


**FOREIGN TRADE OF THE STATE OF ACRE, BRAZIL, BETWEEN 2019 AND 2022: AN ANALYSIS OF COMMERCIAL INTERACTIONS**

**Ana Carolina Silva de Souza<sup>A</sup>, Tamara Maria de Souza Carvalho<sup>B</sup>, Francisco Bezerra de Lima Júnior<sup>C</sup>, Rodrigo Duarte Soliani<sup>D</sup>, Pollyana Rufino de Souza Oliveira<sup>E</sup>, Leonardo Augusto Rodrigues da Silva Nora<sup>F</sup>, Thais Diniz Reis Drumond<sup>G</sup>**



ARTICLE INFO	ABSTRACT
<p><b>Article history:</b></p> <p><b>Received</b> 26 June 2023</p> <p><b>Accepted</b> 22 September 2023</p>	<p><b>Purpose:</b> The objective of this study was to analyze import and export operations in the state of Acre between 2019 and 2022, aiming to understand the importance of local foreign trade and its recent advancements.</p>
<p><b>Keywords:</b></p> <p>Foreign Trade; Exports; Imports; Economic Development; Acre.</p>	<p><b>Theoretical framework:</b> The continuous evolution of trade interactions between nations is crucial for economic development, regardless of a country's economic stage, and foreign trade emerges as a fundamental pillar for this growth. However, despite Brazil being one of the largest global economies, its exports still do not reach their full potential, highlighting the importance of studying foreign trade, especially in the context of the state of Acre, due to its strategic location and potential in the Amazon Region.</p>
	<p><b>Methodology:</b> This study adopts a descriptive approach and quantitative methodology to meticulously analyze import and export operations in the period from 2019 to 2022, using official data from the Ministry of Development, Industry, Trade, and Services (MDIC), available on the Comex Stat electronic platform.</p>
	<p><b>Findings:</b> The analysis recorded a notable increase in exports, mainly to Peru, the United States, and Hong Kong, driven by the growth of exports of wood, nuts, corn, and soybeans, while imports also grew, with China being the main source of imported products. Maritime transport emerged as the predominant mode for both exports and imports, highlighting the importance of the Pacific Highway for the state's commercial transactions.</p>
	<p><b>Research, Practical &amp; Social implications:</b> Future research should investigate how the understanding of the presented data can influence the planning for sustainable economic growth in Acre, as well as its global integration in trade, considering relations with strategically neighboring countries.</p>

<sup>A</sup> Bachelor of Administration. Instituto Federal do Acre (IFAC). Rio Branco, Acre, Brasil.  
E-mail: [anac27728@gmail.com](mailto:anac27728@gmail.com) Orcid: <https://orcid.org/0009-0007-1990-1967>

<sup>B</sup> Bachelor of Administration. Instituto Federal do Acre (IFAC). Rio Branco, Acre, Brasil.  
E-mail: [tamaracarvalho1520@gmail.com](mailto:tamaracarvalho1520@gmail.com) Orcid: <https://orcid.org/0009-0000-2377-7216>

<sup>C</sup> Master in Regional Development. Instituto Federal do Acre (IFAC). Rio Branco, Acre, Brasil.  
E-mail: [francisco.junior@ifac.edu.br](mailto:francisco.junior@ifac.edu.br) Orcid: <https://orcid.org/0000-0003-3170-5145>

<sup>D</sup> Doctor in Environmental Technology. Instituto Federal do Acre (IFAC). Rio Branco, Acre, Brasil.  
E-mail: [rodrigo.soliani@ifac.edu.br](mailto:rodrigo.soliani@ifac.edu.br) Orcid: <https://orcid.org/0000-0003-3354-6838>

<sup>E</sup> Master in Professional and Technological Education. Instituto Federal do Acre (IFAC). Rio Branco, Acre, Brasil. E-mail: [pollyana.oliveira@ifac.edu.br](mailto:pollyana.oliveira@ifac.edu.br) Orcid: <https://orcid.org/0000-0002-2336-3010>

<sup>F</sup> Specialist in Auditing and Finance. Instituto Federal do Acre (IFAC). Rio Branco, Acre, Brasil.  
E-mail: [leonardo.nora@ifac.edu.br](mailto:leonardo.nora@ifac.edu.br) Orcid: <https://orcid.org/0009-0004-8019-7209>

<sup>G</sup> Master in Business Administration. Instituto Federal do Acre (IFAC). Rio Branco, Acre, Brasil.  
E-mail: [thais.drumond@ifac.edu.br](mailto:thais.drumond@ifac.edu.br) Orcid: <https://orcid.org/0000-0001-6043-8416>

**Originality/Value:** The results indicate that Acre is strategically expanding its trade based on diversification, integration with key partners, and logistical adaptation, positioning itself for a relevant role in the global scenario and contributing to the development of the Amazon Region.

Doi: <https://doi.org/10.26668/businessreview/2023.v8i10.3696>

## COMÉRCIO EXTERIOR DO ESTADO DO ACRE, BRASIL, ENTRE 2019 E 2022: UMA ANÁLISE DAS INTERAÇÕES COMERCIAIS

### RESUMO

**Objetivo:** O objetivo deste estudo foi analisar as operações de importação e exportação no estado do Acre entre 2019 e 2022, visando compreender a importância do comércio exterior local e seus avanços recentes.

**Referencial teórico:** A evolução contínua das interações comerciais entre nações é crucial para o desenvolvimento econômico, independentemente do estágio econômico do país, e o comércio exterior emerge como um pilar fundamental para esse crescimento. No entanto, apesar de o Brasil ser uma das maiores economias globais, suas exportações ainda não atingem todo o potencial, destacando a importância do estudo do comércio exterior, especialmente no contexto do estado do Acre, devido à sua localização estratégica e potencialidades na Região Amazônica.

**Metodologia:** Este estudo adota uma abordagem descritiva e uma metodologia quantitativa para analisar minuciosamente as operações de importação e exportação no período de 2019 a 2022, utilizando dados oficiais do Ministério do Desenvolvimento, Indústria, Comércio e Serviços (MDIC), disponíveis na plataforma eletrônica do Comex Stat.

**Resultados:** A análise registrou um notável aumento nas exportações, principalmente para Peru, Estados Unidos e Hong Kong, impulsionado pelo crescimento das exportações de madeira, castanha, milho e soja, enquanto as importações também cresceram, com a China sendo a principal origem dos produtos importados. O transporte marítimo emergiu como o modal predominante para exportações e importações, destacando a importância da Estrada do Pacífico para as transações comerciais do estado.

**Pesquisa, Implicações práticas e Sociais:** Pesquisas futuras devem investigar como o entendimento dos dados apresentados pode influenciar o planejamento para o crescimento econômico sustentável do Acre, bem como sua integração global no comércio, levando em consideração as relações com países vizinhos estratégicos.

**Originalidade/Valor:** Os resultados indicam que o Acre está expandindo seu comércio de forma estratégica, baseada na diversificação, integração com parceiros-chave e adaptação logística, o que o posiciona para um papel relevante no cenário global, contribuindo para o desenvolvimento da Região Amazônica.

**Palavras-chave:** Comércio Exterior, Exportações, Importações, Desenvolvimento Econômico, Acre.

## COMERCIO EXTERIOR DEL ESTADO DE ACRE, BRASIL, ENTRE 2019 Y 2022: UN ANÁLISIS DE LAS INTERACCIONES COMERCIALES

### RESUMEN

**Propósito:** El objetivo de este estudio fue analizar las operaciones de importación y exportación en el estado de Acre entre 2019 y 2022, con el objetivo de comprender la importancia del comercio exterior local y sus avances recientes.

