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The impact of participation in the comprehensive and progressive trans-pacific partnership agreement on exports: The case of Vietnam

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CHRONICLE	A B S T R A C T
Article history: Received: March 15, 2019 Received in revised format: April 14 2019 Accepted: April 20, 2019 Available online: April 20, 2019 Keywords:	World Trade organization (WTO) accession can be seen as a milestone marking Vietnam's first step towards integration. The country is now trying to negotiate a number of free trade agreements called "new generation FTAs" in particular the Comprehensive and Progressive Agreement for Trans-Pacific Partnership - CPTPP (or TPP-11), which is expected to constitute the second step for Vietnam towards stronger integration. In addition to analyzing the characteristics of the CPTPP as a new generation FTA, this paper uses quantitative methods to forecast the impact of Vietnam's CPTPP participation on the increase in exports. The results show that with the participation of the
New generation FTA CPTPP	CPTPP, the average growth in Vietnam's export turnover will increase by 1.9% compared with the non-CPTPP scenario. The paper also suggests measures to promote the export of Vietnamese goods
Merchandise export	in the context of participation in CPTPP.

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1. Introduction

Vietnam's participation in the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) is expected to facilitate the country's international integration after its WTO membership in 2007 as the agreement will create one of the world's biggest free trade blocs accounting for about one tenth of the world economy. In particular, the CPTPP is a new generation FTA, which is more comprehensive in all areas (Nguyen, 2016; Petri & Plummer, 2016). This study aims at estimating the impact of the CPTPP on Vietnam's exports in comparison with a scenario of non-implementation of the agreement, and suggesting some policies and measures to promote the export of Vietnamese goods in that context. Quantitative methods including the Gravity model are employed in this research to forecast the impact of the CPTPP on Vietnam's export of goods after this agreement is officially put into effect. The advantages of the research model used in this study are as follows. First, the use of this model creates positive results in assessing the relationship between Vietnam and CPTPP partner countries on the export of goods without US involvement as well as the impact of Vietnam's export partners, such as China and

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Korea. Second, the model adopts tariff elements as the main policy instrument in the country's bilateral and multilateral commitments to trade liberalization to consider their effects on Vietnam's export turnover and to produce different forecasts based on the normal based scenario and the CPTPP implementation one. Third, in this model, updated data on growth, exports, tariffs and exchange rates are used and the latest progress in the negotiating and signing of the CPTPP's commitments is also taken into consideration. Therefore, this is the first study in Vietnam to use the quantitative model to estimate the impact of the CPTPP on the export of Vietnamese goods. In addition, based on empirical results, the paper also suggests some useful measures to increase Vietnam's export turnover as well as the quality and efficiency of its exports.

2. Background of the study

Regional integration plays an extremely important role in Vietnam's foreign policy. Recently, some free trade agreements have been conceived as new generation free trade agreements or "new generation FTAs". Participation in new generation FTAs is a decisive factor in Vietnam's international integration and will enhance the country's position, especially in a dynamic, sensitive area such as the Asia-Pacific region, where there is strategic economic and trade competition among major countries. In March 2018, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership — CPTPP Agreement was officially signed in Chile with 11 member countries (Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore and Vietnam). The CPTPP or TPP-11 Agreement superseded the Trans-Pacific Partnership Agreement (TPP or TPP-12) after the United States withdrew from it. The CPTPP will create one of the world's largest free trade areas, with a market of about 499 million people and a gross domestic product (GDP) of about \$10.1 trillion, accounting for 13.5% of world GDP (Petri et al., 2012). The new generation FTA is believed to have the strongest impact on the economies and trade of the Asia-Pacific region and in the world. Therefore, joining the CPTPP (or TPP-11) demonstrates a new level for the country in the regional and international integration process. Compared to traditional FTAs, the new generation FTA has the following three outstanding points (Nguyen, 2016). First, the new generation FTAs include agreements that are considered "non-commercial", such as those dealing with labor or the environment, and involving a commitment to sustainable development and good governance. Second, compared with traditional FTAs and WTO agreements, new generation FTAs have more new content, relating to investment, competition, public procurement, and e-commerce, and promote the development of small and medium enterprises, providing technical assistance for developing countries as well as allowing reasonable time for transition, so that these countries can adjust their policies in line with their level of development (Bivens, 2015). Third, in addition with the content of previous FTAs and WTO agreements, new generation FTAs include new content and are better prepared to deal with such matters as trade in goods, the protection of animal and plant health in international trade, trade in services, intellectual property rights (IPR) (also known as "TRIPS plus" and "TRIPS super plus"), trade protection, rules of origin, transparency and anti-corruption measures, and investor-state dispute settlement (ISDS). Thus, in comparison with WTO agreements, new generation FTAs include "WTO plus" elements which address issues previously not under the auspices of the WTO but currently necessarily agreed to because of changes in the international trade context (Ha, 2016). The CPTPP is expected to be a paradigm for regional cooperation, create favorable conditions for trade and investment, and have the ability to address some of the new challenges in international trade relations in the early 21st century. To meet these expectations, the CPTPP has five main characteristics (described in the following paragraphs) that make it not only a new generation FTA but also a landmark agreement for the 21st century, creating a new standard for global trade (Nguyen et al., 2011).

