The Impact of the Sino-US Trade War on the Economy

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Abstract. Since the Sino-US trade war, both countries have suffered a substantial impact on technological development, international trade, and the domestic market. For China, US restrictions on crucial components and materials for Artificial Intelligence (AI) development and the manufacture of electronic devices, such as semiconductors and chips, have impeded the steps of China's self-development. On the other hand, the US itself suffers the negative effect of the tariff, as inflation grows and trade volume with other countries declines, bringing more pressure to the US common families. This passage mainly introduces the specified strategies used by both countries, the impact of the Sino-US trade war, and possible solutions from the perspective of the Chinese government and global treatments. According to this passage, China mainly constrains the US by limiting raw materials and cheaper products, while the US mainly constrains China by curtailing crucial components and technology. Nevertheless, both countries suffered, with no winners at all. China has faced a slower Gross Domestic Product (GDP) growth rate, and the US, especially common families, faced larger pressure due to the rising living costs. Considering these phenomena, some reasonable solutions need to be proposed. From China's perspective, they need to be more decisive and self-contained in the future and try to solve the problem in three directions: finding alternative products and markets; negotiation with the US government; and actively expanding domestic demand. At the world level, revolutions in World Trade Organization (WTO) in trade rules and regulations in tariffs are necessary.

Keywords: Sino-US trade war, economy, technology

1. Introduction

In most ideal cases, top speed developments in recent decades have brought numerous new opportunities and, obviously, improved the average social welfare and living standard, which in turn inspires the sustainable development of the global economy. The negative impacts resulting from the prior financial crisis are declining. Unfortunately, since the outbreak of COVID-19 worldwide, the original upward trend has ceased. Many countries, such as China and the US, are attempting to mitigate this situation and encourage economic recovery. Conflicts caused by disproportional distribution of resources and trade wars have dramatically suppressed the ascending tendency of the global economy. At the same time, Artificial Intelligence (AI) has swept and permeated most industries. Algorithms, computing power, chips, and artificial intelligence have become the main indicators of a country's comprehensive ability, as these can be applied in the use of military,

finance, data analysis, model construction, and so on. China has made enormous changes in the last twenty years, and in the recent decade, China's development in AI, electric cars, and precise instruments has demonstrated its self-production ability. This, however, threatens the US international status by breaking through the technological blockade and unbalances the original trade form, which requires the US to add new means of restraint to China. As suggested by Hanbo Wei from the University of Connecticut, if one government confirms that another one bears the biased trade behavior that damages the domestic economy, a trade war exists, intensifying the conflicts [1]. In response to that, another country will build a similar trade blockade to protect domestic markets. In other words, a trade war appears because of the mutual trade protectionism policies or trade blockades between two countries, which sometimes are used to avenge. At the beginning, a tariff may be added to one country's product, and that country retaliates, eventually evolving into a trade war

One of the most typical cases is the Sino-US trade war. The start of this conflict can be traced to February 2018, when the US added a tariff on Chinese goods of washing machines and solar energy panels. The reason for this restraint is that the US International Trade Commission determined that these imports caused damage and negative competition to American producers. The US federal government also believes that China has disrupted intellectual property and thus brought more technology limitations to China. That has brought an immense impact on the Chinese market. In fact, from 2018-2020, China's GDP has declined, diminishing its competitiveness. On the other hand, the US also suffers the consequences of the conflict. As a major importer that often experiences a trade deficit, the US customers have a strong reliance on cheap handicrafts made in China. Since the price of the products increased after putting the tariff, consumers on both sides must share the loss created by the trade war. According to Mengyao Wang and Lan Liu, presented by the China Customs, from 2017-2018 to 2018-2019, the total value of Chinese imports and exports decreased by about 1.58%. Moreover, when traced back to June 2025, the US's import value from China is \$ 18.87 billion, accounting for 7.1% of its imports. This is a dramatic shrink compared with the 15% in 2018. As the peculiarities of degrees of disputable relations aggravation in international trade depend on the tension between states, the trade war is at the highest degree of aggravation, which demonstrates the severity of this situation [2].

This article mainly introduces the strategies used during the Sino-US trade war and analyzes the potential effects of the trade war on both domestic economies, including the change in net exports, GDP, supply chain, employment rate, and circumstances in different industries. Solutions for both countries to overcome this dilemma, as well as the international community's response measures, will also be discussed in the passage.

2. Main strategies

2.1. Tariff: intensifying trade barriers between the US and China

Tariffs have long been used by countries to constrain other antagonists or potential competitors. No exception for the Sino-US trade war. The serious unbalanced trade is a direct reason for the US to start a trade war. Since the US is a major importing country and has a strong reliance on imported goods from China, the US experiences a large trade deficit. Thus, at the beginning, the US required that China must reduce the US trade deficit by 100 billion dollars and further open the market [3]. To reach its own goal, the US government has implemented several strategies and published sanctions policies. For instance, from 2018 to 2020, the US government put forward 4 lists of tariffs, including a 25% tariff on 34 billion dollars of Chinese products. Since 2024, a new round of tariffs

has been added, resulting in a 100% tariff on electric cars (EVs), a 25% tariff on Lithium batteries, and a 50% tariff on photovoltaic cells from China [4].

