

The Impact of Sino-US Trade War on The Stock Markets of The Two Countries

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Abstract. This paper analyzes the parallels and variances between the stock markets of the US and China, and the impacts of Sino US Trade War on stock markets in the same countries. The findings are showing that the US and China exchange stock markets are divided into different stock markets and play a critical role in each country's economy. The stock markets have some differences in the level of development of the accessibility to funds, with the US stock economy being more developed and more integrated into the economy than China's economy. The findings show the Sino-US trade war has been affecting China and the US stock markets negatively. The adverse effects reflect in stock market fluctuations, decline in market capitalization, market equity loss, reduction in prices, and the returns from the stock markets. These adverse effects imply that the Sino-US trade war created more negative impacts than the intended implementation goal.

Keywords: Sino-US Trade War; Stock Market; Market Capitalization; Market Prices; Market returns.

1. Introduction

The United States suddenly increased the tariffs on nearly 50% of the imports from China, which resulted in the rise of Chinese imports from 3% to 12% in 2018 when The Sino-US trade war began. China reacted by implementing a retribution from China with the imposition of tariffs on the imports of US which increased Chinese tariffs on US exports to China from 10% to 18% [1]. This decision marked the first episode of the Sino-US trade, and the retaliation of the tariffs increased over the years between China as the fastest growing economy and the US as the largest economy, thus affecting trade and operation of firms in each country.

This article aims to investigate the Sino-US trade war impacts on the stock exchange markets in the US and China. The goal of the paper is to inspect the extent to which the Sino-US trade war affected the economy and how the affected companies affected the stock shares and other financial securities of the publicly owned companies in the United States and China. The Sino-China trade war is a continuous conflict in economic aspects between China and the US, which target companies in different sectors. Exploring the context of the Sino-US trade war and how it impacted the stock market. The paper begins by examining the variances of the China and US stock exchange markets to determine the influence of the conditions on their operation during situations of uncertainty such as the Sino-US stock market. The paper also examines the brunt of the Sino-US Trade War on the operation and the stock market's performance for both countries. In recent years, there have been changes in the trading partnerships between China and the U.S., which are largest U.S. economies, facilitated by the emergence of U.S. trade war. The beginning of the U.S. trade war is attributable to the moment in 2017 when the US began accusing China of preferential practices in their trading and activities of psychological property theft. The China-US trade war negatively affected the United States and China stock markets. The adverse effects of China-US war reveal through multiple instances, such as a decline in market capitalization, decline in stock market prices and returns, creating market fluctuations in the stock market, currency exchange rate depreciation, and the spread of the impacts to the adverse effects on other firms and the economy. The impacts of the war on both economies harmed stock market movements between China and the United States due to speculations of the adverse effects of the trade war. In conclusion, the negative impacts reveal that the China-US trade war caused negative impacts which spread beyond the targeted companies and sectors.

2. Similarities and Differences for the China and the US stock markets

2.1 Similarities between China Stock Markets and the US Stock Markets

The US stock markets and China stock markets play significant roles in their economy and operate under a particular structure for investors and companies to follow each market's expectations. For example, the US stock market is currently divided into New York Stock Exchange market and the NASDAQ, with a market capitalization of \$24.68 trillion and \$19.5 trillion, respectively [2]. Similarly, the mainland China stock market operates under three stock exchange markets namely the markets Shanghai Stock Exchange, Hong Kong Stock, and Shenzhen Stock Exchange with the market capitalization of \$7.8 trillion, \$5.7 trillion, and the upcoming Beijing stock market [3]. This information implies that both markets operate under a particular structure which determines the extent of an impact in an event economic instability or occurrence of the events that could influence the functionality of the companies listed in stock market.

The stock markets in United States and China play significant roles in economic growth through the openness of the markets to foreign investors. The value of the foreign stock exchange values determines the foreign investors' contribution level to the stock market and further to the economic growth. In both the United States and Chinese stock markets, foreign investors in stock market play a critical role in economy by contributing billions. Similarly, foreign investors in the U.S. stock market contributed billions to the U.S. economy, with the current value reaching 10,802 billion in 2022 [4]. This comparison is essential because it determines the extent to which the implemented China-US trade war influenced the internal stock market and the impact that such trade war has on non-directly affected firms operating in China and the U.S.

