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Does US-China Trade War Matter on ASEAN Stock Market: Event-study Approach

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Abstract: The trade war between the US and China by imposing tariffs has the potential to affect global financial stability. As the largest economy in the world, the US and China had been trading goods and services globally. Then, when these countries have retaliated, the tariff war will affect the global supply chain, international trade, economy, and the stock market. This research examined the effect of the US-China trade war on ASEAN stock prices using an event-study approach. The result shows that the ASEAN stock market has positive abnormal returns during pre-event period (12%). In contrast, ASEAN stock markets shifted to negative abnormal return (-7.4%) in the short-term window, indicating that the stock market is efficient. Stock price reflects the information from the market quickly. However, the impact of the trade war on the ASEAN stock market is insignificant.

Keywords: ASEAN Stock Market; Event-Study Approach; US-China Trade War.

Introduction

The trade war between America and China creates global economic uncertainty. This economic uncertainty is reflected in several international financial institutions that revised economic growth. The World Bank lowered its forecast for global economic growth in 2019 to 2.6 percent, down 0.3 percent from the initial prediction of 2.9 percent. Whereas the International Monetary Fund (IMF) predicts that the world economy will only grow 3 percent in 2019, experiencing a slow growth since the global financial crisis in 2009. Trade deficits experienced by America triggers trade conflicts between the two countries with the largest economy in the world. According to Carvalho et al (2019) America experienced a trade balance deficit against many countries, especially China. In 2017, the US trade deficit against China was \$ 375 billion, or 42 percent of the total US trade deficit of \$ 861 billion.

Table 1. **Exports and Imports of Goods, and Trade Deficit of the United States with China from 1990 to 2019** (\$ million)

Year	Exports	Imports	Trade Deficit
1990	4.086	15.237	-10.431
1995	11.753	45.543	-33.789
2000	16.185	100.018	-83.833
2005	41.192	243.470	-202.278
2010	91.911	364.952	-273.041
2015	115.673	483.201	-367.328
2016	115.594	462.420	-346.825
2017	129.893	505.470	-375.576
2018	120.341	539.503	-419.162
2019	106.626	452.243	-345.616

Source : United States Census Bureau, Foreign Trade, US International Trade Data (2020)

The American trade deficit against China continues to increase. American exports of goods and services to China in 1990 amounted to \$ 4,806 million, and imports from China to America were \$ 15,237 million. The American trade deficit against China is only \$ 10.4 million. The deficit continues to increase, and reached a record high in 2018, \$ 419 million. However, after the trade war, the American trade deficit against China decreased to \$ 345 million, or \$ 1 million lower than the 2016 trade deficit of \$ 346 million.

The high US trade deficit prompted President Donald Trump to conduct an investigation that led to the decision to increase import tariffs on Chinese products on March 22, 2018, marked by a presidential referendum. Tariff on imported products from China was increased to 25 percent with a value of more than \$ 50 billion. After that, China responded by increasing tariffs on American products, as well as being the start of a trade war between America and China (Breuss & Christen, 2019; Chang et al, 2019). Also, according to Kwan (2020) the United States also restricted technology transfer to China and the business activities of several technology companies from China, such as Huawei.

The trade war between America and China caused not only economic losses for the two countries (Sabala and Devadoss, 2019), but also had direct and indirect impacts on the economies in other countries. The direct impact of the trade war has led to a decline in international trade activities (Bolen and Romagosa, 2018), whereas transactions between countries are essential resources for creating prosperity (Jean et al, 2018). Furthermore, the direct impact of trade war can also create unemployment (Jiming and Posen, 2019). While the indirect impact of the trade war caused the weakening of economic performance in Canada (Charbonneau, 2019), the decline in commodity exports in South Africa (Lemmer, 2019), the decline in exports of solar energy in Malaysia (Yean et al, 2019) and detrimental to the car and spare parts sales in Japan and the European Union (Abiad et al, 2018).

American and Chinese trade conflicts, in the long run, have the potential to reduce investor confidence, affecting the economy in Europe and the world (Gunnella and Quaglietti, 2019). This distrust can be detected from American long-term bond yields, which are lower than short-term bond yields (Sebgroup, 2019). Besides, according to Yefremov (2018) the low economic growth in China will reduce demand for raw materials from other countries, which will have an impact on developing countries such as Taiwan, Singapore, Vietnam, Thailand, and Malaysia, because of the role of the two countries in the global supply chain. According to Evans (2019), in a trade war, all countries could suffer losses. Each increase

in tariff of 10 percent from both two countries (America and China) will reduce economic growth by almost 2 percent and can reach 3 percent after two years (Berthou et al, 2018).