Comprehensive market access: The CPTPP will reduce or eliminate tariffs and non-tariff barriers in the trade in both goods and services. In this respect, whereas other FTAs only cut tariffs in line with the roadmap, the CPTPP's general rule is that all tariff lines are subject to a 0% import tax rate. With a few of the most sensitive tariff lines, a form of partial tax reduction (at a negligible level) or tariff quota that

enables duty-free importation of certain goods may be applied, provided all other member countries accept it. The CPTPP not only focuses on liberalization in the area of goods trading but also promotes liberalization in the areas of investment and trade in services. Commitments to opening markets and to transparency in the trade in goods and services along with an investment protection mechanism to guarantee the full rights of investors, policies for the implementation of prudent management measures aimed at building a stable macroeconomic environment will create new opportunities and benefits for businesses, workers and consumers in CPTPP member countries (World Bank, 2018).

A regional approach to making commitments: The CPTPP facilitates the development of production and supply chains, as well as of uninterrupted regional trade networks. It enhances efficiency, supports the achievement of employment creation goals, improves living standards and competitiveness, promotes conservation efforts and creates favorable conditions for cross-border integration and the opening up of the domestic market (Petri & Plummer, 2016).

The help in coping with new trade challenges: The CPTPP also helps deal with the new challenges posed by commercial development practices. Achieving goals through CPTPP commitments will contribute to improving innovation, productivity and competitiveness by addressing new issues, including the Internet and the development of the digital economy, the role and increased participation of state-owned enterprises (SOEs) in the global economy via international trade and investment, the ability of small enterprises to take advantage of trade agreements, and other issues (Vu, 2015).

The comprehensive commercial feature of the agreement. The CPTPP commitments are not limited to traditional trade issues but cover non-commercial ones, such as intellectual property, SPS and TBT measures, competition and public procurement, labor issues, the environment, government procurement, state-owned enterprises, etc. Therefore, the CPTPP has added new elements to ensure that economies at all levels of development and businesses of all sizes can benefit from trade. These elements include commitments to help small and medium enterprises (SMEs) understand agreements and take advantage of opportunities to draw their CPTPP member government's attention to their unique challenges, specific commitments to develop and improve trading abilities, ensuring that both sides can meet the commitments of the agreement and make use of its benefits (Le, 2015).

A foundation for close regional economic integration. The signing of the CPTPP will provide a solid foundation for regional economic integration and open the door to other economies in the Asia-Pacific region. The CPTPP itself is a means to unite a group of different countries in the region with various geographical and historical features, languages, as well as diverse scales and levels of their development. As a result, all CPTPP member countries recognize that diversity is a unique asset, but it is also essential to have close cooperation and develop the trading ability of underdeveloped CPTPP countries. In certain cases, special transitional timing and mechanism let some CPTPP partners have more time, if guaranteed, to develop the ability to meet new obligations.

Since Vietnam officially became a member of ASEAN (1996), the country has recorded important achievements including a rapid growth in and high growth rate of goods export turnover over the years. Vietnam's export turnover reached \$214.1 billion (2017), nearly 30 times higher than its export turnover 20 years ago (in 1996, the total export turnover was only \$7.2 billion) (*Ministry of Industry and Trade, 2018*).

Composition of export goods. Industrial goods comprise the highest proportion of total exports from Vietnam, accounting for 81.3%, followed by agricultural and aquatic products (12.1%) and fuel and minerals (only 2%). Vietnam exports 29 items with a turnover of over USD\$1 billion each; among these, 8 items have a turnover of over USD\$6 billion each. The leading exports comprise phones and components, textiles, footwear, machinery, equipment, tools, and spare parts *(Ministry of Industry and Trade, 2018)*. However, up to now, the localization rate in Vietnamese industries manufacturing key export products

has remained limited. The textile, leather and footwear industries have the highest localization rates of 51% and 45%, respectively. Meanwhile, the localization rates in such industries as automobiles and electronics are only 10% and 20%, respectively.

