The US- China trade war: Causes and Effects

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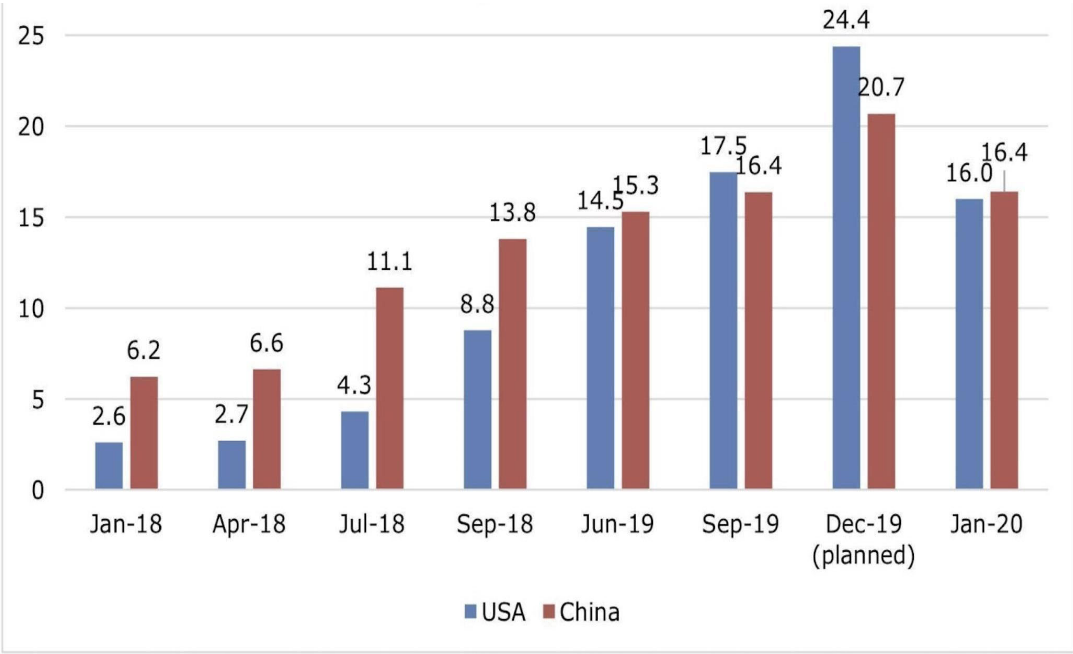
Abstract: This paper studies the US-China trade war currently being initiated by the US in early 2018 from a US standpoint. This paper starts by introducing the chronology of the trade war. With the findings, we attributed the causes of the US-China trade war to three main reasons: US intentions to reduce the trade deficit, block China's access to core technologies, and close the government deficit gap. In contrast to President Trump's optimistic expectation that the US would benefit, the trade war became a lose-lose game. The trade war's escalation, which included both additional tariffs and restrictions on the transfer of high-tech products, had a negative impact on domestic consumers, businesses, and employment, further slowing down the US economic growth.

Keywords: The China- US trade war, protectionism, US economy

1. Introduction

A "trade war" is a diplomatic stance where one country raises its tariff on imports from another country. It is a way of discouraging purchases from the international markets and safeguarding the interests of local traders. The trade war is a side effect generated by protectionism, which is a protectionist economic policy of protecting domestic producers against foreign producers through implementing tariffs, quotas on importing goods, subsidizing domestic producers, and regulations. Trade wars and protectionism are expected to stimulate domestic industries, protect national employment, reduce the trade deficit, and fight against enemy nations in the global market. This kind of protection can be attained by the employment of tariff levies on imports, quota ceilings on the quantity of foreign items offered in the local market, and regulatory hurdles such as product classifications and apparently endless lists of prohibitions [1].

