

THE U.S.-CHINA TRADE WAR: COMMERCIAL EFFECTS ON LATIN  
AMERICA IN THE PERIOD 2018-2021

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“Declaro que este trabajo de grado no ha sido presentado con anterioridad para optar a un título, ya sea en igual forma o con variaciones, en esta o en cualquiera otra universidad”. Art. 92, parágrafo, Régimen Estudiantil de Formación Avanzada.

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## ABSTRACT

The trade war between the United States and China was a tug-of-war of tariff impositions between both countries, which destabilised the flow of global trade. Since U.S.-China trade war in 2018, both countries have seen the economies suffer from such tensions and decisions taken due to tariffs increase. Although the impact of the trade war at the time was not measurable, its consequences can now be explained. This paper aims to describe the trade and economic effects of the US-China trade war in Latin America, especially the cases of Mexico and Brazil, in terms of both Chinese and U.S. imports. The theoretical perspective is based on Palmer & Morgan's "a theory of Foreign Policy" which explain the specific decisions and patterns of behaviour of leaders and states from the theory of realism. This research is qualitative in nature, descriptive in scope and inductive in logic. The collection instrument is a lecture file where the decoded information read is divided into 6 categories such as concept, author, title, space and time, objective of the research, findings of the text, and personal observation. This input is used in the analysis instrument, which is based on document analysis which implies the revision and interpretation of documents to obtain meaning, understanding and developed knowledge from them. Finally, the expected results showed that exports from Latin American countries increased insignificantly in those products that were affected by the imposition of tariffs between the United States and China.

**Keywords:** China, International trade Latin America, Tariffs, United States.

## RESUMEN

La guerra comercial entre Estados Unidos y China fue un tira y afloja de imposiciones arancelarias entre ambos países, que desestabilizó el flujo del comercio mundial. Desde la guerra comercial entre Estados Unidos y China en 2018, ambos países han visto cómo las economías sufren tales tensiones y se han tomado decisiones debido al aumento de los aranceles. Aunque el impacto de la guerra comercial en ese momento no era medible, ahora se pueden explicar sus consecuencias. Este artículo tiene como objetivo describir los efectos comerciales y económicos de la guerra comercial entre Estados Unidos y China en América Latina, especialmente los casos

de México y Brasil, en términos de importaciones tanto chinas como estadounidenses. La perspectiva teórica se basa en "una teoría de la política exterior" de Palmer & Morgan, que explica las decisiones específicas y los patrones de comportamiento de los líderes y estados desde la teoría del realismo. Esta investigación es de naturaleza cualitativa, de alcance descriptivo y de lógica inductiva. El instrumento de recolección es un archivo de lectura donde la información decodificada leída se divide en 6 categorías tales como concepto, autor, título, espacio y tiempo, objetivo de la investigación, hallazgos del texto y observación personal. Este insumo es utilizado en el instrumento de análisis, el cual se basa en el análisis documental lo que implica la revisión e interpretación de documentos para obtener de ellos significado, comprensión y conocimiento desarrollado. Finalmente, los resultados esperados mostraron que las exportaciones de los países latinoamericanos aumentaron de manera no significativa en aquellos productos que se vieron afectados por la imposición de aranceles entre Estados Unidos y China.

**Palabras clave:** China, Comercio internacional América Latina, Aranceles, Estados Unidos.

# THE U.S.-CHINA TRADE WAR: COMMERCIAL EFFECTS ON LATIN AMERICA IN THE PERIOD 2018-2021

## 1. INTRODUCTION

The former President Donald Trump in 2017 continued his relations with the president of China, Xi Jinping. Trump made public his interest to continue with the politic and commercial relationships between the two nations. In fact, the two presidents reached a preliminary trade agreement regarding beef, poultry, and electronic payments (CFR, 2022). However, in 2018 following Trump's "America first" agenda, the tensions started between both countries.

The American president blamed China of illegal and dishonest procedures to obtain U.S. technology at a decreased price. The president also reported via Twitter that the U.S. has a trade deficit of \$500 billion a year, with intellectual property theft of another \$300 billion (Smith, 2018). Consequently, there was concern that China was helping to depress job creations and seeking to weaken U.S international standing as well as its national security (Woo, 2018).

In early 2018, the U.S. announced forthcoming tariffs on trading partners such as Canada, European Union, Mexico, South Korea, China, and others (Bown & Kolb, 2022). For example, in January they imposed tariffs on all imported solar panels and washing machines not just the ones from China as well as a 25% tariff on steel imports and 10% on aluminium from all providers (Congressional Research Service , 2020). However, the tensions between China and the U.S. started when the latter stopped imposing tariffs on various countries but rather imposed tariffs specifically on China.



At that time, the U.S. began to worry about the consequences of the situation between both countries because of the amount of trading made within them. For instance, “over 41 percent of cloths, 72 percent of shoes and 84 percent of travel goods in the US market are made in China” (Niansheng, Shi, & Qi, 2018), which means that an increase of tariffs on any or all these products would add more taxes on customers.

In July 2018, the former president Trump decided to levy import tariffs on cars, hard disks, and aircraft parts by 25 percent representing \$34 billion dollar imports from China (SCMP, 2020). Thus, with this action the U.S. acted against the claims made by the Secretary of State, Rex Tillerson, to “no conflict, mutual respect and always searching for win-win solutions” (U.S. Department of State, 2017).

Subsequently, China retaliated immediately imposing 25 percent import tariffs on 545 U.S goods including agricultural, automobiles, and aquatic products worth \$34 billion dollar (SCMP, 2020). Based on these interactions a trade war was forecasted between the world’s largest economies. The Chinese government made clear from the beginning On Sino-US trade expressing their undesire of a trade war but clarified “we are not afraid of such a war” and that China will fight to the end at any cost to protect the interests of the country and the people, the spokesperson was quoted as saying by state-run Xinhua news agency (Times of India, 2018).