Furthermore, the effects of American and Chinese trade war can disrupt global economic stability (Chong and Li, 2019; Steinbock, 2018) and shock the financial markets (Meltzer and Shenai, 2019). According to Huang et al (2018) the stock prices of Chinese and American companies affiliated in trade between the two countries experienced a decline during the announcement of the trade war on March 22, 2018. Transmission of uncertain economic conditions can be recognized from the spill-over effect that occurs when there is a financial world shock (Kim et al, 2015).

Table 2. **The impact of US-China Trade War on market capitalization**
(\$ million)

Country	Market Capitalization		Change
	2017	2018	
Indonesia	520.686	486.765	-7%
Malaysia	455.772	398.018	-13%
Singapore	787.255	687.257	-13%
Thailand	548.795	500.741	-9%
Philippines	290.401	258.155	-11%
Vietnam	125.309	132.652	6%
ASEAN	2.728.220	2.463.591	-10%

Source : World Bank (2019)

The market capitalization of ASEAN countries has decreased during the period of the trade war, except Vietnam. Overall, the ASEAN capital market lost \$ 264 billion (-10%). The highest decline in market capitalization value was Singapore and Malaysia's capital markets, which were -13% while Vietnam's capital market has experienced a growth in market capitalization of \$ 7 billion, or growing 7% in 2018.

In this paper, researcher tries to look at the effects of the American and Chinese trade wars on the ASEAN capital market. ASEAN countries, especially those that already have capital markets, including Indonesia, Malaysia, Singapore, Thailand, the Philippines, and Vietnam, are the subjects of research. The ASEAN capital market was selected with several considerations, including: 1) the market capitalization ratio of ASEAN countries to the global market capitalization is 4 percent in 2018, this number grew by 1 percent compared to the contribution of the ASEAN capital market to the global capital market in 2017, 3 percent; 2) the ASEAN capital market also has significant potential based on increasing population and relatively stable economic growth; 3) the number of small and medium-sized companies in ASEAN countries that have the potential to conduct an Initial Public Offering (IPO).

This research contributes to describe the capital market response of ASEAN countries when there is a trade conflict between the United States and China. The results of this study can comprehend the literature as well as a source of information for investors and investment managers to diversify their portfolios in order to create optimal returns and risk mitigation from global economic uncertainty triggered by trade war between the two countries with the largest economy in the world. As for individual investors, this information becomes essential related to investment decision making that can affect the value of financial assets in the future.

Literature Review

US-China Trade War

America is the country with the largest economy in the world. The World Bank state the value of the American economy in terms of Gross Domestic Product (GDP) reached \$ 20.4 trillion in 2018, contributing 23.9 percent of the entire global economy, which is valued at \$ 85.8 trillion. America conducts export and import activities to support the domestic economy. America became the largest export country in the world in 2017 with export value reaching \$ 778.4 billion, or 14.5 percent of total world exports. In addition, America is also the world's largest importer, representing 10.2 percent of total world imports worth \$ 520.4 billion in the same year.

American and Chinese trade relations have been going on for a long time. According to Kashyap and Bothra (2019) American exports to China in 1985 were \$ 3,855 million, and imports from China to America were \$ 3,861 million. America only has a trade deficit of \$ 6 million. After that, the American trade deficit continued to increase until it reached the level of \$ 419 billion in 2018. In fact, the Trump administration said there had been an unfair trading between the United States and China that pushed tariff increases by 25 percent against \$ 50 billion in imports from China (Charnovitz, 2019).

According to Felbermayr and Steininger (2019) the trade war caused losses of 2.6 billion euros for America and 5.7 billion euros for China. If this trade conflict continues, it will cause a decline in economic growth by 1.96 percent in 2022 and reduce international trade transactions by 17 percent. In comparison, the global crisis in 2009 caused global economic growth to fall by 2.1 percent, and global trade decreased by 12.4 percent (Bekkers and Tea, 2019).

Furthermore, when America began a trade war with China in 2018, the world economy declined from 3.1% to 3%. Malaysia, being the country with the most significant correction in economic growth compared to other countries in ASEAN, fell 1% compared to 2017 of 5.7%. The trade war between America and China does not bring benefit to any country and adversely affects the world economy primarily through increasing prices (Jain and Saraswat, 2019), reducing America's real income by \$ 1.4 billion per month (Amiti et al, 2019), and increasing uncertainty which can cause a decrease in investment (Caldara et al, 2019). Also, the trade conflicts of the two most prominent countries in the world caused a decline in the stock price index in the United States and China. More than 3,000 corporate shares in the United States and China have declined and caused the three major indexes in the two countries to experience a correction of more than 3 percent (Zhu et al, 2019). Furthermore, an empirical study conducted by Bown (2019) states that a trade war can trigger a global financial crisis.

