

# A Study on Foreign Direct Investment Flows in Vietnam

Van Su Ha<sup>a\*</sup>, Thu Thuy Nguyen<sup>b</sup>, <sup>a</sup>Associate Professor, Faculty of Economics & Law, Thuongmai University, Vietnam, <sup>b</sup>Associate Professor, Faculty of Financial & Banking, Thuongmai University, Vietnam, Email: <sup>a\*</sup>[hvsdhtm@tmu.edu.vn](mailto:hvsdhtm@tmu.edu.vn), <sup>b</sup>[thuy.nt@tmu.edu.vn](mailto:thuy.nt@tmu.edu.vn)

Integration is forecasted to have a substantial impact on not only import and export activities but also on the ability to attract foreign direct investment (FDI) into Vietnam. Our regression results show that trade openness has a positive impact on Vietnam's inward FDI (an increase of 1.0% in trade liberalisation can result in an increase of 0.23% in FDI inflows to Vietnam). Notably, our simulation results reveal that the CPTPP will increase the growth rate of FDI into Vietnam from 2.0% -2.4%/ year compared to the base scenario. However, the degree of impact will vary over time. Between 2019 and 2025, FDI inflows will tend to increase faster than in the following period 2026-2035. This shows that CPTPP will have a faster and stronger impact in the first 6 years (2019-2025) (with a steeper impact curve) when the agreement officially takes effect for Vietnam. Then the impact will decrease gradually in the following years.

**Key words:** *The Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), Foreign Direct Investment (FDI), Vietnam.*

## Introduction

On March 8, 2018, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) was officially signed in Santiago, the capital of Chile with 11 member countries (including Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore and Vietnam). These countries create a market of nearly 500 million people and a gross domestic product (GDP) of over \$10,000 billion, accounting for 13.5% of world GDP (Petri et al., 2012). With a narrower scope and weaker commitments to opening up markets than its predecessor - the Trans-Pacific Partnership (TPP), the CPTPP has also become a comprehensive agreement, covering a wide range of areas (including goods and service market opening, investment and other non-commercial issues). By nature, this has been a more advanced and progressive agreement than other free trade agreements (FTA) to date and is considered a landmark accord for the 21st century (Nguyen et al., 2011).

The implementation of CPTPP investment commitments in this agreement, given the current international relations context and the movement of foreign direct investment (FDI) flows in the world will create favourable opportunities for CPTPP members to attract FDI from countries and regions within and outside the CPTPP. Possible effects of CPTPP on FDI attraction of member countries, including Vietnam will come from two sources: One is directly from CPTPP commitments on investment, and the other is from the resonant prospects that CPTPP brings to the economy. Therefore, in addition to the apparent benefits of opening goods markets by eliminating tariff and non-tariff barriers, CPTPP, when put into practice, is also expected to create a significant change in world investment flows into member countries of CPTPP.

Following Vietnam's ratification on November 15, 2018, CPTPP has officially come into effect and entered the implementation phase in Vietnam since January 14, 2019. Vietnam's participation in CPTPP is expected among the agreements between the country that have signed. The CPTPP Agreement have powerful impacts on Vietnam's bilateral and multilateral international trade and investment relations. However, in investment as well as in trade, the pressure of competition in attracting foreign investment into Vietnam is no less than that in export as CPTPP provides opportunities not only for Vietnam but also for other member countries to attract investment. The opportunity to attract investment through CPTPP is not only for Vietnam but also for all other member countries. Therefore, in-depth research, as well as analysis, forecasting and assessment of impact and ability to shift FDI inflows to Vietnam after the CPTPP Agreement officially takes effect are necessary and important in the current period.

