

# The Impact of the Sino-US Trade War on the Sustainable Development of China's Industrial Supply Chain – Empirical Study based on Data from 2018 to 2019

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## Abstract

This article examines the economic impact of the Sino-US trade war on China and the US by studying its effect on several companies and analyzing changes in macroeconomic indicators. Time series analysis is used to compare the actual situation of selected enterprises with the forecasted situation to determine the positive or negative effects of the trade war. Linear regression analysis is used to compare changes in China's macroeconomic indicators before and after the trade war began. The study finds that the growth rate of China's GDP has increased to some extent after the start of the trade war, while the US consumer index has declined due to increased tariffs on industrial and agricultural products. The supply of base currency has also fluctuated more since the start of the trade war. The study analyzes the stock trends of various industry sectors, including steel, chemicals, communication equipment, biotech, trade, electronics, pharmaceuticals, banking, and logistics, and finds that the trade protection of individual companies has a positive impact due to tariffs, but the industry sector is still negatively affected. Linear regression analysis is used to analyze US macro data, which shows that after the trade war broke out, the growth rate of US imports of goods and services slowed down, inflation rose slightly, government savings decreased, and the growth rate of GDP increased.

**Keywords:** Sino-US Trade War, Macro economy, Time series, Industry shock

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## Introduction

### Research Background

The integration of the world has made the global economy show a trend of integration, and economic globalization has also accelerated the process of trade liberalization, resulting in the development of the economies of all countries are closely linked. China is the largest developing country in the world, and the United States is the largest developed country in the world. Sino-US economic and trade relations are not only of great significance to the two countries, but also have a decisive impact on the stability and development of the global economy. Since the establishment of diplomatic relations between China and the United States, bilateral economic and trade relations have continued to develop, and the intersection of interests has continued to increase, forming a close cooperative relationship. At the same time, due to the different economic development stages and economic systems of China and the United States, there are bound to be economic and trade frictions and differences in management and control, which also planted hidden dangers for Sino-US trade relations. Until March 22, 2018, the Trump administration announced the imposition of \$50 billion in tariffs on Chinese goods, and the Sino-US trade war officially kicked off.

On March 22, 2018, the Trump administration announced that it would "impose \$50 billion in tariffs on Chinese goods and impose investment restrictions due to intellectual property infringement issues." In response to this, China actively responded with a clear attitude and resolutely safeguarded China's national interests. (ASIA PACIFIC Responding to Trump, China Plans New Tariffs on U.S. Goods March 23, 2018) Many scholars believe that the Sino-US trade war has officially started. It was not until March 7, 2019 that the two sides announced a temporary suspension of tariff increases after consultations that the Sino-US trade war came to an end. This article takes the Sino-US trade war as the background to discuss the impact of the Sino-US trade war on the economies of both sides. Apply the method of time series to conduct research, and provide experience for subsequent researchers.

#### Sino-US Trade War History

On March 22, 2018, the Trump administration announced that it would "impose \$50 billion in tariffs on Chinese goods and impose investment restrictions due to intellectual property infringement issues." On April 4, 2018, the U.S. government released a list of goods subject to additional tariffs, which will impose a 25% tariff on 1,333 Chinese imports worth \$50 billion. On April 5, 2018, U.S. President Trump asked the Office of the U.S. Trade Representative to impose additional tariffs on \$100 billion of Chinese imports based on the "Section 301 investigation." At 00:01 on July 6, 2018 (12:01 on the 6th, Beijing time), the United States began to impose 25% import tariffs on 818 categories of Chinese goods worth US\$34 billion on the first batch of lists. On July 10, 2018, the U.S. government announced a list of additional tariffs on China, planning to impose 10% tariffs on about US\$200 billion of Chinese products, including seafood, agricultural products, fruits, daily necessities and other items. On August 2, 2018, the United States Trade Representative stated that it plans to increase the tax rate from 10% to 25%. On August 23, 2018, the United States imposed a 25% tariff on \$16 billion of products imported from China under the Section 301 investigation. On February 24, 2019, U.S. President

Trump announced that he would postpone the plan to raise tariffs on Chinese goods exported to the United States on March 1. On March 7, 2019, after consultations, the two sides announced the temporary suspension of tariff increases. (Lei, 2019)

#### Reasons for the Sino-US Trade War

China believes that the United States is forcing trading partners to open their markets and surrender economic benefits through trade wars or the threat of launching a trade war. In order to maintain its hegemonic status in the world, the United States has always guarded against China, which has a rapidly developing economy. From the perspective of maintaining its global hegemony, the United States has criticized China's development mode. The United States believes that China is the country with the largest goods trade deficit in the United States, accounting for 48% of the US goods trade deficit. The stabilization of Sino-US trade relations and the decline in US manufacturing jobs occurred at the same time. Therefore, Trump simply in the "employment" objective function, China is the most important target, and trade protectionism is the most important means. Trump expects his team to take tough trade protection measures, especially against China. The British media published an article, which believed that the reason for the Sino-US trade war is that there is unfair competition in trade between China and the United States. If the two sides impose tariffs on each other, the United States will suffer more serious losses. (Cai et al., 2018; Li, 2018)

### Research Questions

This article studies the Sino-US trade war and raises the following questions

1. Which industries in China have a positive impact under the Sino-US trade?
2. What is the negative impact of the Sino-US trade war on Chinese industries?
3. What is the impact of the Sino-US trade war on the United States?

