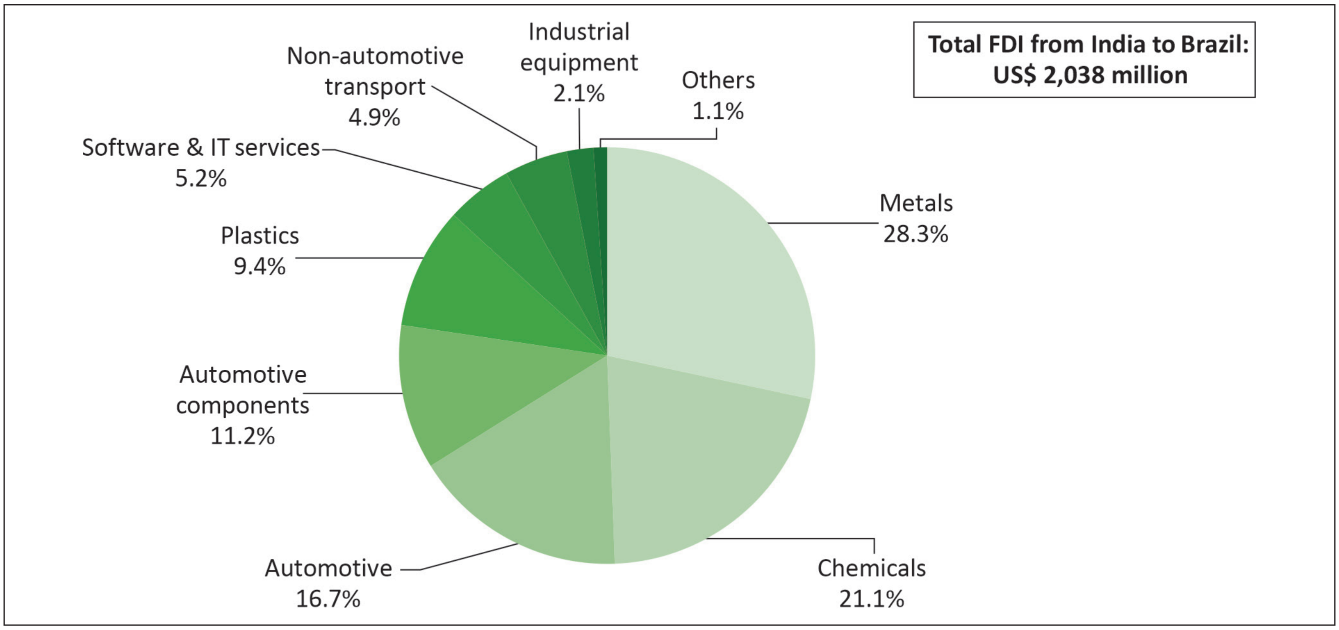
Year	Capital Expenditure (US$ million)	Number of Projects	Number of Companies Invested
2013	470.1	5	5
2014	140	3	3
2015	6.2	1	1
2016	371.6	4	4
2017	44.7	2	2
2018	214.7	6	5
2019	104.9	9	4
2020	319.6	6	4
2021	220.5	4	4
2022	103.1	11	4
2023	42.6	6	6
Total	**2,038**	**57**	**31**

Source: fDi Markets and India Exim Bank Research

[16] World Investment Report 2024 by UNCTAD

In terms of capital expenditure, majority of the investments were undertaken in metals sector amounting to US$ 577.7 million (28.3% of total Indian investments in Brazil) in the last decade. This was followed by chemicals (US$ 429.3 million) and automotive sector (US$ 340.4 million).

Chart 4.4: Major Sectors Attracting Indian Investments in Brazil (2013-2023)



Source: fDi Markets and India Exim Bank Research

Brazilian Investments in India

According to the fDi Markets database, India was 20th largest FDI destinations of Brazilian investments during January 2013 to December 2023. India accounted for US$ 324.2 million of FDI receipts from Brazil coming through only 11 projects during this period. India witnessed peak of the inflows from Brazil in 2018 of US$ 137.3 million while the trough was recorded in 2020 for meagre value US$ 5 million. India did not receive any investments in years such as 2014, 2015, 2016, 2021 and 2023.

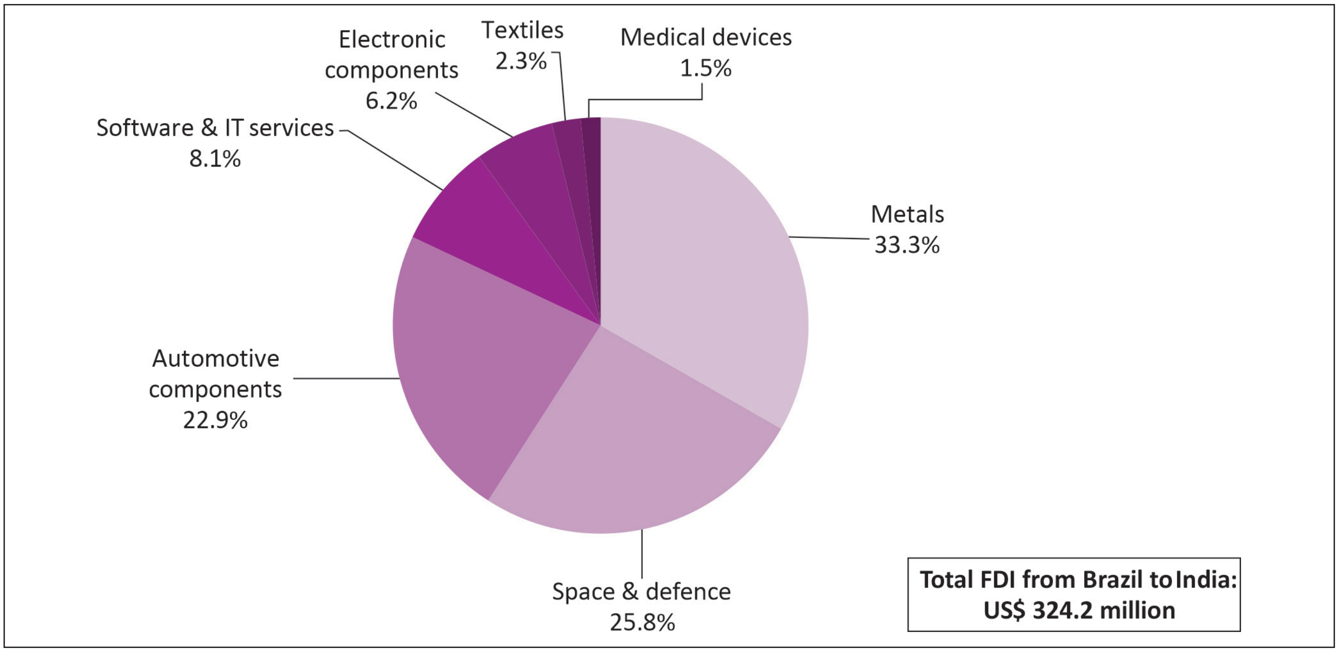
Table 4.4: Brazilian Foreign Direct Investments in India (2013-2023)

Year	Capital Expenditure (US$ million)	Number of Projects	Number of Companies Invested
2013	115.1	3	2
2017	20.7	2	2
2018	137.3	2	2
2019	20	1	1
2020	5	1	1
2022	26.1	2	2
Total	**324.2**	**11**	**10**

Source: fDi Markets and India Exim Bank Research

In terms of capital expenditure, metals sector received one-third of the total investments amounting to US$ 107.8 million in the last decade. This was followed by space and defence sector (US$ 83.8 million) and automotive components (US$ 74.2 million).

Chart 4.5: Major Sectors Attracting Brazilian Investments in India (2013-2023)



Source: fDi Markets and India Exim Bank Research

Chapter 5

Potential for Enhancing Bilateral Trade - Aligning India's Exports with Brazil's Import Demand

According to the International Monetary Fund (IMF), by 2025, Brazil will be the world's tenth-largest economy with a Gross Domestic Product (GDP at current prices) of US$ 2.3 trillion, largest among Latin American and Caribbean (LAC) countries, while India continues to remain the world's fifth largest economy with a GDP of US$ 4.3 trillion[17]. Increased bilateral cooperation among these regional and economic powers is bound to open a plethora of opportunities for increased south-south cooperation.

Despite the strong foundation of India-Brazil economic relations, bilateral trade remains below potential due to the geographical distance acting as a natural impediment, besides technical regulations, transport and logistics costs. China was the largest import source for Brazil accounting for 22.1% of Brazil's imports followed by USA (16%) in 2023. India was the sixth largest import source for Brazil accounting for 2.9% of Brazil's global imports.

The India–MERCOSUR Preferential Trade Agreement (PTA) signed in 2009 comprising Brazil, Argentina, Uruguay and Paraguay, remains limited in nature. Expanding the same into a comprehensive free trade agreement could contribute to further facilitating trade between the two regions. The following section maps the commodities in which India has comparative advantage and could enhance India's exports to Brazil.

