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# Market Reaction to the Announcements of Free Trade Agreements: Evidence from Vietnam

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## ABSTRACT

This study examines the reaction of the Vietnamese stock market to Free Trade Agreement (FTA) announcements. We find that FTA announcements exert a negative impact on stock return, which persists for at least 30 days after the announcement date. We also document that FTA initiation and signing announcements adversely affect stock return, whilst the announcements of an FTA taking effect tend to reverse this negative impact. In addition, we find that bilateral FTAs exert a more negative impact on the stock market compared to multilateral FTAs, and industries having no comparative advantage are more severely affected. Our results, therefore, suggest that FTA is not always considered by market participants to be a win-win solution for all parties in international trade, as developing countries tend to be disadvantaged. This provides important insights for policymakers, especially those from low-skilled countries, to carefully consider the signing of an FTA and to support disadvantaged industries. It is also useful for investors in making investment decisions surrounding FTA announcements.

**KEYWORDS** Free trade agreements, stock market reaction, abnormal return, developing economy, international trade

## 1. Introduction

During the 20<sup>th</sup> century, the world witnessed the evolution of the neoliberal economic model that has an emphasis on free trade. This trend led to the signing of several free trade agreements and the creation of regional unions; for example, the European Free Trade Association (EFTA) in 1960, the North American FTA (NAFTA) in 1993, and the ASEAN FTA (AFTA) in 1992. From a theoretical viewpoint, free trade can bring a lot of benefits to all participating countries in terms of trading and investing (Khan, 2020; Wong & Chan, 2003). However, opponents of free trade claim that this trend can result in some negative impact that is mainly born by the poorer countries. The problems of free trade include an increase in product market competition that can harm domestic businesses (Ryu, 2020), a decrease in job opportunities among disadvantaged industries in member countries (Cui et al., 2019), and environmental issues due to the intensive consumption of fossil energy for transportation (Daly, 1993). While the benefits of free trade can be efficiently measured by

several economic indicators (for example, Gross Domestic Product (GDP), Trade balance, and Balance of payment), the problems it may cause to the economy of a country are almost intangible and is not easy to evaluate. One potential way to assess the net effect of free trade is to analyse its impact on the stock market, which generally reflects the expectation of market participants about the economic outlook. In this study, we examine how the stock market responds to the announcement of Free Trade Agreements (FTA) to understand the net impact that free trade has on the whole economy. We can then answer the question of whether an FTA is truly a win-win solution for both sides in international trade.

The literature related to the impact of an FTA on stock market return is diverse but largely controversial. One strand of literature documents a positive effect that FTAs can bring to the stock market. For example, Moser and Rose (2014) find that countries that signed the Regional Trade Agreement (RTA) see an increase in stock market return. This is typically true for countries that engage in high volumes of trade. Breinlich (2014) finds evidence that the Canada - United States FTA can increase the stock market return of exporting countries by 6 percent to 7 percent. In addition, industries with higher tariff cuts will receive more benefits. Another stream of literature, however, shows evidence of a negative stock market reaction to FTAs. For example, Bustamante and Donangelo, (2017) argue that FTAs can result in higher market competition, which negatively affects stock returns. Hanson and Song (1998) find that FTA has no significant impact on stock return since only some industries and firms gain benefits while others face losses. Similarly, Thompson (1994) documents stock return adjustments among some sectors but there is no significant impact of FTAs on the average stock market return. Overall, previous studies on stock market reactions to FTA news are contested. There is also a lack of evidence from developing countries and multidisciplinary analyses.

In this study, we select Vietnam as our case study for two main reasons. First, Vietnam is a developing country with an economy relying heavily on international trade. As of the end of 2020, the exporting value of Vietnam is \$281.5 billion, equivalent to 81.9 percent of the national GDP. As such, Vietnam is a good representative for the developing world in international trade. Second, during the past 25 years, Vietnam has signed a number of FTAs, ranging from bilateral and multilateral agreements, with regional and international partners. This variety in the types of FTAs allows us to add more layers to our analyses, which can explain the heterogeneous impact of FTAs on stock market return.

For our quantitative analyses, we employ the event study methodology to examine the abnormal return of Vietnamese stocks surrounding the dates of FTA announcements. We focus on three types of announcements including the initiation, the signing, and the effective date of FTAs. Our study period is from July 2000 (i.e. the launch of the Vietnamese stock market) to December 2020. We collect data for FTA announcements from the portal on WTO and Economic Integration ([www.wto-center.vn](http://www.wto-center.vn)) and the portal of the Ministry of Finance ([www.mof.gov.vn](http://www.mof.gov.vn)). There are 18 FTAs during the studied period, in which 15 are concluded and 3 are under negotiation. We further filter for any FTA announcements having overlapping event windows and lack of data availability. This process results in our final sample of 17 announcements, including 4 initiation dates, 8 signing dates, and 5 effective dates.

Our main results show that, on average, the Vietnamese stock market reacts negatively to FTA announcements. This negative impact exists one day before and

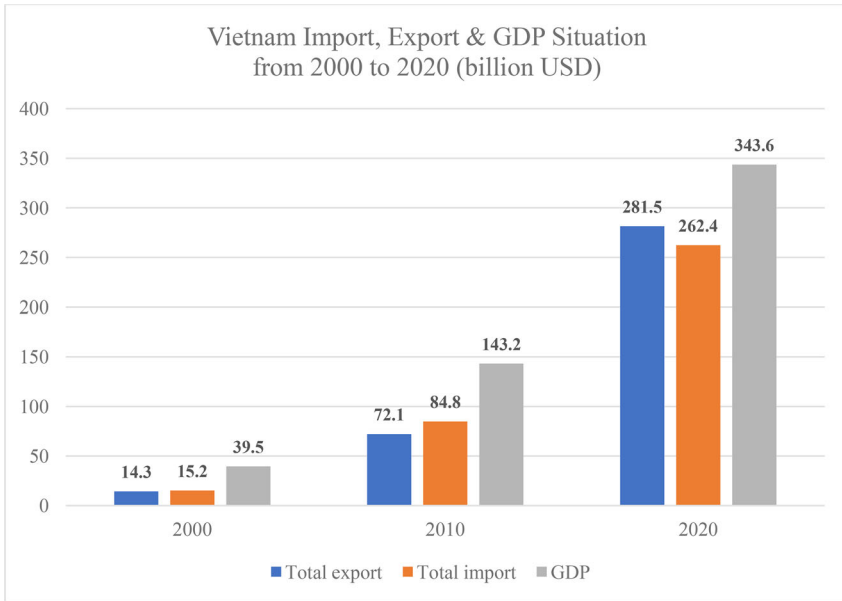
on the day of FTA announcements and can persist for at least 30 days after the announcement date. This implies that the market has a pessimistic expectation about the economic impact of FTAs on the national economy. We further find that the announcements of FTA initiation and signing have negative effects on the stock market return, whilst the market shows a positive reaction on the effective dates of FTAs. This suggests that the market may see the benefit of FTAs once they become effective or this is simply a reversion of the market to account for its negative shock in response to the FTA initiation and signing announcements.