**Marco teórico:** La evolución continua de las interacciones comerciales entre las naciones es crucial para el desarrollo económico, independientemente de la etapa económica de un país, y el comercio exterior emerge como un pilar fundamental para este crecimiento. Sin embargo, a pesar de ser Brasil una de las mayores economías globales, sus exportaciones aún no alcanzan su máximo potencial, destacando la importancia de estudiar el comercio exterior, especialmente en el contexto del estado de Acre, debido a su ubicación estratégica y potencial en la Amazonía. Región.

**Metodología:** Este estudio adopta un enfoque descriptivo y una metodología cuantitativa para analizar minuciosamente las operaciones de importación y exportación en el período 2019 a 2022, utilizando datos oficiales del Ministerio de Desarrollo, Industria, Comercio y Servicios (MDIC), disponibles en el Comex Stat. plataforma electrónica.

**Hallazgos:** El análisis registró un aumento notable en las exportaciones, principalmente a Perú, Estados Unidos y Hong Kong, impulsadas por el crecimiento de las exportaciones de madera, nueces, maíz y soja, mientras que las importaciones también crecieron, siendo China el principal origen. de productos importados. El transporte marítimo surgió como el modo predominante tanto para las exportaciones como para las importaciones, destacando la importancia de la Carretera del Pacífico para las transacciones comerciales del estado.

**Investigación, implicaciones prácticas y sociales:** Las investigaciones futuras deberían investigar cómo la comprensión de los datos presentados puede influir en la planificación para el crecimiento económico sostenible en Acre, así como su integración global en el comercio, considerando las relaciones con países estratégicamente vecinos.

**Originalidad/Valor:** Los resultados indican que Acre está expandiendo estratégicamente su comercio a partir de la diversificación, la integración con socios clave y la adaptación logística, posicionándose para un rol relevante en el escenario global y contribuyendo al desarrollo de la Región Amazónica.

**Palabras clave:** Comercio Exterior, Exportaciones, Importaciones, Desarrollo Económico, Acre.

## INTRODUCTION

The ongoing evolution of commercial interactions between nations is increasingly recognized as a pivotal factor in driving economic development and national progress (Lobão et al., 2017). Neglecting this significance would constitute a costly error, jeopardizing the competitive strategies of nations, with a particular impact on Brazil. Foreign trade emerges as a cornerstone for growth, irrespective of a country's economic stage (Van Den Berg, 2016).

International transactions play a pivotal role in the global economy, serving as a direct catalyst for economic growth and its ensuing positive outcomes. The expansion of production and the consequent generation of wealth, as underscored by Malizia et al. (2021), naturally stem from this interconnected process. This dynamic encourages specialization, as nations channel their efforts into producing goods and services in which they hold comparative advantages, ultimately fostering heightened efficiency and productivity. Through international trade, countries access a wide array of products and services that may not be efficiently produced domestically (Hannibal & Knight, 2018). This extensive array of options culminates in an enhancement of the quality of life, affording access to goods and services that would otherwise be scarce or out of reach (Cohen, 2019).

Despite its status as one of the world's largest economies, Brazil has not fully harnessed the potential of its exports in proportion to its GDP. According to World Bank data, Brazilian exports of goods and services lag behind the global average of 30% (WB, 2023). Brazil's contribution to the global volume of goods exports is modest, standing at only 1.2%, and decreasing to 0.7% when focusing solely on manufactured products (Castelo & Marinho, 2021).

Given the outlined scenario, the significance of delving into foreign trade takes center stage, with a particular emphasis on the Brazilian landscape and its diverse subregions. Within this framework, the leading role of the state of Acre becomes evident, influenced by both its strategic location and distinctive Amazonian potential (Da Silva et al., 2021). The state's advantageous geographical position, situated in close proximity to neighboring South American

nations, confers upon it a position of significance in facilitating cross-border trade (Bicalho, 2013).

The abundant Amazonian biodiversity, combined with the distinctive natural resources and cultural characteristics of the region, presents unparalleled opportunities for the state of Acre to position itself as a prominent participant in international trade (Silva et al., 2016). Gaining insight into the underlying dynamics of export and import activities in Acre assumes a pivotal role, laying the essential groundwork for shaping policies that aim to fortify this critical sector.

While examining the worldwide statistics for Brazil's exports and imports, one cannot help but notice the understated presence of Acre in the foreign trade landscape. Nevertheless, it is crucial to underscore that the state predominantly channels its exports towards two neighboring countries, Peru and Bolivia, thus emphasizing the significance of infrastructure like international bridges. Gaining a comprehensive understanding of the export and import processes in Acre constitutes a pivotal prerequisite for formulating policies aimed at bolstering this sector.

This study is dedicated to examining the evolution of import and export activities within the state of Acre. It commences with an initial hypothesis highlighting the significance of local foreign trade and recent advancements in these operations. Within this framework, the primary objective of this article is to conduct a comprehensive analysis of commercial activities in Acre spanning the years from 2019 to 2022. To accomplish this goal, the research revolves around three fundamental aspects: firstly, the identification of products that featured prominently in import and export operations; secondly, an analysis of the primary modes of transportation employed in these transactions; and lastly, the identification of the principal trading partners with whom the state engaged during this period.

In this way, the structure of this article is delineated as follows: beyond this introduction, the article is partitioned into four sections. The second section introduces the theoretical framework supporting the research, followed by an explanation of the methodology applied. The fourth section presents the results and discussions, ultimately leading to the fifth section, where the final conclusions of this work are situated.

## **THEORETICAL FRAMEWORK**

### **Foreign Trade of Brazil: Balance of Exports and Imports From 2010 to 2022 and the Role of Acre**

The dynamics of the global economy are in constant flux, reshaping the world's economic landscape. Foreign trade, both in its broader context and within the Brazilian scenario, embodies the negotiations between nations, encompassing the import and export of products and services across territorial and international borders (Ludovico, 2017). International trade often wields significant influence over the Gross Domestic Product (GDP) of many countries, particularly those with a strong focus on exports (Ali et al., 2023). However, Brazil, despite its robust economy, has struggled to assume a prominent role on the global stage, primarily recognized as a major exporter of primary goods and raw materials (Callegari et al., 2018).

Brazil's role in the global trade arena has yet to fulfill the full potential typically expected of an emerging nation, particularly in terms of exporting manufactured goods. Data provided by the Brazilian Foreign Trade Association (AEB, 2021) makes it clear that all 14 primary items exported by the country are commodities, underscoring a decline in competitiveness within the manufacturing sector. AEB's projections regarding export and import transactions for the upcoming years paint an encouraging picture: Brazil is poised to relinquish its current modest position, ranked 26th in global exports, with ambitions to ascend 3 to 5 places. A parallel scenario is foreseen for imports, where Brazil, presently situated in the 29th position, may ascend by 3 to 5 rungs in the hierarchy of importing nations.

In this context, the purpose of Table 1 below is to provide a quantitative presentation of Brazilian exports and imports from 2010 to 2022. The data is sourced from Comex Stat, a system developed by the Ministry of Industry, Foreign Trade, and Services (MDIC), facilitating access to information and statistics related to Brazil's foreign trade.

