

Compare the two government policies and how they affect the economic direction of China's high-tech industry

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Abstract:

This research paper compares the impact of trade policies implemented by U.S. Presidents Barack Obama (2012-2016) and Donald Trump (2017-2021) on the economic effect of China's high-tech industry. This paper would focus on how key policy changes under the two presidents affected the US-China trade relationship, focusing on tariffs and trade agreements. This paper uses quantitative data analysis and qualitative interviews to analyze how these policy changes affect the economic situation of China's chip industry. During the Obama administration, trade policy was characterized by a focus on global trade agreements. However, during the Trump administration, global trade policy was changed, which challenged the global chip industry. Through this study, the two presidential administrations of the United States have completely opposite attitudes towards China's high-tech industry. This has directly led to changes in the global trade industry chain and the prices of high-tech industries. Different policies have also indirectly affected trade between countries and made politics sensitive.

Keywords: Free trade agreement, Trade protectionism, High-tech industry

1. Introduction

China and the United States have always been factors that change the global trade landscape. The actions taken by US Presidents Barack Obama and Donald Trump in the period of 2012-2016 and 2017-2021 have had an impact on the high-tech industry that has changed the world economy. As electric vehicle manufacturing, artificial intelligence, and communication systems become more and more important in this

society, high-tech chips also play an important role in these companies. Therefore, countries choose to start a "war" in the trade market for their own interests. This paper will analyze how the trade policies made by these two administrations have affected the Chinese high-tech industry economy. During the Obama administration, trade liberalization measures were taken. This measure featured trade cooperation between different countries, the Trans-Pacific Partnership Agreement (TPP). This agreement emphasized

the globalization of the economy and the integration of the Chinese technology market into the international market. Trump took the opposite approach. Trump turned to a position of protecting the US economy and confronting other countries in the chip technology market. Trump chose strategies such as imposing tariffs and renegotiating trade agreements to protect the US domestic market. Therefore, this study takes a deep look at how the two different US trade policies affect the Chinese chip market in order to evaluate the future trade direction between China and the United States.

2. Research Methods

2.1 Data analysis

I used Google Scholar, CHKI, USTIC and other databases to search for keywords such as “presidential policy”, “chip industry”, and “economic impact” as the theoretical basis for this research. By studying the different policies of the two presidents: trade protection and trade freedom, analyzing the economic development from the perspective of policy is the basis of my research. Through the data obtained from DataWeb and the data summarized in the articles read, this research method can intuitively understand the impact of different policies on the economy. From the perspective of comparison and statistics, readers can simply and clearly understand the meaning of what this study meaning.

2.2 Interview analysis

By interviewing industry insiders and analyzing their interviews, we can get a detailed understanding of the opinions provided by professionals on this research and allow readers to more intuitively feel the changes that the industry has experienced under different policies. I interviewed a senior executive of a chip industry company to discuss the policy pressures facing the target company’s prospects. At the same time, I discussed with the interviewee the differences between the current Sino-US trade during the Obama and Trump administrations and the prospects for China-US trade.

3. Research Results

3.1 Data sample analysis

By looking for the period from 2012 to 2016 when Obama was president, and from 2016 to 2020 when Trump was president, I study the policies made by the two presidents that affected the tariffs on the chip industry. During the Obama presidency, the Trans-Pacific Partnership Agreement (TPP), the Most Favored Nation (MFN) and other policies did not impose tariffs on China in the integrated circuit and semiconductor industries. Only 1-2% of the tariffs were imposed on circuit boards and components. During Trump’s tenure (2016-2020), he accused China of unfair trade practices. Trump imposed six large tariffs from 2018 to 2019. The total amount of tariffs imposed by Trump during his tenure was as high as 82.1 billion US dollars. The semiconductor industry accounts for 37% of the total tariff industry, so semiconductors were levied 30.27 billion US dollars.

3.1.1 Data analysis results

Through Section 301, the Trump administration-imposed tariffs on China six times. The dates announced by the Trump administration were March and September 2018, and May, August, September, and December 2019. Table 1 clearly shows the prices of goods subject to tariffs imposed by the Trump administration and the percentage of Gossip products. At the same time, in Table 2, I list the policies implemented by Obama during his tenure from 2016 to 2020 and the policies during the Trump administration (2016-2020). Through this comparison of the Obama administration’s policies, it can be clearly seen that Obama sought stable global economic development and maintained an open attitude towards China’s high-tech industry. The Trump administration believes that China’s high-tech industry poses a huge threat to the United States. The “National Security Strategy” released by the Trump administration in 2017 determined that it stood on the opposite side of China in global trade. And several policies have had a huge tariff impact on China’s high-tech product exports.