ASEAN Stock Market

The capital market is exciting to be the object of research because according to World Bank data, the ASEAN capital market is seen from the value of market capitalization at the level of \$ 2.4 trillion in 2018, or grew by 242 percent compared to the value of market capitalization in 2008 at the level of \$ 720 billion. This figure is far higher than the growth of the world capital market capitalization in the same period, which is 113 percent. Vietnam's capital market-led with the growth of 973 percent in a decade, while Malaysia

became the country with the lowest capital market growth in the ASEAN region, only growing by 110 percent in the last ten years from 2008 to 2018.

The high growth of ASEAN market capitalization was supported by several factors, including Southeast Asia succeeding in developing export activities and attracting foreign direct investment, particularly in inviting multinational companies to invest in ASEAN over the last three decades (OECD, 2019). In other words, this development is inseparable from international trade activities and involves regulations regarding tariffs agreed between countries. Therefore, the trade war caused a decline in exports and imports (Fajgelbaum et al, 2019). Declining export and import activities cause a decrease in trading activity, which can affect company performance. A study conducted by Benguria (2019) explains that thousands of companies from 40 countries with export exposures to China have experienced a decline in revenue, profits, and stock prices since the trade war began.

Literature reviews using event-studies conducted by Arya and Zang (2009) explains that announcements of CSR create positive abnormal returns in South Africa. The market responded positively to CSR announcements, as seen from abnormal stock returns in America (Griffin and Sun, 2012). Whereas Kruger's research (2015) explains that markets created abnormal returns in America when CSR announcements in 2001-2007.

Methods

This research applies the ASEAN capital market data. The research sample covers all countries in Southeast Asia that have capital markets, including the Jakarta Composite Index (Indonesia), Kuala Lumpur Composite Index (Malaysia), Strait Times Index (Singapore), Stock Exchange of Thailand Index (Thailand), Philippines Stock Exchange Index (Philippines) and Vietnam Stock Index (Vietnam). Monthly closing prices of each ASEAN capital market from January 2009 to June 2018 were obtained from the portal yahoo.finance and investing.com. The data will be divided into three periods to see the impact of the US-China trade war on the capital markets of ASEAN countries.

The first period is the estimation window, used to determine the index price under normal conditions. The estimation window is from January 2009 to November 2017. This research uses monthly returns from month -107 to -4 relative to the US-China trade war. This window, as a normal period, is not influenced by the event. Furthermore, from December 2017 to February 2018 becomes three months before the US-China trade war (pre-event window), returns from -3 to -1. The short-term impact of the US-China trade war is calculated from March 2018 to June 2018 (short-term window). It is counted from 0 to +3. March 2018 serves as the monthly event of a trade war between America and China. This data refers to research conducted by Huang et al (2018).

The research method was conducted using the event-study approach. Event-study is a methodology that can be applied to determine whether abnormal returns occur due to events that were not anticipated beforehand. The assumption in this method is the market is efficient, or stock prices respond quickly to any information. Furthermore, a statistical test (t-test) is used to see whether the American and Chinese trade wars have a significant or insignificant impact on ASEAN capital markets. The t-test calculation is counted by dividing the abnormal return by the standard error of the value of each capital market, provided that if the t-test value is higher than the t-table value of 1.96, with a significance

level of 5%, the trade war will have significant impact on the capital market in ASEAN (Caporale et al, 2019).

Event studies can be carried out with three approaches, including (1) determining the time of the event or what is called the "event window", (2) calculating abnormal returns and cumulative abnormal returns in stock prices including pre-event windows and post-event windows, (3) measure the level of significance to see whether the event has a significant or significant influence on the object to be measured. The procedure for calculating abnormal returns has been carried out by Xie et al (2019).

The formula calculates stock market actual returns (i) in equation 1.

$$R_{it} = \ln (P_{it} / P_{i, t-1}) \quad (1)$$

Where (P_{it}) is the price of a stock at time t and P_{i, t-1} is the stock at a price at time t-1. The expected return (R̂_{it}) is calculated by using the Capital Asset Pricing Model (CAPM), the MSCI World Index (R_{mt}) is used to represent the market index.

$$\hat{R}_{it} = \alpha_i + \beta_i \times R_{mt} \quad (2)$$

Where α_i is the intercept between stock return and market return, and β_i is calculated by dividing the covariance of stock return and variance of the market return. The abnormal return (AR) can be calculated as

$$AR_{it} = R_{it} - \hat{R}_{it} \quad (3)$$

Average abnormal return (AAR) is calculated as

$$AAR_t = \frac{\sum_k AR_{it}}{k} \quad (4)$$

Then, cumulative abnormal return (CAR) can be defined as

$$CAR (t1, t2) = \sum_{t=t1}^{t2} AAR_t \quad (5)$$

To estimate the CAR of each event in this study, CAR will represent CAR average of the pre-event window, short-term event window and long-term event window.