Table 1: Brazil's exports and imports, from the years 2010 to 2022, in FOB value (US\$)

<b>Year</b>	<b>Exports</b>	<b>Imports</b>	<b>Trade balance</b>
2010	200.434.134.826	183.336.964.846	17.097.169.980
2011	253.666.309.507	227.969.756.701	25.696.552.806
2012	239.952.538.158	225.166.426.069	14.786.112.089
2013	232.544.255.606	241.500.886.459	-8.956.630.853
2014	220.923.236.838	230.823.018.796	-9.899.781.958
2015	186.782.355.063	173.104.259.077	13.678.095.986
2016	179.526.129.214	139.321.357.653	40.204.771.561
2017	214.988.108.353	158.951.444.003	56.036.664.350
2018	231.889.523.399	185.321.983.502	46.567.539.897
2019	221.126.807.647	185.927.967.580	35.198.840.067
2020	209.180.241.655	158.786.824.879	50.393.416.776
2021	280.814.577.460	219.408.049.180	61.406.528.280
2022	334.136.038.220	272.610.686.946	61.525.351.274

Source: Adapted from Comex Stat (2023).

Analyzing the data, it is evident that Brazilian foreign trade has experienced significant fluctuations in recent years. In 2013, exports totaled US\$ 232 billion, while imports reached the figure of US\$ 241 billion, resulting in a deficit of -US\$ 8,956,630,853 in the trade balance. The situation worsened in 2014 when imports exceeded exports by approximately US\$ 230 billion, marking the worst result since 1999. This deficit was the result of multifaceted factors, including the political and economic crisis in Argentina, the devaluation of commodities, especially iron ore, and the increase in fuel imports (Silva et al., 2020).

However, 2015 provided some relief as the trade balance registered a surplus of US\$ 186 billion, following the negative balance of the previous year. Nonetheless, despite this surplus, Brazilian exports to the international market experienced a decline of approximately 14.1%, influenced by domestic economic slowdown and the strengthening of the dollar (SEBRAE, 2016).

The year 2016 was marked by a remarkable trade surplus of US\$ 40.2 billion, despite total imports amounting to US\$ 139 billion, which was lower than in 2015. However, this period was characterized by stagnant trade, reflecting a multitude of economic and political challenges that affected the country, including the turbulence that culminated in the impeachment of Dilma Rousseff and the subsequent presidency of Michel Temer (Doval & Actis, 2016).

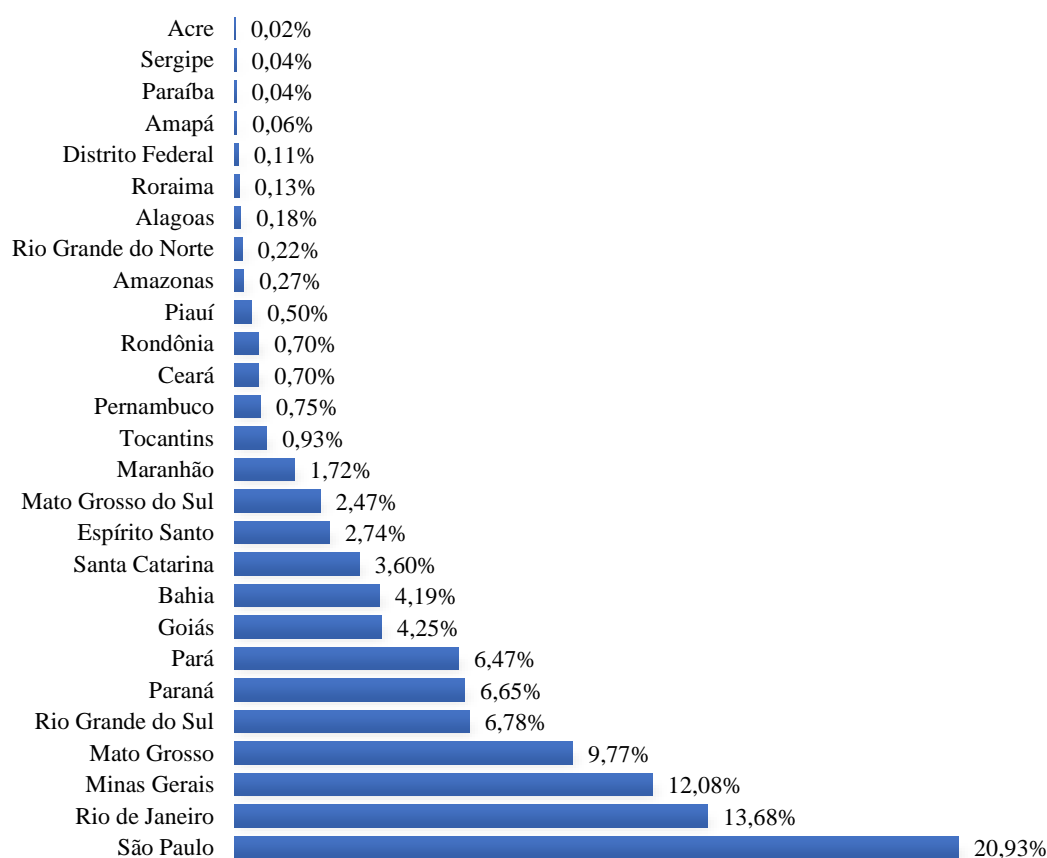
Starting in 2017, there was a remarkable resurgence in the Brazilian trade balance, reaching a record high. Exports totaled US\$214 billion, while imports amounted to US\$158 billion. Therefore, 2017 marked substantial growth compared to the previous year, encompassing both exports of primary and semi-manufactured products, as well as manufactured goods.



According to Comex Stat records, exports in 2022 showed a significant growth of 19.1%, totaling US\$ 334 billion. This increase resulted in a notable surplus in the Brazilian trade balance, reaching US\$ 61.8 billion, surpassing the 2021 figure of US\$ 61.4 billion.

Considering the context of the historical series of Brazil's foreign trade discussed, we will now delve into a comprehensive analysis of the country's federative units. To initiate this examination, we will focus our attention on Figure 1, which outlines the import volumes reported by the states in 2022. This approach will provide us with a more profound insight into the dynamics of commercial transactions throughout the entirety of Brazil during this period.

Figure 1: Share of export volume by Brazilian states in 2022



Source: Adapted from Comex Stat (2023).