We next perform subsample analyses to investigate whether the stock market has a homogeneous expectation about different types of FTAs. We find that the negative impact of FTA announcements on stock return is mostly attributed to the effect of bilateral FTAs, whereas multilateral FTAs that involve more than two counterparts exert a less severe or insignificant impact on the stock market. In addition, we document that the impact of FTA announcements on the return of stocks in different sectors is not the same. Specifically, we find that Financial and Real Estate are the worst affected sectors. We also document a significantly negative impact of FTA announcements on Energy and Materials stocks, which are both inputs for manufacturing. These results reflect the negative view of stock market participants about the financial and industrial sectors. In contrast, our results show that the remaining sectors including Communication Services, Consumer Discretionary, Consumer Staples, Health Care, Information Technology, and Utilities exert no significant reaction to FTA announcements. This is possibly explained by the fact that these sectors are either those that Vietnam has a relative advantage in, or sectors that have high barriers to entry.

Our study contributes to the literature in several ways. First, we add to the contested literature on the impact of free trade on the economy of participating countries by showing that FTAs have a negative impact on the stock market of a developing country. This implies that market participants share a pessimistic view about what FTAs can bring to the national economy. Our results, therefore, supplement previous studies that mostly focus on how FTAs affect wealthier countries (Breinlich, 2014; Khan, 2020; Moser & Rose, 2014). Our findings suggest that FTAs are not always viewed by market participants as a win-win agreement.

Second, we also provide additional analyses that show the heterogeneous impact of FTA announcements on the stock market. We show that FTAs announcements can affect stock returns differently, conditioned on the types of announcements, whether the FTA is bilateral or multilateral, and the industries that the stocks belong to. These results provide a multi-dimensional view about the economic impact of FTAs, which is useful to policymakers, particularly those from low-skilled countries in the global value chain, to consider the signing of FTAs or design suitable strategies to support Vietnamese firms after FTAs take effect. In addition, our study also provides valuable information for stock market participants to make investment decisions surrounding FTA announcement dates.

The remainder of our research is structured into four sections. Section Two provides background information about the participation of Vietnam in international trade. In Section Three, we present our data collection and research methods. In Section Four, we report and discuss our findings of the effect of FTA announcements on the Vietnamese stock market. Section Five contains our conclusion.



**Figure 1.** Vietnam import, export, and GDP value from 2000 to 2020 (billion USD).

This figure shows the value of imports, exports, and GDP of Vietnam in the three years 2000, 2010, and 2020. The data is retrieved from General statistics office of Vietnam (GSO) (2020).

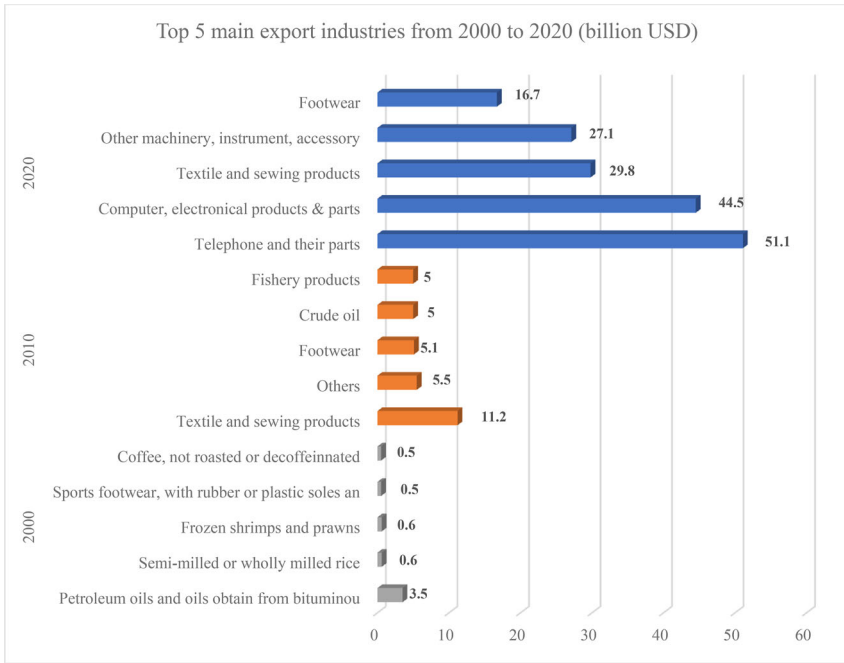
## 2. Vietnam Participation in International Trade

### 2.1. Import and Export Situation of Vietnam during 2000–2020

Vietnam is an emerging country that relies heavily on international trade. The total value of Vietnamese export and import has been increasing sharply over the years. As can be seen in [Figure 1](#), during the period from 2000 to 2020, the total value of export and import has increased by almost 20 times (export value is USD 14.3 billion in 2000 and USD 281.5 billion in 2020, import value is USD 15.2 billion in 2000 and USD 262.4 billion in 2020). We also document that the relative importance of export and import in Vietnam's national economy has also increased across time. In 2000, the value of export/import is equivalent to almost 40 percent of the national GDP. Whereas in 2020, the value of export/import accounts for around 80 percent of the GDP.

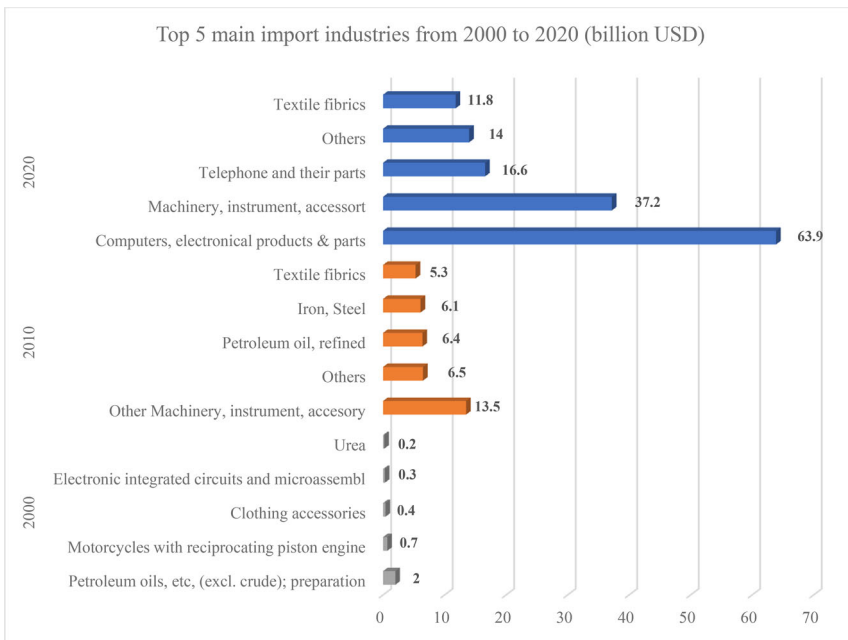
Along with the growth in the total export and import value, Vietnam witnesses a change in key export-import industries during the period from 2000 to 2020. [Figures 2](#) and [3](#) report Vietnam's top five key export and import industries, respectively. Accordingly, we document a shift of key export industries from mainly agriculture and energy in 2000 to light manufacturing and technology in 2020.