### Literature Review

#### Chinese Scholars' Comments on the Sino-US Trade War

Viewpoint 1: China wants the US to relax export controls on high-tech products

There are new variables in the relationship between China and the United States. The United States is very concerned about China's trade deficit, exchange rate manipulation, intellectual property protection, and service market opening. China attaches great importance to the review of foreign investment in the United States, the export of high-tech products, and the investigation of surrogate countries. The United States is very concerned about the opening of the Chinese market and requires the full opening of China's service industry. China hopes that the United States will get rid of the Cold War mentality and relax the export control of high-tech products to China. By deepening Sino-US economic and trade cooperation, the cooperation bond between China and the United States will be narrowed. The article finally explains that deepening reform and opening up will continue to create space for the United States to seek cooperation.

The reason for the Sino-US trade war is the changes in the domestic political and economic structures of the two countries. Facing the severe situation of the trade war, it must be clear that China and the United States will not move towards full-scale confrontation. In the face of the impact and impact of the Sino-US trade war, we must seize the initiative and promote peace through war in order to better handle Sino-US trade frictions. Sino-U.S. trade frictions will lead to a new pattern of Sino-U.S. cooperation. The economic and trade relationship between China and the U.S. is not a zero-sum game, but interdependent. While relying on each other, China's trade dependence on the United States is gradually declining. The article concluded that in the Sino-US trade friction, China can bear the short-term impact of the friction. (Hufbauer & Jung, 2020)

Yuan (2018) pointed out that the United States has continued to dispute China's trade expansion, and China is facing a sharp increase in the danger of trade friction. Sino-US trade has improved the purchasing power of American consumers and at the same time enhanced the competitiveness of American companies. Sino-US trade has enhanced the purchasing power of American consumers. The ever-expanding imports of Chinese products in the United States not only increase the diversity and choice of final consumption and intermediate products in the United States, but also reduce prices. Sino-US trade has enhanced the competitiveness of US companies. Among them, the fastest-growing industries in the US are imports of computers, electronic equipment, transportation equipment and chemical products with high added value from China. Free trade is the source of economic prosperity for both China and the United States, and the emergence of a trade war will make American consumers bear high prices. Therefore, the development of Sino-US trade has driven the rapid rise of the Chinese economy and the US economy.

Zhang (2018c)'s research pointed out that the biggest feature of global trade is the strong recovery since the financial crisis. From the perspective of the recovery region, Asia and North America have achieved recovery with the help of the strong economic momentum of China and the United States. In the process of economic recovery China and the United States are the source of power. Not only in the field of trade, China and the United States have also played a leading role in other industrial fields. For example, the recovery of the manufacturing industry has driven a significant increase in the exports of primary product countries (resource countries). Although the trade structure between China and the United States is very complementary, from the perspective of the situation and trend, China is moving towards the high end of the entire industrial chain. Labor-intensive consumer goods are gradually shifting to electronic consumer goods, machinery and equipment, and then gradually to higher-end products. The direction of precision manufacturing is upgraded. The Sino-US trade war is not limited to the trade conflict between China and the United States, it will have a very big impact on American multinational companies and consumers. Multinational companies are an absolute leader in the global value chain, accounting for 80% of the overall international trade. For the world's largest 100 multinational companies, their overseas operating income is much higher than their local operating income. This paper finally points out China's position in the global value chain, and it should unite more trading partners

and global value chain partners to put Sino-US trade issues under the WTO framework or the multilateral framework, rather than under the bilateral framework.

#### Viewpoint 5: Trade wars are countercurrents to globalization

Today's world situation is undergoing profound and complex changes, geopolitical conflicts are intensifying, and regional focal points and difficult issues arise from time to time; some major countries and regions in the world are experiencing anti-globalization trends, and globalization is in a hesitant stage, facing more uncertainties. (Zhang, 2018a) From the perspective of global economic governance, there are three directions: one is to implement new rules bilaterally instead of multilaterally; the other is to pressure China to manipulate the exchange rate as a breakthrough point; the third is to minimize international responsibilities as a prelude to abandoning climate change.

#### Viewpoint 6: Trump promotes new trade protectionism

Trump proposed to focus on improving people's employment and welfare, and implement two doctrines at the same time, implementing "new" liberalism in the United States and promoting "new" trade protectionism internationally. The U.S. measures against China are to call on the American people not to buy Chinese products; to pass the U.S. Free and Fair Trade Act; to strengthen global coordination and cooperation to deal with China. And discourage American companies from investing in China; prevent some Chinese companies from acquiring or raising funds in the United States; strengthen monitoring and review of China; strengthen the control of the United States over high-tech fields.

Ultimately, it is necessary to actively communicate with the Trump administration and think tanks in multiple ways, and strengthen cooperation with the EU in global governance.