In August 2018, the U.S. imposes a 25 percent tariffs measured in \$16 billion dollars on Chinese iron, electrical machinery, railway products, instruments, and steel products to which China responded by applying 25% tariffs in motorcycles, orange juice, and bourbon worth \$16 billion dollars (SCMP, 2020). A month later in September 2018, the U.S places a 10 percent tariffs on a further \$200 billion dollars on Chinese imports. China responded by settling customs duties on \$60 billion U.S. goods (SCMP, 2020). Nonetheless, in December 2018 both countries called a

truce at the G20 summit in Argentina. The American government suspended increasing a tariff from 10% to 25% worth \$2 billion on Chinese goods that was to be imposed in January 2019 (SCMP, 2020).

Correspondingly, China suspended tariffs on cars and car parts for three months as well as restarted a purchase of U.S. soybeans (Congressional Research Service , 2020). Unfortunately, the truce lasted shortly after the U.S in May 2019 rose tariffs from 10% to 25% representing \$200 billion dollars (Congressional Research Service , 2020). However, China applied no tariff raise immediately but notified the increase of it by \$60 billion for the near future (SCMP, 2020).

Furthermore, the U.S. Department of Commerce reported the addition of Huawei to its entity list, meaning that American companies were disallowed to sell products to Chinese telecommunication companies without permission (CFR, 2022). Consequently, China announced the creation of its own entity list and put into action the increase with which they had threatened in the past on USD \$60 billion worth of U.S. products. In June, both countries called another truce at the G20 summit in Japan (Congressional Research Service , 2020). They agreed on retarding future new U.S. tariffs on \$300 billion dollar worth of Chinese goods (SCMP, 2020).

No longer after the former US president agreed to a truce, the US Treasury Secretary, determined that China is a currency manipulator (U.S Department of the Treasury, 2019), after the Central Bank of the Republic of China weakened the level of 7 yuan per dollar, something which has not happened since 2008 (Chen, 2018). Due to the actions of the Chinese government, the secretary of the Treasury made a commitment to the international monetary fund to counter China's Unfair Competitive Advantage (U.S Department of the Treasury, 2019).

In September, the U.S. imposed a 10% tariff on Chinese goods which represents \$125 billion dollars (SCMP, 2020). Nevertheless, both deputies came to an agreement where China exempted from imposing additional tariffs on products such as pesticides, animal feeds, lubricants, cancer drugs, soybeans, and pork (SCMP, 2020). For their part, the U.S. decided to delay new tariffs from October 1st to October 15th as an action of good will (SCMP, 2020).

In December 2019, while both countries agreed to a phase one trade deal and suspended tariffs that were set to be imposed, the American government reduced tariffs on \$120 billion dollars (CFR, 2022). Subsequently, in January both countries signed a trade deal when China announced a purchase of \$200 billion dollars of American goods as well as services, and the U.S. halved custom duties (CFR, 2022).

Showing their good will, in February 2020 China halves additional tariffs on automotive, agricultural products, chemicals, crude oil, whisky and seafood and abolished an import ban on live poultry American products. In May, China allowed imports of blueberry and barley, reported a tariff exemption from 79 American products, and booked the biggest purchase of corn (SCMP, 2020).

In September, the American government permitted short extensions to former tariff exemptions to face masks, respirators, Bluetooth tracking devices and musical instruments (Woo, 2018). Despite that, they banned cotton, hair products, computer parts, and apparel from four Chinese companies (Reuters, 2022). Regardless of the actions from the U.S, for another year longer China continued to exempt additional tariffs from sixteen products such as: medicines and grease oil (SCMP, 2020). In December, the American government announced the beginning of the blockage of all cotton imports from one Chinese company (SCMP, 2020).

During the beginning of the war the effects of it were not measurable because of unstable situation. When the effects of the war became visible the U.S. the cost of major appliances increased, whereas China's population who were most exposed to the U.S. tariffs suffered a 2.52 percent decrease in per-capita income and a 1.62 percent decrease in manufacturing employment (Kardashian, 2021). The effects of this trade war are not limited to its two principal actors, Latin America was one region influenced by it in different aspects.

Since China and the United States are the world leaders in terms of trade in both imports and exports, changes in the trade of either country will have an impact on other regions of the world. Hence, changes that countries other than China and the United States could have had due to the trade war could have been positive or negative in terms of an increase or decrease in imports and/or exports.

Changes in trade flow in Latin American countries may have had changes in their trade due to the war, as these countries have trade relations with both China and the United States. The Latin American region has more than a trade relationship with the United States, as the US is involved in diplomatic, economic, and military affairs in the region (León-Manríquez, 2017). Sino-LAC relations are more recent compared to relations with the U.S since these have only developed over the last years.

Due to the trade war, both the U.S and China may have been forced to expand their trade relations with Latin American countries because of a lack of trade between these parties. Therefore, the effects of this trade war are not limited to its two main actors, as Latin America could be a region influenced by it in different aspects.

This paper aims to analyse the impact on national economies by describing the commercial effects on Latin America of the U.S-China trade war in terms of U.S. and China imports from Latin America using pre-existing knowledge. Since it is a trade war, this research work is relevant in the economic and commercial area as it explains the potential changes that global commerce suffer due to the phenomenon. Thus, this academic paper associates such effects on the principal actors as well as characterises these on Mexico and Brazil. Since U.S.-China trade war in 2018, both countries have seen the economies suffer from such tensions and decisions taken due to tariffs increase. Although the impact of the trade war at the time was not measurable, its consequences can now be explained.

This document has four sections. The first section presents the review of the literature that includes eight articles analysed. This is followed by the methodology. The third section explains the results obtained, where the proposed objectives of the investigation are answered. Finally, the conclusions of the article, the references used, and the annexes are given.