Table 1: Trump’s tariffs on China

Year	Total tariff	Amount of tax increase	High tech chips propopttion	Amount of High Tech Chips
Jul-18	\$34 billion	25%	30%	\$3.75 billion
Aug-18	\$16 billion	25%	30%	\$3 billion
Sep-18	\$200 billion	10%	30%	\$ 6 billion
May-19	\$200 billion	From 10%to 25%	30%	\$ 9 billion
Aug-19	\$300 billion	10%	30%	\$ 9 billion
Dec-19	\$160 billion	Reduce from 15%to 7.5%	30%	2.52 billion

Table 2: Comparison between the Obama administration and the Trump administration on tariff policy.

Time Range	President	Main policies	Impact on Chinese products
2012-2016	OBAMA	<ol style="list-style-type: none"> 1. Bilateral Investment Treaty (BIT) 2. Trans-Pacific Partnership Aggrement (TPP) 	Tariffs on high-tech products are relatively stable
2016-2020	TRUMP	<ol style="list-style-type: none"> 1. "Section 301" 2. Imposing high tariffs on high-tech products. 3. Discussed 《Chips Act》 	<ol style="list-style-type: none"> 1.Promoted the trade agreement negotiations between China and the United States 2.Imposing tariffs of up to \$30.27 billion on China's technology industry.

3.2 Interview analysis sample

In the past week, I conducted a two-hour face-to-face interview and a 15-minute telephone interview with a chip salesperson from a Siemens company who sale soft-

ware for 30 years (referred to as Mr. J). The interviewee frequently travels between China, the United States and Germany. Therefore, his career has given him a very clear understanding of international trade. This allows him to provide advice for this paper and have unique insights

into Sino-US high-tech industry trade. The topics asked in the two interviews included: “What are the obstacles to China’s high-tech chip exports to the United States?” “How to deal with high-tech factories controlled by foreign companies in mainland China?” “What is your opinion on Sino-US high-tech industry trade between 2012 and 2020?” Based on the summary and analysis of Mr. J’s opinions, I sorted out the theoretical supplements for this research topic.

3.2.1 Interview analysis results

According to the interview content compiled by me and interviewee, the study can clearly show the development and trend of Sino-US trade in the high-chip industry chain. The interviewee pointed out: “With the inauguration of US President Trump, the trade situation in the chip industry has become increasingly tense. The economic effects of the company have been damaged to a certain extent.” Compared with the policies during Obama’s tenure, the trade economy in 2016-2020 has become tense. Not only that, many chip production companies originally in mainland China have begun to move out to other countries in the Asia-Pacific region. Regarding this aspect, the interviewee said: “This is because foreign-funded enterprises have chosen safer places to produce in order to avoid the harm caused by the Sino-US trade war.” From the above point of view, it can be concluded that the Sino-US trade war affects not only the interests of the country itself but also the interests of other chip industry companies. When I asked interviewee how he viewed the prospects of Sino-US trade. Interviewer A said that he did not know what the policies of each president would be judging from the current policies, the trade war between China and the United States will not only harm the economy but also the politics and the people of the country.

4. Discussion

4.1 Results

As the technology of high-tech chips becomes more and more advanced, different countries have made different decisions on high-chip trade. In order to promote the development of global trade, Obama chose to make the Chinese chip market valuable, and the trade method he chose was multiple trade agreements. Therefore, China’s high-tech market is developing steadily. As chips become more and more advanced, the Trump administration has chosen to restrict China’s chip industry in order to protect its own national security. Therefore, president Trump administration has started a chip trade war by increasing tariffs.

4.2 Limitations

This study collects a large amount of tariff data and the tariffs imposed on High-tech industry, which may not fully reflect the advantages or realities of other Chinese products in global trade. Moreover, the interview data collected in this study cannot represent the views of other industries.

5. Conclusion

Through comparative methods, data statistics and interviews with industry insiders, this study describes in detail the different impacts of the policies of two US presidents on China’s high-tech industry economy. Trade protectionism by president Trump or trade liberalization by president Obama may have obvious effects in the short term, but any one that can affect global trade policies will form a long-term framework and will affect the decisions and judgments of leaders in other industries. This research can help industry leaders engaged in global trade provide certain insights and be able to use this research as a starting point to deal with future trade relations.

6. Outlook

As the global economy falls into crisis, trade and politics between countries become more sensitive. At the same time, the development of artificial intelligence is becoming stronger and stronger. High-tech chips will become a major direction for determining future national policies and finance. Therefore, we need to help industry leaders make the next decision by observing and studying the development of chip technology and paying attention to the decisions of leaders of various countries.

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