#### Viewpoint 7: China and the United States cooperate to stabilize the international economy

Many scholars pointed out that the international economy can be stable only when China and the United States cooperate (Zhu, 2018 ; Zhang, 2018b). Scholars used a combination of qualitative and quantitative research methods to analyze from the perspectives of the United States, China, and comprehensive aspects. The results showed that the growth rate of GDP in the United States The rate has a significant negative correlation with the US anti-dumping against China. There is a significant positive correlation between the US's import dependence on China, China's export dependence on the US, the real exchange rate growth rate of USD/RMB and the US's anti-dumping against China. It is also believed that the development of Chinese manufacturing has benefited from the dividends of economic globalization. Under the global value chain division of labor, Made in China relies on the accumulation of high-quality human capital, increasing technological advantages and government support to make full use of comparative advantages to gain international competitive advantages. The development of Chinese manufacturing in terms of quality and quantity has had a great impact on the United States. As the largest developing country and the largest developed country in the world, the two countries need more wisdom to get along with each other. Only when the two sides adhere to the path of win-win cooperation can the international economic structure be guaranteed to be stable. Some scholars have also pointed out that the main research object is the Sino-US trade relationship to study the impact of the Trump administration's 25% global tariff on imported steel through the "232" investigation on

China. They use the GTAP model to quantitatively simulate the impact of the impact of US steel tariffs on China. By comparing four different simulation scenarios, they try to give China an effective strategy to deal with the US trade war (Jiang & Gao, 2018; Radar, 2018).

Viewpoint 8: The impact of the Sino-US trade war on China is not as good as Trump expected, but it has a great impact on Asia

Since March 22, 2018, the United States has started a trade war with China. Many researchers at home and abroad have begun to pay close attention to it. The focus is on the intention of the United States to launch a trade war against China and the impact of the Sino-US trade war on China and the United States. Research. First of all, the outbreak of conflicts in the Sino-US trade war is divided into economic conflicts, political conflicts, and civilizational conflicts (Bloomberg, 2018), and there is also a trend from a situation of one superpower to multi-polarity in today's complex and changeable world economic pattern Gradually deepening, the U.S. hegemony is gradually threatened by reasons (Zhou, 2019). The second is to study the impact of the trade war on both sides. The impact on the United States is that the short-term economic impact is likely to be unevenly distributed in the global market. The impact on China would be much less than President Trump imagined, but the collateral damage to regional economies in Asia could be significant (Bloomberg, 2018). The third is to study China's strategy to deal with the United States' violation of WTO rules. It should pay equal attention to economic counterattack and reform, strengthen the role of the market in the system, firmly promote the rise of major powers, and promote the integration of civilizations. Prepare for struggle, for a full-scale systemic response (Bloomberg, 2018). Finally, China must safeguard its own interests and promote mutual benefit and common development between the two countries, in order to maximize the interests of countries that seek peaceful development of trade exchanges (Zhou, 2019)

## International Scholars' Views on the Sino-US Trade War

The international scholars have different views in the research, let us summarize below.

Viewpoint 1: Sino-US trade brings huge supply-side benefits to both sides

It is stated in the paper that although the two-way trade is orders of magnitude larger than that predicted by my country's financial department in the 1970s, due to the economic scale of the United States and China, the two-way trade is still far below its potential scale. Expanded trade brings significant supply-side benefits to both parties through comparative advantage, economies of scale, reduced markups, and faster adoption of best practices by lagging firms. (Hufbauer & Jung, 2020)

Viewpoint 2: The Sino-US trade war will cause the US to lose the spillover effect of technological innovation from China

Theodore et al. (2012) study shows that Chinese companies operating in the United States pay higher wages and conduct more investment, research and development than ordinary American companies. As China rapidly evolves from a technology imitator to a technology innovator, the United States will forego possible spillover benefits from the local presence of top Chinese companies. Only an ultra-nationalist can believe that American companies will remain best-in-class in every aspect of technology for the next two decades.

## Viewpoint 3: The Sino-US trade war is the biggest threat to the world economy

Frenkel (2018) pointed out that the Sino-US trade war is the biggest threat to the world economy today. And now it's not a war just a friction he reminds of the disaster of 1931 A well-intentioned measure to protect America became a catalyst for a world war (Wiki: 1931 Hoover meddling in dollar prices. US economic policy has turned radical and interventionism.) The world is interdependent and connected. He sees bilateral deficits as irrelevant and tariffs as a terrible tactic and worries about calls for protectionism. Language should not be used to start a trade war, but to make the other side assume more international responsibilities. China is the most or second most important trading partner of many countries, and at the same time, he supports Trump's other policies, arguing that the reduction of tax rates and deregulation have received a good response from the business sector. (Bu & Mao.G2019; Shi, 2018)

## Viewpoint 4: Sino-US trade should return to the WTO

Flassbeck (2018) argues that on one level, Trump's measures are right, although on the other side they seem offensive and criminal. The current economy is already in the midst of a global trade war, which is a new field opened by Trump. Pressure is exerted by trade deficit countries on trade surplus countries. He cites the example of Germany, where large trade surpluses are not a normal part of free trade, and France and Italy, which have large trade deficits. Bilateral deficits between China and the U.S. have escalated the trade war, with the U.S. devaluing the dollar and China taking countermeasures. Countries have to adjust to make trade more balanced, returning to WTO is a good idea, although it has many problems that make the exchange rate undervalued.