## Literature Review

The literature indicates that several popular models have been used to study the impact of free trade agreements (FTAs) on the movement of FDI inflows to the member countries, namely:

**General Equilibrium Models:** General equilibrium models such as CGE, GTAP<sup>1</sup> are quite widely used to assess the impact of economic integration (Kitwiwattanachai et al., 2008). However, the CGE and GTAP models were not initially dedicated to assessing the impact of economic integration on FDI inflows to countries. Based on the research by Petri (1997), Dee and Hanslow (2000) integrated FDI into the GTAP model, called the FTAP model by the authors. Working with the model, the authors reported estimates of the gains from eliminating trade barriers to FDI inflows to Uruguay. Li (2015) applied the CGE model to assess the impact of ACFTA and RCEP on FDI inflows to the ASEAN countries participating

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<sup>1</sup> CGE: Computable General Equilibrium Model;  
GTAP: Global Trade Analysis Project Model – is a General Equilibrium Model.

in the agreement. In their study, Fukase and Martin (2001) also used the CGE model to assess the impact of the Vietnam-US Bilateral Trade Agreement on FDI flows into Vietnam.

The salient feature of CGE and GTAP models is that they are often used to analyse the effects of potential FTAs or newly established FTAs (which are new). The impacts are closely linked together in the overall economy. However, the drawback of this model is that it requires large databases, including all sectors in the economy, while other econometric models may need less data (usually time series or panel data of some relevant indicators). Besides, the updating of technical parameters of general equilibrium models may not be guaranteed. These two limitations make the model's errors larger than those of other econometric models.

**Extended Gravity Model:** In the Gravity model, FDI is defined as a variable depending on the GDP of two countries and the geographical distance between them. To be used for assessing the impact of FTAs on FDI inflows, based on actual conditions, other important variables (in addition to scale and distance variables) are included in the model as an improvement, expansion to better explain the movement of FDI into countries participating in FTAs.

Thangavelu and Findlay (2011) applied the extended Gravity model to consider the impact of FTAs on FDI inflows to Asia-Pacific countries during the period 1986 - 2007 based on using panel data of 43 countries including 30 OECD countries and 13 countries in the Asia-Pacific region. The empirical specification of the model is as follows:  $FDI_{it} = f(GDP_{ijt-1}, FDI_{it-1}, DumFTA, Dist_{ij}, Orther)^2$ . Research results show that market size, ability, potential to expand markets (representative variables are GDP and GDP growth rate) and the results of FDI attraction in the previous year have a substantial impact on FDI inflows to member countries joining FTAs.

Moon (2009) expanded the Gravity model by adding important variables such as trade openness of the host country (Trade Openness) and DumFTA. The empirical model takes the form:  $FDI = f(GDP_i, GDP_j, Trade Openness, DumFTA, X_i)$ . It is argued that participating in FTAs, the greater trade openness reflects lower trade barriers and vice versa, whereby trade openness is considered as an important variable reflecting the impact of FTAs on FDI flows to member countries. The author used panel data of over 55 countries participating in bilateral and multilateral FTAs in the period 1980 - 2003. Research results indicate that: (1) FTAs have a positive impact on FDI between member countries and (2) Trade openness also

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<sup>2</sup>  $GDP_{ijt-1}$ : GDP of country i and country j (one-year lag);  $FDI_{it-1}$ : amount of FDI received by country i (one-year lag); DumFTA: dummy variable representing FTA or non-FTA participation of a country;  $Dist_{ij}$ : distance between the source country and the host country for FDI.

has a strong and positive impact on FDI. When participating in FTAs, member countries with greater trade openness are likely to receive more FDI.

Brainard (1993), Blomstrom and Kokko (1997), Stone & Jeon (1999), Szczepkowska & Wojciechowski (2002) (cited in Wojciechowski, 2013), Levy-Yeyati et al., (2003), Kumar & Zajc (2003), Bevan & Estrin (2004), Portes & Rey (2005), Lada & Tchorek (2008) (cited in Wojciechowski, 2013) also added the Trade Openness variable to the Gravity model to consider the effects of FTAs on FDI inflows to the countries that joined the previous agreements. The results of the empirical research confirm the positive impact of trade liberalisation on FDI flows.

In Vietnam, Pham's study (2011) applied the extended Gravity model, OLS estimation method and Random Effect (RE), using a panel dataset in the period 1990 - 2008 of 17 member countries to assess the effects of the WTO accession on the dynamics of FDI inflows to Vietnam. The regression results show that Vietnam's participation in the WTO has significantly positive effects on the country's inward FDI. However, WTO accession may also make Vietnam more vulnerable to financial crises and global economic recessions in the future. Hoang (2013) once again reinforced the research results of Pham (2011) about WTO impacts on FDI inflows to Vietnam. The authors also used the Gravity model, with panel data for the period 1995-2011 from 18 important foreign investment partners of Vietnam. The estimation results show that as expected, the WTO has a significant impact on FDI inflows to Vietnam. Meanwhile, there is no conclusive evidence that the bilateral/multilateral trade agreements that Vietnam has recently acceded to have boosted this inflow of capital into Vietnam.