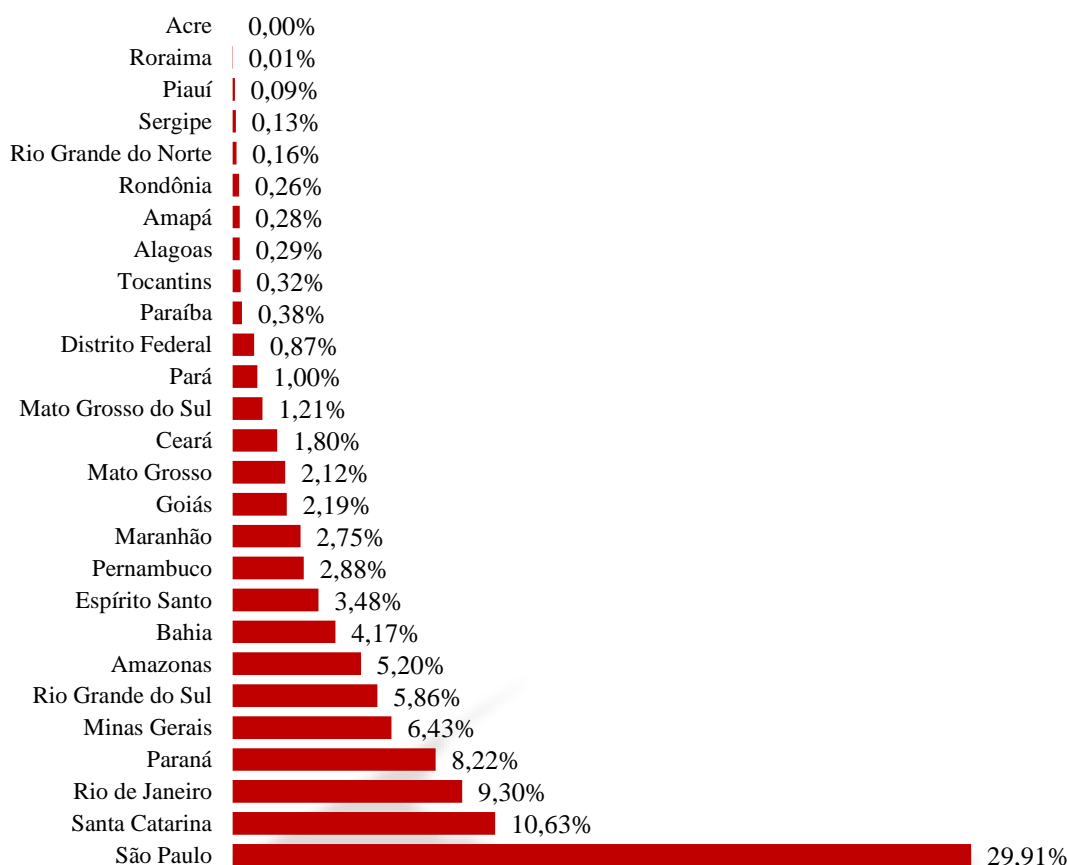
When analyzing the state-level data for the period from January to December 2022, the graph above clearly indicates that São Paulo takes the lead, contributing 20.93% of the total, which amounts to US\$ 69.6 billion. Furthermore, several other states hold significant influence in this regard; Rio de Janeiro secures the second position with 13.68%, totaling US\$ 45.5 billion, closely followed by Minas Gerais at 12.8%, with a total of US\$ 40.2 billion. This distribution underscores the robust export performance of Southeastern states, with the

Northern Region, primarily represented by the state of Pará, also making noteworthy contributions.

Among the primary exporting states, Pará, within the context of the Northern Region, distinguishes itself as one of the top five contributors to Brazilian exports, with a share of 6.47%. It is relevant to emphasize that the main products exported by Pará include raw materials, particularly iron ore, as well as manufactured goods, food products, chemicals, mineral fuels, lubricants, and related materials.

However, it is noteworthy that states in the Northern and Northeastern regions, including Acre, Sergipe, and Paraíba, make a comparatively smaller contribution to the total exports. Furthermore, Figure 2 below illustrates the percentage of imports by Brazilian states throughout the year 2022.

Figure 2: Share of import volume by Brazilian states in 2022



Source: Adapted from Comex Stat (2023).

Examining the data, it is evident that São Paulo leads with 29.91%, closely followed by Santa Catarina with 10.63%, and then Rio de Janeiro with 9.30%. An important observation is that the top three states in the import ranking belong to the Southern and Southeastern regions



of Brazil, with Minas Gerais and Amazonas also reporting substantial percentages, expanding their influence to other regions.

It's worth highlighting that the state of Amazonas, situated in the Northern Region, also stands out prominently in the import ranking with 5.20%. This can be attributed primarily to the presence of the Manaus Free Trade Zone, which streamlines the transportation of goods to other tax-exempt states (Scholz Karl et al., 2022). In this context, the primary items imported by Amazonas encompass transportation machinery and equipment, chemicals, manufactured goods, mineral fuels, lubricants, and related products.

On the other hand, the three states with less prominence in terms of imports are Piauí, in the Northeast Region, with 0.09%, followed by Roraima, with only 0.01%, and Acre, in the Northern Region, with an insignificant 0.00%. It is worth noting that, according to a study by Silva and Marques (2019), despite Acre's limited role in the national foreign trade scenario, imports and exports play a locally significant role in the state's economy, a topic that will be further explored in this work.

## **METHODOLOGY**

In order to attain the stated aims of this research, a descriptive methodology was opted for. As elucidated by Apuke (2017), descriptive research aims to portray the characteristics of a specific population or phenomenon, seeking to establish connections between variables. Many studies fall into this category, and their distinguishing feature is the use of standardized methods for data collection. Vaismoradi and Snelgrove (2019) further emphasize that this type of research aims to provide a comprehensive description of a phenomenon or situation, especially its current state, enabling an in-depth analysis of the specifics of an individual, situation, or group, while also revealing the interrelationships between events.

Regarding the methodological approach, this research will adopt a quantitative focus. This approach revolves around collecting and analyzing numerical and measurable data to address specific research questions. As highlighted by Queirós et al. (2017), quantitative research is characterized by the use of quantification, both in data collection and its treatment through statistical techniques. This approach is often employed in studies aiming to identify causal relationships, patterns, and generalize results to a broader population. Quantitative research relies on quantifiable data collected through instruments such as questionnaires, databases, evaluation scales, controlled experiments, and structured observations (Cleland, 2015).

One of the prominent characteristics of quantitative analysis is the pursuit of objectivity and impartiality in the obtained results (Quick & Hall, 2015). Official data for the period from 2019 to 2022, which encompasses the time before, during, and after the Covid-19 pandemic, were sourced from publications by the Ministry of Development, Industry, Trade, and Services - MDIC, accessible through the Comex Stat electronic platform (Comex Stat, 2023). This system facilitates the retrieval of information regarding Brazil's foreign trade, offering monthly insights into the country's exports and imports based on the SISCOMEX (Integrated Foreign Trade System) and declarations from exporters and importers.

Data collection took place between March and July 2023, and to analyze the obtained data and create graphs and tables, Microsoft Office Excel spreadsheet software was used.

### **Profile of the State of Acre**

Acre, one of Brazil's 27 states, is situated in the southwestern part of the Northern Region and shares borders with two other Brazilian states: Amazonas to the north and Rondônia to the east. Additionally, it shares international borders with Bolivia to the southeast and Peru to the south and west. The state covers a total area of 164,123.040 square kilometers, with a resident population of 830,026 people (IBGE, 2022). Acre is notable for its low population density, with just 5.06 inhabitants per square kilometer (IBGE, 2022). The state's population has grown relatively recently as it was effectively settled by Brazilians. The capital, Rio Branco, serves as the seat of the state's executive, legislative, and judicial branches. Other municipalities with populations exceeding thirty thousand inhabitants include Cruzeiro do Sul, Feijó, Sena Madureira, and Tarauacá.

The state plays a significant role as an exporter of Brazil nuts and timber, and it has also been the country's primary rubber producer (Guariguata et al., 2017). Acre's history is marked by its incorporation into Brazilian territory on November 17, 1903, through the Treaty of Petrópolis, an agreement between Bolivia and Brazil. Full integration occurred starting in 1920, with the state's administration carried out by a governor appointed by the President of the Republic. In a significant milestone, on June 15, 1962, Law 4,070 was signed by President João Goulart, elevating Acre to the status of a state (Acre, 2023a).

## **RESULTS AND DISCUSSION**

To achieve the objectives set forth in this study, comprehensive research was undertaken, covering both product exports and imports, as well as other relevant details related

to the traded items during this period. The data concerning Acre's imports and exports from 2019 to 2022 are summarized in Table 2 below.

Table 2: Exports and imports of Acre in FOB value (US\$) (2019-2022)

<b>Year</b>	<b>Exports (A)</b>	<b>Imports (B)</b>	<b>Trade balance (A-B)</b>
2019	32.853.264,00	1.959.594,00	30.893.670,00
2020	33.955.033,00	2.853.498,00	31.101.535,00
2021	48.837.789,00	3.741.216,00	45.096.573,00
2022	54.365.656,00	5.247.469,00	49.118.187,00

Source: Adapted from Comex Stat (2023).