With the increasing US trade deficit with China, a challenged position as the global high-tech trading leader, and a large government deficit, President Trump decided to implement protectionism policies to alleviate this situation. Figure 1 depicts how in a period of one year, US tariffs rose from 2.7% to 17.5%. President Trump has expressed optimism that the trade war will resolve the fundamental economic issues. At the same time, Trump and his surrogates are calling attention to what he has referred to as "the largest accord ever," which is the "phase one" trade pact that the United States and China have agreed [1]. An additional $200 billion in Chinese purchases of American goods is said to be included in the agreement, on top of the levels attained in 2017 by the end of 2021[2]. However, now Chad Bown of the Peterson Institute for International Economics, who has been the go-to source on the trade war from the beginning, has a final assessment of that deal. And it turns out to have been a complete flop: "China bought none of the additional $200 billions of exports Trump's deal had promised"[2]. Contrary to President Trump's claim that "trade wars are good and easy to win", the trade war significantly slowed the US economic growth. As reported in Figure 3, after the imposition of 25% tariffs on 1097 products in July and August, the US economic growth suddenly fell to 1.1% in the fourth quarter of 2018. It then grew back to 2.1% in the third quarter of 2019, 0.4% less than at the beginning of the trade war.



Note: average tariff rates on US imports from China and Chinese imports from the US are weighted by total imports from China and total imports from the US in 2017 respectively

Figure 1. Average Tariff Rates [3]

It is generally agreed that the "Presidential Memorandum Targeting China's Economic Aggression" was signed by Donald Trump on March 23, 2018, marking the official beginning of the trade war. At the same time, tariffs were imposed on steel and aluminum imports by the United States [5]. While inaugurating as president of the United States, Trump laid out a four-step plan to improve the U.S.-China relationship: label China a currency manipulator; confront China on intellectual property and forced technology transfer concerns; end China's use of export subsidies; reduce the corporate tax rate so that American manufacturing is more competitive [1]. Following that, on July 6, 2018, the United States imposed a 25% duty on 545 Chinese imports totaling $34 billion the previous year. The US then blocked China’s access to US-controlled core technology products and restricted foreign investment.

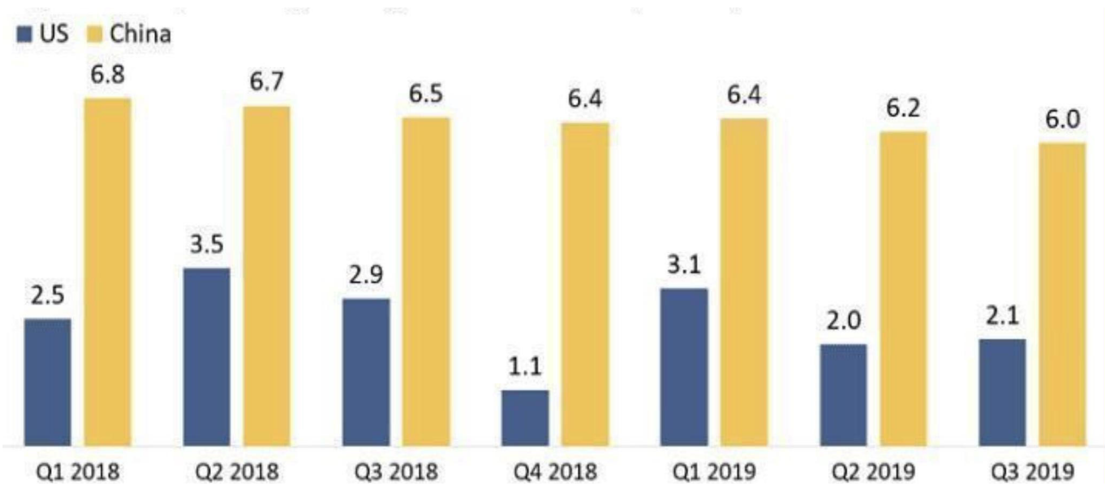


Figure 2. Economic growth in the US and China [4]

Table.1. Trade war milestones [5]