Viewpoint 5: The United States takes a tough attitude towards the Sino-US trade war, but China's attitude tends to be more relaxed

Ian Arthur Bremmer (Tan, 2018) pointed out that China has a considerable emerging market, but it is obviously not a developed country. In recent decades we have seen the center of the game move eastwards, not only China but also India and other parts of Asia. Some easing in the Chinese economy is a pretty good move. China believes that its holdings of assets are growing, which puts pressure on the United States. It is a friendly signal that China has reduced its foreign exchange reserves and devalued the dollar in an attempt to restart negotiations. Showing that they are concerned about being accused of currency manipulation and want to maintain some stability. They see Trump not caring about their allies as an opportunity, so they try to play a greater leadership role. He thought they could get Trump to compromise, but they couldn't. Trump will have a hard time striking a deal with China, as his advisers lean toward a tougher stance on Chinese trade. The reason they want free trade in North America is that they want to have a tough attitude towards trade. He got it from Mexico and Canada, but China is huge, and Europe and the United States cooperate more.

## Brief Conclusion from Reviewed Article

Through reviewing the literature, it is found that scholars believe that launching a trade war is not a rational thing, and that China and the United States should cooperate with each other. The trade war will not only affect the economies of China and the United States, but also affect other countries. national interest. It can also be seen that not all opinions are inclined to either side of China and the United States, and they

believe that there is no advantage to the economic development of China and the United States, so we still hope that China and the United States can cooperate with each other, develop together, and benefit each other. in order to maximize the national interest. Therefore, this article will use the latest data based on the relevant theories and methods of previous studies, combine relevant theories with empirical evidence, discuss the economic impact of the trade war between China and the United States on both sides, and draw objective and fair conclusions and give Make useful suggestions.

The impact of the Sino-US trade war on China and United States

Research question: How has the US-China trade war affected the US?

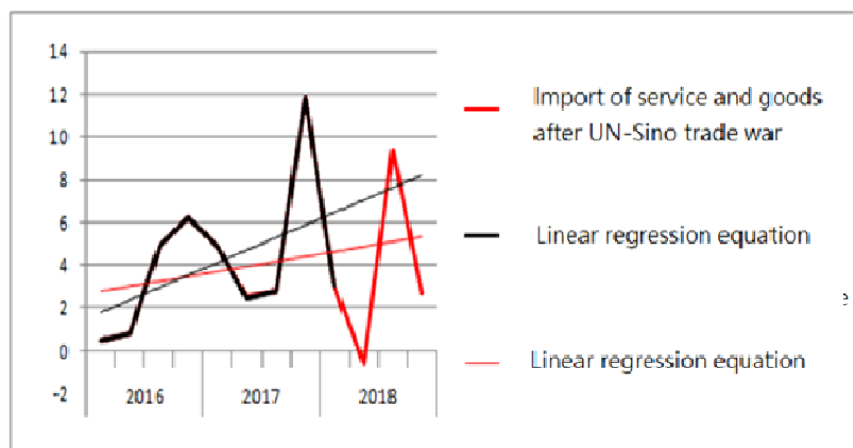
1. Which industries in China have a positive impact under the Sino-US trade?
2. What is the negative impact of the Sino-US trade war on Chinese industries?
3. What is the impact of the Sino-US trade war on China's macro economy?

### What is the impact of the Sino-US trade war on the United States?

#### Assumptions1:

H1: The Sino-US trade war has a negative impact on the growth rate of US imports of goods and services

Since the Sino-US trade war, China has repeatedly raised export tariffs to the United States in response to the new US tariff policy, inferring that US imports of goods and services will be negatively affected.



**Figure 1** Comparison of the growth rate of US imports of goods and services after the Sino-US trade war

**Table 1:** The formula for comparing the growth rate of US imports of goods and services after the Sino-US trade war

Classification	linear equation	R <sup>2</sup>
Before the US-China trade war	$y = 0.585x + 1.219$	0.218
Before and after the Sino-US trade war	$y = 0.236x + 2.524$	0.054