Examining Table 2 provides a clear insight into the outcomes of sales and acquisitions in recent years within the context of the state of Acre. It notably highlights the sustained growth of exports from 2019 to 2022. Particularly, between 2021 and 2022, exports saw a remarkable surge, reaching a significant peak of US\$ 54.3 million in 2022. This marks a tenfold difference when compared to the imports for the same year, which totaled just over US\$ 5.2 million, resulting in a trade surplus of US\$ 49.1 million.

It is important to highlight that the period between 2019 and 2022 was marked by the Covid-19 outbreak, which impacted foreign trade activities in various states, including Acre. Issues related to strategies and political decisions hindered an effective response to the pandemic scenario, as discussed by Knaul et al. (2021). Initially, the Presidency of the Republic downplayed the severity of the pandemic, delaying the adoption of more appropriate measures for the different socioeconomic realities of the country (Peci et al., 2023).

Examining the figures, it becomes evident that the revenues from exports and imports in 2019 were significantly lower compared to the subsequent years, resulting in a trade balance of only US\$30.89 million. In 2020, the disparities were less pronounced, but noticeable growth was still observed. In the following year, 2021, exports doubled, and imports continued to rise, resulting in a trade surplus of US\$45.09 million.

Given this comprehensive analysis of the period in focus, Table 3 is presented, highlighting the most prominent products in the exports of the state of Acre. This contributes to a deeper understanding of the evolution of foreign trade during this time frame.

Table 3: Main products exported in Acre (2019-2022)

Year	Description	FOB value (US\$)	%
2019	Wood and derivatives	14.459.196,00	44%
	Cattle and derivatives	5.819.191,00	18%
	Brazil nuts	4.192.688,00	13%
	Pigs and derivatives	1.336.140,00	4%
	Corn	953.314,00	3%
	Soybeans	525.546,00	2%
	(Σ) other products	5.567.189,00	17%
	<b>Total</b>	<b>32.853.264,00</b>	<b>100%</b>
2020	Wood and derivatives	13.138.916,00	39%
	Brazil nuts	3.591.266,00	11%
	Edible offal (beef and pork), chilled or frozen	3.368.247,00	10%
	Cattle and derivatives	3.365.633,00	10%
	Pigs and derivatives	2.019.433,00	6%
	Corn	1.466.218,00	4%
	Soybeans	1.225.609,00	4%
(Σ) other products	5.779.711,00	17%	
	<b>Total</b>	<b>33.955.033,00</b>	<b>100%</b>
2021	Wood and derivatives	16.265.141,00	33%
	Brazil nuts	12.306.200,00	25%
	Soybeans	7.282.504,00	15%
	Edible offal (beef and pork), chilled or frozen	3.493.523,00	7%
	Pigs and derivatives	2.116.123,00	4%
	Corn	718.744,00	1%
	Cattle and derivatives	395.773,00	1%
(Σ) other products	6.259.781,00	13%	
	<b>Total</b>	<b>48.837.789,00</b>	<b>100%</b>
2022	Wood and derivatives	17.433.880,00	32%
	Soybeans	14.346.342,00	26%
	Brazil nuts	9.465.745,00	17%
	Corn	3.286.175,00	6%
	Edible offal (beef and pork), chilled or frozen	2.862.189,00	5%
	Pigs and derivatives	1.533.532,00	3%
	(Σ) other products	5.437.793,00	10%
	<b>Total</b>	<b>54.365.656,00</b>	<b>100%</b>

Source: Adapted from Comex Stat (2023).

In this regard, it becomes evident that the state of Acre has witnessed a remarkable upswing in its export activities over the past four years. According to the foreign trade statistical records provided by the Ministry of Development, Industry, Trade, and Services - MDIC, in 2022, the state exported a total of US\$ 54.37 million, signifying a substantial 65% growth compared to previous years. Conversely, imports have also experienced a significant surge, escalating from US\$ 1.96 million in 2019 to US\$ 5.25 million in 2022, marking a notable 168% increase. Despite this more pronounced increase in imports, Acre continues to export approximately 10 times more than it imports.

Among the primary exports of the state, wood and its derivatives take the lead. Brazil nuts also hold a significant presence in the export market from 2019 to 2022, along with edible by-products of cattle and pigs, which have remained steady in the state's trade activities. These

products have primarily found their way to markets like Peru, the United States, and Hong Kong since 2019.

Furthermore, it's worth noting the substantial increase in corn and soybean exports, with significant growth rates of 15% and 26%, respectively, in 2021 and 2022. This surge was driven by the implementation of agribusiness policies initiated by the state government in 2019 (Cortner et al., 2019).

Despite the substantial growth in the foreign trade sector, it's essential to highlight that Acre continues to hold a relatively low ranking among states, standing at 7th place within the Northern Region and 26th place nationwide. Additionally, its contribution to Brazil's total exports remains modest, accounting for only 0.02%, as illustrated in Figure 1 of this study.

Deepening the analysis, a relevant consideration is the examination of the most commonly used modes of transportation in the export and import operations of the state of Acre. This information can be observed in Table 4, which details the main types of transportation used from 2019 to 2022.

Table 4: Main modes of transportation used for exports and imports in Acre (2019- 2022)

Year	Mode of Transportation	Exports (%)	Imports (%)
2019	Maritime	71,90%	47,10%
	Road	27,42%	48,47%
	Air	0,68%	4,43%
	<b>Total</b>	<b>100,00%</b>	<b>100,00%</b>
2020	Maritime	71,40%	49,89%
	Road	27,93%	25,64%
	Air	0,67%	24,47%
	<b>Total</b>	<b>100,00%</b>	<b>100,00%</b>
2021	Maritime	73,04%	49,94%
	Road	26,54%	27,63%
	Air	0,42%	22,43%
	<b>Total</b>	<b>100,00%</b>	<b>100,00%</b>
2022	Maritime	74,41%	44,59%
	Road	25,05%	7,33%
	Air	0,54%	25,78%
	Own means <sup>1</sup>	0,00%	22,30%
	<b>Total</b>	<b>100,00%</b>	<b>100,00%</b>

<sup>1</sup>According to note number 0025 from April 19, 2018, by the Integrated Foreign Trade System (Siscomex) portal, "own means" refers to a specialized transportation method used when the exported cargo is self-propelled, such as exporting an airplane or a bus. It's important to note that this definition applies regardless of whether the exporter owns the vehicle used for transporting the cargo abroad.

Source: Adapted from Comex Stat (2023).

The analysis of transportation modes used in the export and import operations of goods reveals significant disparities. Maritime transport emerges as the primary method for exporting products, underlining its importance and prevalence in this context (Soliani, 2022). Interestingly, maritime transport also becomes Acre's primary choice for imports starting in

2020, with the use of maritime containers becoming the prevailing method for transporting goods, especially via the Pacific Ocean route. As stated by Ellis (2018), the increasing significance of the Pacific Ocean in the national trade landscape is not only due to the expanding Asian market but also the necessity to strengthen partnerships and promote regional growth among South American nations.

In this context, as noted by Wegner and Fernandes (2018), the governments of Peru and Brazil joined in a substantial collaboration to establish an innovative road route known by various names, such as the Transoceanic Highway, Interoceanic Highway, or Pacific Road. This ambitious initiative seeks to connect the most remote regions of the South American continent by charting a land route that crosses the Atlantic Ocean, originating in Brazil, traversing the territory of Acre, and culminating at the Pacific Ocean, where exports would then proceed through Peru (Koga et al., 2022).