In 2000, the five leading export sectors include three agricultural industries, namely coffee, semi-milled or wholly milled rice, and frozen shrimps, accounting for about USD 0.6 billion. petroleum oils and oils obtained from bituminous minerals is the industry with the highest export value, estimated at USD 3.5 billion. Footwear is the only industry that belongs to the top five leading export sectors during the period from 2000 to 2020. In 2010, textile and sewing becomes the industry with



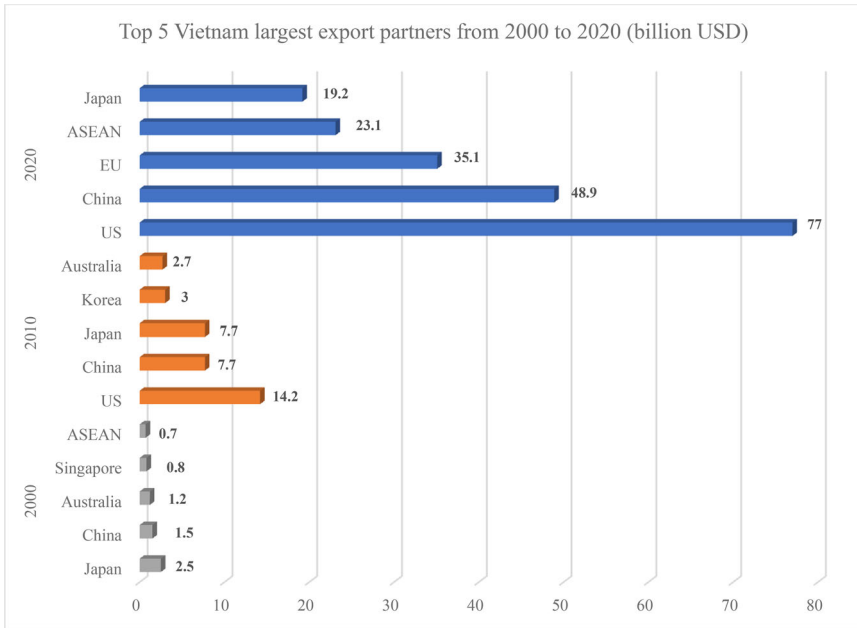
**Figure 2.** Top 5 main export industries from 2000 to 2020 (billion USD).

This figure shows the value of the top five main export industries of Vietnam in the three years 2000, 2010, and 2020. The data is retrieved from World Integrated Trade Solution (WITS) (2000) and GSO (2010–2020).



**Figure 3.** Top 5 main import industries from 2000 to 2020 (billion USD).

This figure shows the value of the top five main import industries of Vietnam in the three years 2000, 2010, and 2020. The data is retrieved from World Integrated Trade Solution (WITS) (2000) and GSO (2010–2020).



**Figure 4.** Top 5 Vietnam largest export partners from 2000 to 2020 (billion USD).

This figure shows the value of the top five main export partners of Vietnam in the three years 2000, 2010, and 2020. The data is retrieved from World Integrated Trade Solution (WITS) (2000) and GSO (2010–2020).

the highest export value of Vietnam. Other sectors such as footwear, crude oil, fishery products, and others account for about USD 5 billion. By 2020, no agricultural industries remain in the top five export industries. Instead, industrial products such as telephones, computers, textile, other machinery have taken their place.

As in [Figure 3](#), from 2000 to 2020, the top five key import industries of Vietnam have changed drastically. In 2000, the main import industries of Vietnam are urea, electronic integrated circuits and microassemblies, clothing, motorcycles, and petroleum, with the import value ranging from about 0.2 billion USD to 2 billion USD per industry. In 2010, while other machinery, instruments, and accessories becomes the industry with the highest import value (USD 13.5 billion); refined petroleum oil decreases to the third position in terms of value. The remaining industries including textile fabrics, iron and steel, and others have the import value of USD 5.3, 6.1, and 6.5 billion, respectively. By 2020, Vietnam imports mainly from technology-intensive industries (for example, computers, machinery, and telephone), accounting for about 80 percent of the total value of five leading import industries.

[Figure 4](#) shows the five largest export partners of Vietnam from 2000 to 2020. We find that during this period, Vietnam's largest export partners always include Japan and China. In 2000, these two countries are the largest export partners of Vietnam, followed by Australia, Singapore, and ASEAN. However, in 2010, the US become the largest export partner of Vietnam, pushing Japan and China to second place. In 2020, Vietnam has the highest export value to the US, followed by China, EU, ASEAN, and Japan.



**Figure 5.** Top 5 Vietnam largest import partners from 2000 to 2020 (billion USD).

This figure shows the value of the top five main import partners of Vietnam in the three years 2000, 2010, and 2020. The data is retrieved from World Integrated Trade Solution (WITS) (2000) and GSO (2010–2020).

Figure 5 reports the top five import partners of Vietnam over the years. Accordingly, Japan and China are also the two countries that Vietnam mainly imports from during the period of 2000 to 2020. While Vietnam has increased the import value from China by 60 times over the 2 decades, the import value from Japan has only increased by 8.8 times. Apart from these two countries, Vietnam's loyal import partners are ASEAN and Korea with an increase of 16 to 27 times in import value over the period, respectively. In 2000, Singapore is the largest import partner of Vietnam with an import value of 2.6 billion USD. However, in 2010, this country no longer belongs to the top five import partners of Vietnam, with Thailand taking its place. In 2020, for the first time, the EU gets into the top 5 import partners of Vietnam with an import value of USD 14.6 billion.

## 2.2. Vietnam's Integration in International Trade

After Vietnam was liberated in 1945, the government adopted a centralized, bureaucratic, and subsidized economic planning mechanism and a socialist industrialization model. Most economic activities are subsidized by the State while the private economy is gradually removed, giving way to an economy led by the State. Private businesses are eliminated, goods are distributed under the state-controlled stamp system, restricting the sale and purchase in the market or freely transporting goods from one locality to another. The State had a monopoly on goods, restricted cash exchange, and the residence system was set up during this period to distribute food per capita. As a result, the economy in general, and industrial production in particular, declined substantially and fell into crisis.