Revealed Comparative Advantage

Analysing the key products where India has comparative advantage and mapping it with Brazil's import demand for these products are necessary to increase India's exports to Brazil. Quantification of comparative advantage helps in identification of products where exports from India have been performing well, as also those where success has been limited, although opportunities are significant.

Revealed Comparative Advantage (RCA) is a measure which has been used extensively to help assess a country's export potential/competitiveness. It helps in identifying categories of exports in which an economy has a comparative advantage by way of comparison of the country's trade scenario with the world trade scenario. It provides useful information about potential trade prospects with new partners. The basic assumption underlying the concept of revealed comparative advantage is that the trade profile reflects the inter-country differences in terms of relative costs as well as non-price aspects.

[17] IMF World Economic Outlook, October 2024

As per Balassa's (1965) measure, RCA index for country i for commodity j is:

$$\boxed{RCA_{ij} = (x_{ji}/X_i) / (x_{jw}/X_w)}$$

where,

x_{ji}: Exports of Commodity 'j' from Country 'i'

X_i: Total Exports from Country 'i'

x_{jw}: Total Exports of Commodity 'j' from World

X_w: Total Exports from World

The RCA index ranges from 0 to infinity, with 1 as the break-even point. An RCA value of less than 1 means that the product does not have a comparative advantage, while a value above 1 indicates that the product has a comparative advantage.

Since the RCA analysis is used in regard to one country's exports profile with reference to the world, the above formula of revealed comparative advantage has been modified to assess India's competitiveness in bilateral trade relations with Brazil.

$$\boxed{RCA_{ijc} = (x_{ijc}/X_{ic}) / (x_{wjc}/X_{wc})}$$

where,

x_{ijc}: India's Exports of Commodity 'j' to Brazil

X_{ic}: India's Total Exports to Brazil

x_{wjc}: World's Exports of Commodity 'j' to Brazil

X_{wc}: World Total Exports to Brazil

The Normalized Revealed Comparative Advantage (NRCA) index demonstrates the capability of revealing the extent of comparative advantage that a country has in a commodity with more precision and consistency. NRCA can be defined in the following manner.

$$\mathbf{NRCA_{ijc} = (RCA_{ijc}\text{-}1/\ RCA_{ijc}+1)}$$

NRCA ranges from -1 to 1, with 0 as the breakeven point. That is, an NRCA value of less than 0 and greater than -1, means that the product has no export comparative advantage, while a value above 0 and less than 1, indicates that the product has a comparative advantage. The extent of comparative advantage/disadvantage can be gauged from the proximity of the NRCA values to the extreme data points, viz. +1 and -1.

The export competitiveness of India has been mapped with respect to Brazil's demand. This has been undertaken with a view to outline a market specific approach for exporters. An overarching analysis has been attempted to identify products from the industries for which India has existing export capabilities to

Brazil. These products are the potential export growth drivers from India to Brazil and could suitably be targeted. The section also attempts to identify the products where India could focus on, to realize potentially higher values of exports to Brazil, especially when considering that India already possesses manufacturing capabilities for these products. The objective of the exercise is to construct a product market matrix for products in demand in Brazil, so that necessary actions and policies can be formulated in the direction to enhance exports of these potential products from India to Brazil.

Following are the considerations in the analysis:

- **Time Period:** The time period considered for the analysis is 2019-2023.
- **Product Limit:** Only those products at 6-digit HS code level with a minimum export value of US$ 0.5 million from India to Brazil is considered in the analysis.
- **Parameters in Consideration:** The analysis in this section considers two major determinants of India's performance in Brazil, namely, the **NRCA for products,** and **Average Annual Growth Rate (AAGR)** of world exports to Brazil.

On the basis of these three considerations, a four-quadrant matrix is prepared for product identification. The four quadrants imply the following:

Product Champions (Product Import AAGR of Brazil > World Import AAGR of Brazil; Positive NRCA): These products have the maximum potential, as Brazil's import demand for these products has shown robust AAGR over the period 2019-23, while India's exports of these products to Brazil are also competitive, reflected in positive NRCA values for such products. These are the products with maximum export potential to Brazil and India needs to further expand its exports of these products in order to take advantage of its competitive position and achieve a greater market share in Brazil.

Underachievers (Product Import AAGR of Brazil > World Import AAGR of Brazil; Negative NRCA): India does not have competitiveness in these products although their import demand has grown in Brazil significantly over the period under consideration. India can strive towards building capacities and capabilities in these identified products. These are the products in which India can diversify in the medium to long term to continue being a strategic trade partner to Brazil and further expand its bilateral ties with the country.

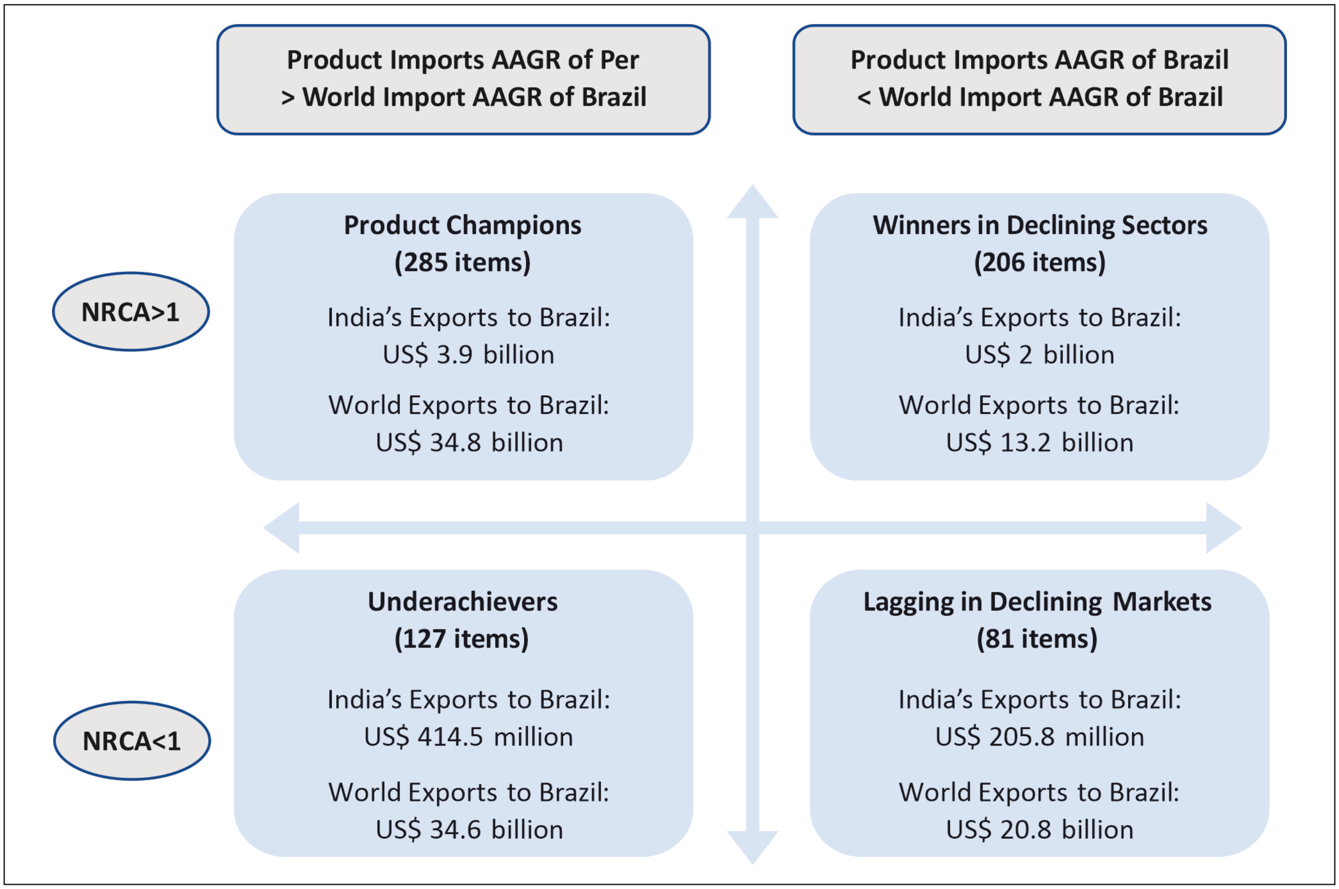
Winners in Declining Sectors (Product Import AAGR of Brazil < World Import AAGR of Brazil; Positive NRCA): India has competitiveness in these products, even though Brazil's import AAGR for these products has been declining. These products may not have much demand in the future, and hence, scarce resources from these sectors could be diverted to other sectors where demand expectations are positive.

Lagging in Declining Sectors (Product Import AAGR of Brazil < World Import AAGR of Brazil; Negative NRCA): India does not have competitiveness in these products, and these sectors have also registered weak import demand in Brazil during the period under consideration.