$$\overline{CAR} = \sum_{i=1}^N AAR_T \quad (6)$$

Now, the hypothesis can be tested by calculating CAR variance as follows

$$\text{Var}(\text{CAR}) = (\alpha^T)^2 T \quad (7)$$

Where the α^T is defined as standard deviation of a sample of mean abnormal return. T is represented the number of months used for computing CAR, then, t-statistic calculation can be measured as

$$t_{\text{stat}} = \frac{\overline{CAR}}{\sqrt{\text{var}(\overline{CAR})}} \quad (8)$$

according to several literatures, t-stat can be used to investigate whether the event (US-China trade war) has a significant or insignificant impact on ASEAN stock market cummulative abnormal return for the short-term period.

Findings

The results of descriptive statistical calculations explain the mean stock returns, median values, and standard deviations. The mean score represents the average return on the ASEAN capital market during the period before and during the trade war between the United States and China. The median value depicts the median value of the average return on the ASEAN capital market during the observation period. Whereas the standard deviation reflects the distribution of data from each of the ASEAN capital market returns during the study period.

Descriptive data provides preliminary information to see the relationship between the American and Chinese trade wars on the capital markets of ASEAN countries in the period before the trade war and the impact of trade wars in the short term. The data briefly shows that there was a change in the capital market return in each country during the observation period, namely the capital markets of ASEAN countries before and during the trade war shown in Table 3.

Table 3. **Descriptive Statistic (Mean, Median, Standard Deviation and t-test)**

Index	Country	Number of Months	Mean Score	Median Score	Standard Deviation	t-test
Panel A. Estimation Period (January 2009 - November 2017)						
JCI	Indonesia	107	1,50%	0,56%	4,76%	-4,019
KLSE	Malaysia	107	0,67%	-0,07%	2,86%	-1,758
STI	Singapore	107	0,73%	0,44%	4,58%	-3,164
SET	Thailand	107	1,49%	0,10%	4,98%	-2,741
PSEi	Philipina	107	1,49%	0,15%	4,51%	-4,158
VNI	Viet Nam	107	1,13%	1,16%	6,53%	-1,867
ASEAN Stock Market		107	1,17%	0,39%	4,70%	-2,951
Panel B. Pre-event Window (December 2017 - February 2018)						
JCI	Indonesia	3	3,53%	3,93%	3,47%	1,130
KLSE	Malaysia	3	2,64%	3,99%	2,88%	1,416
STI	Singapore	3	0,84%	-0,45%	2,62%	0,517
SET	Thailand	3	2,01%	3,25%	3,01%	0,153
PSEi	Philipina	3	0,93%	2,40%	3,72%	0,380
VNI	Viet Nam	3	9,94%	12,75%	5,60%	1,432
ASEAN Stock Market		3	3,32%	4,31%	3,55%	0,838
Panel C. Short-event Window (March 2018 - June 2018)						
JCI	Indonesia	4	-3,15%	-3,11%	2,45%	-0,363
KLSE	Malaysia	4	-2,25%	-1,23%	3,47%	-0,412
STI	Singapore	4	-1,73%	-3,60%	4,90%	-0,043
SET	Thailand	4	-1,48%	-1,61%	1,45%	0,133
PSEi	Philipina	4	-4,01%	-4,08%	1,57%	-0,745
VNI	Viet Nam	4	-3,05%	-3,34%	7,39%	-0,546
ASEAN Stock Market		4	-2,61%	-2,83%	3,54%	-0,329

Source : yahoo.finance and investing.com

Table 3 explains that the average return on the ASEAN capital market experienced negative performance during the period of the trade war between the United States and China (see Panel C). The return on the ASEAN capital market in the short-term window was -2.61%. The highest weakening was experienced by the Philippine capital market by -4.01%, while the Thai capital market experienced the lowest decline of -1.48%. In contrast, the ASEAN capital market performance experienced growth before the trade war (pre-event window) of 3.32%.

The median value of the ASEAN capital market before the trade war was 4.31%. Vietnam became the country with the highest median value compared to other ASEAN countries, 12.75%. On the other hand, the median value of the capital market returns to -2.83% during the American and Chinese trade war. Vietnam's capital market has the highest return decline. The median value of Vietnam's capital market return was 9.94% before the trade war and fell to -3.34% during the trade war between United States and China in March 2018 and June 2018. In addition, the impact of US-China trade war on ASEAN stock market is insignificant.