Facing that situation, the VI Congress of the Communist Party of Vietnam<sup>1</sup> in 1986 identified a comprehensive economic innovation program in three main directions. First, Vietnam converted to a multi-sector economy with many forms of ownership to develop products and improve the efficiency of the economy. The second direction was to switch to a market mechanism with the state management on the macro level, ensuring the business autonomy of each enterprise. Third, Vietnam transitioned toward an open economy to the outside world. Since then, the economy has reached several encouraging achievements, the export value of Vietnam had increased by 2 times compared to the previous 5-year plan (Ministry of Industry and Trade of Vietnam (MOIT), 2021).

In 1995, US President Bill Clinton announced the normalization of diplomatic relations with Vietnam. In the same year, Vietnam officially joined ASEAN and signed AFTA, marking Vietnam's regional integration progress as well as the progress, cooperation, and association of the whole region. In the subsequent years, Vietnam signed a number of important bilateral and multilateral FTAs. By 2020, Vietnam has signed 15 FTAs and is negotiating 3 FTAs. This era marks the very important milestone of Vietnam on the path of deeper integration into the global economy.

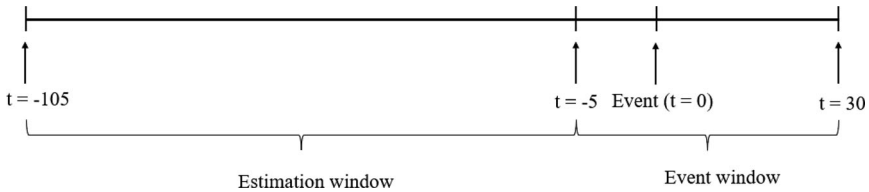
### **2.3. Vietnam's Position in the Global Value Chains**

There are three main stages in the global value chains (GVC), which include: research and development, manufacturing, and marketing and logistics. According to the Vietnam Science and Technology Portal (Vietnam Science and Technology (VISTA), 2019), in 2019, Vietnam had primarily participated in the middle manufacturing stage in the GVC (e.g. light manufacturing, electrical equipment, and electronics). This stage requires a large number of laborers with low qualifications, mainly for manufacturing and assembling products in line. Typically, foreign businesses research and design the product models, then transfer materials to Vietnam for the production stage. After manufacturing and assembling, Vietnamese enterprises re-transfer them to their foreign counterparts for marketing, distribution, sales, and after-sale services. During recent years, however, Vietnam's basket of goods has also become more diversified than before, reflecting the shift from exporting low- and medium-tech manufactured goods (i.e. apparel, furniture, footwear) to more complex products such as machinery and electronics (Industry & Trade Magazine, 2020).

However, when participating in the manufacturing stage of the GVC, Vietnam does not gain much added value. According to World Bank (2018), Vietnam generated 21.1 billion USD of added value from its participation in the GVC, ranking 53 out of 174 countries globally in terms of added value from GVC participation. This value is much lower compared to other regional countries; for example, it is only one-fourth of the value gained from joining the GVC of the Philippines (i.e. 84.8 billion USD). During the period from 2000 to 2020, Vietnamese domestic value added (DVA) from participating in the GVC grows approximately five-fold, which is relatively small compared to the nine-fold GDP growth during the same period. In

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<sup>1</sup>This is the key congress of the Communist Party of Vietnam, organized by the Central Committee regularly every five years. The congress was held to summarize the achievements and limitations of the previous periods, and determine the direction, goals, tasks, and solutions in terms of economy, society, security, and politics in the upcoming periods.



**Figure 6.** Timeline of event study.

This figure is created by the authors to illustrate the timeline of the event study employed in this research.

addition, the level of localization of Vietnam is still low, accounting for only 28% of the total trade turnover, which is less than half of the figure of the neighbor country China (Vietnam Briefing, 2021). This means Vietnam still has to import a lot of raw materials from overseas. Another issue is that the majority of Vietnamese firms (i.e. 98% of Vietnamese SMEs) have low technical levels, and limited financial and human resources (VIR, 2019). This leads to the difficulty for them to be able to participate in the GVC and compete with firms from more developed countries.

### 3. Methodology and Data

#### 3.1. Methodology

##### 3.1.1. Event Study

This study utilizes the event study methodology for our analyses. Figure 6 shows the timeline of our event study. Accordingly, the event date ( $t = 0$ ) is the date of FTAs' key announcements. The event window is the period over which the stock prices of the firms involved in the event are studied. According to MacKinlay (1997), an event window is larger than the specified period of interest. This enables the researcher to capture whether the market participants acquire the information before or after the announcement, as well as to identify whether there is a fast or slow price response. The estimation window is the period before the event window, which is used to estimate stock normal return. In this study, we employ  $t = [-105, -6]$  trading days as the estimation window. Eight event windows ( $t = [-1, 1]$ ,  $t = [-1, 0]$ ,  $t = [0, 1]$ ,  $t = [-2, 2]$ ,  $t = [-5, 5]$ ,  $t = [-5, 10]$ ,  $t = [-5, 20]$ ,  $t = [-5, 30]$ ) are considered to capture both the immediate reaction as well as the lagged and/or early reaction in the market due to FTA announcements.

##### 3.1.2. Models for Abnormal Return

**3.1.2.1. Abnormal Returns.** In an event study, we calculate the abnormal performance of stocks associated with an event. Following MacKinlay (1997), we use the market model over the estimation window to estimate stock normal returns.

$$R_{it} = \alpha + \beta \times R_{mt} + \varepsilon_{it}$$

Where:  $R_{mt}$  is the market return (i.e. VN Index return) and  $R_{it}$  is the stock return over the estimation window.

Using the estimated coefficients in the above equation, we then estimate the normal stock return ( $\widehat{NR}_{it}$ ) over the event window using the following formula:

$$\widehat{NR}_{it} = \hat{\alpha} + \hat{\beta} \times R_{mt}$$

This normal stock return is used to calculate the daily abnormal return ( $AR_{it}$ ) of each stock over the event window.

$$AR_{it} = R_{it} - \widehat{NR}_{it}$$

The daily abnormal returns ( $AR_{it}$ ) are also aggregated across the time over each event window for each security  $i$ . This constitutes the security's cumulative abnormal return (CAR). The CAR for security  $i$  from  $t_1$  to  $t_2$  is:

$$CAR_{i(t_1, t_2)} = \sum_{t_1}^{t_2} AR_{it}$$

**3.1.2.2. Standardized Abnormal Returns.** Given that our sample includes multiple stocks, which may be influenced by different stock effects that can affect our analyses, we follow Jong (2007) to employ standardized abnormal returns to control for this:

Standardized abnormal returns are defined as:

$$SAR_{it} = \frac{AR_{it}}{S(AR_{it})}$$

Where:  $S(AR_{it})$  is the standard deviation over the estimation window of the abnormal returns, it could be calculated as follow:

$$S(AR_{it}) = \sqrt{\frac{1}{t_2 - t_1} \sum_{t_1}^{t_2} (AR_{it} - \overline{AR}_{it})^2}$$

The cross-sectional average cumulative of AR would also be standardized (CSAR) in the event window period, which is calculated as follows.

$$ACSAR_{t_1, t_2} = \frac{1}{N} \sum_{i=1}^n \sum_{t=t_1}^{t_2} \frac{SAR_{i,t}}{t_2 - t_1 + 1}$$

Where:  $N$  is the number of events being studied and  $N = t_2 - t_1$  or number of days of the event window.