## **2. LITERATURE REVIEW**

For this literature review, ten research projects were obtained from sources such as JSTOR, Nature, Oxford, Sage, Science Direct, Taylor and Francis, Scopus, and SpringerLink. These papers were each organised in an excel table sheet where they were analysed by their concept, author, title, space and time, objective of the research, findings of the text, and personal observation. Such categories serve as a method of filter to establish similarities and differences with the topic of this research. Based on that analysis, it has been selected the number of papers that contribute the most to this research and study the same topics.

According to distinct found research for the execution of this project, it was found that the majority of the papers, W. Chen, Chen & Dondeti (2020), Qiu & Wei (2019), Liu & T. Woo (2018) are presented in a timeline during 2018-2020. These explained the development of the trade war during the presidency of Donald Trump. During this time period, it can be observed the causes for the beginning of the tensions as well as the actions taken by both countries to counteract.

Specifically, W. Chen, Chen & Dondeti (2020) describe the actions taken by the United States as an attempt to prevent China from becoming the new superpower and thus maintain their relevant position in the world. Furthermore, the author suggests that the trade war is rather a war of technological domination. It is explained that in this century, the country that is able to control the advanced technology industry see itself in an economical and military manner (Chen, Chen, & Dondeti, 2020). Since 2017, The U.S. has decreased its exports of high technology while China has increased them (Chen, Chen, & Dondeti, 2020). By 2020, China was exporting around \$715 billion dollars while the United States was exporting \$153 billion dollars (Chen, Chen, & Dondeti, 2020). In this century, the country that controls the advanced technology industry has an advantage in terms of economy and military supremacy. Additionally, it is suggested that China reduces its ambition and that the U.S. stops putting pressure on Beijing.

Moreover, León-Manríquez (2017) analyses the threat to the American hegemony over Latin America due to the arrival of China to the region. This supremacy has developed due to U.S. diplomatic, economic, and military interventions in the region. León-Manríquez (2017) affirms that the relations between Latin America and U.S. can be divided into three different trends: the American hegemony over the Latin America; the relations that have been subject to periods of U.S. interest or disdain for developing countries in the Americas; lastly, there has been extended periods of repressed supremacy with times of agreement and good faith.

In addition, Emmanuel (2019) discusses China-LAC from a geopolitical perspective. It is explained that perceptions of China-Lac relations are structured into images of power, potential risks, and opportunity. Perceptions of power suggest that China is acting within this region because it represents a strategic space as well as its possible asymmetric power relations (Emmanuel, 2021). China's growth is seen as an opportunity due to the possibilities of cooperation with other developing countries. China's real intentions with the region are uncertain and therefore considered a risk (Emmanuel, 2021).

Although there is information on China's ascent in Latin America from the beginning of the century, this phenomenon is still under study and constant development. Wise & Ching (2018) discuss the different aspects that have led to the increase of the relations of China with Latin American countries in the twenty-first century as well as the effect of the current presence of China in the region. Additionally, the authors cover the history of the relations between China-LAC over the years.

In their work, Wise & Ching (2018) summarise the relations between LAC-China and described how such have intensified in the last three decades, especially after the start of the new century. To enlighten the latter affirmation, it is presented the case of China in 2016 which was the destination of nine per cent of Latin American exports (Wise & Ching, 2018). Furthermore, a year before, the president of China Xi Jinping announced an investment in the region of 250 USD billion within the next decade (Wise & Ching, 2018).

Additionally, Wise & Ching (2018) explain the expectations of the Chinese government with their internationalised development model, which anticipates Latin American countries to be stronger in their primary export of goods. Therefore, such outcome will impulse China's own growth and development. Their focus on natural resources is due to the deficit in those in China

and the need to feed their current and future vast population (Wise & Ching, 2018). The model previously mentioned explains the shift in direction of the imports and exports from some Latin American countries. This situation affects Latin American countries and can be analysed and understood from a commercial perspective.

By contrast, Wise & Ching (2018) also presents in their work the U.S.-China trade war influences on other aspects apart from commerce. For instance, it is showcased the benefits given to the economy of Latin American countries by the restrictions applied between the U.S. and China (Wise & Ching, 2018). Such benefits are obtained due to the fact that both countries, individually, counteracted the actions taken during the war increasing the exchange of products with other countries (Wise & Ching, 2018).

The closest research to this study is Gachúz (2018), who discusses the unequal commercial relation between Mexico and China as well as the commercial relation of the U.S. and Mexico, the effects of the trade war on the commercial exchanges between such countries. According to this research, the commercial deficit between Mexico and China is due to the exponential growth of the Chinese exports towards different economic sectors whilst the Mexican exports have had a slower and less diversified growth (Gachuz, 2018). Furthermore, the lack of institutional support from Mexico on their exports has only helped to aggravate matters (Gachuz, 2018).

Consequently, Gachúz (2018) is the person whose research project, topic, and categories are closer to the objective of this investigation because it focuses on the relation of Mexico and China during the U.S.-China trade war. However, this project will expand the sphere of investigation to the effects of the U.S.-China trade war on Latin American countries. Simultaneously, it is intended to explain the commercial and economic effects that said trade war



had on the protagonist countries. Finally, it is also expected to identify the potential changes that Latin American countries experienced due to the tensions between the U.S. and China.

### **3. METHODOLOGY**

This research is qualitative in nature as it seeks to describe, understand, and interpret the situation under study by considering the information collected (Hernández, Fernández, & Baptista, 2014). Moreover, the research is descriptive, such studies aim to specify the properties, characteristics and profiles of the people, groups, or societies (Hernández, Fernández, & Baptista, 2014). Furthermore, it has an inductive logic, it aims to reach general conclusions based on specific aspects of the subject (Hernández, Fernández, & Baptista, 2014).