Table 4. The event period return relative to global index and average US-China Stock Market

Index		Pre-event window Dec 2017 - Feb 2018	Short-event window March 2018 - June 2018
Panel A. Monthly returns relative to global index			
JCI	Indonesia	0,20%	-7,18%
KLSE	Malaysia	-0,69%	-6,28%
STI	Singapore	-2,50%	-5,76%
SET	Thailand	-1,32%	-5,51%
PSEi	Philipina	-2,40%	-8,04%
VNI	Viet Nam	6,61%	-7,08%
ASEAN Stock Market		-0,02%	-6,64%
Panel B. Monthly returns relative to average US-China stock return			
JCI	Indonesia	3,21%	-1,14%
KLSE	Malaysia	2,32%	-0,24%
STI	Singapore	0,51%	0,28%
SET	Thailand	1,69%	0,53%
PSEi	Philipina	0,61%	-1,99%
VNI	Viet Nam	9,62%	-1,04%
ASEAN Stock Market		2,99%	-0,60%

Source : yahoo.finance dan investing.com

Table 4 compares the ASEAN capital market returns between the event window and the global capital market (MSCI World Index) and the average return of the American capital market (Dow Jones Composite Index) and the Chinese capital market (Shanghai Stock Exchange). The ASEAN capital market performance is lower than the global capital market. This data can be shown from the ASEAN capital market average return of -0.02% at the pre-event window. The biggest negative return can be seen in the short-event window period, namely March 2018 to June 2018. All ASEAN capital markets have lower returns compared to the MSCI World Index. The Philippines is the country with the highest return difference (-8.04%) compared to the global capital market return. In contrast, the return on the Thailand capital market compared to the global capital market was negative 5.51%. ASEAN capital markets, on average, experienced -6.64% compared to global capital markets. Furthermore, ASEAN stock market return relative to average of US and China stock market returns before US-China trade war was 2.95%, it decreased to negative 0.60% during the trade war.

The performance of all ASEAN capital markets experienced negative growth, so it proves that the American and Chinese trade wars had a negative impact on the capital markets in ASEAN countries. The capital market, which is one of the barometers of the country's economy, will relatively reflect economic conditions in the real sector. Furthermore, the financial market tends to respond more quickly than changes in the real sector. In other words, stock prices will move based on investors' perspectives about the future. If the investor perspective is positive, then the stock price will tend to increase, and vice versa. Proxies that are often used to measure index responses to events use Cumulative Abnormal Return (CAR).

Table 5. Cumulative actual return relative to global stock return

Index	Pre-event window	Short-event window
	Dec 2017 - Feb 2018	March 2018 - June 2018
Panel A. Cumulative actual returns relative to global index		
JCI Indonesia	14,80%	-6,35%
KLSE Malaysia	11,15%	-4,32%
STI Singapore	6,79%	-0,75%
SET Thailand	5,97%	-5,68%
PSEi Philipina	4,88%	-12,77%
VNI Viet Nam	28,16%	-14,31%
ASEAN Stock Market	11,96%	-7,37%

Source : yahoo.finance dan investing.com

The period before the trade war (pre-event window) shows that the CAR has higher performance compared to global capital market returns. The average CAR of ASEAN capital markets is 11.96% higher than the global capital market return. Vietnam's capital market leads with a CAR difference of 28.18%, followed by Indonesia and Malaysia of 14.80% and 11.15%, respectively. While the capital market with the smallest return difference compared to the MSCI World Index return is the Philippines, which is 4.88%.

On the other hand, the performance of the ASEAN capital market during the trade war in the short-event window experienced a CAR of -7.37%. All capital markets in ASEAN

experience negative CARs. Vietnam's capital market experienced the highest weakening of -14.31% while the Singapore capital market is the country with the smallest return difference compared to CAR from other ASEAN countries, -0.75%.

Based on Table 5, it is clear that Vietnam's capital market has the most significant negative impact compared to other ASEAN countries' capital markets during the trade war. Vietnam was directly affected by the trade war between America and China. America and China are the main export destinations for Vietnam. Vietnam's exports to America reached \$ 46.2 billion, the largest compared to other countries. While Vietnam's exports to China were \$ 39.9 billion (the second largest export destination). So, when there is economic turmoil in the two countries, which are Vietnam's biggest trading partners, the economy and financial markets of Vietnam also experience a correction.

Overall, the American and Chinese trade wars had a negative impact on the ASEAN capital market. The ASEAN capital market return on average experienced positive returns before the trade war, and the performance turned negative when the trade war occurred. This figure also explains that the trade war has an impact on the capital markets of ASEAN countries, which is reflected in the average return on capital markets in ASEAN. While the t-test value is -0.329 or smaller than 1.96%, this explains that the relationship between the American trade war and China have insignificant impact on the capital markets in ASEAN countries. This study has limitations on ASEAN stock market. For further research, we can estimate the global stock market during US-China trade war and other economics or financial events.