Time period, general context	US actions	China's actions
April – May 2017 Top-level negotiations to resolve trade disbalances; 100-day plan for trade talks	Investigation on steel and aluminium imports is initiated. The US allows China to sell cooked poultry to the US	US companies get greater access to China's agriculture, energy, and financial markets
February – April 2018 Investigation into China's acts, policies and practices relating to technology transfer, intellectual property and innovation. The US initiates a WTO case against China for discriminatory licensing. The US releases the official statement (May 2018)	Global safeguard tariffs: 30% on solar panels; 20% on washing machines; 25% on steel imports; 10% on aluminium imports. Measures targeting China: restricting investment in key technology sectors; imposing import tariffs on aerospace, IT, communication and machinery; including ZTE in the Entity List	15-25% tariffs on 128 product categories including fruit, wine, seamless steel pipes, pork and recycled aluminium. 178.6% antidumping duties on sorghum imports from the US
July 2018 Ongoing negotiations; internal discussion of the new lists of restrictions	25% tariff on 818 products (imports worth $34 billion)	25% tariff on 545 products (imports worth $34 billion), including agricultural products, autos and aquatic products
August 2018 The parties exchange preliminary lists. China files WTO claim and complain against the US	25% tariff on 279 goods (imports worth $16 billion) including: semiconductors, chemicals, plastics, motorbikes and electric scooters	25% tariffs on 333 goods (imports worth $16 billion) including: coal, copper scrap, fuel, buses and medical equipment
September 2018 China cancels the trade negotiations and releases the White Paper stating the official position	10% tariff (announced subject to further increase up to 25% in 2019) on $200 billion worth imports from China	5% and 10% tariffs on $60 billion worth imports
December 2018 G20 summit in Buenos Aires. The US and China agree not to increase tariffs for 90 days	The US announces that the new list of tariffs will be delayed	China increases import of agricultural and energy products, and lowers tariffs on cars and auto products from 25% to standard 15%
May – June 2019 Ongoing trade negotiations before the G20 summit	25% tariff (increase from 10%) on $200 billion worth imports. Huawei and five other companies of China are added to the Entity List	25%-20%-10% tariffs introduced for $60 billion worth of imports (increased from 10%-10%-5% correspondingly)
June 2019 G20 summit in Osaka. The parties agree to avoid increasing tariffs	The ban on deals with Huawei is reconsidered. 110 products are excluded from the 25%-tariffs	China announces its plans to increase import of agricultural products

2. The causes of the trade war

First, the trade war policy was implemented to reduce the current account deficit of the US and save American citizens job opportunities. US policymakers consider the trade deficit with China as one of the most serious problems threatening the economy. Figure 4 shows that since China joined the World Trade Organization in December 2001, the US trade deficit, which measures the direction of the flow of goods, investments, and services, experienced a gradual increase in the period of 2001 to 2018. The current account deficit was 83,096 billion dollars in 2001, which then reached a peak of

418,232 billion dollars in 2018 when the trade war began. An examination of the commodity structure of exports and imports reveals that China is the primary importer of American-interdependent products, whereas the United States is the primary importer of China's finished goods: "the US mechanical and electrical products from China are as high as 50 percent of the total of the top ten commodities in Sino-US trade"[6]. Because the US deficit is highly concentrated in the manufacturing sector (with a 369.739-billion-dollar deficit in manufactured commodities and 10848.3 billion dollars in non-manufactured commodities), some economists are concerned that such concentration will lead to import-related job losses and subsequent political instability. According to the Economic Policy Institute, the increase in Chinese imports has resulted in lower wages for workers without a college education and has caused the United States to lose 3.4 million jobs between the years of 2001 and 2015. However, research that was published by the University of Chicago suggests that the number is closer to 2 million over the same time period (1999–2011) [7]. Meanwhile, some economists have also argued that in order to balance the large trade gap, a great amount of financial capital has flowed into the capital account, probably leading to asset bubbles and exaggerating the US housing crash.