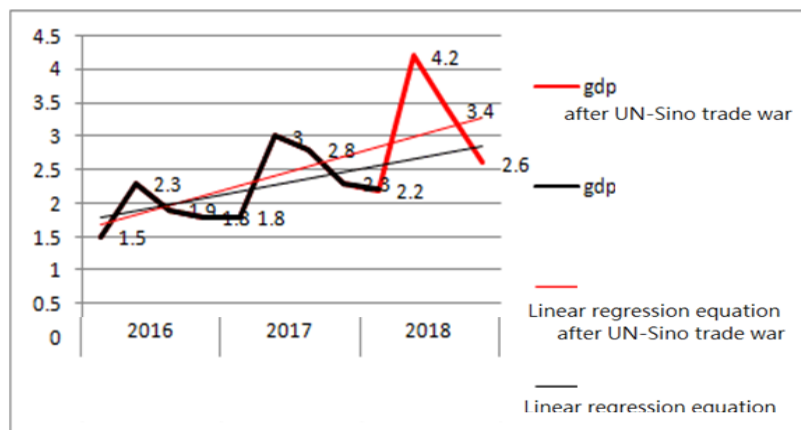


The Figure 1 and Table 1 to show that the growth rate of imports of goods and services in the United States has fluctuated greatly over the years. The growth rates of imports of goods and services in the United States before and after the Sino-US trade war were analyzed by linear regression, and the Sino-US trade war The growth rate slowed down after that happened. Because of the Sino-US trade war, the growth rate of goods and services has significantly decreased and fluctuated, and the linear regression has been significantly pulled away from the original trend, resulting in a low R2. hypothesis is valid.

### Assumptions 2:

H2: The Sino-US trade war has a negative impact on the growth rate of US GDP

During the Sino-US trade war, China has repeatedly raised export tariffs to the United States. At the same time, the increase in tariffs by the United States has had a certain negative impact on local importers. It is inferred that the growth rate of the US GDP will be negatively affected.



**Figure 2** Comparison of US GDP growth rates after the Sino-US trade war

**Table 2** Comparison formula of U.S. GDP growth rate after the Sino-U.S. trade war

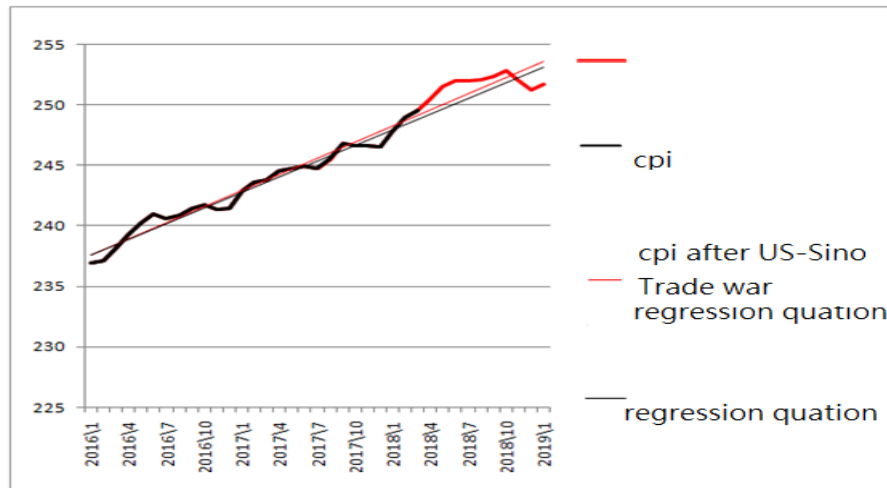
Classification	linear equation	R <sup>2</sup>
Before the US-China trade war	$y = 0.096x + 1.694$	0.292
Before and after the Sino-US trade war	$y = 0.144x + 1.542$	0.457

The Figure 2 and Table 2 show that the growth rate of the GDP of the United States has fluctuated greatly over the years, but the volatility has changed significantly after the Sino-US trade war. Linear regression analysis was performed on the growth rate of the U.S. GDP before the Sino-U.S. trade war and after the Sino-U.S. trade war, and it was concluded that the U.S. GDP growth rate after the Sino-U.S. Trade war US GDP growth rate. Hypothesis does not hold

**Assumptions 3:**

H3: Inflation will rise after the Sino-US trade war

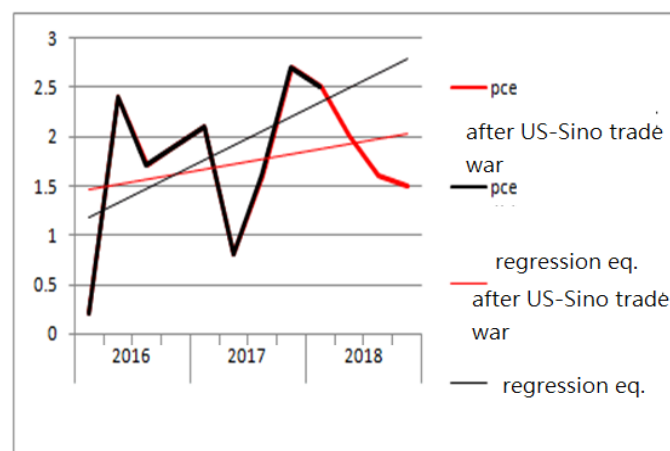
In the Sino-US trade war, China has repeatedly raised export tariffs to the United States, and the United States has repeatedly raised tariffs to China. There will be fewer cheap imports in the United States, inferring that inflation will rise after the Sino-US trade war.