2.2 Differences between the China and U.S Stock Market

Despite the similarities and differences facing China stock markets and the U.S. stock markets, the differences exceed the similarities, thus giving a deeper understanding of the influences of China-US trade war. The first limitation is that the China stock market has many restrictions compared to U.S. stock market. For example, the China stock exchange market is only connected to the economy at the individual and corporate level due to the presence of several regulations to control the market. In contrast, the connection of U.S. stock market is high with little government interventions [5]. The level of restrictions in such markets determines the extent to which the influences of China-US trade war spread within both economies.

The differences between Chinese and United States stock exchange markets are the accessibility of loans and the financial institutions that provide loans to companies listed in each country's stock market. A major difference is that stock market companies of China access funds through bank loans. In contrast, the U.S. listed companies depend on the equity financing process to acquire funds for supporting their operations. This difference reveals the differences in the development of stock financing markets for both countries. The Chinese financing system in the stock market favors the top companies and tends to neglect the small and medium-sized companies while the financing system in the U.S. favors the operations of all the companies through its equity funding approach [6]. This difference implies how the restriction affected the operation of the firms in the different stock markets and if there existed a difference depending on the size of each firm. The main effect is that the credit system in the country creates a business environment where the system exploits small and medium-sized companies.

The administrative policies and practices within the U.S. and the China stock market are significantly different, influencing the company's operation. In situations where a market is subject to control by the administration, it develops and forms a self-administrative enhancement [6]. The Chinese stock market lacks an effective administrative system compared to United States stock market, which influences the market's outcome. For example, after the China stock market was established, the administration has undergone several changes and modifications without the U.S.

stock market experiencing a single change. This problem implies instability in China's stock exchange market which may influence its response to the China-US trade war.

3. The influences Trade War caused on the China and U.S Stock Exchange markets

3.1 Impacts on Stock Markets Capitalization

The implementation of the Sino-US trade war negatively impacted the US firms in China and the Chinese firms that operated in U.S. The implementation of China-US trade war targeted firms operating in each country, thus resulting in unintended consequences in the firms operating in the different countries reflected through the cost prices that each stock market lost as a consequence of China-US trade war. The U.S companies recorded in U.S stock exchange market lost approximately \$1.7 trillion, which is attributable to Trump's initiated U.S trade war [7]. The price loss experienced in the market value for the U.S Stock listed firms because of the increase in tariffs against imports on goods from China. The series of US and China announcements contributed to the loss of aggregate equity prices in companies operating in China and the US economy. The total price loss of stock market is due to the over 3000 listed firms that lost aggregate equity by 6.0% [7]. This problem implies that the war trade war also affected domestic firms.

Similarly, the directly targeted companies by China-US trade war exposed the stock market of China to market capitalization loss though the loss is smaller compared to the US market capitalization loss. For instance, the China-US trade war led to a loss of \$550 billion, with most of the affected Chinese companies operating in Beijing [8]. This loss happened due to a reactionary trade war between the US and China. This problem made companies from the US or its associates operating in China highly targeted for China's tariffs and trade restriction policies. Consequently, such companies lost their presence and benefits of operating in China because of the high costs accompanying their stock in China. Although the retaliation of China-US trade war had similar impacts on the companies targeted in both countries, the magnitude of the impacts in China and the US differ. These differences are attributable to the difference in the level of development of the stock exchange markets in both countries. For instance, the stock market of U.S has been developing for a longer period, while China's stock market has been developing recently. Therefore, the stock market of U.S has experienced high bill losses in U.S stock compared to China.

China and the US stock markets experienced a market equity loss because of the implementation of China-US trade war. The market capitalization value assesses the stages in which the company is the total dollar value of a company's equity measures the value of the traded shares of the company in the market. China and the US declined due to the implementation of tariffs because of the threats and reduction in investments which influenced the decision of customers to buy shares and the company's decision to minimize uncertainty. The China-US war contributed to the market equity market drop of 10% after implementing the 25% tariffs, with the decline in China market equity dropping by 0.9% and 0.7% for the US [9]. This trend implies that the tariffs led to a reduction in consumption, investment and the compounding of the effects. However, the extent of the decline in the market equity for both economies differ, with China experiencing a significant loss in market capitalization compared to the United States. The differences reflect the differences in the stock markets, such as financial developments, which could enable the stock markets to adjust to the issues raised by the tariffs. For instance, the economy and credit in China's stock market are less developed compared to the US credit and financial setting.