Export market structure. In addition to traditional markets, such as ASEAN and Northeast Asia (Japan, China, Korea), Vietnam's exports have increased strongly to other markets, such as the EU, the US and especially the markets of countries with which Vietnam has signed a FTA. Specifically, in 2017 Vietnam's exports to the US totaled USD 41.61 billion (accounting for 19.43% of total export turnover). Similarly, exports to Europe, China, ASEAN, Japan and South Korea accounted for USD 41 billion (19.15%), USD 35.46 billion (16.56%), USD 21.7 billion (10.14%), USD 16.8 billion (7.85%), and USD 14.8 billion (6.91%), respectively. Thus, in recent years, the US and the EU have been Vietnam's two largest export markets (in 2017, turnover came to more than USD 80 billion, accounting for 38.58% of all exports), with which Vietnam gained a trade surplus of nearly USD 60 billion) *(Ministry of Industry and Trade, 2018)*.

With strong export growth in recent years, Vietnam is expected to take a firmer second step towards integration by participating in the "new generation FTAs," especially the CPTPP Agreement. Compared with traditional FTAs, the CPTPP offers Vietnam many opportunities and challenges with its distinctive, emerging characteristics as follows:

First, the level of liberalization (openness) is substantial. With the high standard FTA, the CPTPP offers Vietnam and its member partners a high degree of openness (eliminating the vast majority of tariff lines, opening up the service sector, etc.), which is much broader than the WTO and Vietnam's former FTAs (except for the ASEAN Trade in Goods Agreement — ATIGA). Specifically, member countries have committed to removing import tariffs on many Vietnamese goods. Between 78% and 95% of tariff lines will be eliminated as soon as the agreement takes effect and 97-100% of tariff lines will be completely removed in the following years. The remaining items will follow an elimination roadmap of five to ten years, except for certain sensitive goods that will apply an over ten-year roadmap or tariff rate quotas. Many of Vietnam's major export items will enjoy zero tax rates immediately after the agreement comes into effect or after three or five years such as agricultural products, fisheries, textiles, footwear, furniture, electrical goods, electronics, rubber, etc. However, the technical barriers in trade (TBT) and sanitary and phytosanitary system (SPS) imposed by the CPTTP agreement, which are extremely strict, can become major obstacles to Vietnam's exports.

Second, the CPTPP offers a wide range of commitments. While the former FTAs focus mainly on the trade in goods, the CPTPP contains commitments on many new fields that Vietnam has never opened up before, for example state-owned enterprises, government procurement, labor- unions, the environment, etc.

Third, there are institutional commitments in this agreement. Unlike previous FTAs which mainly affected tariff policy at the border, the CPTTP requires many other commitments directly affecting institutions and domestic law policies (issues beyond and within borders).

Fourth, with respect to partnerships, Vietnam has big leading trading partners in the CPTPP such as the United States (if the United States returns to the TPP), Japan, Singapore, Malaysia, etc.

3. Methods and data

3.1. Methods

For assessing the impact of regional and global integration on the Vietnamese economy, especially on trade liberalization, the Gravity model can be used effectively and properly, since I/O data tables of

Vietnam are not updated frequently. As a result, the CGE model cannot be applied. The Gravity model was first used by Tinbergen (1962) and was based on Newton's law of Gravitation. Since the late 1970s, gravitational equations have been refined and used for different purposes. The gravity model in international trade is expressed as follows:

 $F_{ij} = \varphi \left(M_i \times M_j / D_{ij} \right).$

In the gravity model:

 F_{ij} : export, import or volumes of trade from country *i* to country *j*, depending on the purpose of the researcher.

 M_i and M_j represent the economic weights of two countries, such as gross domestic product (GDP) or GDP per capita.

 D_{ij} measures the distance between country *i* and country *j*; and φ is the rate constant.