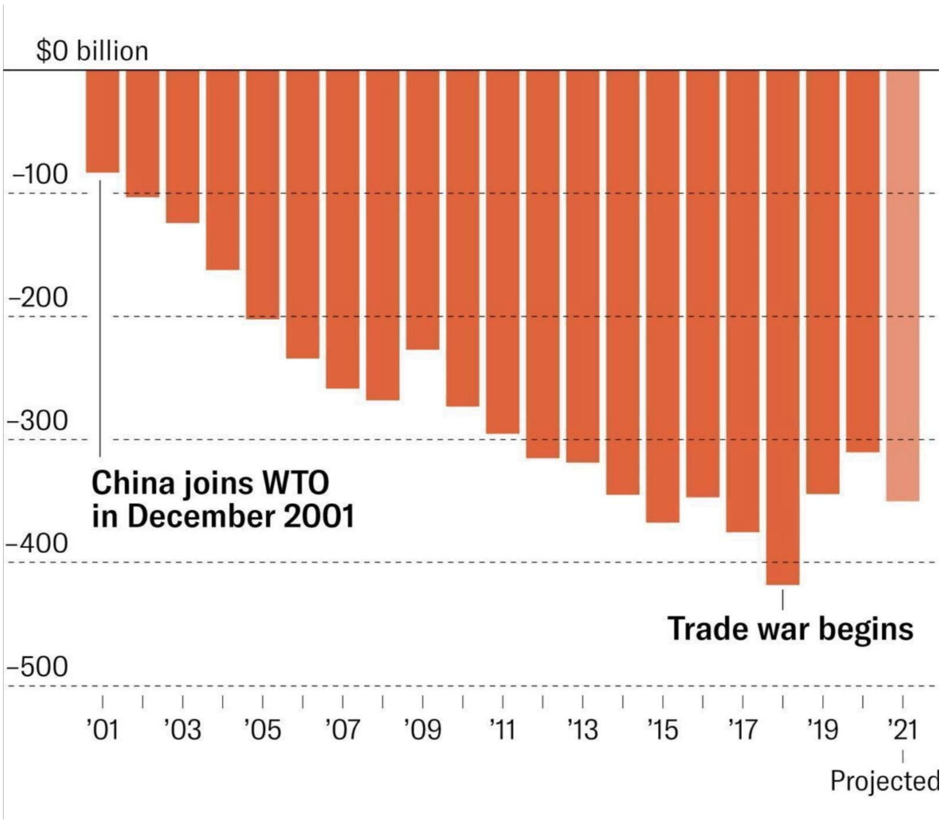


Figure 3. U.S. Trade Deficit with China for Goods
Since China Joined the World Trade Organization [8]

In addition, the trade war is expected to block China’s access to high-tech controlled by the US. US trade advisor Peter Navarro and Senator Marco Rubio have argued that the Chinese government's behavior of subsidizing the national tech industry breaks international trade rules [9]. As a developing country, China has sought to achieve significant technological innovation by investing in supporting domestic industries, commercially transacting with foreign entities, and gaining technology from foreign firms. Up until recently, the United States had a pessimistic view of China's capacity for innovation. They considered China to be a "copycat nation" that could only "rip off" technological innovations that were developed elsewhere [11]. Besides, the US has been alerted by seeing that its leading power in the global economy is being challenged by China, which has transformed into a world manufacturing leader and is consistently pursuing the goal of mastering edge technologies including 5G, lithium batteries, semiconductors, and robots. With its large population and manufacturing industries, almost half of the high-tech electronic devices are produced in China. With 70% of its imports of major consumer electronics such as cellphones and laptops, the United States is particularly reliant on China [12]. Import duties on Chinese electronic products, including telecommunications and network equipment, have been raised by the United States by up to 25% [3]. The trade war is supposed to reduce the US government's budget deficit. According to Dongsheng Di, Gal Luft, and Dian Zhong, "the US will need additional sources of income like tariffs to balance its budget, and tariffs on Chinese products are viewed as a main source of such income"[9]. At the end of 2017, Trump's tax reform plan passed, and with the implementation of tax cuts, the fiscal deficit will grow rapidly and exceed $21 trillion. By boosting import tariffs, the Trump administration's trade protectionist strategy may reduce the trade deficit in the short term, hence reducing the fiscal deficit. Due to $70 billion in tariffs on Chinese and other imported goods, the Trump administration narrowly avoided crossing the $1 trillion mark in 2019[13]. This measure would also consequently improve the profitability of domestic-related industries as consumers shift to the relatively low-priced domestic products, resulting in a rise in the amount of corporation tax revenue.