Conclusion

This study aims to find the impact of the trade war between America and China on the performance of ASEAN countries' capital markets with an event-study approach. We use monthly closing stock price of each ASEAN stock market over the period from January 2009 to June 2018. The data were collected from the yahoo.finance and investing.com websites. This research investigates three periods to find the impact of US-China trade war, namely estimation window or normal period (January 2009 – November 2017), pre-event window (December 2017 – February 2018), and event window (March 2018 – June 2018).

The results of this study explain that the trade war has a negative impact on capital market performance in six ASEAN countries, namely Indonesia, Malaysia, Singapore, Thailand, Philippines, and Vietnam. In addition, the performance of the ASEAN capital market based on CAR is also lower than the MSCI World Index during the American and Chinese trade war period, although the impact of the trade war is not significant on the ASEAN capital market. Finally, the results of this study illustrate that several economic events that occurred in developed countries can have a spill-over effect on ASEAN capital markets. Not only the American and Chinese trade war, but the British policy to exit the European Union (Brexit) also has a negative impact on the economy in ASEAN (Estrada et al, 2019).

References

- Abiad, A., Baris, K., Bernabe, J.A., Bertulfo, D.J., Romance, S.C., Feliciano, P.N., Mariasingham, M.J. & Blackman, V.M. (2018). The Impact of Trade Conflict on Developing Asia. *ADB Economics Working Paper Series Number 556*,

- December 2018. Retrieved from <https://www.adb.org/sites/default/files/publication/471496/ewp-566-impact-trade-conflict-asia.pdf>
- Amiti, M., Redding, S.J. & Weinstein, D. (2019). The Impact of the 2018 Trade War on U.S Prices and Welfare. *National Bureau of Economic Research Working Paper Series*, March 2019. Retrieved from <https://www.nber.org/papers/w25672.pdf>
- Arya, B. & Zhang, G. (2009). Institutional Reforms and Investor Reactions to CSR Announcement: Evidence from an Emerging Economy. *Journal of Management Studies*. Retrieved from <https://www.umsl.edu/divisions/business/files/pdfs/Management%20Articles/AryaZhangJOMS20091.pdf>
- Benguria, F. (2019). The Global Impact of the US-China Trade War: Firm-Level Evidence (June 30, 2019). Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3413229
- Bekkers, E. & Teh, R. (2019). Potential Economic Effects of a Global Trade Conflict: Projecting the Medium-Run Effects with the WTO Global Trade Model. *Economic Research and Statistics Division World Trade Organization ERSD-2019-04*. Retrieved from https://www.wto.org/english/res_e/reser_e/ersd201904_e.pdf
- Berthou, A., Jarret, C., Siena, D. & Szczerbowicz, U. (2018). Cost and Consequences of a Trade War: A Structural Analysis. *Rue de la Banque Number 72 December 2018*. Retrieved from https://publications.banque-france.fr/sites/default/files/medias/documents/818459_rdb72_en_v5.pdf
- Bolen, R. & Romagosa, H.R. (2018). Trade Wars: Economic Impacts of US Tariff Increases and Retaliations An International Perspective. *CPB Netherlands Bureau for Economic Policy Analysis November 2018*. Retrieved from <https://www.cpb.nl/sites/default/files/omnidownload/CPB-Background-Document-November2018-Trade-Wars-update.pdf>
- Bown, C.P. (2019). The 2018 US-China Trade Conflict after 40 Years of Special Protection. *Peterson Institute for International Economics Working Paper April 2019*. Retrieved from <https://www.piie.com/system/files/documents/wp19-7.pdf>
- Breuss, F. & Christen, E. (2019). Trump's Trade War: Implication for the EU and China. *Austrian Institute of Economic Research August 2019*. Retrieved from https://www.wifo.ac.at/jart/prj3/wifo/resources/person_dokument/person_dokument.jart?publikationsid=61914&mime_type=application/pdf
- Caldara, D., Lecoviello, M., Molligo, P., Prestipino, A. & Raffo, A. (2019). The Economic Effects of Trade Policy Uncertainty. *Journal of Monetary Economics*, November 2019;8-15. Retrieved from <https://www.sciencedirect.com/science/article/pii/S0304393219302004>
- Caporale, G.M., Plastun, A. & Makarenko, I. (2019). Force Majeure Events and Stock Market Reactions in Ukraine. *Economics and Finance Working Paper Series Number 19-05*. Retrieved from <https://www.brunel.ac.uk/economics-and-finance/research/pdf/1905-Feb-GMC-FORCE-MAJEURE-UKRAINE.pdf>
- Carvalho, M., Azevedo, A. & Massuquetti, A. (2019). Emerging Countries and the Effects of the Trade War between US and China. *Economies* 2019, 745 DOI:10.3390/economies7020045. Retrieved from <https://www.mdpi.com/2227-7099/7/2/45>