Based on the results of the previous studies on trade impact factors such as Nguyen (2017), Do (2006) and Dao (2013) and Dao (2008), factors affecting Vietnam's trade supply and demand in trade liberalization include the income and population of partner countries since these items represent the size of their economies. Accordingly, trade is expected to increase more for partners with larger economies than for those with smaller ones. Similarly, with respect to the per capita income variable, richer countries tend to experience a greater growth in trade than poorer ones. The relationship between these variables and imports and exports is positive (Carrere, 2006; Le & Chu, 2016). The study of Clarete et al. (2003) used an empirical gravity model of bilateral trade involving 11 trading blocs from the Asia-Pacific region, including 83 countries during the 1980 and 2000 period. The independent variables adopted in the study are GDP, the distance between the capitals of trading partners, the population, and the physical and geographical features that account for transnational trade. The results show that trade between two countries is positively correlated with their income and the size of their economy. As their income rises, people will buy more expensive products, thus spurring imports. Therefore, the study uses per capita GDP to estimate the impact of economic size and income on trade which is expected to be positive. The distance and boundaries between trading partners have a great impact on the cost of commodities transactions. When the distance between countries is farther, shipping costs and transaction costs also increase accordingly, whereas for cross-border partners, commercial transaction costs are reduced to the lowest level. Studies by MacCallum (1995), Bougheas et al. (1999), Clarete (2003), and Martinez-Zarzoso (2003) all show that distance factors affect commercial transaction costs and have a negative impact on commercial transactions. However, based on a gravity model and panel data for 12 years from 1993 to 2004, Do's study (2006) shows that the bilateral trade between Vietnam and twenty three European countries is not driven by distance and history. The study carried out by Tu and Dao (2008) and Heo and Nguyen (2009) using the gravity model to assess the effects of AFTA on the trade flows of Vietnam and Singapore shows that physical distance plays a very important role in trade between the two countries. Exchange rates have a very strong effect on exports. Krugman and Obstfeld's study (2008) shows that devaluation of the domestic currency against foreign currencies leads to increased domestic exports. By using the gravity model for the 22 EU industrialized nations, Micco et al. (2003) assessed the impact of common currency and exchange rates with a sample from 1992 to 2002. The results show that currency union is an important factor, not only for existing EU members, but also for the rest of the EU. In addition, the exchange rate has a significant influence on bilateral trade. Do's study (2006) also indicates that exchange rate volatility does not have a significant effect on bilateral trade. The objective of this study is to estimate the impact of the CPTPP on Vietnam's exports after this agreement officially takes effect, comparing it with a scenario of non-implementation of the agreement. The need to forecast the effect of export-dependent variables is considered as a priority and depends greatly on the ability to predict independent variables. This study assumes the factors of economic size, income, and distance between partner countries affect Vietnam's trade turnover with partner countries that are CPTPP members. The model estimates that Vietnam's export turnover depends on the turnover of CPTPP member countries. The factor of exchange

rates is also taken into consideration. The tariff component of the trade liberalization commitment is the focus in this study for assessing the extent to which tariff adjustments during the implementation of the CPTPP Agreement affect Vietnam's export turnover.

The simulated regression equation has the following form:

 $Ln \ (EXPORT)_t = \beta_0 + \beta_1 ln EXRATE i_t + \beta_2 ln GDPt + \beta_3 EX_t + \beta_4 TARIFFS_t$

where

EXPORT^{*t*}: Vietnam's export in year *t*;

EXIT: Vietnam's export to country *i*, a member of the CPTPP, year *t*;

*GDP*_t: Vietnam's GDP in year t;

*EXRATE*_{*t*}: USD/VND exchange rate in year *t*;

TARIFFSt: average tariff for Vietnamese goods and services, year t.

To forecast the impact of the CPTPP on the export of goods, we employ tariff reductions as the reference value for constructing two scenarios. In the first scenario (base scenario), the economy operates normally when a commitment to tariff reductions in the CPTPP has not been implemented. In the second scenario, tariff reductions in the CPTPP commitments are implemented. The model achieves good results in estimating the relationship between Vietnam and CPTPP partner countries in the export of goods without US involvement and in assessing the impact of Vietnam's export partners, such as China and Korea. The model adopts tariff elements to consider their effects on Vietnam's export turnover and uses tariffs as the main policy instrument in the country's bilateral and multilateral commitments to trade liberalization. Tariffs are used to produce varying forecasts from the normal base scenario and the CPTPP implementation scenario. In its assessment, the model uses the latest data on growth, exports, tariffs and exchange rates and takes into consideration the latest developments in the negotiating and signing of the CPTPP Agreement.

3.2. Data

Data on Vietnam's indicators for the 1995-2016 period were collected from the General Statistics Office (GSO). Data on tariff are taken from the World Bank database (WB). The tariff in the model is the applicable tax. This indicator is calculated by the World Bank using the World Integrated Trade Solution System (WITS) with data from the Trade Analysis and Information System (TRAINS), the Integrated Data Base (IDB), and the Consolidated Tariff Schedules (CTS) of the World Trade Organization (WTO). Description of variables used in the analysis is shown in Table 1.