**Figure 3** Comparison of US consumer price index after the Sino-US trade war

**Table 3** Comparison formula of U.S. consumer price index after the Sino-U.S. trade war

Classification	linear equation	R <sup>2</sup>
Before the US-China trade war	$y = 0.432x + 237.2$	0.972
Before and after the Sino-US trade war	$y = 0.444x + 237.1$	0.970



**Figure 4** Comparison of the growth rate of the U.S. personal consumption expenditures price index after the Sino-U.S. trade war

**Table 4** Comparison formula of US personal consumption expenditure price index growth rate after the Sino-US trade war

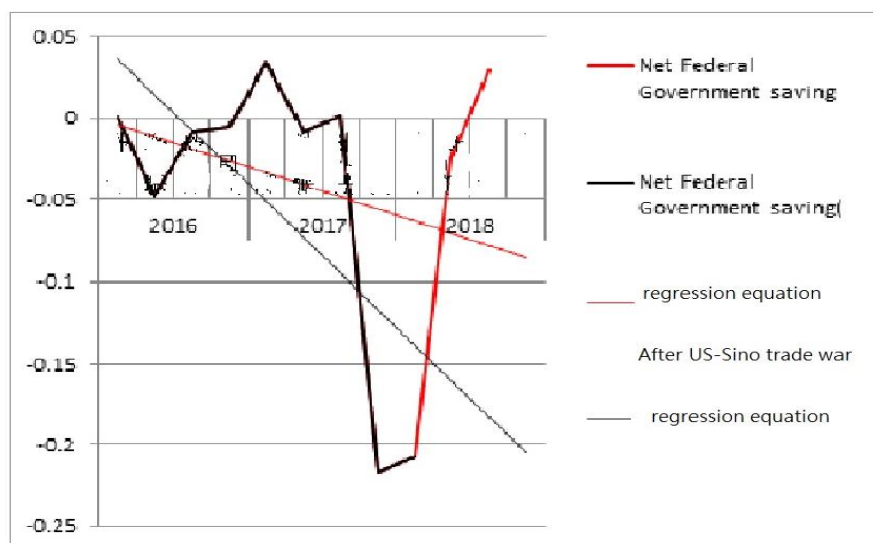
Classification	linear equation	R <sup>2</sup>
Before the US-China trade war	$y = 0.146x + 1.033$	0.240
Before and after the Sino-US trade war	$y = 0.051x + 1.413$	0.069

The data showed that the consumer price index showed a steady upward trend, while the growth rate of the personal consumption expenditures price index changed drastically. Linear regression analysis of the U.S. consumer price index before the Sino-US trade war and after the Sino-U.S. trade war showed that there was no significant change in the U.S. consumer price index. The linear regression analysis of the growth rate of the US personal consumption expenditures price index before the Sino-US trade war and after the Sino-US trade war respectively shows that the growth rate of the US personal consumption expenditures price index has a significant decline. The market inflation rate reflected by Cpi has no significant change, while the potential inflation rate reflected by pce has a slowing down trend. After the outbreak of the Sino-US trade war, due to the sharp decline and fluctuation of the personal consumption expenditure price index, the regression linearity was significantly pulled away from the original trend, resulting in a low R<sup>2</sup>. Hypothesis does not hold

#### Assumptions 4:

H4: The Sino-US trade war has a negative impact on the net saving growth rate of the US federal government

Tariff policies may lead to an increase in U.S. government spending, while the Sino-U.S. trade war has reduced the confidence of many investors in U.S. Treasury bonds. Infer a negative impact on US federal government net saving.

**Figure 5** Comparison of net savings growth rates of the US federal government after the Sino-US trade war

**Table 5** Comparison formula for net savings growth rate of the US federal government after the Sino-US trade war

Classification	linear equation	R <sup>2</sup>
Before the US-China trade war	$y = -0.021x + 0.058$	0.509
Before and after the Sino-US trade war	$y = -0.007x + 0.002$	0.078

The Figure 5 and Table 5 show that the growth rate of net savings of the US federal government is in an upward trend. The net savings growth rate of the U.S. federal government before the Sino-U.S. trade war and after the Sino-U.S. trade war were analyzed by linear regression, and the net savings growth rate of the U.S. federal government increased significantly after the Sino-U.S. trade war. Because after the Sino-US trade war broke out, the growth rate of the net savings of the federal government increased significantly, which caused the linear regression line to be significantly pulled away from the original trend, resulting in a low R<sup>2</sup>. is assumed to be false.

### What is the negative impact of the Sino-US trade war on Chinese industries?

It can be seen from the figure that the predicted stock price will start to be higher than the actual stock price, and it will drop sharply around April 2018 to August 2018, and it will be lower than the actual stock price for a long time in September. In order to find out the reason for this phenomenon, Found the US tax increase table for Chinese products

**Table 6** Tax collection scale and Proportion of total exports in China

Category	Tax collection scale (100 million U.S. dollars)	Tax collection scale (100 million U.S. dollars)	total exports	US Proportion of total exports(%)	Proportion of total exports(%)	Total tax ratio (%)
1	0	15.5	20.1	0	77.2	77.2
2	0	10.8	15.9	0	67.8	67.8
3	0	0.1	0.8	0	11.4	11.4
4	0	18.5	38.3	0	48.4	48.4
5	0.5	14.1	16.2	3.1	89.8	89.8
6	4.6	98.0	139.5	3.3	73.6	52.1
7	49.7	46.8	185.4	26.8	52.1	52.1
8	0	43.7	68.2	0	64.0	64.0
9	0	35.3	39.9	0	88.6	88.6
10	0	31.2	41.4	0	75.4	75.4
11	0	40.9	424.5	0	9.6	9.6
12	0	15.8	159.6	0	9.9	9.9
13	0.1	52.5	73.4	0.1	71.6	71.6