- Chang, S., Zhigang, T., Hongjie, Y. & Honyong, Z. (2019). The Impact of US-China Trade War on Japanese Multinational Corporations. *RIETI Discussion Paper Series* 19-E-050 July 2019. Retrieved from <https://www.rieti.go.jp/jp/publications/dp/19e050.pdf>
- Charbonneau, K.B. (2019). The Impact of a Trade War: Assessment of the Current Tarriffs and Alternative Scenarios. *Bank of Canada ISSN 2369-9639*. Retrieved from <https://www.bankofcanada.ca/wp-content/uploads/2019/07/san2019-20.pdf>
- Charnovitz, S. (2019). Grading Trump's China Trade Strategy. *George Washington Law Faculty Publications & Other Works*, number 2019-26. Retrieved from https://scholarship.law.gwu.edu/cgi/viewcontent.cgi?article=2685&context=faculty_publications
- Chong, T.T. & Li, X. (2019). Understanding China-US Trade War: Causes, Economic Impact, and the Worst-Case Scenario. *Lau Chor Tak Institute of Global Economics and Finance Working Paper Number 71*, February 2019. Retrieved from https://www.igef.cuhk.edu.hk/igef_media/working-paper/IGEF/igef%20working%20paper%20no.%2071%20english%20version.pdf
- Estrada, M.A.R., Koutronas, E. & Park, D. (2019). The Economic Gordian Knot of Brexit: An East Asian Perspective. DOI: 10.13140/RG.2.2.10702.31048. Retrieved from <file:///E:/DOES%20US%20CHINA%20TRADE%20WAR%20IMPACT%20N%20ASEAN%20IGRAD%202020/Estrada%20et%20al%202019.pdf>
- Evans, O. (2019). The Effects of US-China Trade War and Trumponomics. *Forum Scientiae Oeconomia*, 7(1), 47-55. Retrieved from https://mpr.aub.uni-muenchen.de/93682/1/MPRA_paper_93682.pdf
- Fajgelbaum, P.D., Goldberg, P.K., Kennedy, P.J. & Khandelwal, A.K. (2019). The Return of Protectionism. *NBER Working Paper Series*. Retrieved from <file:///E:/DOES%20US%20CHINA%20TRADE%20WAR%20IMPACT%20N%20ASEAN%20IGRAD%202020/Fajgelbaum%20et%20al,%202019.pdf>
- Felbermayr, G. & Steininger, M. (2019). Trump's Trade Attact on China – Who will have the Las Laugh?. *CESifo Forum 1/2019 March Volume 20*. Retrieved from <https://www.ifo.de/DocDL/CEsifo-Forum-2019-1-felbermayr-et-al-us-china-trade-war-march.pdf>
- Gunnella, V. & Quaglietti, L. (2019). The Economic Implications of Rising Protectionism: A Euro Area and Global Perspective. *ECB Economic Bulletin, Issue* 3/2019. Retrieved from <https://ideas.repec.org/a/ecb/ecbart/201900031.html>
- Griffin, P. A. & Sun, Y. (2012). Going Green: Market Reaction to CSR Newswire Releases. *Journal of Accounting and Public Policy* 32: 93-113. Retrieved from <http://www.csringreece.gr/files/research/CSR-1331563012.pdf>
- Huang, Y., Lin, C., Liu, S. & Tang, H. (2018). Trade Network and Firm Value: Evidence from the US-China Trade War. *The Graduate Institute Geneva Centre for Trade and Economic Integration Working Paper, CTEI-2018-04*. Retrieved from https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3227972
- IMF. (2019). World Economic Outlook: Global Manufacturing Downturn, Rising Trade Barriers. October 2019. Retrieved from <https://www.imf.org/en/Publications/WEO/Issues/2019/10/01/world-economic-outlook-october-2019>