Although analyses using standardized abnormal returns is more institutively reliable, the interpretation of the results would be troublesome. Thus, in this study we would mainly base our result interpretation on AR analyses, while SAR analyses would be used as a robustness check.

### 3.1.3. Data

**3.1.3.1. VN - Index:** We utilize the return of VN Index<sup>2</sup> as a proxy for market return. To measure the return of stocks, we collect data from all stocks traded on the Ho Chi Minh City Stock Exchange (HOSE) from 7/2000 to 12/2020, which results in a

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<sup>2</sup>VN index is a value weighted index of all stocks listed on the Ho Chi Minh City Stock Exchange Center (HOSE) - the first centralized securities trading organization in Vietnam. This index is considered the official market index of Vietnam.

sample of 401 stocks. All these data are retrieved from [cafef.vn](http://cafef.vn), a prestigious website that provides financial data of Vietnam. In addition, stocks to be included in our analyses need to satisfy the following criteria:

- There are no other significant economic announcements, including share issue, share buyback, share split, bond issue and change in key management, dividend disbursement, listing commencement on the stock market are reported in the SSI website during both the estimation and the event windows.
- There is no missing data during the research period.

We also utilize the industrial classification adopted by the Ho Chi Minh City Stock Exchange (HOSE), which classified stocks into 11 groups, including Communication Services, Consumer Discretionary, Consumer Staples, Energy, Financial, Health Care, Industrials, Information Technology, Materials, Real Estate, and Utilities.

**3.1.3.2. FTAs Announcement Data.** We collect the data for FTA announcements from two sources. First, we use the Portal on WTO and Economic Integration ([www.wtocommerce.vn](http://www.wtocommerce.vn)), a part of the overall Program 'Enterprises and International Trade Policies' of Vietnam Chamber of Commerce and Industry (2018). Second, we also search for FTA announcements on the Portal of the Ministry of Finance ([www.mof.gov.vn](http://www.mof.gov.vn)). The criteria for selection are:

- The announcement (initiation/signing/effective) date is clear.
- A complete set of data of stock prices during the researched period around the announcement date was available.
- There is no other FTA announcement within the estimation and event windows of a focal FTA announcement.

There are 18 FTAs in the studied period, in which 15 are concluded and 3 are under negotiation. However, after applying the criteria filter, we retain 17 announcements in our final sample, including 4 initiation dates, 8 signing dates, and 5 effective dates. The details of the FTA announcements in the final sample are reported in Table 1.

## 4. Findings and Discussions

### 4.1. Testing the Impact of FTAs on the Vietnamese Stock Market Using Event Study

In Table 2, we present the test for the significance of *AR* and *SAR* for the whole sample. The test results show that FTA announcements have a significantly negative effect on Vietnamese stock returns. Specifically, on average, Vietnamese stocks have a negative abnormal return on the day before and the day of the FTA announcements, which are  $-0.44$  percent and  $-0.38$  percent respectively, significant at the one percent level. These are equivalent to annualized abnormal returns of  $-88$  percent and  $-76$  percent, given the assumption of 200 trading days per year. In relation to this, we also find that the average *SAR* of all stocks on these days are  $-0.19$  and  $-0.15$  respectively, both are significant at the one percent level. On the day

**Table 1.** List of FTAs announcements in the final sample.

No.	Name of FTA		Type	Date
1	ASEAN - China Free Trade Area	ACFTA	Initiation	4-Nov-02
2	ASEAN - India Free Trade Area	AIFTA	Initiation	8-Oct-03
	ASEAN - Japan Comprehensive Economic Partnership	AJCEP		
3	ASEAN - China Free Trade Area	ACFTA	Signing	29-Nov-04
4	ASEAN - South Korea Free Trade Area	AKFTA	Signing	13-Dec-05
5	ASEAN - South Korea Free Trade Area	AKFTA	Effective	1-Jun-07
6	ASEAN - Japan Comprehensive Economic Partnership	AJCEP	Signing	3-Apr-08
7	ASEAN - Japan Comprehensive Economic Partnership	AJCEP	Effective	15-Aug-08
8	ASEAN - India Free Trade Area	AIFTA	Signing	13-Aug-09
9	Vietnam - Chile Free Trade Area	VCFTA	Signing	11-Nov-11
10	Vietnam - EU Free Trade Area	EVFTA	Initiation	26-Jun-12
11	Vietnam - South Korea Free Trade Area	VKFTA	Signing	5-May-15
12	Viet Nam-Israel Free Trade Agreement	Viet Nam-Israel FTA	Initiation	2-Dec-15
13	Vietnam - Eurasian Economic Union Free Trade Area	VN-EAEU FTA	Effective	5-Oct-16
14	ASEAN - Hong Kong Free Trade Area	AHKFTA	Signing	12-Nov-17
15	Vietnam - Japan Free Trade Area	VJFTA	Signing	25-Dec-18
16	Comprehensive and Progressive Agreement for Trans-Pacific Partnership	CPTPP	Effective	14-Jan-19
17	ASEAN - Hong Kong Free Trade Area	AHKFTA	Effective	11-Jun-19

This Table presents the details of 17 FTA announcements included in the final sample. The data is collected from the portal on WTO and Economic Integration [www.wto-center.vn](http://www.wto-center.vn) and the Portal of the Ministry of Finance (MOF) (2019) [www.mof.gov.vn](http://www.mof.gov.vn).

**Table 2.** Test statistics for Abnormal Return surrounding FTA announcements.

Day (t)	Observations	AR	P-value	SAR	P-value
-1	1092	-0.44%	***	-0.19	***
0	1092	-0.38%	***	-0.15	***
1	1092	-0.16%	*	-0.04	0.39

This Table reports the test statistics for the Abnormal Return surrounding FTA announcements. \*, \*\* and \*\*\* represent significance level of 10%, 5% and 1%, respectively.

after the FTA announcements, we document an abnormal return of  $-0.16$  percent, significant at the ten percent level. However, SAR analyses show that there is no significant impact of FTA announcements on stock returns on this day.