Product Identification Based on Competitiveness

To identify the products based on their export competitiveness in Brazil, a four-quadrant analysis has been undertaken based on the HS Code classifications at 6-digit level, whilst calculating their NRCA and mapping them against the AAGR of global imports of Brazil for all products. The quadrants are drawn by comparing the overall AAGR of global imports of Brazil for all products during 2019-2023 (which was 7.6%), to the NRCA of India's exports to Brazil during the same period. This exercise aims to identify products whose imports in Brazil over the period 2019-2023 have performed better than the overall average of Brazil for all products during this period, implying that the share of such products in Brazil's import basket has witnessed an increase, a reflection of their rising demand and dynamism. At 6-digit HS Code, with minimum exports of US$ 0.5 million from India to Brazil, 699 products have been identified with the total exports from India to Brazil, amounting to US$ 6.5 billion (98.1% of India's total exports to Brazil in 2023) while global imports by Brazil for the corresponding products stood at US$ 103.4 billion in 2023 (43% of Brazil's global imports in 2023) **(Chart 5.1)**.

Chart 5.1: Product Identification for Exports from India to Brazil (2023)



Source: Exim Bank's Estimates based on ITC Trade Map

Out of the 699 items at the HS 6-digit level, 285 items belonged to the category of the product champions. The combined exports of these items from India to Brazil were US$ 3.4 billion in 2023, representing approximately 59% of India's exports to Brazil in 2023. Major product champions are provided in **Table 5.1**. These products are low hanging fruits for India and can be targeted in the short to medium term. Brazil's global imports of these product champions amounted to US$ 34.8 billion in 2023, implying that there remains substantial scope for tapping the Brazil market for these products.

Table 5.1: List of Major Product Champions from India to Brazil

HS Code	Product	India's Exports to Brazil (US$ mn)	Share in India's Total Exports to Brazil (%)	Global Imports of Brazil (US$ mn)	Share in Global Imports of Brazil (%)
271019	Medium oils and preparations, of petroleum or bituminous minerals	1553.4	23.3	11648.7	0.6
300490	Medicaments consisting of mixed or unmixed products for therapeutic or prophylactic purposes	309.2	4.6	3451.6	0.1
380893	Herbicides, anti-sprouting products and plant-growth regulators	135.0	2.0	1765.7	0.1
870899	Parts and accessories, for tractors, motor vehicles for the transport of ten or more persons, motor cars and other motor vehicles principally designed for the transport of persons	133.8	2.0	986.5	0.1
871410	Parts and accessories of motorcycles, incl. mopeds	84.3	1.3	667.6	-
760120	Unwrought aluminium alloys	79.7	1.2	233.1	-
850300	Parts suitable for use solely or principally with electric motors and generators	68.1	1.0	287.2	-
401120	New pneumatic tyres, of rubber, of a kind used for buses and lorries	64.0	1.0	607.5	-
840999	Parts suitable for use solely or principally with compression-ignition internal combustion piston engine	50.9	0.8	812.6	-
870193	Tractors, of an engine power > 37 kW but <= 75 kW	48.0	0.7	56.2	-
732591	Grinding balls and similar articles for mills, cast	42.0	0.6	54.9	-
401170	New pneumatic tyres, of rubber, of a kind used on agricultural or forestry vehicles and machines	40.4	0.6	104.8	-
843149	Parts of machinery of heading 8426, 8429 and 8430	36.1	0.5	734.2	-
293399	Heterocyclic compounds with nitrogen hetero atom[s]	33.5	0.5	939.7	-
848310	Transmission shafts, incl. cam shafts and crank shafts, and cranks	31.2	0.5	587.9	-

Note: "-" negligible

Source: ITC Trade Map and Exim Bank Research

The total number of products in growing in declining markets category is 206, with India's exports amounting to US$ 2 billion and constitute a share of 29.8% of India's exports to Brazil in 2023. These are the product items in which India has competitive advantage and has attained a significant share in Brazil's import basket, however, Brazil's import demand for these products has been falling in the last five years **(Table 5.2)**. India needs to diversify away from this segment of products and move towards the Product Champions and the Underachievers segment.

Table 5.2: List of Major Products under Growing in Declining Markets Category from India to Brazil

HS Code	Product	India's Exports to Brazil (US$ mn)	Share in India's Total Exports to Brazil (%)	Global Imports of Brazil (US$ mn)	Share in Global Imports of Brazil (%)
380891	Insecticides, put up in forms or packings for retail sale or as preparations or articles	620.2	9.3	1629.3	0.3
380892	Fungicides, put up in forms or packings for retail sale or as preparations or articles	223.5	3.4	616.6	0.1
294200	Separate chemically defined organic compounds, n.e.s.	100.6	1.5	4.7	-
901839	Needles, catheters, cannulae and the like, used in medical, surgical, dental or veterinary sciences	38.8	0.6	438.0	-
300420	Medicaments containing antibiotics, put up in measured doses in forms or packings for retail sale	38.1	0.6	213.8	-
870829	Parts and accessories of bodies for tractors, motor vehicles for the transport of ten or more persons, motor cars and other motor vehicles principally designed for the transport of persons, motor vehicles for the transport of goods and special purpose motor vehicles	36.5	0.5	1054.9	-
320417	Synthetic organic pigments; preparations based on synthetic organic pigments of a kind used to dye fabrics or produce colorant preparations	30.3	0.5	115.5	-
300410	Medicaments containing penicillins or derivatives thereof with a penicillanic acid structure	29.5	0.4	81.0	-
293329	Heterocyclic compounds with nitrogen hetero-atom[s] only	28.9	0.4	46.2	-

HS Code	Product	India's Exports to Brazil (US$ mn)	Share in India's Total Exports to Brazil (%)	Global Imports of Brazil (US$ mn)	Share in Global Imports of Brazil (%)
320416	Synthetic organic reactive dyes; preparations based on synthetic organic reactive dyes of a kind used to dye fabrics or produce colorant preparations	26.1	0.4	39.7	-
540233	Textured filament yarn of polyester	25.5	0.4	297.5	-
340231	Linear alkylbenzene sulphonic acids and their salts	23.7	0.4	56.6	-
840991	Parts suitable for use solely or principally with spark-ignition internal combustion piston engine	22.2	0.3	711.5	-
540246	Filament yarn of polyester, incl. monofilament of < 67 decitex, single, untwisted or with a twist of <= 50 turns per metre, partially oriented	20.1	0.3	66.1	-
840734	Spark-ignition reciprocating piston engine, of a kind used for vehicles of chapter 87, of a cylinder capacity > 1.000 cm^3	20.0	0.3	317.0	-
870830	Brakes and servo-brakes and their parts, for tractors, motor vehicles for the transport of ten or more persons, motor cars and other motor vehicles	19.5	0.3	428.3	-
730640	Tubes, pipes and hollow profiles, welded, of circular cross-section, of stainless steel	18.9	0.3	86.3	-
760110	Aluminium, not alloyed, unwrought	16.5	0.2	266.9	-
290243	p-Xylene	16.4	0.2	218.6	-
340242	Non-ionic organic surface-active agents, whether or not put up for retail sale	16.2	0.2	183.5	-

Note: "-" negligible

Source: ITC Trade Map and Exim Bank Research

The product category of underachievers comprised 127 items, with India's exports of these products amounting to US$ 414.5 million to Brazil. These products constitute a share of 6.2% in India's total exports to Brazil. These are the product items in which import demand in the Brazil market are rising, but exports from India are currently not competitive **(Table 5.3)**. Brazil's imports of these products stood at US$ 34.6 billion in 2023, presenting significant opportunities for exporters. There is a need for capacity creation in these product categories, through an appropriate incentive framework for attracting investments into the country.

Table 5.3: List of Major Underachievers from India to Brazil

HS Code	Product	India's Exports to Brazil (US$ mn)	Share in India's Total Exports to Brazil (%)	Global Imports of Brazil (US$ mn)	Share in Global Imports of Brazil (%)
841112	Turbojets of a thrust > 25 kN	67.6	1.0	2852.5	-
293339	Heterocyclic compounds with nitrogen hetero atom[s] only	25.9	0.4	1064.7	-
848340	Gears and gearing for machinery	24.0	0.4	944.3	-
293319	Heterocyclic compounds with nitrogen hetero atom[s] only, containing an unfused pyrazole ring, whether or not hydrogenated, in the structure	22.9	0.3	884.0	-
848180	Appliances for pipes, boiler shells, tanks, vats or the like	12.4	0.2	828.3	-
293499	Nucleic acids and their salts, whether or not chemically defined; heterocyclic compounds	12.4	0.2	782.0	-
300215	Immunological products, put up in measured doses or in forms or packings for retail sale	9.8	0.1	2708.5	-
840820	Compression-ignition internal combustion piston engine "diesel or semi-diesel engine", for the propulsion of vehicles	9.5	0.1	556.5	-
732690	Articles of iron or steel	8.9	0.1	517.9	-
870880	Suspension systems and parts thereof, incl. shock-absorbers, for tractors, motor vehicles for the transport of ten or more persons, motor cars and other motor vehicles principally designed for the transport of persons, motor vehicles for the transport of goods and special purpose motor vehicles, n.e.s.	8.8	0.1	343.8	-
401693	Gaskets, washers and other seals, of vulcanised rubber	7.1	0.1	305.5	-
841490	Parts of: air or vacuum pumps, air or other gas compressors, fans and ventilating or recycling hoods incorporating a fan, and gas-tight biological safety cabinets, n.e.s.	6.9	0.1	253.8	
850440	Static converters	6.0	0.1	1320.9	