3. The side effects of US- China trade war

3.1 Effects on consumers

Consumers benefit from lower prices and more product options as a result of free market trade. The negative effects wrought by protectionism are profound. Due to the quotas and tariffs that were implemented to reduce imports, consumers face less access to the quantity, quality, and types of goods compared with the situation before the trade war. As revealed by the figure, compared to 2018 before the trade war started, US imports from China fell by a significant 87.26 billion dollars. Simultaneously, US imports from its world partners also experienced a large decline, by approximately 44.3 billion dollars from 2018 to 2019. These changes imply US consumers are expected to rely more on domestic products, facing a smaller choice of goods. Consumers are greatly influenced by the trade war because many products consumers are willing to purchase are produced outside the US.

Additionally, due to the imbalance caused by the trade war, American consumers were expected to pay more for the same goods. A total of over $8.1 billion will be spent annually on cell phones, computers, and tablets ($8.2 billion), clothes ($4.4 billion), and toys ($3.7 billion). They'll have to pay an additional $1.6 billion in annual household appliance costs and $4.6 billion in annual furniture costs because of this [14]. Tariffs reduce real earnings by $1.4 billion per month, according to NBER Working Paper 25672, The Impact of the 2018 Trade War on US Prices and Welfare [15]. Consumers are unable to afford higher costs due to a significant decline in their real income. Besides, consumers appear to feel anxious about the economic uncertainty. In September, the Conference Board's Consumer Confidence Index decreased from 134.2 in August to 125.1 in September. The Conference Board's Lynn Franco, senior director of economic indicators, indicated in a news release that "consumer confidence decreased in September following a slight decrease in August." Franco. People were less optimistic about the current situation, and their short-term outlook also deteriorated "[16]. After the beginning of the trade war, the increased instability and uncertainty continuously reduced American consumers' confidence in the economy. Similarly, when asked to explain in their own words what factors are driving their economic expectations in September 2019, a near-record one-third of all consumers mentioned trade policy negatively [16].