In Table 3, we report our test results for the significance of CAR and CSAR. We find that CAR and CSAR for all studied windows are statistically negative. This means the impact of FTA announcements persists for at least 30 days after the announcement date. Altogether, the results in Tables 2 and 3 suggest that the stock market reacts negatively to FTA news, which can be explained by the expectation of the adverse impact that FTAs can bring to the developing economy of Vietnam.

In fact, FTAs can only solve the problem of tariffs, and this type of agreement does not help change the structure of trade with partners. Developing countries with poor competitiveness in the global value chain cannot well meet the rigorous product inspection process from partners, causing a large entry barrier (Ryu, 2020). In addition, when FTAs take effect, domestic goods will be under more competitive pressure due to the higher quality and more beautiful designs from foreign goods. This can potentially lead to more trade deficits for developing countries when participating in FTAs. For example, according to the National Institute for Finance (2021), after joining the FTA with Korea (i.e. VKFTA) at the end of 2015, Vietnam recorded an increase in trade deficit with Korea from 22.3% (2010–2014) to 31.4% (2015–2017). The reason is that many Vietnamese enterprises tend to import

**Table 3.** Test statistics for Cumulative Abnormal Return surrounding FTA announcements.

Window	Observations	CAR	P-value	CSAR	P-value
-1,0	1092	-0.82%	***	-0.34	***
0,1	1092	-0.54%	***	-0.19	***
-1,1	1092	-0.98%	**	-0.23	**
0,2	1092	-0.76%	***	-0.32	***
-2,2	1092	-1.09%	***	-0.28	**
0,5	1092	-1.07%	***	-0.51	***
-5,5	1092	-1.66%	***	-0.62	***
-5,10	1092	-1.68%	***	-0.74	***
-5,20	1092	-1.48%	***	-0.79	***
-5,30	1092	-2.25%	***	-1.21	***

This Table reports the test statistics for the Cumulative Abnormal Return surrounding FTA announcements. \*, \*\* and \*\*\* represent significance level of 10%, 5% and 1%, respectively.

**Table 4.** Test statistics for Abnormal Return surrounding FTA announcements by types of announcements.

Type	Observations	AR(-1)	AR(0)	AR(1)
Initiation	192	-0.99%***	-0.15%	-0.48%**
Signing	498	-0.52%***	-0.72%***	-0.45%***
Effective	402	-0.07%	-0.06%	0.34%**

This Table reports the test statistics for the Abnormal Return surrounding FTA announcements, classified by types of FTA announcements. \*, \*\* and \*\*\* represent significance level of 10%, 5% and 1%, respectively.

more from Korea to diversify inputs whilst taking advantage of tax incentives that are in the process of being reduced. Meanwhile, Vietnamese products may not have equivalently high demand from the Korean market. A similar increase in the bilateral trade deficit was also recorded after Vietnam joined FTAs with China and Japan (Ministry of Finance (MOF), 2019). Overall, these long-term challenges when participating in FTAs, as also reflected in stock market reactions to FTAs, require Vietnam and other low-skilled countries in the GVC in general to make great strides to succeed.

## 4.2. Subsample Analyses

### 4.2.1. By Types of FTA Announcements

We also calculate the average AR of stocks for each type of FTA announcements and report the results in Table 4. Accordingly, we find that the stock market responds negatively to the announcements of FTA initiation on the day before and after the announcement date and the reaction on day (-1) is double that of day (1). Specifically, the average AR(-1) and AR(1) are -0.99 percent and -0.48 percent, respectively. However, we find no significant reaction on the day of the FTA initiation announcement.

Regarding FTA signing announcements, we find significant market reactions on all three days, from one day before to one day after the announcements, with the strongest reaction is documented on the announcement date. To be detailed, AR(-1), AR(0), and AR(1) are -0.52 percent, -0.72 percent, and -0.45 percent, respectively, significant at the one percent level.

In contrast, for the date of FTA taking effect, we find a positive and significant market reaction on the day after the announcements. However, the market shows no significant reaction on day (-1) and day (0). This result explains the insignificant AR(1) of the full sample. It also suggests that the market may see the benefit of

**Table 5.** Test statistics for Abnormal Return surrounding FTA announcements by FTAs.

FTA date	FTA	Type	Obs.	AR(-1)	AR(0)	AR(1)
04-Nov-02	ACFTA	Initiation	9	-0.34%	0.05%	0.12%
08-Oct-03	AIFTA	Initiation	11	0.18%	0.46%	0.22%
	AJCEP					
29-Nov-04	ACFTA	Signing	12	0.10%	-0.07%	-0.54%
13-Dec-05	AKFTA	Signing	13	-0.27%	-0.99%*	0.67%**
01-Jun-07	AKFTA	Effective	30	0.65%*	0.01%	0.49%
03-Apr-08	AJCEP	Signing	34	0.38%*	0.21%	0.09%
15-Aug-08	AJCEP	Effective	29	0.48%**	0.47%**	0.45%
13-Aug-09	AIFTA	Signing	39	-0.15%	-0.43%	-0.55%
11-Nov-11	VCFTA	Signing	80	-1.16%***	-0.82%***	-1.38%***
26-Jun-12	EVFTA	Initiation	87	-1.89%***	-1.25%***	-0.47%*
05-May-15	VKFTA	Signing	101	-0.72%***	-0.45%	-1.32%***
02-Dec-15	VN-Israel FTA	Initiation	85	-0.30%	0.88%***	-0.64%**
05-Oct-16	VN-EAEU FTA	Effective	80	-0.89%***	0.14%	0.12%
13-Nov-17	AHKFTA	Signing	80	-0.46%	-1.38%***	-0.54%*
25-Dec-18	VJEPA	Signing	139	-0.45%**	-0.83%***	0.57%***
14-Jan-19	CPTPP	Effective	132	-0.05%	-0.07%	0.54%*
11-Jun-19	AHKFTA	Effective	131	0.13%	-0.32%	0.22%

This Table reports the test statistics for the Abnormal Return surrounding FTA announcements, classified by FTAs. \*, \*\* and \*\*\* represent significance level of 10%, 5% and 1%, respectively.

FTAs once they become effective or this is simply a reversion of the market to account for its negative shock in response to the FTA initiation and signing announcements.