HS Code	Product	India's Exports to Brazil (US$ mn)	Share in India's Total Exports to Brazil (%)	Global Imports of Brazil (US$ mn)	Share in Global Imports of Brazil (%)
841330	Fuel, lubricating or cooling medium pumps for internal combustion piston engine	5.6	0.1	321.4	
847990	Parts of machines and mechanical appliances, n.e.s.	5.3	0.1	259.5	
382499	Chemical products and preparations of the chemical or allied industries, incl. those consisting of mixtures of natural products, n.e.s.	5.2	0.1	552.6	
848210	Ball bearings	5.2	0.1	306.3	
293090	Organo-sulphur compounds	5.0	0.1	682.4	
848190	Parts of valves and similar articles for pipes, boiler shells, tanks, vats or the like, n.e.s.	4.9	0.1	299.9	
853650	Switches for a voltage <= 1.000 V	4.9	0.1	354.8	

Note: "-" negligible

Source: ITC Trade Map and Exim Bank Research

Exports from India to Brazil under lagging in declining market category stood at US$ 205.8 million comprising 81 products or 3.1% of India's total exports to Brazil in 2023. The corresponding global imports of Brazil stood at US$ 20.8 billion. The considerable range of exports under the category of declining sectors, which include among others, gear boxes and parts for tractors and other transport vehicles (HS 870840), vaccines for human medicine (HS 300241), articles of plastics (HS 392690), drive-axles with differential (HS 870850), among others, highlight the need for diversification to other sectors as well as industries which have greater scope for exports in the future. If the scarce resources are not diverted, then excess of supply to these sectors facing limited demand in Brazil, would result in further fall in their prices in the future. Thus, a shift needs to be made from the declining sectors to the product champions in the short run and underachievers in the medium to the long run, to make efficient utilization of resources and further enhance exports from India to Brazil.

Table 5.4 is an aggregation of India's exports to Brazil for the identified 285 product champions at HS 6-digit level. The sectors such petroleum products, chemical and allied products, medicament and other pharmaceutical products, plastic and rubber articles, iron and steel and their articles, transport vehicles and machinery and electrical equipment are the top sectors holding the largest share in the product champion sectors of India to the US.

Table 5.4: Broad Industry Classification of Identified Product Champions from India to Brazil (HS 6-digit level)

Broad Industry Category	HS Code	India's Exports to Brazil in 2023 (US$ million)	Share in India's Total Exports to Brazil (%)
Agriculture and allied products	07-24	58.3	0.9
Ores, slag and ash	26	6.2	0.1
Petroleum products	27	1564.3	23.5
Chemicals and allied products	28-29; 31-38	514.0	7.7
Medicament and other pharmaceutical products	30	310.5	4.7
Plastics; rubber and their articles	39-40	157.7	2.4
Leather articles etc.	42	3.4	0.1
Wood; pulp of wood and other articles	44-49	8.5	0.1
Textiles	50-60, 63	74.3	1.1
Apparels	61-62	26.6	0.4
Footwear; headgear etc.	64	4.6	0.1
Articles of stone, plaster, glass etc.	68-70	58.5	0.9
Pearls, precious stones and jewellery	71	1.3	0.0
Iron & steel and their articles	72-73	204.4	3.1
Other Base metals and their articles	74-83	99.0	1.5
Machinery and electrical equipment	84-85	483.1	7.2
Transport vehicles	86	331.0	5.0
Other; photographic; medical instruments and clocks	90	12.8	0.2
Furniture, toys and others	94-96	15.2	0.2
Sub-Total	-	***3933.5***	***59%***
India's Total Exports to Brazil	-	**6670.2**	**100%**

Source: ITC Trade Map and India Exim Bank Research

Analysis of India and Brazil's Tariff Structure

This section explains the concept of the effectively applied tariff between India and Brazil. Customs duties on imported goods are referred to as tariffs. These tariffs provide a price advantage to domestically produced goods over similar imported ones and generate revenue for governments. The "effectively applied" (AHS) tariff represents the actual tariff imposed by a country. The World Bank's WITS database defines this as the lowest available tariff. If a preferential tariff is applicable, it will be considered the effectively applied tariff. If not, the most favored nation (MFN) tariff will apply.

India's Tariff on Imports from Brazil

In the current analysis, the tariff on 6-digit HS code is taken into consideration, using Trade Analysis Information Systems (TRAINS) based WITS data. The year under consideration is 2022. Duty-free imports of India from Brazil stood at US$ 8.9 million consisting of 89 tariff lines mainly including parts of electrical equipment, and optical, photographic and medical instrument. Among these duty-free commodities, India imported US$ 3.1 million worth of electronic integrated circuits as memories (HS Code 854232), followed by US$ 1.9 million worth of electronic integrated circuits as processors and controllers (HS Code 854231). As the **Table 5.5** shows, India's majority of imports from Brazil have tariffs between 0.1%-5.0% (37.1% of total imports), followed by the range of 35.1%-45.0% (31%). The imports in which case tariffs range between 0.1%-5.0% mainly include petroleum oils and oils obtained from bituminous minerals, crude (HS Code 270900) which amounted to US$ 2,450 million in the year 2022. India imposes tariff at the range of 100% on vegetable oils, sugar, food items and auto components. The highest tariff of 150% was imposed on food preparations (HS Code 210690) during the same year.

Table 5.5: India's Effectively Applied Tariff on Imports from Brazil in 2022

Effectively Applied Tariff Rates (%)	Total Number of Tariff Lines (at 6-digit HS Code)	Total Imports (US$ million)	Share in Total Imports (%)
0.0	89	8.9	0.1
0.1-5.0	100	2,635.3	37.1
5.1-10.0	2110	690.8	9.7
10.1-15.0	492	1,019.4	14.4
15.1-20.0	216	25.7	0.4
20.1-25.0	93	74.2	1.0
25.1-30.0	253	151.8	2.1
30.1-35.0	35	6.6	0.1
35.1-45.0	14	2,200.7	31.0
45.1-75.0	25	42.2	0.6
75.1-125.0	85	246.2	3.5
125.1-150	12	0.7	0.0
Unspecified	17	0.3	0.0
Total	**3541**	**7,102.8**	**100.0**

Source: WITS Database and India Exim Bank Research

Brazil's Tariff on Imports from India

The simple average effectively applied tariffs imposed by Brazil on India's exports at 6-digit HS code level using TRAINS based WITS data are analysed in **Table 5.6**. In 2022, around 7.4% of Brazil's imports from India were duty free comprising 504 tariff lines are duty free. Within this category, unwrought aluminium (HS Code 760110) and heterocyclical compounds with nitrogen (HS 293319) accounted for major imports. The tariff range of 0.1% to 5% consists mainly import of organic chemicals. Around 28.4% of the total import basket comes under unspecified category classified as petroleum oils and oils obtained from bituminous minerals (excluding crude) (HS Code 271000). India faces tariff ranging from 10.1%-15.0% in sector like footwear, articles of stone, plaster and similar products, glass and glassware among others. The highest tariff rate of 55% was imposed on desiccated coconuts (HS Code 080111) amounting to US$ 0.02 million in 2022. Tariffs imposed by Brazil in the range of 35% are mainly on apparel, textile articles, carpets and textile floorings, among others.

Table 5.6: Brazil's Effectively Applied Tariff on Imports from India in 2022

Effectively Applied Tariff Rates (%)	Total Number of Tariff Lines (at 6-digit HS Code)	Total Imports (US$ million)	Share in Total Imports (%)
0.0	504	712.3	7.4
0.1-5.0	1609	1,808.4	18.9
5.1-10.0	1630	1,410.2	14.7
10.1-15.0	1435	1,966.3	20.5
15.1-20.0	393	822.2	8.6
20.1-25.0	17	8.5	0.1
25.1-30.0	118	39.3	0.4
30.1-35.0	205	89.6	0.9
35.1-55.0	1	0.0	0.0
Unspecified	-	2,721.7	28.4
Total	**5912**	**9,578.6**	**100.0**