Table 1

Variable	Explanation of variables	Mean	Maximum	Minimum	Std. Dev.
EX\$_V	Vietnam's export turnover (billion USD)	69.4183	176.5808	11.5414	55.6013
EXRATE	Exchange rate (USD / VND)	17587.8579	22155.0000	13943.1667	2844.7278
EXTOBRN\$_V	Vietnam's export turnover to Brunei	0.0101	0.0496	0.0000	0.0128
EXTOAUS\$_V	Vietnam's export turnover to Australia	2.5851	4.3516	0.8146	1.0857
EXTOCAN\$_V	Vietnam's export turnover to Canada	0.8406	2.6525	0.0911	0.8181
EXTOCHL\$_V	Vietnam's export turnover to Chile	0.1645	0.8052	0.0000	0.2403
EXTOJPN\$_V	Vietnam's export turnover to Japan	7.5060	14.6749	1.7862	4.7926
EXTOMEX\$ V	Vietnam's export turnover to Mexico	0.5062	1.8884	0.0201	0.5347
EXTONZL\$_V	Vietnam's export turnover to New Zealand	0.1220	0.3599	0.0177	0.1185
EXTOPER\$_V	Vietnam's export turnover to Peru	0.0632	0.2775	0.0000	0.0870
EXTOSGP\$_V	Vietnam's export turnover to Singapore	1.9388	3.1777	0.8764	0.7420
EXTTOMYS\$_V	Vietnam's export turnover to Malaysia	1.9595	4.9845	0.2565	1.5495
TARIFFS	Tariffs	10.1169	15.5700	6.1800	3.3051

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4. Results and discussion

4.1. Impact factors of CPTPP partners on Vietnam's export turnover

As can be seen in Table 2, the model for estimating impact factors of CPTPP partners on Vietnam's export turnover shows relatively positive results with an R-Square coefficient of 0.999. This suggests that the selection of variables in the export function is reasonable as more than 99.99% of the effect of relevant factors on the flow of Vietnam's exports is explained. The main impact factors including tariffs, exchange rates, the export turnover to Vietnam's major partners who are CPTPP members, and Vietnam's GDP are all statistically significant, with a reliability level of over 95%.

Table 2

The impact factors of CPTPP partners on Vietnam's export turnover

Variable	Coefficient	Std. Error	t-Statistic
TARIFFS(1)	-0.015657***	0.002980	-5.254299
EXRATE	0.0000323***	0.000003	10.007420
LOG(EXTOCAN\$_V)	0.326615***	0.013759	23.738400
LOG(EXTOJPN\$ V)	0.428345***	0.036957	11.590380
LOG(EXTTOMYS\$ V)	0.042335***	0.016784	2.522358
LOG(GDPVNM(-1))	0.202804***	0.005315	38.156100
Observations: 18 after adjustmen	nts	S.E. of regression	0.011249
R-squared	0.999897	Sum squared resid	0.001519
Adjusted R-squared	0.999855	Durbin-Watson stat	2.289383

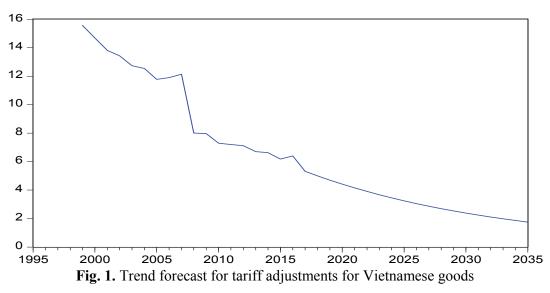
Among its CPTPP member partner countries, Japan, Canada and Malaysia have had a strong influence on Vietnam's exports. Specifically, when the export turnover to Japan, Canada or Malaysia increases by 1%, Vietnam's export turnover to these countries will rise by 0.428%, 0.327% and 0.042%, respectively. The exchange rate has a positive impact on Vietnam's export turnover. Estimates are fully consistent with economic theories and hypotheses. The devaluation of the domestic currency has a positive influence on exports, as the price of goods sold internationally is cheaper. The estimates are also consistent with the findings in Do's study (2006), showing that exchange rate fluctuations have an insignificant effect on bilateral trade. GDP growth in Vietnam in the previous year has a positive impact on the export turnover in the following year. The previous year's production generates goods for export in the following year. The estimated results show that when Vietnam's GDP growth rate in the previous year increases by 1%, the export in the following year will increase by 0.203%. Tariffs constitute a key element of trade policy. An increase or a decrease in tariffs is the government's response, aiming to restrict or facilitate import or export activities. The model tests show that the tariff rate for the following year has a greater impact on the current year's export turnover than the current year's tariff rate does. When the following year's tariff increases by 1%, export turnover will decrease by 0.016% accordingly.