Nevertheless, China has its counterattack methods. By optimizing its advantages in the manufacture of cheap artifacts and the largest consumer population, China mainly takes reciprocal countermeasures. In July 2018, China added the same 25% tariff on the US's main export products at a total value of 34 billion dollars, including soybeans, cars, and planes. In September 2019, China added a 5%-10% tariff on US goods worth approximately 75 billion dollars. Recently, after the US announced it to set a tariff de combat, China then lifted the tariff on all US import goods to a level of 125%.

2.2. The establishment of the technical blockade system

Trade wars have never just been limited to international trade. More often, countries used this strategy to curtail another's technological development. As the US currently has a more advanced and full-fledged technology system compared with that in China, the US government mainly impedes domestic technology or crucial components from flowing to China. To prevent China from outstripping the US's development in fields such as Artificial intelligence, clean energy and EV, national defense, and data economy, the US publishes laws listing critical resources that are banned from being exported, including the exports of semiconductor materials that are essential for chip production. Moreover, since 2019, the supply of crucial components and applications, like Google Mobile Services (GMS) and Advanced RISC Machines (ARM) Architecture Licensing, has been cut off to Chinese top-level digital companies, Huawei, and ZTE Corporation. In 2020, Semiconductor Manufacturing International Corporation (SMIC) was added to the entity list. In October 2022, the semiconductor equipment ban was updated to a more intense level, restricting process technology under 14 nm. In August 2023, an executive order was published, forbidding the US capital's investments in Chinese AI and Quantum Computing industries. Granted, the US currently has stronger and more advanced technology in many cutting-edge fields, but China also holds essential raw materials such as graphite, rare earth elements, and permanent magnets. Indeed, responding to America's constrained policies, China will add a phrasal tariff of 25% between 2025-2026 on these materials [5].

3. Main impacts on China's and the US's domestic economy

3.1. The dual challenges of China's economy

3.1.1. Export structure adjustment

During the Sino-US trade war, China has shifted its export structure. Customs statistics show that all major categories of commodities that China exports to the United States have generally shown a decline: 24.3% in agricultural products, 22.8% in auto parts and accessories, 11.6% in telephones market, 13.8% in high-tech products, and 13.5% in electromechanical products. Also represented in 2023, mechanical and electrical products declined; the decline in exports of furniture and parts, automatic data processing equipment, textile yarns, and clothing was 20.1%, 8.1%, 8.6%, and 6.3%, respectively. This structural adjustment was accompanied by a considerable expansion in China's trade surpluses with the EU, ASEAN, and Mexico [6]. At the same time, the export of China's "new three" products in the new energy industry surpassed the one-trillion-yuan threshold. Still, it is noteworthy that the China-US bilateral trade balance has shown a reversed trend. This structural

adjustment in these regions has been accompanied by a significant increase in China's trade surpluses with the EU, as well as surpluses from ASEAN and Mexico. Two side effects can be recognized in the trade war: it directly impaired the China-US bilateral trade scope; on the other hand, it inspired the expansion of China's external trade network [7].

3.1.2. Increasing industry pressure

The technology field in China, especially electronics manufacturing, has been influenced dramatically. Tariffs aimed at the components of semiconductors and mobile phones have diminished the efficiency of the supply chain. Companies like Apple are trying to use a diversified supplier network, displacing their regional supplier in China to Vietnam and India, where the labor force is cheaper. This just upgraded the pressure on China's domestic industries. China's reliance on imports of semiconductors remains at a huge rate, approximately 70%, whereas investments in research are still increasing. Correspondingly, the growth of GDP in China has decreased since the trade war, but it has started to run faster in the recent 2-3 years, partly due to China's technology breakthroughs. Also, along with the total retail sales of consumer goods increased, with the contribution of domestic demand to GDP rising to 69.7%, which symbolizes a revival.

3.2. Shifts in the US economy

3.2.1. Inflation pressure

Up to April 2025, the CPI in the US increased by 2.3%, illustrating its rapid growth in inflation. Inflation continuously rises, correlating with tariff policies. Emphasized by Salsabila Irma Nuraeni et al., data produced by these people has shown how protectionist policies, which reduce trade volumes and increase costs for consumers and businesses, can be harmful to the stability of the economy. Retaliatory measures from trading partners exacerbate these effects, creating a cycle of economic strain. 2025 U.S. tariff policies have caused significant disruptions to global trade flows, with profound economic consequences. The surge of tariffs, from an average of 2% to 24%, has led to a reduction in trade volumes between the U.S. and its major business allies, consisting by China, Canada, and the European Union. This tariff also apparently disrupts the scope of trade while lifting inflation. Trade among industries of cars, electronics, and agriculture has significantly decline, along with a decrease in exports by 18%. As a result, common American families have a higher living cost, with an average increase of 3800 dollars, which is attributable to the rise in the price of imported goods, intensifying families' financial pressure. The tariff, therefore, plays a role in the total value of 120 billion dollars "invisible tax" to the US consumers [8].