Source: WITS Database and India Exim Bank Research

Chapter

6

Activities of Export-Import Bank of India in Latin America and Caribbean Region

The Export-Import Bank of India (India Exim Bank) was set up under an Act of Parliament in 1981 and commenced operations in 1982. The Bank was set up for providing financial assistance to exporters and importers, and for functioning as the principal financial institution for coordinating the working of institutions engaged in financing export and import of goods and services with a view to promoting the country's international trade. In its endeavour to promote India's international trade, India Exim Bank's vision has evolved from financing, facilitating, and promoting trade and investments, to a conscious and systematic effort at creating export capabilities. India Exim Bank today seeks to develop commercially viable business relationships with externally oriented companies. In line with the Government of India's focus, the Latin America and the Caribbean (LAC) region has been a focus region for India Exim Bank, and thus a critical component of its strategy to promote and support two-way trade and investment flows. India Exim Bank's commitment towards building relationships with the LAC region is reflected in the various activities and programmes, which India Exim Bank has set in place. India Exim Bank plays a critical role and is committed towards supporting GOI's initiatives in promoting strategic partnerships with countries in different regions and especially those in the LAC region. This is achieved through continuous engagement with partner countries at bilateral, regional and multilateral levels, and financing and supporting of projects of national importance, thereby strengthening India's role as a development partner in the region. India Exim Bank has a representative office in Washington D.C., which plays a key role in facilitating economic cooperation with the region and is closely associated with several of the Bank's initiatives. The representative office interfaces with institutions such as Inter-American Development Bank (IDB), Washington D.C.; Banco Nacional de Desenvolvimento Economico e Social (BNDES), Corporacion Andina De Fomento (CAF), Venezuela; Banco de Inversion Y Comercio Exterior S.A. (BICE), Argentina; Central American Bank for Economic Integration (CABEI/ BCIE), Honduras; Caribbean Association of Industry & Commerce, Trinidad & Tobago; Banco Mercantil (Banco Universal) C.A., Venezuela among others, as well as Indian missions in the region. Bilateral trade and investment is also envisaged to get a boost in the coming years, with the opening up of a representative office by Export-Import Bank of India in São Paulo.

Financing and Programmes of India Exim Bank in the LAC Region

Lines of Credit

To promote India's trade and economic relations with developing countries, the Government of India launched the Indian Development and Economic Assistance Scheme (IDEAS) – with the objective of sharing India's development experience through capacity building and skill transfer, trade, and infrastructure development, by extending concessional Lines of Credit (LOCs) routed through India Exim Bank, to developing partner countries, towards creating socio-economic benefits in the partner country. As a part of its financing programmes, and to enhance bilateral trade and investment relations with partner countries, India Exim Bank extends several Lines of Credit (LOCs) to overseas sovereign governments or their nominated agencies, national or regional development banks, overseas financial institutions, commercial banks abroad, and other select overseas entities, to enable buyers in those countries to import developmental and infrastructure projects, equipment, goods and services from India, on medium and long term credit basis. These LOCs offer a risk-free financing option to the Indian exporting companies, while helping them penetrate new markets, enhance their export volumes in the overseas market, and demonstrate project execution capabilities. The LOCs are aimed at financing and catalysing Indian exports by way of financing key projects of national importance to the borrower countries, such as agriculture and irrigation development, development of various small and medium enterprises, upgradation of factories, development of railways and related infrastructure, projects for transmission lines and substations, rehabilitation and improvement of water supply system, among others. The LOC programme has gained considerable recognition abroad, as it enables the LOC recipient countries access to much needed large scale developmental and infrastructure projects, on concessional and deferred credit terms.

As on December 31, 2024, the total number of operational LOCs to the LAC region stood at 34, extended to 5 countries namely Cuba, Guyana, Honduras, Nicaragua and Suriname, for supporting developmental projects amounting to US$ 735.08 million. Following are the sectors across which the LOCs have been extended to countries in the LAC region:

Cuba: US$ 349.69 million for projects including fertilizer plants, wind energy, solar parks, co-generation of power, modernization of pharmaceutical facilities, and import of rice.

Guyana: US$ 143.04 million for projects such as road linkages, drainage systems, solar power installations, cricket stadium construction, irrigation pumps, and hospital upgrades.

Honduras: US$ 53.13 million for development of agricultural and irrigation infrastructure and import of communication, medical and transportation equipment.

Nicaragua: US$ 94.98 million for electricity substations, transmission lines, and construction of hospital.

Suriname: US$ 60.34 million for electric transmission, transmission infrastructure upgrades, and purchases from Indian entities.

Project Exports

Under its Project Exports assistance, India Exim Bank extends both funded and non-funded facilities for overseas turnkey projects, civil construction, supplies as well as technical and consultancy service contracts across various sectors of the economy. India Exim Bank also supports existing or new projects, plants or processes that require additional assistance in processes such as international competitive bidding, including multilaterally funded projects in India. Such projects executed by assistance received from India Exim Bank, have contributed to the host country’s developmental endeavours and have assisted in narrowing developmental gaps in such countries.

Buyer's Credit under National Export Insurance Account (NEIA)

In order to provide further impetus to project exports from India on medium or long-term basis, especially in the infrastructure sector, in April 2011, a financing product called Buyer's Credit under National Export Insurance Account (BC-NEIA) was introduced. Under this programme, India Exim Bank facilitates project exports from India by way of extending credit facility to overseas sovereign governments and government owned entities for import of goods and services from India on deferred credit terms. Indian exporters can obtain payment of eligible value from India Exim Bank, without recourse to them, against negotiation of shipping documents. NEIA is a Trust, set up by Ministry of Commerce and Industry, Government of India, and administered by ECGC. As of December 31, 2024, the positive list of 53 countries identified by ECGC Ltd. for which Indian exporters could avail Buyer's Credit under NEIA, includes 14 LAC countries viz. Bahamas, Barbados, Brazil, Chile, Colombia, Ecuador, Guatemala, Guyana, Honduras, Mexico, Nicaragua, Panama, Paraguay, and Peru.

Overseas Investment Finance

India Exim Bank supports Indian companies in their endeavour to globalise their operations, through overseas joint ventures (JVs) and wholly owned subsidiaries (WOS). Such support includes loans and guarantees, equity finance and in select cases direct participation in equity along with Indian promoters to set up such ventures overseas. These ventures serve to promote value addition, as also contribute to capacity building and capacity creation in host countries. India Exim Bank through its overseas investment finance programme has supported Indian companies in 8 countries in LAC namely, Brazil, British Virgin Islands, Cayman Islands, Mexico, Chile, Guatemala, Panama and Uruguay, with an aggregate sanction amount of ₹ 5,232.6 crore.

As of December 31, 2024,, Exim Bank has supported 9 Indian companies for setting up JVs in Brazil, with a sanctioned amount of ₹ 1,055.8 crores across sectors including pharmaceuticals, agro and food processing, power, and engineering goods.

Trade Assistance Programme

Exim Bank introduced a new trade finance product - Trade Assistance Programme (TAP) in 2022 to address the widening trade finance gap. Under the aegis of TAP, Exim Bank provides support through credit enhancement to trade instrument(s), thereby enhancing the capacity of commercial banks / financial institutions to support cross-border trade transactions involving untapped markets, where trade lines are constrained or where the potential has not been harnessed, and transactions may not materialise in the absence of such support. As on December 31, 2024, India Exim Bank has supported transactions of more than US$ 25 million in the LAC region under the Trade Assistance Programme in countries such as Argentina (~US$ 13.50 million), Nicaragua (~US$ 9 million), and Ecuador (~US$ 3 million).

Consultancy Assignments

Over the past four decades, India Exim Bank has continuously evolved its programmes and services to meet the needs of its stakeholders. This experience of evolving as a principal financial institution in a developing country context has been found to be of particular relevance in other developing countries that seek to set up institutions and strengthen institutional structure for supporting international trade and investment. The Bank has leveraged its vast experience in export financing to render assistance to several institutions in the developing world through its well-knitted advisory and consultancy services backed by a strong in-house research team.

In 2022-23, India Exim Bank was commissioned by the Export Barbados for a consultancy assignment for setting up an Export Credit Agency (ECA) in Barbados. The Government of Barbados aims to boost exports to US$ 1 billion by 2030, through the development of an enabling environment for exports in the country. In line with this objective, Export Barbados, an agency of the Government of Barbados with responsibility of promoting and facilitating industrial and export development, commissioned India Exim Bank for undertaking a consultancy assignment in 2022-23, which involved the development of an establishment plan for setting up of ECA in Barbados. The assignment has been successfully completed by the Bank in 2023-24.

Chapter 7

Potential Areas of Cooperation and Recommendations

India and Brazil, two dynamic and rapidly emerging economic powerhouses, share a deep and multifaceted bond, forged through their rich cultural heritage, democratic values, and shared aspirations for global leadership. Brazil and India are strategic partners since 2006. This partnership is marked by an array of institutional mechanisms designed to enhance cooperation across diverse sectors.

The complementarity of their economies is striking, with India's rapidly expanding economy, innovative digital infrastructure, and stable institutions providing a perfect complement to Brazil's vast natural resources, including abundant hydrocarbons and critical minerals, as well as its growing economic influence in Latin America. In terms of trade, the countries' import, and export needs are highly synergistic. India exports refined oil, chemical products, machinery, pharmaceuticals and vehicles sharing an essential trade link with Brazil. Brazil's exports to India include agricultural products like soyabean and crude oil. India and Brazil have signed numerous agreements spanning various important domains such as cybersecurity, hydrocarbons, bioenergy, science and technology, culture, animal husbandry, healthcare, and traditional medicine. These agreements provide a strong foundation for deepening bilateral ties and addressing pressing global challenges. Key sectors of Indian investments in Brazil include pharmaceuticals, energy, mining, automotive, and IT services. Similarly, Brazilian investments in India are concentrated in areas such as mining, steel, heavy electrical equipment, IT solutions, ethanol production, and healthcare equipment[18].