According to Arevalo and Merlo (2020), the Transoceanic Highway is more than just a road; it is a strategic endeavor with the potential to stimulate trade, boost economic development, and deepen regional integration. By shortening distances and strengthening ties between these neighboring countries, this route emerges as a promising link between the Atlantic and the Pacific, outlining new horizons for hemispheric connectivity.

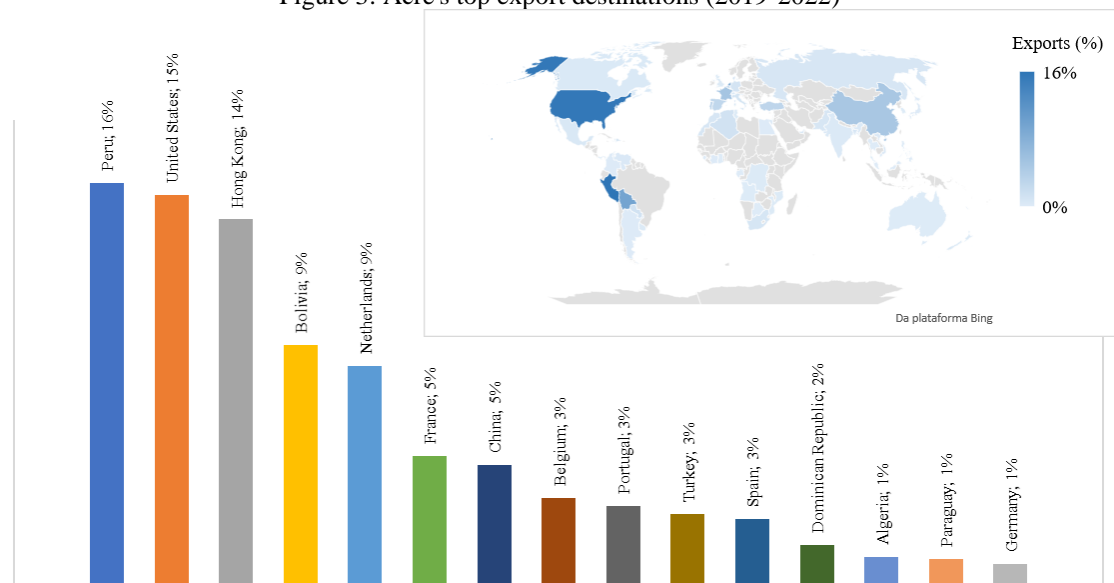
Road transportation is the second most commonly used mode, and its percentage is notably similar for both exports and imports. This balance can be largely attributed to the crucial role of road transport in connecting the entire Brazilian territory. According to Soliani et al. (2023), road transport accounts for 65% of the total goods in the Brazilian transportation matrix and contributes to 6.8% of the GDP.

However, it is important to note a significant change in the year 2022, with a substantial reduction in imports through the road transportation mode, while air transportation experiences notable growth. This trend suggests that air transportation, despite having a minimal share in exports between 2019 and 2021, accounted for 25.78% of imports in 2022, aligning itself with other modes and showing a significant increase.

Given this information, it is crucial to emphasize the primary export destinations originating from the state of Acre. This understanding is vital for comprehending the target market, crafting strategic policies, and optimizing logistical planning (Xuan et al., 2023). Figure 3 provides a clear presentation of the predominant destinations for products exported from Acre.



Figure 3: Acre's top export destinations (2019-2022)



Source: Adapted from Comex Stat (2023).

Analyzing this data reveals a clear trend of the state of Acre diversifying its export markets between 2019 and 2022. During this period, Peru emerges as the top destination for exports, comprising roughly 16% of the total. The United States closely follows at 15%, with Hong Kong at 14%. Collectively, these three countries account for 45% of Acre's total exports. Notably, there has also been a remarkable 60% growth in export volume over the past four years.

It's noteworthy that these three primary recipient countries for Acrean exports are located on different continents and geographically distant regions: South America, North America, and Asia. This geographic diversification in Acre's exports underscores the global reach that its products have successfully attained.

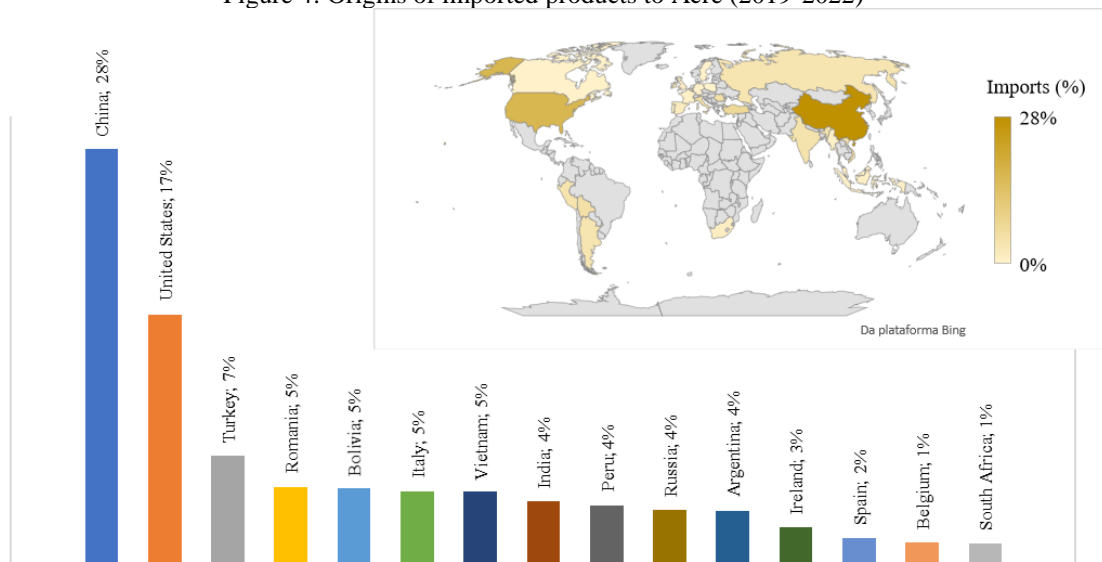
Situated in the western part of the Amazon, Acre shares its borders with Bolivia and Peru, both of which represent highly promising consumer markets. Furthermore, its strategic position with regard to Asian countries, where there is a demand for agricultural products, opens up opportunities in international trade (Acre, 2023b). With two neighboring countries serving as its primary export destinations, Acre emphasizes the significance of infrastructure, including international bridges (Barros et al., 2021). These investments have facilitated the transportation of 25% of its exported goods to these neighboring countries, with 16% going to Peru and 9% to Bolivia.

Moreover, as outlined in the research conducted by Barros et al. (2021), the finalization of the Pacific Road—a binational route linking the northwestern regions of Brazil to the

southern coast of Peru through Acre—holds the potential to metamorphose Acre into a pivotal logistical and productive center within the Northern Arc. This transformation extends beyond mere cargo transit, as these enhanced integration measures possess the capacity to elevate production and trade levels within the state and its neighboring regions. This, in turn, grants access to economies of scale crucial for the viability of the interoceanic route to regional and Asia-Pacific markets.

Upon completing the characterization of Acre's exports, it is equally vital to extend this analysis to the state's imports. This allows us to gain a comprehensive understanding of the region's international trade dynamics. Figure 4 provides an illustration of the primary sources of product imports within the state, showcasing the diversity of countries engaged in the realm of foreign trade.

Figure 4: Origins of imported products to Acre (2019-2022)



Source: Adapted from Comex Stat (2023).