14	0	6.7	35.9	0	18.6	18.6
15	40.9	123.7	225.1	18.2	54.9	73.1
16	245.5	1016.4	1985.4	12.4	51.2	63.6
17	93.9	95.5	196.8	47.7	48.5	96.2
18	48.1	19.6	108.4	45.2	18.4	63.6
18	0.4	0	0.8	45.5	0	45.5
20	16.3	250.9	510.3	3.2	49.2	52.4
21	0	0.5	0.5	0	96.7	96.7
22	0	0	13.2	0	0	0
Total	500	2000	4297.6	11.6	46.5	58.2

Among them, Category 1 - Live Animal Products Category 2 - Plant Products: Category 3 - Animal and Vegetable Oils and Fats. Edible Oils and Fats: Category 4 - Food: Beverages, Wine and Vinegar, Tobacco and Products Category 5 - Minerals Products: Class 6-Products of the chemical industry and related industries: Class 7-Plastic and its products: rubber and its products; Class 8-Leather, fur and its products; bags; gut products Class 9-Wood and its products Products: charcoal; cork; knitting products; Class 10 - wood pulp, etc.; waste paper: paperboard and its products: Class 11 - textile raw materials and textile products; Class 12 - shoe finger umbrellas, etc.; processed feathers and Articles thereof: Artificial flowers, articles of human hair; Class 13 - Products of mineral materials: Ceramics: glass and articles thereof; Class 14 - Jewellery, precious metals and articles thereof; imitation jewellery; coins; Class 15 - Metals and articles thereof; Class 16 - Electromechanical audio-visual equipment and its parts and accessories: Class 17 - Vehicles, aircraft, boats and transportation equipment; Class 18 - Optical, medical and other instruments: Clocks and watches: Musical instruments: Class 19 - Weapons, ammunition and their parts; Class 20 - Miscellaneous Products (Furniture, Players, etc.); Class 21 - Artwork, Collectibles and Antiques; Class 22 - Special Trade Items and Unclassified Commodities, Class 15 is Metal.

### Which industries in China have a positive impact under the Sino-US trade?

To study which Chinese industries have a positive impact under the Sino-US trade war, we decided to explain through the changes in certain industries in the Chinese stock market under the Sino-US trade war. After analysis, we first have a premise that the Sino-US trade war will affect both sides. Therefore, we began to think about whether such an impact is only negative, so we made a hypothesis: the Sino-US trade war has a positive impact on certain industries in China, so as to find out the industries that have a positive impact , thus proving that the hypothesis holds.

The study started to analyze which industries may have a positive impact under the Sino-US trade war. First of all, I thought of the wine industry, because the Sino-US trade war will have a huge negative impact on domestic enterprises, such as foreign trade companies and logistics companies, so these companies In order to save costs, various measures will be taken, such as layoffs and the like. In this way, the employees will be under great pressure. The old saying goes: one drunk can relieve all worries. Under such pressure, it

happened to be summer at that time. I guess under such circumstances, these stressed people would go to drink at night. Solve the pressure in the heart, so the sales volume of wine will increase, which will be reflected in the stock, and the stock will have a big upward trend.

Next, under the China trade war, the United States will increase taxes on various Chinese export products. After investigation, the United States will increase taxes by 25%-50% on my country's metal exports, so we think Chinese metal traders They will no longer export their own metals, so China's domestic metal reserves will increase a lot. Once the supply increases, the price will drop. At this time, China Railway will not miss such an opportunity, and will definitely buy large quantities of metals with reduced prices Material, the cash flow of China's railways will drop sharply, and after a period of time, after the railway is completed, there will be a huge increase. This can prove that the Sino-US trade war will have a positive impact on China's railways.

Finally, car manufacturing is considered. Since the United States has increased taxes on China, China will not simply be sanctioned. In order to protect its own interests, China will also increase taxes on the goods exported to China from the United States. When exporting to China, the price will also rise. In comparison, Chinese cars will be more competitive with American cars during the Sino-US trade war. The sales of Chinese cars will increase and the stock of cars will rise, which proves that China Under the US trade war, it has a positive impact on the auto industry.

### Tsingtao Brewery

In order to verify the conjecture, it is found the stock price data of Tsingtao Brewery, China Railway and Steyr at the beginning of each month from 2014.3.1 to 2018.3.1, and obtained the predicted stock price after 2018.3.1 through the time series analysis in the spss software Trend chart, and then we took out the actual stock price change chart of the three companies from March 1, 2016 to March 1, 2019, and compared the forecast chart with the actual chart.