During a visit to Brazil in September 2024, India's Minister of State for Commerce & Industry, Electronics & IT, had discussions with the Brazilian focusing on enhancing collaboration in clean energy, green hydrogen, biofuels, digital technology, healthcare, and agriculture. As new trade and investment partnerships emerge globally, India and Brazil could establish mutually advantageous collaborations across a wide range of sectors, as outlined below.

Enhancing India-Brazil Merchandise Trade based on Identified Potential

India's exports to Brazil stood at US$ 6.7 billion in 2023 and mainly comprised refined petroleum oil, miscellaneous chemical products, machinery, organic chemicals, parts and accessories of transport vehicles and pharmaceuticals, among others. Concomitantly, India's imports stood at US$ 6.5 billion in 2023 and mainly included soyabean oil, crude petroleum oil, raw cane sugar, and gold, among others. While the trade balance has been in Brazil's favour till 2018, India has been recording a modest surplus in trade since 2019.

[18] India-Brazil Relations, Embassy of India, Brazil

Despite the strong foundation of India-Brazil economic relations, bilateral trade remains below potential due to the geographical distance acting as a natural impediment, besides technical regulations, transport and logistics costs. India's share in Brazil's exports have declined from 2.2% in 2014 to 1.4% in 2023. On the contrary, Brazil's exports to China have more than doubled during the last 10 years and accounted for 30.7% of its exports in 2023. China was also the largest import source, accounting for 22.1% of Brazil's imports followed by USA (16%) in 2023. India was the sixth largest import source for Brazil accounting for 2.9% of Brazil's global imports. India remained a major import source for Brazil for products like organic chemicals, miscellaneous chemical products, iron and steel, aluminium and articles, man-made filaments, among others. The India–MERCOSUR Preferential Trade Agreement (PTA) signed in 2009, comprising Brazil, Argentina, Uruguay and Paraguay, remains limited in nature. Expanding the same into a comprehensive free trade agreement could contribute to further facilitating trade between the two regions. India faces import tariffs ranging between 10% - 35% from Brazil on a variety of textile items, apparel, footwear, which if relaxed could help India gain a greater market share. Notwithstanding these challenges, Brazil is the largest trade partner of India in the LAC region accounting for 33.2% of India's exports to the region and 26% of India's imports from the region in 2023. Brazil is also the second largest destination in Latin America (after Mexico) for India's engineering goods exports accounting for US$ 2 billion in 2023-24 and US$ 1.5 billion in 2024-25 (April-November) registering a growth of 12% over the corresponding period of the previous year. The study has identified potential items of exports which could be targeted by Indian exporters. According to the analysis, in the short term, it is suggested to strengthen the existing products in the category of Product Champions to harness the full potential for the products which are already showing a robust growth in Brazil, where India's exports also hold a comparative advantage. These are medium oils and preparations, medicaments, herbicides, parts and accessories of motor vehicles, automotive parts like engines and tyres, tractors, parts of electric motors, heterocyclical compounds, among others.

In the medium to long run, efforts and investments could be enhanced for products in the Underachievers category to develop capacities in these products, which will help in meeting the demands of Brazil in a more competitive manner. These include turbojets, gears, appliances for pipes, immunological products, internal combustion piston engine, articles of iron and steel, suspension systems of motor vehicles, gaskets, parts of pumps, static converters, parts of machines, chemical products, ball bearings, parts of valves, among others.

Enhancing Bilateral Services Trade

According to the WTO, India has consistently run a services trade surplus with Brazil between 2013 and 2021 (based on latest data available). India's major services exports to Brazil comprised telecommunication, computer, and information services contributing 46.3% of services exports, followed by other business services (which include research and development services; professional and management consulting services and technical, trade-related, and other business services) at 30.4%. Both these sectors account for a considerable share in Brazil's global services imports with business services accounting for 25.7% and telecommunication and IT services accounting for 14.1%. These areas could be further explored by India to increase services exports to Brazil.

Collaboration in Agriculture and Allied Activities

India and Brazil are pivotal players in global agriculture, with Brazil ranking second largest exporter (after USA) in terms of agricultural products accounting for a global share of 7.6%. In 2023, soybean was the largest contributing crop in Brazil in terms of value, representing 42.8% of the country's agricultural production that year. Along with corn and sugar cane, these three crops together made up nearly three quarters of Brazil's agricultural production value. India during the same year emerged as the 13th largest exporter of agricultural products with a global share of 2.3% with rice, meat products and sugarcane accounting for largest agriculture exports.

Brazilian agriculture is poised for further growth under the New Industry Mission[19], which aims to develop sustainable and digitally driven agro-industrial chains to enhance food, nutritional, and energy security. The mission seeks to increase agro-industry's contribution to GDP by 3% annually until 2026, promote greater mechanization especially promote adoption of technology among family-owned farms, and strengthen the production chains for fertilizers and biofertilizers. India, with its expertise in modern agriculture and smart farming techniques, can partner with Brazil to enhance crop yields, expand arable land, and develop new crop varieties. Additionally, large investments in production technologies and the growing global demand for food and animal feed create ample opportunities for cooperation.

The food processing sectors of both India and Brazil are vital contributors to their respective economies, and as these industries continue to grow, the potential for cross-border collaboration is immense. According to the Brazilian Food Processors Association (ABIA), Brazil's food processing industry accounted for a significant 10.8% of the national GDP in 2023. This sector, which is comprised of over 38,000 companies—predominantly small and medium-sized enterprises—plays a crucial role in Brazil's economic landscape[20].

According to the Indian Chamber of Food and Agriculture, India's food processing industry contributes to 14% of the country's GDP and 13% of India's exports. The total size of the food processing market is expected to reach US$ 470 billion by 2025. This growth is driven by an increasing population, evolving lifestyles, and changing food habits fueled by rising disposable incomes and urbanization. As both India and Brazil continue to thrive in this sector, there is a growing opportunity for them to explore mutual investment and collaboration in advanced technologies in post-harvest management, food processing model and logistics. This could be explored through joint ventures and technological and marketing collaboration.

India and Brazil play crucial roles in global agriculture, being among the largest producers of essential crops such as rice, wheat, soybeans, and sugar. Their diverse climates and farming practices provide a rich opportunity for collaboration to address hunger and food security challenges. By sharing knowledge on sustainable farming techniques, investing in agricultural research, and leveraging technology, both nations can enhance crop yields and resilience against climate change thereby contributing to mutual and global food security. Joint initiatives focused on improving supply chain efficiency and access to markets can further ensure that surplus production effectively reaches vulnerable populations. Collaborating on policy frameworks and agricultural education can empower farmers, ultimately working towards the common goal of eradicating hunger in both countries. The Food Safety and Standards Authority of India (FSSAI) signed an MoU with the Ministry of Agriculture and Livestock (MAPA) of Brazil in September 2024. Both India and Brazil can further cooperate through mutually recognized standards and institutions for increasing agricultural exports to cater to each other's growing markets.

[19] Mission 1 of New Industry Brazil 1 (December 2024)
[20] Brazil: Food Processing, US Foreign Agricultural Service Report (April 2024)

Developments in Ethanol Production and Collaboration between India and Brazil

Global ethanol production achieved a record high of 29.5 billion gallons in 2023. Brazil is the world's second-largest ethanol producer (28% of global ethanol production) after the US (53% of global ethanol production). The "Fuel of the Future" programme announced by Brazil in October 2024, aims to increase the ethanol blending margin with gasoline from 22% to 27%, with the potential to reach 30% by 2025 and 35% by 2030. Currently, the minimum is set at 18%[21]. Through the Fuel of the Future, Brazil is expected to avoid the emission of 705 million tons of carbon dioxide (CO2) by 2037, strengthening the country's commitment to reducing the greenhouse effect gas emissions. Sugarcane, a key agricultural commodity, serves as the primary feedstock for its ethanol industry. As of July 2024, Brazil boasts 356 sugarcane plants, with a diverse production landscape encompassing sugar and ethanol, sugar-only, and ethanol-only facilities[22]. Favorable climatic conditions, coupled with investments in advanced sugarcane varieties and field improvements, have boosted productivity and yielded record-breaking sugarcane crops. The 2023/24 marketing year (April to March) witnessed 8% increase in sugarcane production, reaching 705.2 million metric tons. Brazil was the largest exporter of sugarcane (HS 1701) accounting for a global share of 41.6% followed by India at 9.8% in 2023.