- Jain, M. & Saraswat, S. (2019). US-China Trade War: Chinese Perspective. *Management and Economics Research Journal Volume 5*, DOI: 10.18639/MERJ.2019.895478. Retrieved from https://www.researchgate.net/publication/335319571_US-China_Trade_War_Chinese_Perspective
- Jean, S., Martin, P. & Sapir, A. (2018). International Trade Under Attack: What Strategy for Europe?. *Policy Contribution Issue Number 12, August 2018*. Retrieved from https://www.bruegel.org/wp-content/uploads/2018/08/PC-12_2018_final.pdf
- Jiming, H. & Posen, A.S. (2019). Economic Truths Towards Resolving China-US Trade Conflict. *Peterson Institute for International Economics, January 2019*. Retrieved from <https://www.piie.com/system/files/documents/piieb18-1.pdf>
- Kashyap, U. & Bothra, N. (2019). Sino-US Trade and Trade War. *Management and Economics Research Journal Volume 5, Iss. S4, Pgs. 12, 2019*. Retrieved from <https://merj.scholasticahq.com/article/10173-sino-us-trade-and-trade-war>
- Kruger, P. (2015). Corporate Goodness and Shareholder Wealth. *Journal of Financial Economics 115: 304-29*. Retrieved from http://jfe.rochester.edu/Krueger_app.pdf
- Kwan, C.H. (2020). The China-US Trade War: Deep-Rooted Caused, Shifting Focus and Uncertain Prospects. *Asian Economic Policy Review (2019) 9999, 1-18*. Retrieved from <https://onlinelibrary.wiley.com/doi/abs/10.1111/aepr.12284>
- Kim, H.W., Kim, B.H. & Lee, B.S. (2015). Spillover Effects of the U.S. Financial Crisis on Financial Markets in Emerging Asian Countries. *Auburn University Department of Economics Working Paper*. Retrieved from <https://www.sciencedirect.com/science/article/pii/S1059056015000684>
- Lemmer, W. (2019). SA Feeling the Impact of US-China Trade War-Commodity Corner. *Farmer's Weekly, Volume 2019 Number 19032, p.25-25*. Retrieved from <https://journals.co.za/content/journal/10520/EJC-178b183604>
- Meltzer, J.P. & Shenai, N. (2019). The US-China Economic Relationship: A Comprehensive Approach. *Global Economy and Department Brookings Policy Brief February 2019*. Retrieved from https://www.brookings.edu/wp-content/uploads/2019/02/us_china_economic_relationship.pdf
- OECD. (2019). OECD Investment Policy Reviews: Southeast Asia. Available online: <http://www.oecd.org/investment/oecd-investment-policy-review-southeast-asia.htm> (accessed on 28 November 2019). Retrieved from
- Sabala, E. & Devadoss, S. (2019). Impacts of Chinese Tariff on World Soybean Markets. *Journal of Agriculture and Resource Economics 44(2):291-310 ISSN 1068-5502*. Retrieved from <https://ageconsearch.umn.edu/record/285029/files/id291%20Sabala%20and%20Devadoss.pdf>
- Sebgroup. (2019). Investment Outlook: Global Equities – Trade War is Dictating Stock Market Mood. September 2019. Retrieved from https://sebgroup.com/siteassets/large_corporates_and_institutions/prospectuses_and_downloads/research_reports/investment_outlook/2019/io_1909_en.pdf
- Steinbock, D. (2018). U.S-China Trade War and Its Global Impacts. *China Quarterly of International Strategic Studies Volume 4 Number 4*. Retrieved from <https://www.worldscientific.com/doi/pdf/10.1142/S2377740018500318>

- World Bank. (2019). Global Economic Prospects. Heightened Tensions, Subdued Investment. *A World Bank Group Flagship Report, June 2019*. Retrieved from <http://documents.worldbank.org/curated/en/541011559679035492/pdf/Global-Economic-Prospects-June-2019-Heightened-Tensions-Subdued-Investment.pdf>
- Xie, Y., Yang, J. & Munir, F. (2019). Overflow Effect of Credit Rating Announcements on Stock Exchange based on Event Study. *Applied Economics Letters*, ISSN 1466-4291. Retrieved from <https://ideas.repec.org/a/taf/apeclet/v26y2019i17p1452-1462.html>
- Yean, T.S., Yi, A.K.J. & Ann, T.B. (2019). US-China Trade War: Potential Trade and Investment Spill-Over into Malaysia. *Iseas Yusof Ishak Intitute Economics Working Paper Number 2019-03*. Retrieved from https://think-asia.org/bitstream/handle/11540/10133/ISEAS_EWP_2019-3_Tham_Kam_Tee.pdf?sequence=1
- Yefremov, D. (2018). China in the Trade War Against the US: Tactical Capabilities and Prospects. *UDC 339.5 (510:73) ISSN: 2616-7328*. Retrieved from <http://chinese-studies.com.ua/sites/default/files/Archive/2018/2/11.pdf>
- Zhu, Z., Yang, Y. & Feng, S. (2019). Trade War between China and US. *Advances in Social Science, Education and Humanities Research (ASSHER), Volume 206*. Retrieved from https://www.researchgate.net/publication/325408952_Trade_War_between_China_and_US