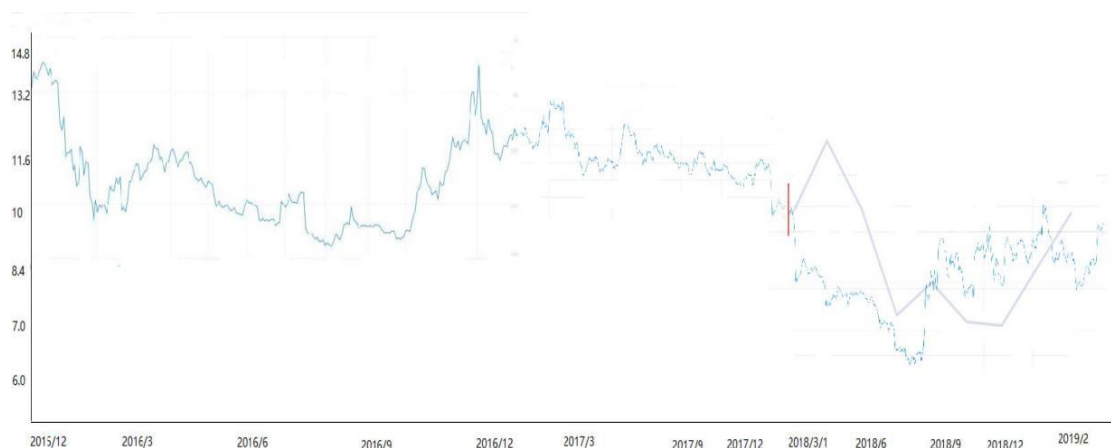


**Figure 6.** The impact of Sino-US trade war to Tsingtao Brewery's stock price

It can be seen from the consolidated chart of Tsingtao Brewery's stock market actual and forecast that under the Sino-US trade war, the actual stock price of Tsingtao Brewery is indeed higher than the predicted stock price. There are doubts about the cause of this phenomenon. The Sino-US trade war is really Will it increase the pressure on the people so that they can hangover and relieve their worries? We found the research of JPMorgan Chase, a credit company. They pointed out that the Sino-US trade war will cause the loss of 5 million jobs in China. The annual change in the employment rate.

It can be seen that the decline in the employment rate in 2017-2018 reached the maximum value of 0.51. According to Maslow's demand theory, these unemployed people cannot meet the most basic survival theory, so the unemployed will have a lot of pressure, and the pressure needs to be released. , so that these people's demand for wine will increase, and the price of Tsingtao Beer is not high compared to other wines. These people who have no financial resources will choose Tsingtao Beer with a low value, which will lead to the turnover of Tsingtao Beer Soaring and the stock price will rise at the same time.

In the same way, put China Railway Construction's forecast and actual stock price together.



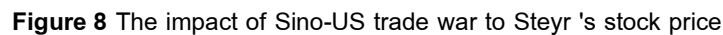
**Figure 7** The impact of Sino-US trade war to China Railway Construction's stock price

## China Railway Construction

After 2 rounds of tax increases, use China has to pay 70% more taxes on metals exported to the United States, which will increase the supply of metals in the domestic market. The increase in supply will reduce the price. China Railway Construction will take the opportunity to hoard cheap metals. This approach makes China Railway Construction in China and the United States. At the beginning of the trade war, the stock price will drop, and after a period of railway construction, the stock price will rise rapidly, which also verifies the conjecture that China Railway Construction was chosen at the beginning.

Steyr

Finally, look at Steyr's forecast and actual stock price forecast.



Through the time series method, the forecast and actual comparison of the stocks of Tsingtao Brewery, China Railway Construction, and Steyr, according to the data, it can be seen that under the Sino-US trade war, the stocks of these three companies have all risen to varying degrees, which proves that The initial hypothesis: The Sino-US trade war has a positive impact on certain industries in China.

## Conclusion

2. China and the United States should continue to open up to the outside world. When developing international markets and investing abroad, free trade agreements should be the basis, and the opening-up strategy should not be affected by trade frictions and conflicts. There should be deeper participation in the World Trade Organization Comply with the trend of global economic development and the new opening-up strategy of the changing situation between China and the United States, expand opening up, expand the



international trade market, cultivate new momentum for foreign trade development, and benefit other countries to share the fruits of international trade.

3. This trade war has exposed the problems of the industrial chain between China and the United States. The technical shortcomings of China's high-tech industry have also exposed the irrational structure of China's foreign trade import and export, with a large proportion of commodity trade and a serious shortage of service trade. In this regard, China should further promote the opening of the service industry, expand productive service trade, and expand emerging service trade; play its strengths in international trade, and encourage financial services, insurance services and other knowledge or capital-intensive industries to go out; for computers and information. Actively cultivate comparative advantages in knowledge- and technology-intensive industries such as service, bioengineering, and medical services, and provide policy support for these industries to participate in international trade. The United States should continue to maintain an open and friendly relationship with China, which is beneficial to both parties.

A new type of opening strategy, expanding opening up, expanding the international trade market, cultivating new momentum for foreign trade development, and benefiting other countries to share the fruits of international trade.

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