India was the third largest ethanol producing country in 2023 accounting for a share of 5% at 1430 million gallons (fourth largest if European Union is considered which accounted for 1440 million gallons). India is taking significant steps toward securing its energy future by embracing sustainable practices through ethanol blending. The progress of India's Ethanol Blended Petrol (EBP) Programme has been noteworthy, with the ethanol production capacity more than doubling in the last four years to reach 1,623 crore litres as of September 18, 2024[23]. This substantial increase highlights the government's commitment to enhancing the role of ethanol in the nation's energy landscape. India's ethanol production has significantly expanded, supporting the government's ethanol blending targets to reduce fossil fuel dependence and promote renewable energy. By fostering sugarcane-based ethanol production, the program aids rural development and aims to reduce carbon emissions. Reforms and investments have boosted production capacity, enabling higher blending rates, with milestones like 15% blending expected by 2024 and 20% by 2025. This initiative aligns with India's energy security and sustainability goals. To achieve 20% ethanol blending by 2025-26, India has implemented measures including expanding ethanol production capacity, diversifying feedstocks like grains and sugarcane, incentivizing ethanol distilleries, and improving supply chain logistics. Policy initiatives including pricing reforms, investment support, and reducing regulatory barriers, have also been undertaken.

The bio-energy sector presents significant business opportunities for Brazilian companies, who are already global leaders in this field. India and Brazil are collaborating in multilateral platforms where they exchange knowledge and strategies. Both countries share common goals in their national biofuel initiatives—India's *National Biofuel Policy* and *Brazil's RenovaBio Program*—which focus on increasing the blending percentages of biofuels with petrol and diesel, aiming to enhance sustainability and energy security. As major agricultural producers and exporters, India is keen to learn from Brazil's expertise in ethanol production from sugarcane, particularly in the context of diversifying its energy sources and promoting renewable energy. Both countries are the founding members of the "Global Biofuels Alliance" launched during India's G20 Presidency, an initiative to decarbonize the transport sector.

[21] Lula enacts Fuel of the Future law: "Brazil will drive the world's largest energy revolution", October 9, 2024, www.gov.br
[22] Biofuels Annual: USDA Foreign Agriculture Service (August 2024)
[23] India's Ethanol Push: A Path to Energy Security, Press Information Bureau, October 24, 2024.

Box 7.1: Global Biofuels Alliance (GBA)

At the 2023 G20 Summit under India's Presidency, Brazil, India, and the US, along with other nations like Italy, Argentina, Singapore, Bangladesh, Mauritius and UAE, announced the formation of the "Global Biofuels Alliance". Its membership has expanded to 27 member countries as well as 12 international organizations including multilateral development banks. This initiative aims to promote the use of sustainable biofuels, particularly in the transportation sector. The Alliance will focus on strengthening global biofuels markets, enhancing trade, sharing policy insights, and providing technical support for national biofuels programs worldwide. Further, in October 2024, the Union Cabinet had approved signing & ratification of the Host Country Agreement for setting up its Secretariat in India. The GBA is a multi-stakeholder platform comprising governments, international organizations, and industries aimed at advancing biofuels as a key component of the energy transition. GBA will develop and implement international standards, sustainability principles, and regulations to incentivize biofuels adoption and trade, acting as a central knowledge repository and expert hub. For India, the initiative offers significant benefits, including strengthening its global position, creating export opportunities for Indian technology and equipment, and accelerating domestic biofuel programs like PM-JIVAN Yojana, SATAT, and GOBARdhan.

Brazil's flex technology that enables vehicles to run on any combination of ethanol and gasoline, could benefit India as it aims to gradually increase the percentage of blending of ethanol in petroleum auto fuels and reduce dependence on imported crude oil. Indian manufacturers can also use bagasse, a by-product of sugarcane processing in reducing the carbon footprint of sugarcane ethanol by powering sugar mills through co-generation of electricity. This collaboration could help India not only achieve its goal of increasing ethanol blending in automotive fuels to 20% by 2025 from current 15% but also position itself as a global leader in renewable energy and sustainability.

Renewable Energy Transition

Brazil handed over the International Solar Alliance (ISA) Instrument of Ratification in February 2024 after becoming a full member of the International Solar Alliance[24] underscoring its commitment to promote solar energy. India can leverage its expertise in solar technologies to assist Brazil in expanding its renewable energy infrastructure, facilitating knowledge transfer on best practices, project implementation, and innovative financing models. Additionally, both countries can collaborate on the critical minerals needed for electric vehicle (EV) production, ensuring a sustainable supply chain that supports their growing EV markets. By sharing research and expertise, they can bolster their energy transition goals while fostering economic growth and reducing carbon emissions in both nations.

Cooperation in Promoting Sustainable Finance and Development

The two nations have also become increasingly active in sustainable finance policymaking. In 2023, India and Brazil rolled out national strategies or frameworks on sustainable finance[25]. As both nations work toward their respective net-zero goals, they can leverage this emerging market to finance sustainable projects and infrastructure development. India and Brazil can collaborate in sustainable financing by leveraging expertise of national and regional development finance institutions, such as Brazil's BNDES (Brazilian Development

[24] MEA Annual Report 2023-24
[25] World Investment Report, 2024

Bank), the NDB (New Development Bank) and India Exim Bank (Export Import Bank of India). Both countries can jointly finance eligible projects in renewable energy, clean technology, and sustainable infrastructure. By pooling resources and expertise, both countries can significantly enhance the impact of their sustainability initiatives. Additionally, they can facilitate exchange programs and provide technical assistance to share best practices in green finance, project evaluation, and risk management. This will enable both nations to improve their sustainable financing capabilities. Supporting sustainable industrial value chains across Latin America in the form of trilateral cooperation is another area of potential cooperation, with a focus on sectors such as bioenergy, electric vehicles, and waste-to-energy technologies.

Furthermore, the two countries can utilize innovative financing mechanisms by combining public, private, and multilateral resources to de-risk investments in high-impact sustainable development projects. Collaboration on carbon trading mechanisms and funding climate-resilient projects, such as reforestation and water management, can help align with global climate goals. Finally, India and Brazil can co-invest in research for sustainable technologies, particularly in areas such as green hydrogen, biofuels, and circular economy practices. This partnership can drive innovation and promote sustainable development in both nations.

Easing Cross-border Payments Settlements

India and Brazil could explore Local Currency Settlement System (LCSS), a framework that allows the settlement of a bilateral transaction between two countries using their respective domestic currencies, leading to potentially lower transaction costs, faster settlement times and increase bilateral trade predictability. This initiative aims to enhance trade efficiency and strengthen economic ties between the two nations. Setting up or increasing Indian bank branches is also needed to increase use of this mechanism by Indian exporters.

Over the past few years, India has built a strong digital economy, driven by robust Digital Public Infrastructures (DPIs), which have been contributing significantly to economic development. The two nations can significantly boost trade by introducing interoperability between their real-time payment systems, India’s Unified Payment Interface (UPI) and Brazil’s Pix. Both systems share similarities in their real-time nature, reliance on mobile technology, and focus on user-friendliness. By enabling seamless transactions between the two countries, businesses and individuals can experience faster, cheaper, and more secure cross-border payments thereby increasing the market competition and efficiency. Additionally, interoperability between UPI and Pix can promote financial inclusion in both countries by providing access to affordable and convenient digital payment services to underserved populations, driving economic growth and development.

Expanding Cooperation in Aerospace, Defense and Space Equipment Manufacturing

Aerospace, defense equipment and space cooperation are a pivotal element of the strategic partnership between Brazil and India. Since 2019, Brazil’s defense strategy has been undergoing a significant transformation, with a primary focus on modernizing military capabilities and strengthening key strategic alliances. Brazil’s interest in India’s defense technology, coupled with India’s expertise in indigenously developed systems, fosters a mutually beneficial relationship. Both countries have also been collaborating in data sharing and satellite navigation. Cooperation could be extended to joint ventures, technology transfers, and shared manufacturing, enhancing defense capabilities and strategic ties. India and Brazil share a history of robust space collaboration, with significant potential for deeper cooperation in areas like rocket launches, satellite communications, and payload development. Brazil’s advanced aviation expertise, presents opportunities for joint aircraft development to bolster India’s defence aviation capabilities. Both governments can encourage defense industries to explore new avenues for cooperation in manufacturing, including joint projects aimed at co-producing advanced technological defense products such as aerospace systems, and space technology, fostering a resilient supply chain. Additionally, both nations offer substantial commercial opportunities through private sector-driven activities, satellite deployments, and space exploration.

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As part of its endeavour in enriching the knowledge of Indian exporters and thereby to enhance their competitiveness, India Exim Bank periodically conducts research studies. These research studies are broadly categorized into three segments, viz. sector studies, country studies and macro-economic related analysis. These studies are published in the form of Occasional Papers, Working Papers and Special Publications. The research papers that are brought out in the form of Working Papers are done with swift analysis and data collation from various sources. The research papers under the series provide an analytical overview on various trade and investment related issues.