#### 4.2.2. By FTAs

We next report the average abnormal return for each FTA date in Table 5. We find 7 FTA announcements that post the strongest impact on the stock market, which include VCFTA, EVFTA, VKFTA, VN-Israel FTA, VN-EAEU FTA, AHKFTA, and VJEPA. All these FTAs have a negative abnormal return of 0.8 percent or above during the [-1,1] event window, which is equivalent to an annualized abnormal return of -160 percent. This is reasonable since all these FTAs, except AHKFTA, are bilateral FTAs between Vietnam and a country or trade bloc. Whereas the remaining FTAs, having lower or no significant impact, are multilateral FTAs that involve more than two counterparties, of which Vietnam is a member. When signing multilateral FTAs, Vietnam may have more opportunities to trade with many partners. For each member country, Vietnam can benefit from an exchange of different industries. Thus, the advantaged industries of a multilateral FTA can be more diverse. Meanwhile, bilateral FTAs are often signed by Vietnam with an individual country outside the region. Those countries tend to have very high requirements for the quality of goods and services. In addition, the logistics services in Vietnam have not yet been developed. Therefore, the cost of handling international exchange is still high. Taken together, bilateral FTAs likely disadvantage businesses in Vietnam.

#### 4.2.3. By Industries

Finally, we perform subsample analyses for each industry in the stock market. We find that 5 out of 11 industries are significantly affected by FTA announcements. First, for Industrial stocks, we document  $AR(-1)$ ,  $AR(0)$ , and  $AR(1)$  with the values of -0.36 percent, -0.37 percent, and -0.35 percent respectively, significant at the five

**Table 6.** Test statistics for Abnormal Return surrounding FTA announcements by industries.

Industry	Observations	AR(-1)	AR(0)	AR(1)
Communication Services	7	-1.37%	-0.68%	0.40%
Consumer Discretionary	134	-0.13%	0.32%	0.27%
Consumer Staples	142	-0.36%	-0.42%*	-0.16%
Energy	45	-0.64%**	-0.52%	-0.36%
Financial	48	-1.05%***	-0.65%	-0.74%**
Health Care	29	0.10%	-0.44%	-0.59%
Industrials	289	-0.36%**	-0.37%**	-0.35%**
Information Technology	7	-0.41%	0.35%	-0.25%
Materials	179	-0.46%**	-0.48%**	0.00%
Real Estate	137	-0.82%***	-0.81%***	-0.23%
Utilities	75	-0.30%	-0.29%	0.12%

This Table reports the test statistics for the Abnormal Return surrounding FTA announcements, classified by industries. \*, \*\* and \*\*\* represent significance level of 10%, 5% and 1%, respectively.

percent level. Since Vietnam has no relative advantage for the Industrial sector compared to the more developed FTA counter-partners (i.e. according to WEF (2019), the competitive advantage index of the Vietnamese Industrial sector ranks 67<sup>th</sup> out of 141 countries in the world), this sector would be seriously harmed by the increased international competition once an FTA takes effect. Thus, investors are reluctant to invest in industrial stocks, causing a negative shock to this sector.

In relation to this, we also find a significantly negative impact of FTA announcements on Energy and Materials stocks, with  $AR(-1)$  of  $-0.64$  percent for Energy, and  $AR(-1)$  and  $AR(0)$  of  $-0.46$  percent and  $-0.48$  percent for Materials, significant at the five percent level. Since Energy and Materials are both inputs for manufacturing, a negative outlook for the national industry sector would also result in an adverse impact on Energy and Materials stocks.

Our results also show that Financial and Real Estate are the worst affected sectors. Specifically, we document  $AR(-1)$  and  $AR(1)$  of  $-1.05$  percent and  $0.74$  percent for Financial stocks; whereas for Real Estate stocks, we find  $AR(-1)$  and  $AR(0)$  of  $-0.82$  percent and  $-0.81$  percent. These two sectors represent long-term investments in the economy, in which the Financial sector provides investment capital, and the Real Estate sector provides land and factories. As FTAs entail a negative view about the national economic outlook, any decision for long-term investment might be delayed or cancelled. This subsequently affects the Financial and Real Estate sectors, which results in a negative shock for stocks of these sectors.

In addition, foreign investors contribute a fair portion of investment in the Financial and Real Estate sectors. According to the Foreign Investment Agency - Ministry of Planning and Investment (2020), in the year 2020, foreign investors have invested in the real estate business with registered FDI capital of nearly 4.2 billion USD, accounting for about 12% of FDI into Vietnam. As for the financial sector, in the year 2019, the financial market of Vietnam receives 318 billion USD from foreign investors, accounting for up to 16% of market liquidity (Tap chi tai chinh, 2020). Foreign investors are, therefore, important players in both the real estate and financial markets of Vietnam. Since FTA can cause changes in the commodity flows across participating countries, it can also affect the volatility of the bilateral exchange rate. This can subsequently lead to more prudent investment decisions of foreign investors, causing a negative impact on the Financial and Real Estate stock returns. The remaining sectors including Communication Services, Consumer



Discretionary, Consumer Staples, Health Care, Information Technology, and Utilities show no significant reaction to FTA announcements. This is possibly explained by the fact that these sectors are either sectors that Vietnam has a relative advantage (Consumer Discretionary, Consumer Staples, Information Technology) or sectors that have high barriers to entry (Communication Services, Health Care, and Utilities) (Table 6).

## 5. Conclusion

We examine the stock market reaction to FTA announcements and find that the Vietnamese stock market, in general, has been negatively affected by FTA announcements. This negative effect persists for at least 30 days after the date of announcements. In addition, our study shows that bilateral FTAs exert a more negative impact on stock return compared to multilateral FTAs. We also show that Financial and Real Estate are the worst affected sectors and document a significantly negative impact of FTA announcements on Energy and Materials stocks, which are both inputs for manufacturing. In contrast, the remaining sectors including Communication Services, Consumer Discretionary, Consumer Staples, Health Care, Information Technology, and Utilities have no significant reaction to FTA announcements.

Our study complements the literature by examining the impact of FTA on a developing economy. By showing that FTA announcements have a negative impact on the Vietnamese stock market, we conclude that FTA may not always be viewed as a win-win solution for both parties in international trade. Our study also contributes to the literature by showing that the effects of the FTA announcements on the stock market are heterogeneous across different types of announcements, different types of FTAs, and different industries. These findings provide useful insights for policymakers, particularly those of low-skilled countries in the GVC, to carefully consider the signing of an FTA and how to support disadvantaged industries after an FTA takes effect. In addition, our results also provide pricing information for investors to make investment decisions surrounding the dates of FTA announcements.