There's no denying that China holds a prominent position in the imports of the state of Acre, accounting for 28% of the total share. Following closely, we find the United States at 17%, with Turkey in third place at 7%. When we juxtapose these data with the region's export figures, it becomes evident that the primary countries of origin for imports are similarly situated in Asia, Europe, and North America. This consistent sourcing pattern underscores Acre's robust commercial ties with these geographical regions, thereby showcasing the extent of its transcontinental trade relationships.

Underlining the substantial demand originating from the Asian continent, it is imperative to underscore the potential for optimization within the realm of international trade.

As elucidated by Gil Barragán and Aguilera Castillo (2017), South America's deeper trade connections with global markets primarily revolve around Atlantic ports. However, with the burgeoning Asian economy, nations along the Pacific Ocean rim assume a strategic position, rendering the exploration of more direct routes increasingly appealing. This impels Brazil to contemplate integration into a fresh transportation logistics framework, encompassing Pacific ports in neighboring countries like Peru. Such an approach would truncate shipping routes and enhance connectivity, facilitating more efficient access to a burgeoning market (Parkinson de Castro, 2021).

The remarkable diversity of nations from various corners of the world engaging in trade partnerships with the Acrean market signifies the potential for expansion in both exports and imports. Despite occupying the lowest rank in national representation, the presented data substantiates the fact that Acre's foreign trade has experienced significant growth. Nevertheless, it still confronts substantial challenges, including logistical hindrances such as distance and transportation conditions. Furthermore, the lack of economic activity diversification and reliance on a limited range of exportable products can render the state economically vulnerable. Complying with the regulations and international standards stipulated by destination markets also presents a formidable obstacle. Investing in technology and workforce development is paramount to ensuring the quality of exported goods and bolstering Acre's international competitiveness.

To overcome these challenges, effective collaboration between the government, the private sector, and educational and research institutions is essential. Encouraging entrepreneurship, promoting international trade fairs and events, and enhancing Acre's global brand can unlock fresh business prospects and broaden the horizons of the state's foreign trade. Acre harbors substantial potential in the realm of international relations, capitalizing on its natural resources and strategic location. The growth of this sector plays a pivotal role in propelling the local economy, generating employment opportunities, and enhancing the quality of life for its residents. With a robust strategic blueprint and well-directed investments, Acre can firmly establish itself as a significant hub in international trade, furthering sustainable development in the Amazon Region.

## **CONCLUSION**

The objective of this study was to conduct a thorough examination of exports and imports in the state of Acre from 2019 to 2022. The findings illustrate the progression of these

transactions during this period, revealing a noteworthy surge in exports. To be more specific, there was a 65% increase in 2022 when compared to previous years, and imports also experienced a substantial upswing. It is noteworthy that, despite this increase in imports, Acre maintains an export-to-import ratio approximately 10 times higher than its imports.

A comprehensive examination of the primary exported products reveals that wood and its derivatives take the lead, followed by Brazil nuts and soy, both exhibiting noteworthy increases. This growth is propelled by agribusiness policies implemented since 2019. Additionally, maritime transportation emerges as the predominant mode for both exports and imports, underscoring the strategic significance of the interoceanic highway.

The geographical diversity of export destinations is apparent, with Peru, the United States, and Hong Kong taking the lead. The analysis highlights a remarkable 60% growth in exports over the past four years, showcasing the global expansion of Acre's products. In the domain of imports, China stands out as Acre's primary trading partner, followed by the United States and Turkey. This alignment with key trade partners is also evident in exports, indicating a burgeoning integration within the international trade landscape.

The examination of transportation modes underscores the prevalence of maritime transport, followed by road transport, and notably, air transport, which gains significance in the 2022 imports. Maritime transport solidifies its role as a fundamental cornerstone of Acre's foreign trade, while the expansion of air transport indicates a strategic response to evolving logistical needs.

Nevertheless, it is crucial to observe that Acre still occupies a relatively less prominent position in the national context, ranking as the 7th most relevant state in the Northern Region and the 26th at the national level. While the numbers may seem modest in comparison to other regions, the state holds latent potential for expansion in both exports and imports.

This study offers a comprehensive analysis of Acre state's foreign trade, revealing consistent growth in both export and import operations over the years. These findings indicate an expansion process underpinned by diversification strategies, collaboration with key partners, and adaptation to logistical complexities. Future research should delve into how a deeper understanding of this data can shape strategic decisions aimed at fostering sustainable economic growth and Acre's strategic integration into the global trade landscape. Additionally, it would be pertinent to investigate how relations with neighboring countries can propel the state into a pivotal role in international trade, considering its potential to contribute to the economic development of the Amazon Region, despite its relatively modest size.

## REFERENCES

- Acre. (2023a). *Acre*. Governo do Estado, Rio Branco, AC.
- Acre. (2023b). *Governo do Estado e Apex debatem fortalecimento das exportações acreanas*. Governo do Estado, Rio Branco, AC.
- AEB. (2021). *Revisão da Balança Comercial para 2021*. Associação de Comércio Exterior do Brasil, Rio de Janeiro, RJ.
- Ali, A. N., Al-Ibraheemi, S. A. R. A., & Obaid, A. A. (2022). BRICS Bloc in Light of International Economic Challenges: A Study of Reality and Dimensions. *International Journal of Professional Business Review*, 7(4), e0661. <https://doi.org/10.26668/businessreview/2022.v7i4.e661>
- Apuke, O. D. (2017). Quantitative research methods: A synopsis approach. *Kuwait Chapter of Arabian Journal of Business and Management Review*, 6(11), 40–47, 2. <https://doi.org/10.12816/0040336>
- Arevalo, J. L. S., & Merlo, E. M. (2020). Social-economic analysis of physical integration between Brazil and Peru: Focus for the regions linked to the interoceanic highway. *International Journal of Economics and Financial Issues*, 10(3), 102–110. <https://doi.org/10.32479/ijefi.9313>
- Barros, P. S., Severo, L. W., Silva, C. H. R., & Carneiro, H. C. (2021). *A Ponte do Abunã e a Integração da Amacro ao Pacífico*. Ipea - Instituto de Pesquisa Econômica Aplicada.
- Bicalho, A. M. D. S. M. (2013). Estrada do Pacífico na Integração Sul-Americana e o Acre. *Espaço Aberto*, 3(2), 185–208. <https://doi.org/10.36403/espacoaberto.2013.2122>
- Callegari, J., Melo, T. M., & Carvalho, C. E. (2018). The peculiar insertion of Brazil into global value chains. *Review of Development Economics*, 22(3), 1321–1342. <https://doi.org/10.1111/rode.12386>
- Castelo, C. E. F., & Marinho, R. de S. (2021). O Comércio Internacional do Acre Com o Mercado Andino: Identificando Problemas. *UÁQUIRI - Revista do Programa de Pós-Graduação em Geografia da Universidade Federal do Acre*, 3(2), 52–63. <https://doi.org/10.29327/268458.3.2-3>
- Cleland, J. (2015). Exploring versus measuring: considering the fundamental differences between qualitative and quantitative research. In: *Researching Medical Education*. John Wiley & Sons, Ltd. <https://doi.org/10.1002/9781118838983.ch1>
- Cohen, S. D. (2019). *Fundamentals of U.S. Foreign Trade Policy: Economics, Politics, Laws, and Issues*. New York, Routledge. <https://doi.org/10.4324/9780429037269>
- Comex Stat. (2023). *ComexVis*. Ministério do Desenvolvimento, Indústria, Comércio e Serviços – MDIC, Brasília, DF, Brasil.
- Cortner, O., Garrett, R. D., Valentim, J. F., Ferreira, J., Niles, M. T., Reis, J., & Gil, J. (2019). Perceptions of integrated crop-livestock systems for sustainable intensification in the Brazilian Amazon. *Land Use Policy*, 82, 841–853. <https://doi.org/10.1016/j.landusepol.2019.01.006>
- Da Silva, D. R., Souza, M. P., & Pedrozo, E. Á. (2021). Inovação e Complexidade Amazônica: Desafios e Benefícios da Ponte do Abunã em Rondônia. *Revista de Administração e Negócios da Amazônia*, 13(4), 161–175. <https://doi.org/10.18361/2176-8366/rara.v13n4p161-175>