3.2 The Stock Market Fluctuations

The establishment of China-US trade war resulted in fluctuations in the stock markets for both countries due to uncertainties in the financial markets. The impacts show that in most cases, it became apparent that tariffs implemented during the China-US trade created a market situation where both

China and US trade war received a high level of fluctuations in markets indexes. For instance, the S & P 500 Index and the Shanghai Composite Index experienced high fluctuations between March 2018 and April 2020 [10]. This problem is directly attributable to the China-US trade war because, during this period, the US and China experienced a series of changes in the tariffs for goods traded between the two countries. The uncertainty in the financial market created a situation where firms operating in the stock exchange market operated with high uncertainty levels, thus affecting the customers' decisions to buy or sell bonds in foreign companies trading in China and the US. However, the level of function in both stock exchange markets differed in both countries.

Despite the similar fluctuation in China stock markets and US stock markets, influences on China and US stock market index differ between the countries. For instance, the S & P 500 Index shows that the US low stock market experienced a higher level of decline, which was 2200 between 2018 and 2020, while the Shanghai Composite Index reached 2400 as its lowest level in 2018 [11]. The fluctuations and uncertainties in the competitive market result from the differences in the China's stock markets and the US are linked to the economy because the trade tariffs affect the companies trading across borders, thus minimizing exports and imports for both countries. Since the US stock exchange market is highly integrated into the economy, the tariffs created fluctuations in the market, spreading to the stock market firms.

The China-US trade war also affected the movement across China and the US through reduction in purchase of shares and bonds in both countries. The impacts of the movement across the different countries result from the influence of the uncertainty in the market on the investments by individuals in the stock exchange markets. The basic idea for investment in the stock market is that investors are always risk-averse, meaning that they trade in stock markets that prove to have low risks [13]. The implementation of the tariffs between the US and China traded goods intended to rebuild the trade relationships between the two countries directly. The US administration threatened to implement a \$550 billion on the Chinese firms operating in the US and China respondent by implementing tariffs worth \$185 on the U.S firms operating in China [13]. The announcement of the tariffs reduced investment in the stock exchange markets in both countries with each of the economies looking for alternative investments. For example, the Chinese firms that exported to the US declined and vice versa because the announcements of the tariffs drove down the profits generated by firms in each market. These problems spread to the stock exchange market because investors reduced investment in firms due to the price impact on the stock exchange markets.

3.3 Impacts on Stock market Prices and Returns

The implementation of China-US trade war caused negative impacts on returns and profitability of the companies detailed in stock exchange market in both countries. The China-US trade war created a situation where the prices for such firms increased, thus minimizing the extent to which the target firms benefitted by operating in the environment of their bilateral trade. The tariffs affected the stock prices by revising them up and the impacts were reflected through the price rises and reduction in the stock returns. For example, the China firms listed on US stock exchange market experienced a decline of stock in prices by 6% of the firms detailed in Shanghai Stock Exchange market [5]. That decline in the returns or profitability of China's stock exchange markets indicates that an increase in tariffs hurts investors' decisions due to price changes. This information implies that the implementation of the tariff policies affected the motivation policies, for including tariffs increased the costs of operations for the Chinese stock market and hurt investors' motivation due to the decline in returns on investment. Investors lost trust and willingness to purchase the bonds and shares in the financial markets, therefore, declined, making the Chinese stock market less attractive.

Like the decline in the China stock market prices, U.S. stock market suffered a great influence upon the implementation of the China-US trade war as well. The general impact is that the implementation of China-US trade war on tariffs achieved U.S. goal for reducing the benefits of the China company's operating in the U.S. China's reaction also intended to harm U.S. firms operating in China [14]. Though both countries achieved their intended goals, their actions caused harm to their

economy, profit, and returns for the firms listed in their stock exchange markets. The direct impacts occurred due to reactions to increasing tariffs on imported products in the market and the series of announcements of the tariffs, which caused anxiety among investors. The impacts of the stock price loss caused large impact on the China stock exchange market compared to the US stock exchange market. the difference is attributable to the differences in the level of development of the stock exchange market which could result into differences in adjusting to the changes in the current situations.

3.4 Impacts on exchange rate and operations of the stock exchange markets

The China-US war affected the exchange rate between China and the US. China's RMB depreciated while the US dollar appreciated. The changes in the exchange rate caused uncertainties in the stock markets such as reduction in consumption and firms' optimism of the stock markets future. For instance, the RMB value depreciated by 12.3% relative to the US dollars during the tariff war [12]. The depreciation and appreciation of the currency exchange rates of both countries influenced the outcomes of the trade balance of both countries. For example, the appreciation of the US dollars implies that the US exports to China became quite expensive and China exports to the US became reducing market opportunities for the local companies exporting to China. From this view, the contagion impact of China-US trade war worsened the situation about the balance of China trade, which appeared to be the primary goal for the US to implement the trade tariffs against some of China's imported products. The growth of the shortage between China and US trade has reached \$419.2 billion in year 2018 despite implementing tariffs to minimize China's imports. However, the trade deficit declined to \$345 billion [12]. This information implies that China took advantage of its currency value because US importers could buy the products at low prices and sell them at high prices in their home market and impacts of trade war on reducing trade shortage had little effect.