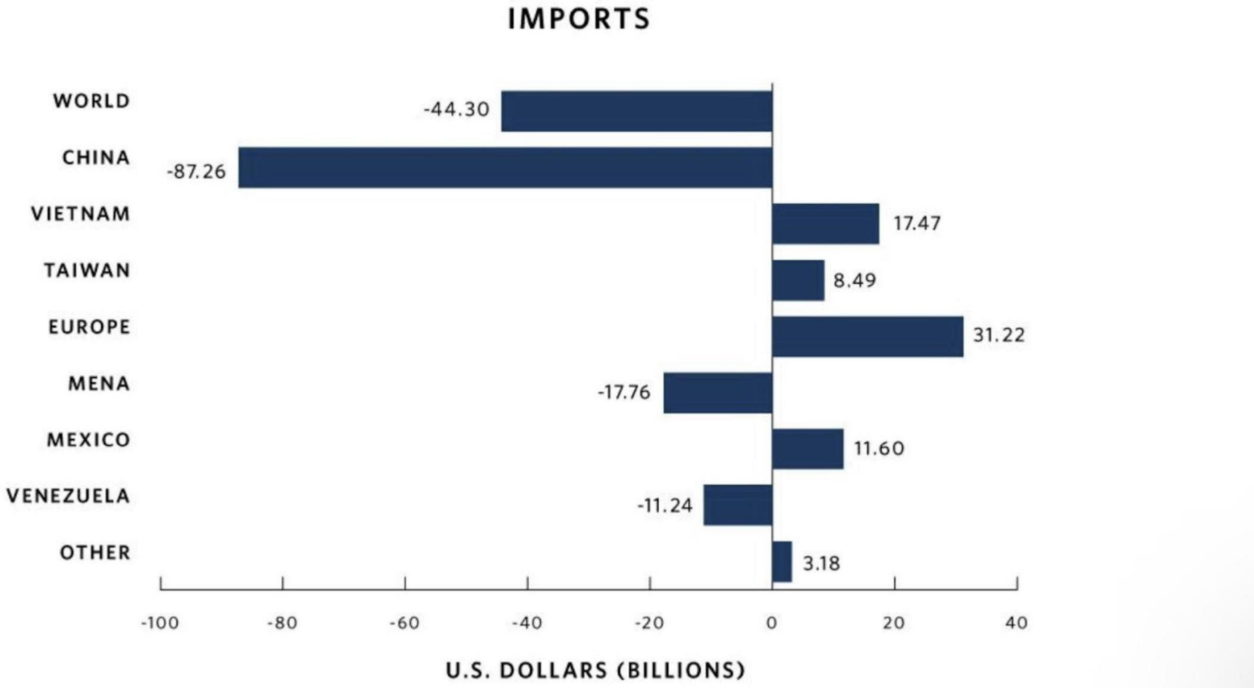


Figure 4. U.S. Merchandise Trade: 2019 Versus 2018[10]

3.2 Effects on producers

As the trade war began in 2018, the companies have been affected by many huge changes, especially the high tariffs price. The trade war has already cost the US economy 300,000 jobs and 0.3 percent of real GDP, according to a study issued in September 2019 by Moody's Analytics [1]. As far as some estimates go, this might cost the US economy 0.7%. Since the introduction of tariffs on Chinese imports by the Federal Reserve Bank of New York and Columbia University in 2018, Bloomberg Economics has estimated that at least $1.7 trillion has been wiped out from the value of US corporations' stock prices [1]. The majority of the tariff costs in the United States, which are now projected to be over $46 billion, can be attributed to American firms, according to the findings of several studies. Due to the tariffs, American businesses were forced to accept lower profit margins, lower wages and fewer jobs for Americans, delay the possibility of wage increases or expansions, and raise prices for American consumers and businesses. In response to China's retaliatory actions, an American Farm Bureau spokesman says that farmers are losing money. “Farmers have lost the vast majority of what was once a $24 billion market in China"[1].

As the figure shows above, after April 1, 2018, the US announced it would impose 301 tariffs in China. China fought back by imposing the first phase of retaliatory tariffs in July 2018, and the second and the third phases in August. New auto sales slowed down during this period. Furthermore, Chinese companies may cut their profit margins to offset part of the tariff impact, thus reducing the negative impacts of the trade war. And lastly, a drop in foreign currencies due to the depreciation of the Chinese currency might harm US corporate revenues. It is estimated by the authors to cost US businesses approximately half of the tariffs in some form or another, such as reduced profit margins [17].

Since the start of the trade war, oil prices have been fluctuating. The oil industry is not the only one affected by fluctuating oil prices. As of the end of 2018, the increase in crude oil prices is minimal and has little influence on consumers. Investors who exercise caution, however, keep tabs on crude oil prices as they increase and fall [18]. The economy is impacted by these swings. Because of the expansion that America used, the unemployment rate did not rise back, but as the government helped the economy, the companies are getting better a little bit.