In order to analyse the documents, the selected papers were first read and interpreted, then classified according to their relevance to the development of the objectives. Document analysis is the information analysis instrument in which documents are examined and interpreted in order to obtain meaning, understanding and to develop knowledge from them (Bowen, 2009). For this research project, a content analysis is implemented where information is organized into categories that are related to the central questions and objectives of the research project (Bowen, 2009). Additionally, the information was filed in a reading card composed by 5 rows in the following order: reference, main objective of the text, in-text citations, connections between in-text citations and the article, and questions.

For the development of the second objective of this research project, data on bilateral trade by products between countries such as the United States, China, Brazil, and Mexico were taken.

The data was taken from the Observatory of Economic Complexity. In addition, an attempt was made to corroborate the figures with the World Bank and with the official pages of the Chinese government, however, it was not possible to find that information. The data collected was on products that suffered an increase in tariffs between the United States and China; in addition to the products that were exported from Brazil and Mexico to China and the US. Such information was organized in tables<sup>1</sup> and assist in the analysis of the extent to which said war affected international trade between countries.

The aforementioned tables contain data on how much was exported in millions of dollars from China to the United States and from the United States to China. Both tables were categorized by years from 2015 to 2020, and by products. Then 4 more tables<sup>2</sup> were made showing how much was exported in millions of dollars in certain products from Brazil and Mexico to China and the US. For each table, a trend graph was made for all products between 2015 and 2020.

To organize the information, the products exported from China to the US on which Trump increased the tariffs are the same items considered to analyse the trade during that time between Brazil, Mexico, and the US. Therefore, it is sought to conclude if such Latin American countries benefited from trade was and therefore increased their trade relationship with the US simultaneously, the products exported from the US to China on which Xi Jinping increased tariffs are items considered for study trade between Brazil, Mexico, and China.

The goods chosen to carry out the analysis in terms of exports to the US are the following: washing machines and bottling machines, iron or steel articles, aluminium ore, automobiles, aircraft parts, iron ore, electrical machinery and electronics, iron rail products, musical

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<sup>1</sup> The tables with the export data between the US and China are shown in the annexes.

<sup>2</sup> The tables are shown in the annexes.

instruments, raw cotton, and hair products. Synchronously, the products chosen to consider exports to China are food, automobiles, motorcycles and bicycles, and strong liquor.

#### **4. RESULTS**

Experts believed that the trade war between the United States and China was a highly expected event. According to political scientist Graham Allison (2017), the conflict between the two countries can be seen as a result of the emergence of China as a new hegemonic power in the power scope that the United States possessed until then (Allison, 2017) . Allison (2017) forecasted the war before it began, and indeed the trade war unfolded. Thus, what remains to be done is to expand the effects of the trade war on both countries.

During 2019, the conflict continued to develop as measures taken by both countries were being implemented. Nevertheless, the impacts on some sectors during that year were not evident to a large extent due to delays in the implementation of the new tariffs (Hanson, 2020). In addition, U.S. companies also tried to delay adjustments in their value chains and thus avoid changes due to the new tariffs (Hanson, 2020). Another aspect affected was export volumes which were reduced, as for every 1% increase in tariffs, the volume of imports decreased by about 2% (Hanson, 2020). However, this was a short-term impact.

One of Trump administration's aims in imposing tariffs was to bring back lost manufacturing jobs in the country back to Americans (Yu, 2020). However, this objective was not achieved as tariffs were imposed in order to protect the market from Chinese imports, other imports were not taken into account. This resulted in products of Chinese origin being replaced by

Vietnamese or Bangladeshi products among the main ones instead of boosting American's own production (Hanson, 2020).

The replacement of Chinese products by Vietnamese or Bangladeshi products was not immediate. Although the imposition of tariffs in China significantly reduced Chinese exports to the U.S., these effects did not keep pace with the imposition of the tariffs. U.S. manufacturers and retailers took time to search for other suppliers which explains the delayed response as well as the fact that some business contracts with Chinese companies had not yet come to an end (Lingduo, Yi, Hong, & Guofeng, 2023).

In terms of the effects on firm-product level on Chinese exports to the U.S. seem not to be as significant as ones from previous commercial wars (Song & Zheng, 2022). In 2021 U.S. imports from China had decreased only 6.2% which shortly increased in 2022 up to 20% being a record year for U.S. imports (Dollar, 2022). Due to the technology war, there was certain variation by product category and the amount of increase each product suffered such as computers or agricultural machinery that rose quickly (Dollar, 2022).

As previously mentioned, Chinese products that suffered much increase for U.S. imports were shifted to Thailand, Malaysia, and Vietnam, the latter being the most representative (Dollar, 2022). Although Vietnam is a country with a less significant economy than China, it became the sixth biggest source of imports for the U.S. representing about 40% of the shortage in imports from China (Dollar, 2022). Vietnamese exports to the U.S. increased by more than 100% in categories such as toys, sports equipment, furniture, computer accessories, semiconductors, and telecommunication equipment (Dollar, 2022).

Other studies show that during 2018, the year the trade war began, intermediate and final goods manufactured in the United States were affected with an increase in price due to the sector's relationship with rising tariffs (Amiti, Redding, & Weinstein, 2019). This situation was experienced by several companies, that were accustomed to delivering their raw materials to China for assembly and import finished products. This specific of situation affects the U.S. in a greater scope than China since a higher proportion of U.S. companies depends on Chinese manufacturing centres.

US import tariffs were also found to have an impact on prices for domestic consumers and importers. However, for foreign exporters these tariffs presented a less significant impact on prices (Amiti, Redding, & Weinstein, 2019). Other authors state that price changes for some products were not significant due to a phenomenon known as compositional change (Lingduo, Yi, Hong, & Guofeng, 2023). Compositional change explains how low-priced goods are released from the market by the tariff hike since they could no longer hold their previous low prices, and high-priced goods were forced to lower their prices (Lingduo, Yi, Hong, & Guofeng, 2023).