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## References

- Breinlich, H. (2014). Heterogeneous firm-level responses to trade liberalization: A test using stock price reactions. *Journal of International Economics*, 93(2), 270–285. <https://doi.org/10.1016/j.jinteco.2014.04.002>
- Bustamante, M. C., & Donangelo, A. (2017). Product market competition and industry returns. *The Review of Financial Studies*, 30(12), 4216–4266. <https://doi.org/10.1093/rfs/hhx033>
- Cui, L., Song, M., & Zhu, L. (2019). Economic evaluation of the trilateral FTA among China, Japan, and South Korea with big data analytics. *Computers & Industrial Engineering*, 128, 1040–1051. <https://doi.org/10.1016/j.cie.2018.04.029>
- Daly, H. E. (1993). The perils of free trade. *Scientific American*, 269(5), 50–57. <https://doi.org/10.1038/scientificamerican1193-50>
- General statistics office of Vietnam (GSO). (2020). Import-export archive. Retrieved March 30, 2021, from <https://www.gso.gov.vn/en/import-export/>

- Hanson, R. C., & Song, M. H. (1998). Shareholder wealth effects of free trade US and Mexican stock market response to NAFTA. *International Review of Economics & Finance*, 7(2), 209–224. [https://doi.org/10.1016/S1059-0560\(98\)90041-7](https://doi.org/10.1016/S1059-0560(98)90041-7)
- Industry and Trade Magazine. (2020). Chuyen dich manh me co cau xuất khau. Retrieved November 01, 2021, from <https://tapchicongthuong.vn/bai-viet/chuyen-dich-manh-me-co-cau-xuat-khau-77043.htm>.
- Jong, F. (2007). *Event studies methodology*. University of Tilburg, pp. 1–44.
- Khan, N. S. (2020). Revisiting the effects of NAFTA. *Economic Analysis and Policy*, 68, 1–16. <https://doi.org/10.1016/j.eap.2020.08.001>
- MacKinlay, A. C. (1997). Event studies in economics and finance. *Journal of Economic Literature*, XXXV, 13–39.
- Ministry of Finance (MOF). (2019). FTAs/BTAs. Retrieved November 01, 2021, from [https://mof.gov.vn/webcenter/portal/btcvn/pages\\_r/lvtc/hop-tac-quoc-te/hoi-nhap-va-hop-tac-tai-chinh/fta/cac-fta-bta-khac](https://mof.gov.vn/webcenter/portal/btcvn/pages_r/lvtc/hop-tac-quoc-te/hoi-nhap-va-hop-tac-tai-chinh/fta/cac-fta-bta-khac)
- Ministry of Industry and Trade of Vietnam (MOIT). (2021). Periods of development. Retrieved March 30, 2021, from [http://moit.gov.vn/web/guest/lanh-dao-bo?p\\_p\\_id=ECOITQLNhanSu](http://moit.gov.vn/web/guest/lanh-dao-bo?p_p_id=ECOITQLNhanSu)
- Ministry of Planning and Investment (MPI). (2020). Foreign direct investment information. Retrieved October 28, 2021, from <https://www.mpi.gov.vn/Pages/tinbai.aspx?idTin=48566&idcm=208>
- Moser, C., & Rose, A. K. (2014). Who benefits from regional trade agreements: The view from the stock market. *European Economic Review*, 68, 31–47. <https://doi.org/10.1016/j.eurocorev.2014.01.012>
- National Institute for Finance. (2021). RCEP Agreement: Impact on the region and problems for Vietnam. Retrieved March 30, 2021, from [https://vst.mof.gov.vn/webcenter/portal/vclvcstc/r/m/nckh/ctnc/nckhctnc\\_chitiet?dID=216359&dDocName=MOFUCM207138&\\_adf.ctrlstate=1cilq7uayk\\_4&\\_afLoop=188348301583994777%#%40%3FdID%3D216359%26\\_afLoop%3D188348301583994777%26dDocName%3DMOFUCM207138%26\\_adf.ctrlstate%3Dx4j2w5os0\\_4](https://vst.mof.gov.vn/webcenter/portal/vclvcstc/r/m/nckh/ctnc/nckhctnc_chitiet?dID=216359&dDocName=MOFUCM207138&_adf.ctrlstate=1cilq7uayk_4&_afLoop=188348301583994777%#%40%3FdID%3D216359%26_afLoop%3D188348301583994777%26dDocName%3DMOFUCM207138%26_adf.ctrlstate%3Dx4j2w5os0_4)
- Ryu, D. (2020). The US–Korea free trade agreement as a shock to product market competition Evidence from the Korean stock market. *Finance Research Letters*, 35, 101296. <https://doi.org/10.1016/j.frl.2019.09.011>
- Tap chi tai chinh. (2020). Dinh vi dong von ngoai tren thi truong chung khoan trong 2020. Retrieved November 03, 2021, from <https://tapchitaichinh.vn/kinh-te-vi-mo/dinh-vi-dong-von-ngoai-tren-thi-truong-chung-khoan-2020-317734.html>
- The World Economic Forum (WEF). (2019). The global competitiveness report. Retrieved November 03, 2021, from [https://www3.weforum.org/docs/WEF\\_TheGlobalCompetitivenessReport2019.pdf](https://www3.weforum.org/docs/WEF_TheGlobalCompetitivenessReport2019.pdf)
- Thompson, A. J. (1994). Trade liberalization, comparative advantage, and scale economies Stock market evidence from Canada. *Journal of International Economics*, 37(1-2), 1–27. [https://doi.org/10.1016/0022-1996\(94\)90022-1](https://doi.org/10.1016/0022-1996(94)90022-1)
- Vietnam Briefing. (2021). Industry. Retrieved from November 03, 2021, from <https://www.vietnam-briefing.com/news/how-vietnams-supply-chains-differ-from-its-peers-and-participation-in-global-value-chains.html/>
- Vietnam Chamber of Commerce and Industry (VCCI). (2018). Co hoi tu VKFTA: doanh nghiệp Viet can thay doi cach tiep can. Retrieved October 23, 2021, from <https://trungtamwto.vn/chuyen-de/11269-co-hoi-tu-vkfta-doanh-nghiep-viet-can-thay-doi-cach-tiep-can>
- Vietnam Investment Review (VIR). (2019). Expanding the global role for Vietnam’s SMEs. Retrieved October 26, 2021, from <https://vir.com.vn/expanding-the-global-role-for-vietnams-smes-71069.html>
- Vietnam Science and Technology (VISTA). (2019). Policies to promote the global value chain. Retrieved October 25, 2021, from [https://vista.gov.vn/vn-uploads/tong-luan/2019/tongluan1-2019\\_e.pdf](https://vista.gov.vn/vn-uploads/tong-luan/2019/tongluan1-2019_e.pdf)
- Wong, J., & Chan, S. (2003). China-ASEAN free trade agreement: Shaping future economic relations. *Asian Survey*, 43(3), 507–526. <https://doi.org/10.1525/as.2003.43.3.507>
- World Bank. (2018). *Vietnam at a crossroads: Engaging in the next generation of global value chains*. Retrieved October 25, 2021, from <https://openknowledge.worldbank.org/handle/10986/26215>.
- World Integrated Trade Solution (WITS). (2000). Country profile. Retrieved April 1, 2021, from <https://wits.worldbank.org/CountryProfile/en/Country/VNM/Year/2000/SummaryText>