4.2. The forecast of impact of the CPTPP on Vietnam's exports

Base scenario:

In the 1999-2016 period, Vietnam's tariffs was decreased by about 3% per year on average. In 2008, according to the roadmap set out by the WTO, Vietnam's tariffs declined significantly compared with previous years. The scenario indicates that in normal conditions, when the CPTPP commitments are not in effect, tariffs will continue to follow the trend of the 2008-2016 period until 2035. To determine tariffs to the year 2035, the research team used the trend function to forecast tariffs.

TARIFFSF



Similarly, we used the trend function to forecast the export turnover to Canada, Japan and Malaysia.

- Based on the objectives of the socio-economic development plan for the 2016-2020 period and the assessment of the Vietnam 2016 report, assumptions of average GDP growth in each 5-year period are as follows: average GDP growth will be 6.6%, 6.08%, 5.16% and 4.92% in the 2016-2020, 2021-2025, 2026-2030 and 2031-2035 periods, respectively.

- The USD / VND exchange rate for the 1995-2017 period, excluding the crises reflected in the exchange rate fluctuations (in 1998 and 2019-2011), shows that the exchange rate remained stable, within a 1-3% range. Based on the policy of managing the current USD / VND exchange rate according to the central rate, it is apparent that flexible management, adhering to market movements, and ensuring macro-economic stability are necessary. In addition, with current strong foreign currency reserves, it is assumed that the USD / VND exchange rate will fluctuate from 1-2% during the forecast period.

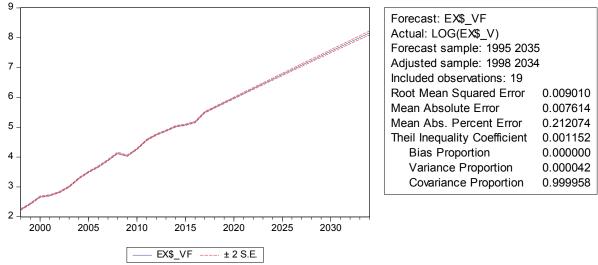


Fig. 2. Vietnam's export turnover growth — base scenario

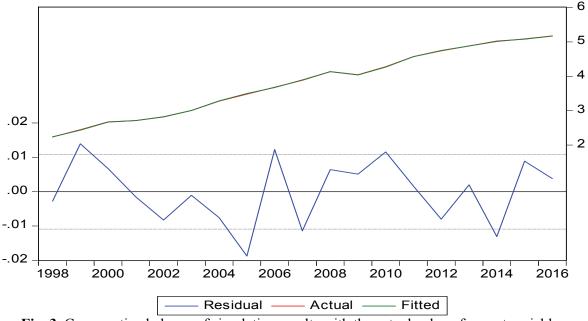


Fig. 3. Comparative balance of simulation results with the actual value of export variables

Second scenario:

As CPTTP commitments officially come into effect, tariffs will be adjusted in line with the committed roadmap. Specifically, 65.8%, 86,5% and 97,8% of tariff lines will have a 0% tariff rate as soon as the agreement comes into force, after 4 years and 11 years respectively. The remaining items will follow a maximum tariff elimination roadmap of 16 years or apply tariff rate quotas. To adjust the applicable tariffs when implementing the CPTPP commitments, this study employs the assumptions and the results of calculating tariffs for Vietnam and CPTPP member countries outlined in the studies by Petri and Plummer (2016), and the World Bank (2018). With the implementation of the CPTPP commitments, the expected scenario of growth in Vietnam's exports is as follows:

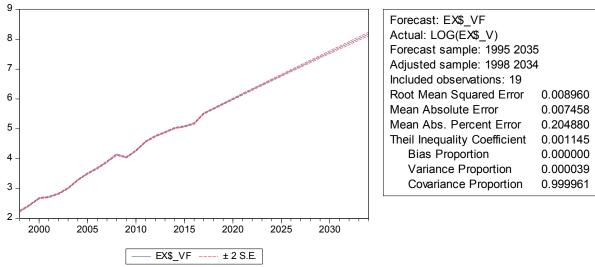


Fig. 4. Vietnam's export turnover growth rate — CPTPP scenario

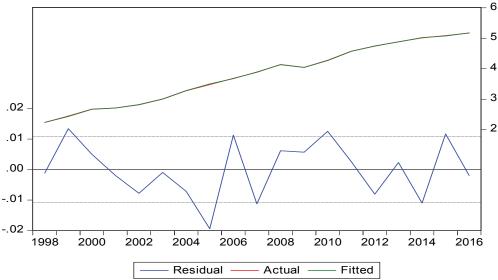


Fig. 5. Comparative balance of simulated results with the actual value of export variables