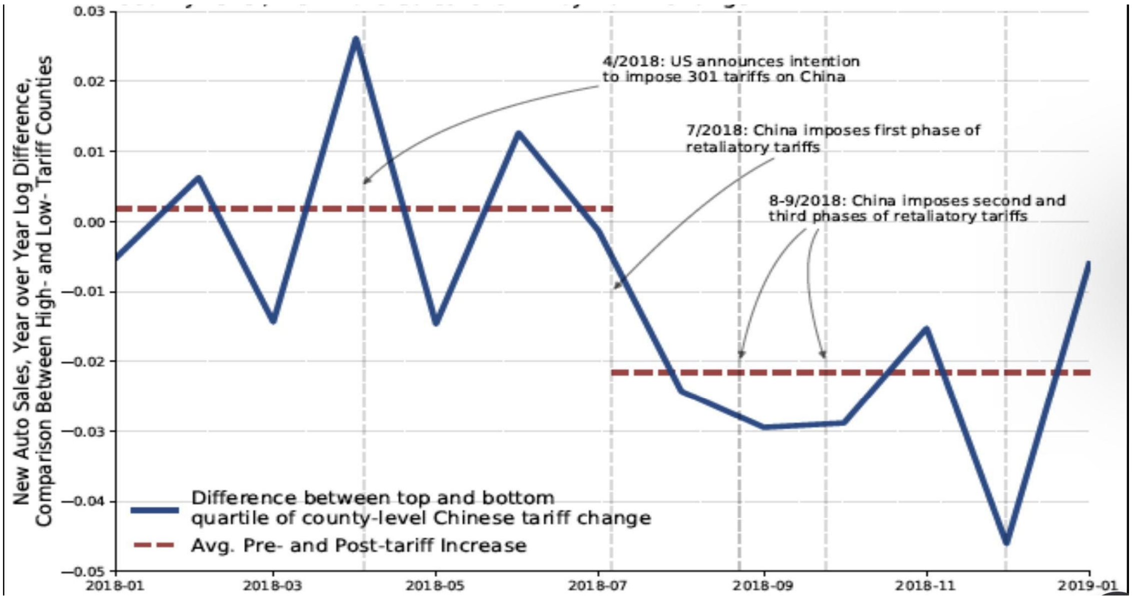


Figure 5. County- level, New Auto Sales Growth by Tariff Change [3]

3.3 Effects on employment

One of the arguments in favor of protectionism and trade wars is that higher tariffs would lead to more demand for jobs, thus resulting in more job opportunities and a higher employment rate. However, the decline in exports has a negative impact on export-related employment [9]. For example, China imports petroleum from Middle Eastern countries, manufactures plastic products, and exports them to other countries that have a more expensive labor force, since China has a comparative advantage in plastics production. However, if China decides to increase the tariff on oil imports, the domestic oil price would rise, accompanied by an increment in the cost of producing plastic products. Then, in order to reduce the cost, producers would hire fewer workers to maintain their businesses, meaning a reduction in the supply of plastic products and job opportunities. In addition, if the U.S. imposes high tariffs on certain products, it will lose the jobs already created by the expansion of exports. Using careful CES framework modeling of US exports to each foreign market, Feenstra and his colleagues discovered that between 1991 and 2011, import exposure resulted in the loss of approximately 4.22 million jobs, while export expansion resulted in the creation of approximately 4.24 million jobs [19]. It implies that the long-term impact will be similar. Nonetheless, a tariff increment would break this balance, causing job opportunities in both industries to fall.

Despite the reduction in employment rates, the costs per job saved to consumers are high under protectionism. The table below shows that consumers need to pay a relatively high price – in most cases, beyond $100,000 – for each job saved. Therefore, although protectionism would save jobs, the cost of saving them is too high for consumers. In a more recent study, Hufbauer and Lowry examined the data of the 2009 tire tariff and concluded that even though 1200 jobs were saved under Obama's policy, The total cost to American consumers was more than $900,000 for each job saved [20]. Both of these two studies suggest that higher tariffs would bring hefty costs per job saved to consumers, and those costs would not go to American workers' pockets; instead, they would be extracted into corporate coffers. Thus, protectionism would eventually result in more job losses in export industries and a fairly high cost of saving jobs for consumers.

Table.2. Cost to the industries [21]

Industry	Total loss(million dollars)	Efficiency loss(million dollars)	Costs per job saves(dollars)
Benzenoid chemicals	2,650	14	Over 1,000,000
Orange juice	525	130	240,000
Textile and apparel: phase III	27,000	4,850	42,000
Non-rubber footwear	700	16	55,000
Carbon steel: phase III	6,800	330	750,00
Speciality steel	520	30	1,000,000
Autos	5,800	200	105,000
Sugar	930	130	60,000
Meat	1,800	145	160,000

3.4 Effects on global economy

Not only the US and China's economy were greatly hurt by the trade war, but the global economy was also influenced. Investors have been hit more by the trade war than they were before. For emerging market corporate bonds, that means an additional 50 basis points in risk premium. Two stages of tightening financial circumstances are predicted as a result of the trade war. The risk premiums on corporate loans in emerging economies climbed by 150 basis points instead of the projected 50 basis points in the first phase. There was a ripple effect throughout the global economy as a result of this bout of financial market volatility, resulting in higher risk premiums on company loans and government bonds. Uncertainty about the future of the financial markets could have a greater impact on the global economy than disruptions to direct trade channels or investments [22].