Another effect of the tariff hike and the change in U.S. supply chains was a decrease in the variety of products available. This was due to the increase in the price of some products that were imported by the U.S. Such restriction of variety also led to a decrease in consumer welfare (Amiti, Redding, & Weinstein, 2019).

Although exports from China to the United States decreased on average by 16.47% due to the war, this impacted minorly on total exports from the Chinese government as there was trade diversion (Lingduo, Yi, Hong, & Guofeng, 2023). The decreases in exports from China were due to changes in quantities as the price of the products remained relatively unchanged. In addition, it was identified that for every 1% increase in a tariff, products would decrease by 0.69% on average.

A reduction in a country's exports tends to affect its industrial production. Therefore, an attempt was made to verify whether there was an effect on Chinese industrial production due to the increase in tariffs. The analysis carried showed that the sales of companies had no significant effect due to the protectionist decisions of the United States, however, the number of companies that suffered economic losses did increase (Lingduo, Yi, Hong, & Guofeng, 2023).

Other authors sought to determine how such trade war changed the distribution of land in the principal actors. In China, land supply functions as a monopoly administered by local governments. The study focuses on land supply to measure the development strategies of the country as this supply functions as a gauge since land is a means for industrial development and the allocation of resources such as land would unveil its strategies (Yang, Bin, Yulong, & Yang, 2022). Additionally, the study showed an increase in China's desire to continue its development of high-tech industries, while accelerating the transformation and upgrading of the industry to compete with the American government (Yang, Bin, Yulong, & Yang, 2022).

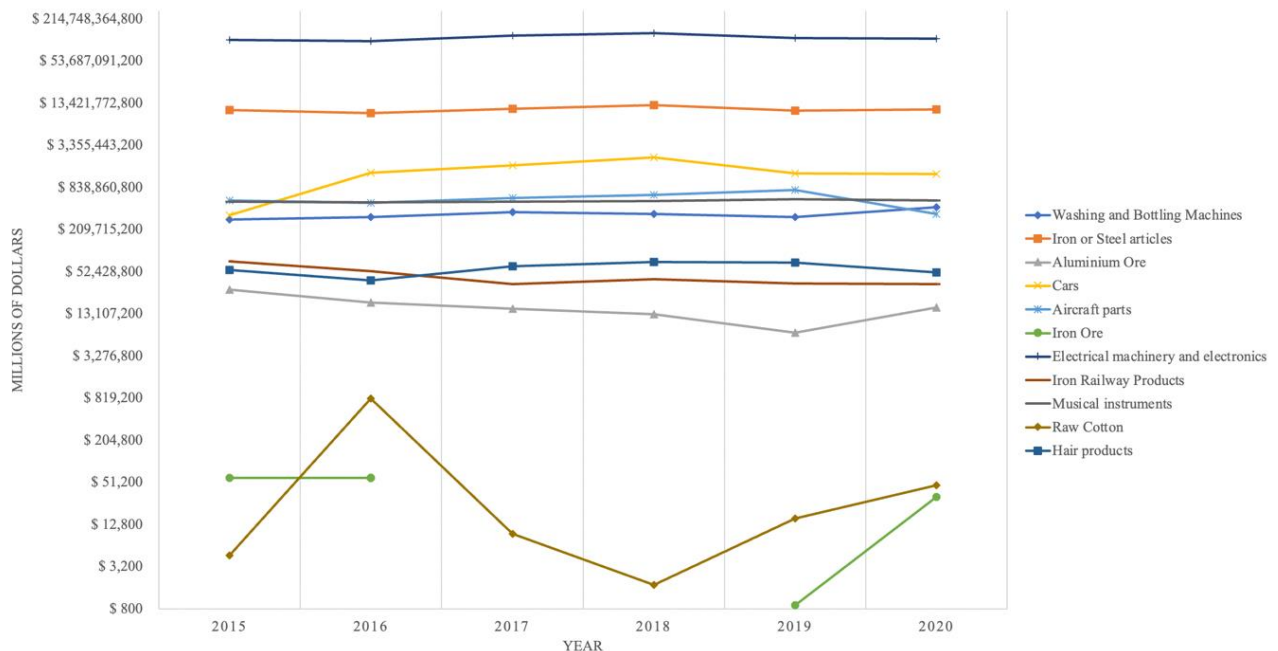
High-tech industry is important to both countries since both are superpowers in charge of constantly developing strategies to maintain their hegemony which is done by technology. China corroborated the importance of developing this industry locally when the U.S. restricted Chinese companies access to aspects of technology and key components of technology (Yang, Bin, Yulong, & Yang, 2022). The supply of land for high-tech development occurred in Chinese cities that were prone to the effects of the trade war, cities that exported to the U.S. Furthermore, it was implemented in cities with lower tax burdens and where nationalist sentiment was lower.

This land supply increased was applied after the failed negotiations in May 2019 between the U.S. and China. It was shown that for every 1% of Chinese dependence on the US, land concessions for high-tech related companies increased by 0.25% (Yang, Bin, Yulong, & Yang,

2022). At the time, Chinese local governments turned the situation into an opportunity for development and growth, so as not to continue depending on the U.S. in this sector.