With the assumption that the CPTPP commitments would be implemented immediately in 2018, the proportional difference in export turnover between the CPTPP implementation scenario and the non-CPTPP scenario, is as follows:

Table 3

Export growth rate in the scenario with CTTPP compared to the base scenario	
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1 0	1		
Year	Export Growth (%)	Year	Export Growth (%)
2018	1.43	2027	2.19
2019	1.66	2028	2.17
2020	1.84	2029	2.13
2021	1.98	2030	1.94
2022	2.07	2031	1.77
2023	2.14	2032	1.61
2024	2.19	2033	1.46
2025	2.21	2034	1.32
2026	2.21		

The results show that with the participation of the CPTPP, the average growth in Vietnam's export turnover will increase by 1.9% compared to the non-CPTPP scenario.

5. Policy recommendations

The simulation model indicates opportunities to increase export turnover and improve market structure as well as challenges for Vietnamese goods entering markets of the CPTPP member countries. To take advantage of opportunities to increase export turnover and the quality and efficiency of exports, Vietnam should focus on implementing a number of measures, as follows.

Firstly, it is necessary to improve the country's legal system and economic management institutions in order to meet the requirements of the modern market economy and international integration, including the commitments set out in the CPTPP Agreement. In particular, the country should review, supplement and upgrade the legal system to work towards international economic integration. It must also fully abide by the laws of market economies and Vietnam's commitments to international economic integration, including laws of trade, investment, intellectual property, technology transfer, and labor unions, etc., to take advantage of opportunities and overcome challenges in the implementation of CPTPP commitments.

Secondly, it is advisable to intensify and effectively carry out market information and trade promotion activities in order to promptly obtain information about market conditions, trade policies and measures of goods in import markets, especially those of CPTPP partner countries. Assisting businesses with market access and brand promotion in the fastest, most efficient ways are also very important.

Thirdly, Vietnam should attach importance to attracting FDI inflows for the development of processing, manufacturing, raw materials producing industries, and especially for promoting supporting industries. This measure will contribute not only to improve the quality, standards and competitiveness of exported goods, but also to enhance the product localization rate to meet requirements of the rate of export goods which is entitled to the tariff rate offered by CPTPP partner countries.

Fourthly, Vietnam should make the most of its current advantages to enhance the competitiveness of its businesses and products. In particular, the country should focus on exploiting its "dynamic comparative advantages" by investing in the development of products and industries based on technology, skills, and know-how in order to increase added value and achieve step-by-step control of the stages in the export chain (Gereffi, 2002; Gereffi & Memedovic, 2003; Ha, 2010, 2016). This requires Vietnam first to attach great importance to the training and development of human resources, the orientation of economic restructuring and export structure, increasing the ratio of technology imports, especially source technologies, as well as attracting FDI capital to facilitate the strong development of manufacturing industries, supporting industry and high technology industry for export activities.

Finally, it is a good idea to implement policies to promote and support Vietnamese enterprises, especially small and medium ones, to take advantage of the opportunities provided by the CPTPP Agreement, in conformity with WTO rules and international commitments. The country should focus on disseminating information on its integration commitments to the business community, including commitments concerning tariffs, rules of origin, quality standards, technical measures and safeguards, etc. It also needs to support businesses in implementing environmental management systems, such as ISO 14000, HACCP, good management practices (GMP), good aquaculture practices (GAP), and so on. Such measures provide the basis and orientation for enterprises to implement production restructuring, moving from upstream positions to higher levels in the value chain, enhancing competitiveness and developing strategies to effectively penetrate the markets of Vietnam's FTA partners in general and CPTPP partners in particular.

References

- Bivens, J. (2015). The Trans-Pacific Partnership Is Unlikely to Be a Good Deal for American Workers. *EPI Briefing Paper No. 397, Economic Policy Institute, Washington, DC.*
- Bougheas, S., Demetriades, P. O., & Morgenroth, E. L. (1999). Infrastructure, transport costs and trade. *Journal of international Economics*, 47(1), 169-189.
- Capaldo, J., Izurieta, A., & Sundaram, J.K. (2016). Trading Down: Unemployment, Inequality and Other Risks of the Trans-Pacific Partnership Agreement. Global Development and Environment Institute, working paper No.16-01, Tufts University Medford MA 02155, USA.
- Clarete, R., Edmonds, C., & Wallack, J. S. (2003). Asian regionalism and its effects on trade in the 1980s and 1990s. *Journal of Asian Economics*, 14(1), 91-129.
- Carrere, C. (2006). Revisiting the effects of regional trade agreements on trade flows with proper specification of the gravity model. *European Economic Review*, 50(2), 223-247.
- Dao, N.T. (2013). Impact of factors on the flow of goods imports and exports between Vietnam and TPP countries. *Journal of Economics and Forecasting*, *4*(540), 23-28.
- Doanh, N. K., & Heo, Y. (2009). AFTA and trade diversion: an empirical study for Vietnam and Singapore. *International Area Review*, 12(1), 163-192.
- Do, T. T. (2006). A gravity model for trade between Vietnam and twenty-three European countries.