4. Conclusions

We discuss the causes of the US- China trade war, which can be attributed to US trade deficit, China growing power on controlling high technologies, and large US government deficit. We evaluate the effects of the trade war on the US economy in fields of consumers, producers and employment and global stock market by analyzing data related to trading, consumers' confidence, and economic growth. Although in the short term, high tariffs and regulations imposed on foreign goods seem to protect domestic productivity, it will increase economic instability, reducing foreign investment, thus affecting economic growth. Protectionism and trade wars are both detrimental to the economy of the world as a whole due to the fact that economic instability brought on by trade wars is contributing to the current state of global economic contraction. A trade war between two trading partners can be devastating for both the consumers and the producers of goods, and the contagion from the war can spread to harm many other parts of both economies. Hopefully, effective strategies will be taken to alleviate the severity of the trade war in the future.

References

[1] Hass, R., & Denmark, A. (2022, March 9). More pain than gain: How the US-china trade war hurt America. Brookings.

[2] Bown, C. (2022, March 11). US-china phase one tracker: China's purchases of us goods. PIIE.

[3] US Census Bureau, Trade in Goods with China (2019).

[4] Lee, Y. (2020, January 3). These 6 charts compare the US and China economies in the second year of their Trade War. CNBC.

[5] A.O. Vinogradov, A.I. Salitsky, N.K. Semenova, US-China Economic Confrontation: Ideology, Chronology, Meaning. Vestnik RUDN. International Relations, 19(1), 35-46 (2019)

[6] Y. Deng, F. Pan, Dependence analysis of Sino-US trade. Journal of Physics: Conference Series, 1176(4) (2019).

[7] McBride, J., & Chatzky, A. (2019, March 8). The U.S. trade deficit: How much does it matter? Council on Foreign Relations.

[8] Hout, T. (2021, December 20). A new approach to rebalancing the U.S-china trade deficit. Harvard Business Review.

[9] Abboushi, S. (n.d.). (PDF) (2022). trade protectionism: Reasons and outcomes. ResearchGate.

[10] Huang, Y., & Smith, J. (2020, June 24). In the U.S.-China trade war, new supply chains Rattle Markets. Carnegie Endowment for International Peace.

[11] Roberts, A., Moraes, H., & Ferguson, V. (2019, May 31). The U.S.-China Trade War is a competition for technological leadership. Lawfare.

[12] Melo, E. D., Koch-Weser, I., McAdoo, M., Varadarajan, R., & Varas, A. (2019, June 5). Unpacking the us–china tech trade war. BCG Global.

[13] Borak, D. (2019, October 25). US budget deficit balloons to nearly $1 trillion for fiscal 2019 | CNN politics. CNN.

[14] Priyadashi, P. (2019, September 29). Caught in the Crossfire: American consumers and the US-china trade war. The Wire.

[15] Amiti, M., Kong, S. H., & Weinstein, D. E. (2020, May 28). The investment cost of the U.S.-China Trade War. Liberty Street Economics.

[16] Atzinger, J. (2019, November 1). Uncertainty, volatility create a murky picture. Trade Only Today.

[17] Norland, E. (n.d.). Trade war costs to consumers, companies and Nations. Trade war costs to consumers, companies and nations - Financial Times - BrandSuite by CME Group.

[18] Hayes, A. (2020, September 12). Companies affected most by oil prices. Investopedia.

[19] Feenstra, Robert C., et al. "US Exports and Employment." Journal of International Economics, vol. 120, 2019, pp. 46–58. Crossref.

[20] Hufbauer, Gary Clyde, and Lowry Sean. "US Tire Tariffs: Saving Few Jobs at High Cost." Policy Brief 12-9, April 2012. Washington: Peterson Institute for International Economics.

[21] Cletus C. Coughlin, K. Alec Chrystal, and Geoffrey E. Wood, "Protectionist Trade Policies: A Survey of Theory, Evidence and Rationale," Federal Reserve Bank of St. Louis Review, January/February 1988, pp. 12-29.

[22] Vilmi, L., Kerola, E., & Ikonen, P. (2019, November 12). The trade war has significantly weakened the global economy. Bank of Finland Bulletin.