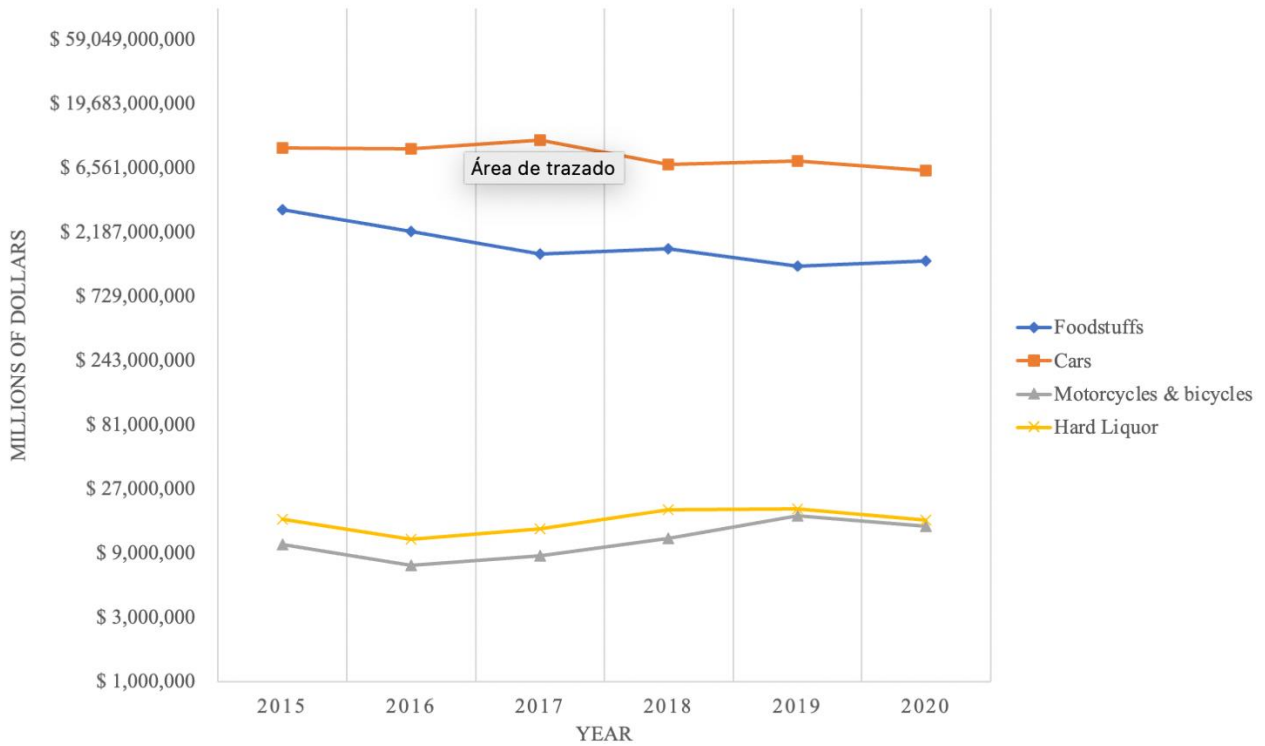
The increase in the supply of land for high-tech companies in China seems to have been a strategic response to China's dependence on the U.S. in this sector and an opportunity for the growth and development of the country. This occurs at a time when different products that were exported between the two countries suffered tariff increases, which could affect export flows. Subsequently, there can be seen figures 1 and 2, which are trend graphs for exports between China and the United States for certain products between 2015 and 2020.

**Figure 1. Exports from China to U.S.**



*Source: Personal*

**Figure 2.** Exports from U.S. to China



Source: Personal

In terms of the exports from China to the U.S. there was a decrease in exports of electrician machinery and electronics after the year 2018 when it reached its pick at \$132.520.000.000 USD worth in transactions. Data shows an increase in exports of said good from Brazil after the year 2017 when it escalated from \$617.236.595 USD to \$1.058.902.281 USD in 2019. Interestingly, the case for Mexico at the time was the opposite as exports of this good to the U.S. saw a decreased after the year 2018.

Another good that experienced a decrease in exports from China to U.S. was cars in the year 2018 after it had been increasing since 2015. However, the outlook for both Brazil and Mexico saw no improvement in the transaction of this good as exports to the U.S. from these countries also



decreased during the time. Thus, it is shown that although trade of cars from China to U.S. decreased, substitutes were sourced from other countries that included neither Brazil nor Mexico.

Iron or steel articles as well as washing and bottling machines were some goods whose trade behaviour from China to the U.S varied through the five-year period of this analysis. However, for both Mexico and Brazil this represented no advantage as trade of iron or steel articles from Brazil to the U.S decreased and trade from Mexico to the U.S. experienced no representative alteration. Additionally, exchange of washing and bottling machines from both Mexico and Brazil to the U.S. altered insignificantly.

In terms of the exports from the U.S. to China one of the most noticeable decreases occurred to foodstuffs which started to reduce from \$3.215.053.005 USD in 2015 to \$1.335.211.926 USD in 2020. Mexico benefited from said decrease after 2016 when exports of this good started to rise until they reached their peak in 2018 when exports had already quadrupled. However, after the year 2018 exports of foodstuffs between both Mexico and China decreased again.

The scene for Brazil on the matter changed after 2018 when exports of foodstuffs increased after they had been reducing since 2016. In this instance it can be said that some of the resources China stopped obtaining from the U.S. regarding foodstuffs were compensated by increasing trade transactions with Mexico and subsequently Brazil.

As the U.S., exports of cars from the U.S. to China suffered a reduction after 2017 when it went from \$10.510.880.276 USD and ended in \$6.244.481.033 USD in 2020. However, substitutes of this good might have been sourced from other countries since exports of cars from Mexico to China also decreased from \$1.106.564.632 USD in 2015 to \$378.283.267. Concurrently, in Brazil

trade of foodstuffs was particularly unstable as it navigated through peaks and valleys every year in the period 2015-2020.

## **5. DISCUSSION**

According to the analysed data on exports from Latin American countries to China and the United States, it can be concluded that the trade war between China and the U.S. have an insignificant had insignificant change in the flow of trade of Brazil and Mexico. Due to the fact that the amounts marketed by Mexico and Brazil in the chosen products presented unimportant increases, it can be assumed that both China and the United States chose other countries in the world as substitutes to supply themselves with the products that they stopped receiving from each other due to the increase in tariffs.

Since the US and China during the war period did not change their source of imports to Latin American countries, it is shown that both countries decided to maintain the commercial flow they had before the war in relation to Mexico and Brazil. This maintenance of the status quo is named in the theory of Morgan and Palmer that talks about the policies that the states acquire to seek two objectives that are maintenance or change.