The exchange rate spread across firms not directly targeted by trade war. The US and Chinese companies not detailed in stock market experienced adverse outcomes as the uncertainties in the markets and reactions by the countries to look for alternative sources of needs threatened bilateral trade across the two countries. The influence of US-China trade abrasion caused negative influences on stock markets, which affected the outcomes of the contagion effect on the economy thus reducing demand for the trade volumes for firms in China and the US [14]. The two economies are the most extensive impacts because China and the US are the two largest economies which reflects the issues associated with the contagion effect. These impacts reflect through various aspects, such as the impacts on the exchange rate between the two countries, which affected the trade between the two countries.

The China-US trade war also affected the home firms in the markets of China and US. The effects in the stock exchange markets on the prices for their products hurt the company's outcomes across different sectors due to the availability of a market for products that could otherwise result in competition among local firms. From the perspective of competition level, some of the U.S. firms that never traded with Chinese firms raised profits due to the reduction of competition with China's imported goods, thus causing a positive impact. The domestic companies that depended on supplies from the US-China bilateral trade experienced reduced profitability due to tariffs [15]. This information implies that U.S.-based firms experienced a positive outcome from the China-US tariff trade war. This change implies that the companies operating in the U.S. home market experienced positive economic growth due to a decline in competition from importing firms from China. However, the tariff trade war did not positively impact Chinese domestic firms. This information implies that the U.S. did not significantly influence local Chinese firms.

The influences of China-US trade war contributed to various challenges that reflect the overall trade outcomes. The impacts of the war between the US and China spread across the entire economy of China and the US. The tariffs implemented between China and the US resulted in a consumer cost of 0.58% of the US GDP and 0.10% of aggregate social welfare loss. Similar impacts occurred in China's economy, representing a decline in overall consumer welfare and GDP loss. The tariff

resulted in a GDP loss of approximately 0.9% of the GDP loss which reflects the loss of consumer and social welfare [15]. The GDP loss in each country shows that the tariff effects extended beyond the intended purpose due to the contagion impact on the entire economy. This problem made it difficult for each economy to enjoy the benefits before the tariffs. These problems reflect the extent to which the economies could adjust to the instability and risks that could result from the trade tariff war between US and China.

4. Conclusion

The tariff trade war between US and China contributed to unexpected adverse outcomes on the target firms, stock exchange markets, and the firms not directly included in the China and US trade movements. Some of the tremendous negative consequences of the US-China tariff on the stock market had reduced stock market prices, stock market returns, market equity capitalization, and profit loss. The gloomy impacts of Sino-US trade war imply that the exchange of the stock markets highly integrated into the national and global economy, contributing to the spread from the targeted companies to other sectors of the economy. The decline in stock market prices and market capitalization in the China and the US stock markets was because of the reduction of stock market movements across the two countries. Moreover, the analysis reveals a negative effect on the currency exchange rate where the Chinese RMB depreciated while the US dollar value appreciated. The impacts spread to the entire economy and affected firms in the local markets, contributing to the loss of GDP and consumer welfare in both countries. This information implies that implementing the trade war policy as an economic strategy for addressing the trade deficit between the US and China contributed to other unintended consequences.

The influences of Sino-US trade war on China and US stock markets took the same adverse effects. However, the magnitude of the impact differed between the stock markets, with the US market experiencing the most significant loss in market capitalization, market price equity loss, composite market, returns, and high level of market fluctuations. These trends imply that the US stock exchange market experienced the most considerable loss because of Sino-US trade war regardless of being the origin of the trade war. The difference in the impacts of Sino-US trade war on stock markets originates from the differences in China and stock markets of US. From the analysis according to the differences between China stock markets and US stock markets, the stock market of China is less developed, less integrated into the economy, and not connected to the economy compared to the US stock market. Therefore, the influences on Sino-US trade war had little effect on the Sino-US trade war compared to China. In both economies, the follow-up of Sino-US trade war imply that policy impacts spread across the economy. Consequently, the US trade war indicates that policymakers should evaluate the different effects of making a policy. The policy created an environment for trade war with each country reacting by increasing the tariffs thus spreading the impacts to other economic aspects such as the exchange markets.

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