1280

- Gereffi, G. (2002). The international competitiveness of Asian economies in the apparel commodity chain.
- Gereffi, G., & Memedovic, O. (2003). *The global apparel value chain: What prospects for upgrading by developing countries*(pp. 1-40). Vienna: United Nations Industrial Development Organization.
- Ha, V. S. (2010). Restructure of production sectors in Vietnam towards the increased added value of export goods. *The Six International Conference on Business and Management in the 21st Centry*, Kaohsiung University, Taiwan on October 15, 2010.
- Ha, V. S. (2016). Strengthening the capacity and effectiveness of participating in the global value chain for the agricultural products exports of Viet Nam. National workshop on *Trade development of Viet nam in 2016 2025* held by Trade Research Institute Ministry of Industry and Trade and the European Investment and Trade Policy Support Project.
- Heo, Y., & Nguyen, K.D. (2009). AFTA and trade diversion: An empirical study for Vietnam and Singapore. *International Area Review*, 12(1), 163-192.
- Krugman, P. R. (2008). International economics: Theory and policy, 8/E. Pearson Education India.
- Le, H. H. (2015). The TPP's Impact on Vietnam: A Preliminary Assessment. Perspective, 63(2015).
- Le, Q.H., & Chu, M.H. (2016). Credit market depth and income inequality in Vietnam: A panel-data analysis. *Journal of Economics and Development*, 18(2), 5-18
- MacCallum, R. C. (1995). Model specification: Procedures, strategies, and related issues.
- Martinez-Zarzoso, I. (2003). Gravity model: An application to trade between regional blocs. *Atlantic Economic Journal*, *31*(2), 174-187.
- Micco, A., Stein, E., & Ordoñez, G. (2003). The currency union effect on trade: early evidence from EMU. *Economic policy*, *18*(37), 315-356.
- Ministry of Industry and Trade (2018). *Export and import Report of 2018*. Industrial and Commercial Publishing House.
- Nguyen, T. T. (2016). An overview of new generation FTAs. http://giaoducvaxahoi.vn/tin-phap-luat/t-ng-quan-v-cac-fta-th-h-m-i.html.
- Nguyen, T.H.T., Nguyen, T.T.T., & Vu, H.N (2011). An inquiry into the determinants of Vietnamese product export. Development and Policies Research Center (DEPOCEN), working paper no.08, Vietnam.
- Obstfeld, M., Shambaugh, J. C., & Taylor, A. M. (2009). Financial instability, reserves, and central bank swap lines in the panic of 2008. *American Economic Review*, 99(2), 480-86.
- Petri, P., Plummer, M., & Zhai, F. (2012). The Trans-Pacific partnership and Asia-Pacific integration: A quantitative assessment. Policy Analyses in International Economics 98, Peterson Institute for International Economics, Washington DC.
- Petri, P. A., & Plummer, M. G. (2016). The economic effects of the Trans-Pacific Partnership: New estimates. *Peterson Institute for International Economics Working Paper*, (16-2).
- Tinbergen, J. J. (1962). Shaping the world economy; suggestions for an international economic policy.
- Tran, L.H. (2017). Determinants of Vietnamese product export to Asean members. *Journal of Economics* and Development, 19(3), 91-102.
- Tu, T.A., & Dao, N.T. (2008). Factors affecting the level of trade concentration of Viet Nam with Asian + 3. the CEPR study, NC-05/2008
- Vu, T. L. (2015). New generation Free Trade Agreements: Opportunities and Challenges for Vietnam Economy. http://enternews.vn/cac-hiep-dinh-thuong-mai-tu-do-the-he-moi-co-hoi-va-thach-thuccua-nen-kinh-te-viet-nam-90312.htm.
- World Bank (2018). Economic Impact and income distribution of Comprehensive and Progressive Agreement for Trans – Parific Partnership: Vietnam's case. Washington, DC, Creative Commons Attribution CC BY 3.0 IGO.



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