## **6. CONCLUSIONS**

This article explores through different authors such as W. Chen, Chen & Dondeti; Emmanuel; León-Manríquez and others the effects of the trade war between China and the United States in both countries and in other Latin American economies such as Mexico and Brazil. The various sources used in this research allow us to know different perspectives on why the trade war arose and the background of the actions taken by both countries.

This research work is focused on how a trade war between two world leaders can affect developing countries that maintain trade relations with the protagonists. Contrary to what was expected at the beginning of the investigation, it was shown that the trade war did not have significant effects on countries such as Mexico and Brazil that maintained trade relations with both the US and China. In the same way, it is inferred that China and the US chose other economies to substitute the products that they could not obtain between them.

Finally, in the field of international business, the study of this phenomenon contributes to understanding the behavior of economies, as well as understanding the context that occurs before, during, and at the end of a trade war. In addition, to facilitate the understanding of the commercial effects to facilitate the creation of future articles that are related to this situation.

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## 8. ANNEXES

**Annexe 1. Table of exports from China to U.S.**

| PRODUCTS                             | YEAR               |                    |                    |                    |                    |                    |
|--------------------------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
|                                      | 2015               | 2016               | 2017               | 2018               | 2019               | 2020               |
| Washing and Bottling Machines        | \$ 289,721,777     | \$ 313,509,727     | \$ 370,841,790     | \$ 351,795,483     | \$ 315,493,568     | \$ 431,432,437     |
| Iron or steel articles               | \$ 10,634,929,590  | \$ 9,588,165,328   | \$ 11,131,000,000  | \$ 12,557,000,000  | \$ 10,472,000,000  | \$ 10,861,000,000  |
| Aluminium Ore                        | \$ 28,836,568      | \$ 18,932,976      | \$ 15,435,325      | \$ 12,882,806      | \$ 7,026,458       | \$ 15,949,083      |
| Cars                                 | \$ 334,236,500     | \$ 1,341,580,989   | \$ 1,740,136,137   | \$ 2,221,524,650   | \$ 1,316,812,374   | \$ 1,290,279,056   |
| Aircraft parts                       | \$ 541,056,059     | \$ 500,442,292     | \$ 586,137,988     | \$ 650,094,420     | \$ 767,263,108     | \$ 351,236,199     |
| Iron Ore                             | \$ 58,948          | \$ 58,592          | \$ -               | \$ -               | \$ 890             | \$ 31,587          |
| Electrical machinery and electronics | \$ 107,443,579,165 | \$ 103,542,518,955 | \$ 122,690,000,000 | \$ 132,520,000,000 | \$ 113,290,000,000 | \$ 111,030,000,000 |
| Iron Railway Products                | \$ 73,784,211      | \$ 53,251,724      | \$ 35,017,986      | \$ 40,401,324      | \$ 35,430,417      | \$ 34,630,803      |
| Musical instruments                  | \$ 520,690,854     | \$ 510,781,871     | \$ 519,370,927     | \$ 536,745,407     | \$ 566,431,848     | \$ 540,175,255     |
| Raw Cotton                           | \$ 4,660           | \$ 809,313         | \$ 9,362           | \$ 1,753           | \$ 15,462          | \$ 46,102          |
| Hair products                        | \$ 55,508,150      | \$ 38,822,236      | \$ 62,628,864      | \$ 71,765,493      | \$ 69,793,169      | \$ 51,344,478      |

**Annexe 2. Table of exports from U.S. to China**

| PRODUCTS               | YEAR             |                  |                   |                  |                  |                  |
|------------------------|------------------|------------------|-------------------|------------------|------------------|------------------|
|                        | 2015             | 2016             | 2017              | 2018             | 2019             | 2020             |
| Foodstuffs             | \$ 3,215,053,005 | \$ 2,197,167,290 | \$ 1,497,329,040  | \$ 1,654,452,406 | \$ 1,226,977,371 | \$ 1,335,211,926 |
| Cars                   | \$ 9,254,471,303 | \$ 9,031,961,788 | \$ 10,510,880,276 | \$ 6,889,793,959 | \$ 7,343,412,035 | \$ 6,244,481,033 |
| Motorcycles & bicycles | \$ 10,332,219    | \$ 7,314,559     | \$ 8,564,698      | \$ 11,505,521    | \$ 17,053,910    | \$ 14,094,104    |
| Hard Liquor            | \$ 15,868,238    | \$ 11,422,455    | \$ 13,527,003     | \$ 18,874,567    | \$ 19,096,744    | \$ 15,800,534    |

**Annexe 3. Table of exports from Mexico to China**

| PRODUCTS               | YEAR             |                |                |                |                |                |
|------------------------|------------------|----------------|----------------|----------------|----------------|----------------|
|                        | 2015             | 2016           | 2017           | 2018           | 2019           | 2020           |
| Foodstuffs             | \$ 94,764,340    | \$ 74,192,835  | \$ 151,784,303 | \$ 306,090,295 | \$ 199,322,672 | \$ 123,410,990 |
| Cars                   | \$ 1,106,564,632 | \$ 655,052,854 | \$ 793,059,028 | \$ 690,059,802 | \$ 590,935,510 | \$ 378,283,267 |
| Motorcycles & bicycles | \$ -             | \$ -           | \$ 998         | \$ 1,122       | \$ 256,163     | \$ 282,507     |
| Hard Liquor            | \$ 5,640,080     | \$ 3,896,144   | \$ 3,031,287   | \$ 6,233,384   | \$ 5,348,703   | \$ 3,998,887   |