Doval, G. P., & Actis, E. (2016). The political and economic instability of Dilma rousseff's second government in Brazil: Between impeachment and the pragmatic turn. *India Quarterly*, 72(2), 120–131. <https://doi.org/10.1177/0974928416637926>

Ellis, E. (2018). *The Future of Latin America and the Caribbean in the Context of the Rise of China*. Center for Strategic and International Studies, Washington, DC.

Gil Barragán, J. M., & Aguilera Castillo, A. (2017). China y América Latina: ¿Socios estratégicos o competidores? *Revista Escuela de Administracion de Negocios*, 82, 73–90. <https://doi.org/10.21158/01208160.n82.2017.1642>

Guariguata, M. R., Cronkleton, P., Duchelle, A. E., & Zuidema, P. A. (2017). Revisiting the 'cornerstone of Amazonian conservation': a socioecological assessment of Brazil nut exploitation. *Biodiversity and Conservation*, 26, 2007–2027. <https://doi.org/10.1007/s10531-017-1355-3>

Hannibal, M., & Knight, G. (2018). Additive manufacturing and the global factory: Disruptive technologies and the location of international business. *International Business Review (Oxford, England)*, 27(6), 1116–1127. <https://doi.org/10.1016/j.ibusrev.2018.04.003>

IBGE. (2022). *Cidades e Estados*. Instituto Brasileiro de Geografia e Estatística, Brasília, DF, Brasil.

Knaul, F. M., Touchton, M., Arreola-Ornelas, H., Atun, R., Anyosa, R. J. C. C., Frenk, J., Martínez-Valle, A., McDonald, T., Porteny, T., Sánchez-Talanquer, M., & Vitoria, C. (2021). Punt politics as failure of health system stewardship: Evidence from the COVID-19 pandemic response in Brazil and Mexico. *Lancet Regional Health - Americas*, 4(100086), 100086. <https://doi.org/10.1016/j.lana.2021.100086>

Koga, D. M., Brown, I. F., Fearnside, P. M., Salisbury, D. S., & Silva, S. S. da. (2022). Serra do Divisor National Park: a protected area under threat in the south-western Brazilian Amazon. *Environmental Conservation*, 49(2), 74–82. <https://doi.org/10.1017/s0376892922000091>

Lobão, M. S. P., Corrêa, A. de S., & Schneider, M. B. (2017). Região Norte do Brasil e sua inserção no comércio internacional brasileiro. *Interações (Campo Grande)*, 18(2), 87–102. <https://doi.org/10.20435/inter.v18i2.1433>

Ludovico, N. (2017). *Logística internacional: Um enfoque em comércio exterior*. 4ª ed., Editora Saraiva.

Malizia, E., Feser, E. J., Renski, H., & Drucker, J. (2021). *Understanding Local Economic Development*. 2nd Edition, Routledge.

Parkinson de Castro, J. C. (2021). Analytical Studies about the Bioceanic Corridor. *Interações (Campo Grande)*, 1061–1076. <https://doi.org/10.20435/inter.v22i4.3484>

Peci, A., González, C. I., & Dussauge-Laguna, M. I. (2023). Presidential policy narratives and the (mis)use of scientific expertise: Covid-19 policy responses in Brazil, Colombia, and Mexico. *Policy Studies*, 44(1), 68–89. <https://doi.org/10.1080/01442872.2022.2044021>

Queirós, A., Faria, D., & Almeida, F. (2017). Strengths and limitations of qualitative and quantitative research methods. *European Journal of Education Studies*, vol. 3, 9. <https://doi.org/10.46827/ejes.v0i0.1017>



Quick, J., & Hall, S. (2015). Part Three: The Quantitative Approach. *Journal of Perioperative Practice*, 25, 10,192-196. <https://doi.org/10.1177/175045891502501002>

Scholz Karl, J., Karl, A. A., Feiler, A. R.; & Gazaniga, F. (2022). Viabilidade tributária da instalação de empresas do setor industrial na Zona Franca de Manaus. *Cadernos de Finanças Públicas*, 21(03). <https://doi.org/10.55532/1806-8944.2022.149>

SEBRAE. (2016). *Boletim de Comércio Exterior - Período de 2012 a 2016*. Serviço de Apoio às Micro e Pequenas Empresas do Rio Grande do Norte, Natal, RN, Brasil.

Silva, D. W., Claudino, L. S., Oliveira, C. D., Matei, A. P., & Kubo, R. R. (2016). Extrativismo e Desenvolvimento no Contexto da Amazônia Brasileira. *Desenvolvimento e Meio ambiente (DeMA)*, Vol. 38, 557-577. <http://dx.doi.org/10.5380/dma.v38i0.44455>

Silva, L. L. S. da, & Marques, R. de O. (2019). O papel das cidades-gêmeas da região norte brasileira na articulação do comércio exterior. *Caderno de Geografia*, 30(60), 128–151. <https://doi.org/10.5752/p.2318-2962.2020v30n60p128-151>

Silva, M. R. da, Schmidt Filho, R., Souza, D. M. de, & Bezerra, F. K. T. (2020). Exportações, inserção comercial e especialização produtiva: uma análise para os produtos primários brasileiros entre 2001 e 2016. *Revista Estudo & Debate*, 27(3). <https://doi.org/10.22410/issn.1983-036x.v27i3a2020.2487>

Soliani, R. D. (2022). Logistics and Transportation in Brazilian Agribusiness: The Flow of Grain Production. *Journal of Economics, Business and Management*, v. 10, p. 210-219. <https://doi.org/10.18178/joebm.2022.10.3.701>

Soliani, R. D., Silva, L. B., & Barbosa, A. S. (2023). The Effects of Fatigue on Truck Drivers in Cargo Transportation: A Literature Review. *Interciencia*, v. 48, p. 228.

Vaismoradi, M., & Snelgrove, S. (2019). Theme in Qualitative Content Analysis and Thematic Analysis. *Forum: Qualitative Social Research*, 20(3). <https://doi.org/10.17169/fqs-20.3.3376>

Van Den Berg, H. (2016). *Economic Growth And Development*. 3rd ed, World Scientific Publishing Company.

WB. (2023). *Brasil: aspectos gerais*. The World Bank, Brasília, DF, Brasil.

Wegner, R. C., & Fernandes, M. P. (2018). The Amazon and the internationalisation of Chinese companies. *Contexto Internacional*, 40(2), 361–385. <https://doi.org/10.1590/S0102-8529.2018400200006>

Xuan, T. T. T., Quach, P. H., Thinh, N. V., Hoa, T. T., & Tu, N. T. (2023). The Efficiency and the Performance of the Logistics Global Supply Chain Activities to Vietnam Exportation: an Empirical Case Study. *International Journal of Professional Business Review*, 8(4), e01730. <https://doi.org/10.26668/businessreview/2023.v8i4.1730>