3.2.2. Corporate distress

China is always one of the largest markets and consumer groups. Indeed, for most of the US international corporations, such as Apple, Nvidia, and Google, the Chinese market contributes a high proportion of these companies' market share. Because of the equitable tariff strategy of China and the trade blockade contributed by both countries, the US companies need to relocate their local factories and, thus, lose part of their market in China. From the perspective of international companies, for instance, the revenue of Nvidia in China has decreased by 10%, from 20% to 10%. PPI has reached its new peak in the past 3 years, demonstrating that the cost on the supply side is increasing. From the perspective of farmers in the Midwest areas of the US, the exports of agricultural products, especially soybeans, have suffered a significant blow.

4. Corresponding solutions

4.1. China's self-driven approach to overcoming challenges

4.1.1. Finding alternative products and markets

Reflected by the technology development in electric cars, clear energy, and self-developed chips. China has demonstrated that one of the most effective ways to overcome and break through the current lockdown is to focus on innovation-driven development, or independent innovation capacity. Developing new markets to provide a plural consumer group is also beneficial, as shown by the transfer of concentration of China's international trade allies and the structural composition of the export goods. For instance, the Chinese government can expand the Belt and Road Initiative's proportion of export items; implement an open foreign trade policy; and join the Digital Economy Partnership Agreement (DEPA) to advance the development of digital trade. After broadening its market, the administrative cost should be limited and regulated [9]. By using the Regional Comprehensive Economic Partnership (RCEP), China can accomplish regional accumulation (if the raw materials or components are from one of the RCEP countries, a calculation can be added to estimate their ratio of origin). Also, collaboration with adjacent countries, such as Korea, Japan, and Russia can be boosted [10].

4.1.2. Negotiation with the US government

China and the US have been interwoven for decades because of their close trade exchanges, forming a very intimate relationship. Increasing tariffs can be treated as a constraint on both companies and consumers and can lead to a more unpalatable consequence, without exception. The more intense the Sino-US trade friction, the greater the harm to the two countries. As long as the friction between these two countries continues to intensify, the harmful impact on both sides will continue to occur. Accordingly, these two countries should go to the table and confer a proper solution for this trade friction. For China, the first is to focus on developing alternative markets, which are more just, open, and plural. Second, rules and mechanisms need to be updated to fit and cater to the current international market, to achieve a stable and larger number of exports.

4.1.3. Actively expanding domestic demand

China's consumption potential and market share are always gigantic, so it is neither easy nor difficult for its government to use these characteristics. China must be decisive, confident, and self-contained, and show respect to the WTO. Furthermore, the Chinese government should, under the premise of rules, attach importance to economic and trade exchanges, especially with adjacent countries, promote economic development's quality and efficiency, and try to find new buttress points under the global trends of AI [2].

4.2. Global cooperative efforts

The Appellate Body of the dispute settlement mechanism resumed operation in 2024, managing 23 tariff-related China and United States cases. Additionally, Clear rules of the limitation on tariffs need to be established. Emerging regional cooperations, as shown by member countries of the CPTPP, have reached a consensus on digital trade provisions, while the European Union is promoting the "Chips Act" to reduce dependence on China [11].

5. Conclusion

The Sino-US trade war is a modern "smoke-free war", which features the characteristics of current society and international relationships. This article mainly uses a literature review method, illustrating the strategies used, the influence on both countries' domestic markets, and the solutions to overcome the plight. Analyzes the extent of the tariff added by both countries on industries including semiconductor, AI, Electric Vehicle, agricultural products, and critical raw materials. Represented by the data, agricultural products, auto parts and accessories, and electromechanical products have all fallen by an apparent level. Then analyzes the corresponding impact on China's and the US's domestic market, finding that the economic growth, especially the growth rate in GDP, is slower, and common families in the US suffer a "invisible tax" on them, which in turn restricts their living. Supported by an average increase of 3800 dollars in living costs. Additionally, companies in the US will be adversely affected due to the loss of part of their share in the Chinese market and new investment in factories in countries other than China. To overcome the plight, China must be persistent in its self-developed path while reaching a more intimate trade partner relationship with other countries. Global society should collaborate and unite for a law that can limit tariffs added.

In the future, the disruption brought by the trade war will be mediated through positive collaboration among countries. The form of trade and international structure will be reshaped. But in the short term, a large amount of funding needs to be allocated to inspire a surge in consumption demand.

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