**Annexe 4. Table of exports from Mexico to U.S.**

| PRODUCTS                             | YEAR              |                   |                   |                   |                   |                   |
|--------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                      | 2015              | 2016              | 2017              | 2018              | 2019              | 2020              |
| Washing and Bottling Machines        | \$ 24,168,266     | \$ 20,444,262     | \$ 28,591,775     | \$ 16,266,095     | \$ 33,401,127     | \$ 25,624,016     |
| Iron or steel articles               | \$ 4,483,215,796  | \$ 4,141,517,314  | \$ 4,699,253,412  | \$ 5,437,736,462  | \$ 5,489,180,735  | \$ 5,044,857,626  |
| Aluminium Ore                        | \$ -              | \$ 1,105,650      | \$ 693,106        | \$ -              | \$ -              | \$ -              |
| Cars                                 | \$ 24,223,642,723 | \$ 23,740,763,525 | \$ 29,604,022,182 | \$ 34,746,467,811 | \$ 38,176,831,949 | \$ 29,060,675,146 |
| Aircraft parts                       | \$ 552,768,563    | \$ 441,978,806    | \$ 458,894,455    | \$ 432,363,422    | \$ 438,625,471    | \$ 355,397,989    |
| Iron Ore                             | \$ -              | \$ 196            | \$ -              | \$ -              | \$ -              | \$ 3,842,633      |
| Electrical machinery and electronics | \$ 70,601,621,172 | \$ 66,254,965,644 | \$ 73,199,833,783 | \$ 73,980,754,463 | \$ 71,489,982,506 | \$ 67,309,439,054 |
| Iron Railway Products                | \$ -              | \$ 705,894        | \$ 1,051,410      | \$ 1,226,900      | \$ 749,520        | \$ 1,141,542      |
| Musical instruments                  | \$ 83,447,111     | \$ 74,669,741     | \$ 75,185,042     | \$ 84,878,386     | \$ 98,230,048     | \$ 79,883,984     |
| Raw Cotton                           | \$ 4,781,126      | \$ 2,317,007      | \$ 889,815        | \$ 3,430,837      | \$ 9,916,090      | \$ 600,994        |
| Hair products                        | \$ 370,513,254    | \$ 346,188,327    | \$ 346,860,005    | \$ 333,121,293    | \$ 303,997,908    | \$ 293,976,979    |

**Annexe 5. Table of exports from Brazil to China**

| PRODUCTS               | YEAR             |                  |                |                |                |                  |
|------------------------|------------------|------------------|----------------|----------------|----------------|------------------|
|                        | 2015             | 2016             | 2017           | 2018           | 2019           | 2020             |
| Foodstuffs             | \$ 1,250,165,194 | \$ 1,250,707,388 | \$ 548,917,457 | \$ 540,581,377 | \$ 909,523,981 | \$ 1,598,880,867 |
| Cars                   | \$ 236,735       | \$ 38,936        | \$ 191,853     | \$ 31,607      | \$ 173,105     | \$ 63,556        |
| Motorcycles & bicycles | \$ 76,629        | \$ 104,355       | \$ 96,191      | \$ 192,958     | \$ 770         | \$ 3,699         |
| Hard Liquor            | \$ 141,088       | \$ 163,566       | \$ 86,399      | \$ 176,231     | \$ 134,746     | \$ 138,586       |

**Annexe 6. Table of exports from Brazil to U.S.**

| PRODUCTS                             | YEAR              |                   |                   |                   |                     |                   |
|--------------------------------------|-------------------|-------------------|-------------------|-------------------|---------------------|-------------------|
|                                      | 2015              | 2016              | 2017              | 2018              | 2019                | 2020              |
| Washing and Bottling Machines        | \$ 3,967,606.00   | \$ 7,777,276.00   | \$ 5,914,251.00   | \$ 4,798,100.00   | \$ 5,061,419.00     | \$ 6,528,233.00   |
| Iron or steel articles               | \$ 339,551,756.00 | \$ 162,704,898.00 | \$ 379,699,125.00 | \$ 275,825,781.00 | \$ 259,925,808.00   | \$ 203,858,212.00 |
| Aluminium Ore                        | \$ 96,975,476.00  | \$ 36,485,603.00  | \$ 19,321,568.00  | \$ 23,572,457.00  | \$ 32,655,329.00    | \$ 8,238,661.00   |
| Cars                                 | \$ 7,004,680.00   | \$ 240,828,409.00 | \$ 182,048,338.00 | \$ 15,345,481.00  | \$ 3,662,679.00     | \$ 3,937,596.00   |
| Aircraft parts                       | \$ 250,812,780.00 | \$ 212,441,677.00 | \$ 228,353,844.00 | \$ 284,673,647.00 | \$ 223,169,675.00   | \$ 173,356,483.00 |
| Iron Ore                             | \$ 143,171,967.00 | \$ 152,426,944.00 | \$ 253,888,692.00 | \$ 310,266,566.00 | \$ 260,269,281.00   | \$ 205,848,446.00 |
| Electrical machinery and electronics | \$ 690,059,602.00 | \$ 648,767,619.00 | \$ 617,236,595.00 | \$ 742,771,002.00 | \$ 1,058,902,281.00 | \$ 925,333,464.00 |
| Iron Railway Products                | \$ 1,294,126.00   | \$ 652,621.00     | \$ 1,579,260.00   | \$ 1,118,968.00   | \$ 805,780.00       | \$ 1,449,889.00   |
| Musical instruments                  | \$ 1,463,642.00   | \$ 1,717,667.00   | \$ 1,422,878.00   | \$ 1,911,318.00   | \$ 1,840,838.00     | \$ 1,449,026.00   |
| Raw Cotton                           | \$ 3,788,634.00   | \$ 8,770,328.00   | \$ -              | \$ 823.00         | \$ 936,467.00       | \$ 924,273.00     |
| Hair products                        | \$ 5,096,403.00   | \$ 5,186,986.00   | \$ 6,132,512.00   | \$ 7,011,438.00   | \$ 11,320,895.00    | \$ 13,214,529.00  |