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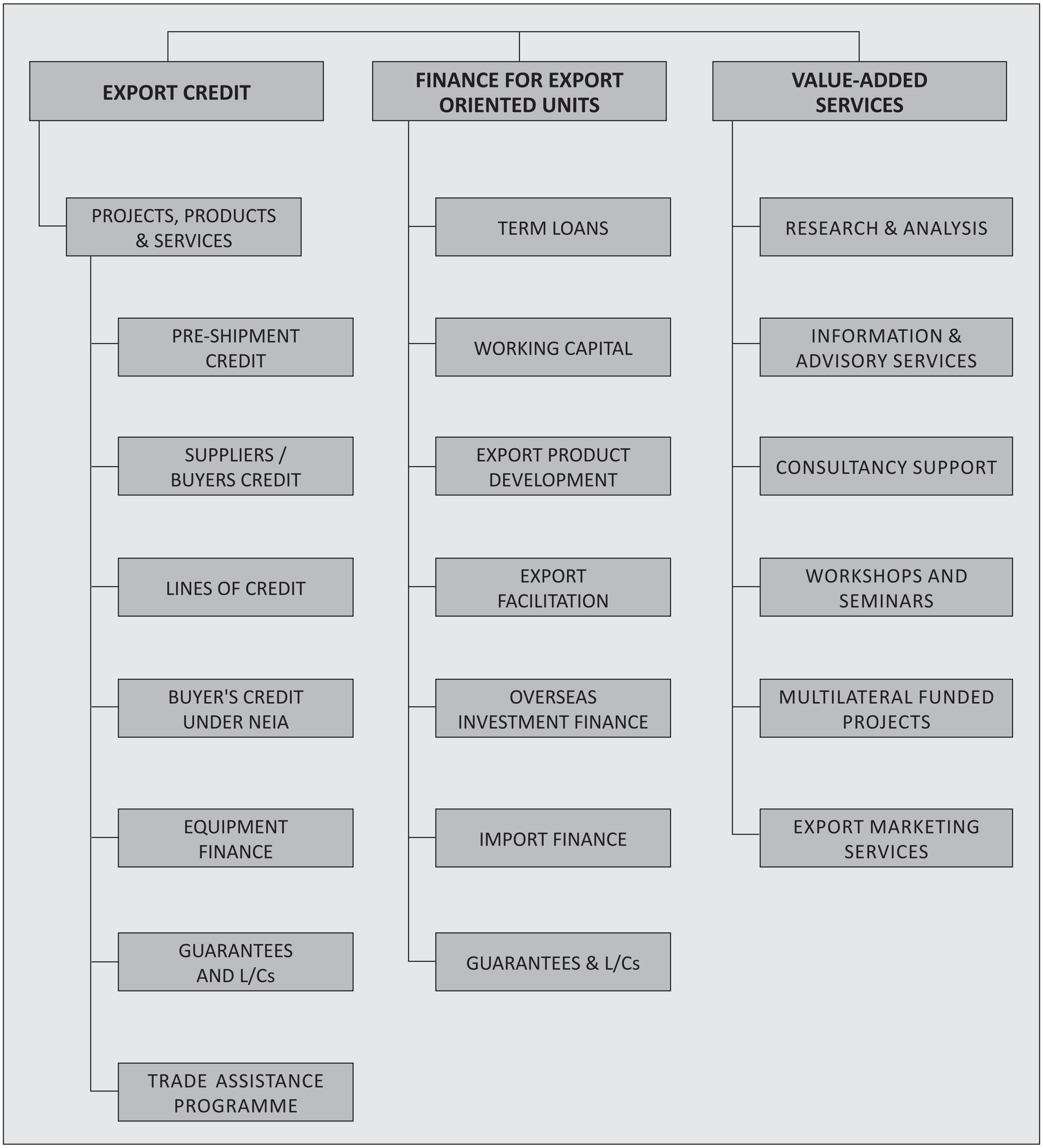

EXPORT-IMPORT BANK OF INDIA

HEAD OFFICE

Centre One Building, 21st Floor, World Trade Centre Complex, Cuffe Parade, Mumbai 400 005.
Phone: (91 22) 22172600 ● Fax : (91 22) 22182572
E-mail : ccg@eximbankindia.in ● Website: www.eximbankindia.in

LONDON BRANCH

5th Floor, 35 King Street, London EC2V 888 United Kingdom
Phone : (0044) 20 77969040 ● Fax : (0044) 20 76000936 ● E-Mail : eximlondon@eximbankindia.in

DOMESTIC OFFICES

Ahmedabad
Sakar II, 1st Floor,
Next to Ellisbridge Shopping Centre,
Ellisbridge P. O., Ahmedabad 380 006.
Phone : (91 79) 26576843
Fax : (91 79) 26577696
E-mail : eximahro@eximbankindia.in

Bengaluru
Ramanashree Arcade, 4th Floor,
18, M. G. Road, Bengaluru 560 001.
Phone : (91 80) 25585755
Fax : (91 80) 25589107
E-mail : eximbro@eximbankindia.in

Chandigarh
C- 213, Elante offices, Plot No. 178-178A,
Industrial Area phase 1,
Chandigarh 160 002.
Phone : (91 172) 4629171
Fax : (91 172) 4629175
E-mail : eximcro@eximbankindia.in

Chennai
Overseas Towers, 4th and 5th Floor,
756-L, Anna Salai, Chennai 600 002.
Phone : (91 44) 28522830/31
Fax : (91 44) 28522832
E-mail : eximchro@eximbankindia.in

Guwahati
NEDFi House, 4th Floor, GS Road,
Dispur, Guwahati 781 006.
Phone : (91 361) 2237607 /609
Fax : (91 361) 2237701
E-mail : eximgro@eximbankindia.in

Hyderabad
Golden Edifice, 2nd Floor,
6-3-639/640, Raj Bhavan Road,
Khairatabad Circle, Hyderabad 500 004.
Phone : (91 40) 23307816
Fax : (91 40) 23317843
E-mail : eximhro@eximbankindia.in

Kolkata
Vanijya Bhawan, 4th Floor,
(International Trade Facilitation Centre),
1/1 Wood Street, Kolkata 700 016.
Phone : (91 33) 68261301
Fax : (91 33) 68261302
E-mail : eximkro@eximbankindia.in

Lucknow
Unit No. 101, 102 and 103, 1st Floor,
Shalimar Iridium Vibhuti Khand,
Gomti Nagar, Lucknow 226010.
Phone: (91 522) 6188035
Email: lro@eximbankindia.in

Mumbai
8th Floor, Maker Chamber IV,
Nariman Point,
Mumbai 400 021.
Phone : (91 22) 22861300
Fax : (91 22) 22182572
E-mail : eximmro@eximbankindia.in

New Delhi
Office Block, Tower 1, 7th Floor,
Adjacent Ring Road,
Kidwai Nagar (E)
New Delhi - 110 023.
Phone : (91 11) 61242600 / 24607700
Fax : (91 11) 20815029
E-mail : eximndo@eximbankindia.in
ndro@eximbankindia.in

Pune
No. 402 & 402(B), 4th floor,
Signature Building,
Bhamburda, Bhandarkar Rd.,
Shivajinagar,
Pune - 411 004.
Phone : (91 20) 26403000
Fax : (91 20) 25648846
E-mail : eximpro@eximbankindia.in

OVERSEAS OFFICES

Abidjan
5th Floor, Azur Building,
18-Docteur Crozet Road,
Plateau, Abidjan, Côte d'Ivoire.
Phone : (225) 2720242951
Fax : (225) 2720242950
Email : eximabidjan@eximbankindia.in

Dhaka
Madhumita Plaza, 12th Floor, Plot No. 11,
Road No. 11, Block G,Banani,
Dhaka, Bangladesh - 1213.
Phone : (88) 01708520444
E-mail : eximdhaka@eximbankindia.in

Dubai
Level 5, Tenancy lB,
Gate Precinct Building No. 3,
Dubai International Financial Centre,
PO Box No. 506541, Dubai, UAE.
Phone : (971) 43637462
Fax : (971) 43637461
E-mail : eximdubai@eximbankindia.in

Johannesburg
2nd Floor, Sandton City Twin Towers East,
Sandhurst Ext. 3,
Sandton 2196,
Johannesburg,
South Africa.
Phone : (27) 113265103
Fax : (27) 117844511
E-mail : eximjro@eximbankindia.in

Nairobi
Unit 1.3, The Oval,
Jalaram Road,
Westlands,
Nairobi, Kenya.
Phone : (254) 741757567
E-mail : eximnairobi@eximbankindia.in

São Paulo
Unit - 1603, World Trade Center,
Avenida das Nações Unidas 12.551,
São Paulo 04578-903, Brazil
E-mail : eximsaopaulo@eximbankindia.in

Singapore
20, Collyer Quay, #10-02,
Singapore 049319.
Phone : (65) 65326464
Fax : (65) 65352131
E-mail : eximsingapore@eximbankindia.in

Washington D.C.
1750 Pennsylvania Avenue NW, Suite 1202,
Washington D.C. 20006,
United States of America.
Phone : (1) 2022233238
Fax : (1) 2027858487
E-mail : eximwashington@eximbankindia.in

India Exim Bank

Centre One Building, 21st Floor,
World Trade Centre Complex,
Cuffe Parade, Mumbai - 400 005.

Ph. : (9122) 22172600

E-mail : ccg@eximbankindia.in
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