***Extended Knowledge – Capital Model:*** Carr et al., (2001) proposed an empirical model based on the Knowledge - Capital model theory to assess the impact of FDI determinants to a country, in which FDI inflows depend on market size, trade costs, investment costs and skilled labour:  $FDI = f(GDP, Trade\ cost, Investment\ costs, Skilled\ labor)$ . Egger and Pfaffermayr (2004) expanded the research results of Carr et al., (2001) using the FTA dummy. The research results show that market size (economic scale), investment barriers and trade costs have a significant impact on FDI inflows. When a country joins an FTA, the reduced trade cost is likely to raise the total FDI by stimulating FDI investors to exploit trade advantages. With the application of extended Knowledge - Capital model and data on FDI between OECD countries, Egger and Pfaffermayr (2004) and Jang (2011) also offered similar results in their studies. Levy-Yeyati et al., (2003) and Bezemer & Velde (2006) indicated that FTAs have a positive impact on direct investment of developing countries.

Bae and Jang (2013) constructed an extended Knowledge – Capital model to assess the effects of FTAs on outward and inward FDI in Korea over the period 2000-2010 with 184

bilateral partners. Compared to the original model of Carr et al. (2001), in addition to using the explanatory variable - GDP (representing the economic size), BITs and FTAs, Bae and Jang (2013) included representative variables following existing data and the current situation. The authors used Trade Openness to measure Trade costs and Wages / Wage differentials. Wage differentials (DIFF) denotes a proxy for investment costs. The regression model is given by:

$$\ln(FDI) = \beta_0 + \beta_1 \ln(GDP_{sum}) + \beta_2 \ln(DIFF) + \beta_4 \ln(OPEN) + \beta_5 BIT + \beta_6 FTA + \beta_2 \ln(SM) + \varepsilon$$

The estimation results show that Trade openness, GDP growth rate, Wage differentials have a positive impact on FDI flows in Korea.

**Other regression models:** Many other empirical models have been implemented to simulate the impact of FTAs on FDI flows based on estimating the equations in which FDI determinants represent the impact of FTAs. For example, Jaumotte (2004) developed a model to assess the impact of regional trade agreements (RTAs) on FDI in 71 developing countries during the period 1980 - 1999. Important variables in the model include size of the host market / economic size (GDP); Agglomeration effects; Trade Openness; Labour cost; Investment climate and some other control variables, in which: Trade openness is considered to represent changes in trade barriers in countries participating in RTAs; Investment climate denotes changes in agreed provisions on investment environment in RTAs. Research results show that both market size, trade openness, and changes in investment climate have a significant influence on FDI received by the countries being researched. The results estimated by Demirhan and Masca (2008), Iamsiraroj (2016) continue to confirm the impact of trade liberalisation on FDI flows.

In Vietnam, the research by Nguyen and Haughton (2002) used data from 16 ASEAN countries for the 1990 – 1999 period to quantify FDI determinants of Vietnam. The model results indicate that bilateral trade agreements (BTA) between Vietnam and the USA helped to lead to an increase of 30% of FDI capital inflow into Vietnam. However, the inflows would only be maintained if Vietnam had made the necessary changes and joined the WTO by 2005. Hoang (2006) employed the time series data from 1988 to 2005 and constructed an empirical model of the time-series determinants of FDI inflows in Vietnam and found that the openness to trade of the host country is one of the major FDI determinants to Vietnam. Thus, the author found no relationship between FDI inflows to the country and the timing of joining ASEAN.

In many cases, econometric models with FDI as a dependent variable are more effective than large models such as CGE and GTAP in assessing the impact of FTAs on FDI inflows to participating countries. Therefore, these models are quite popular in empirical studies.

## Data and Econometric Models

**Model specification:** Following empirical models that have been used for assessing the effects of FTAs on FDI inflows, with the ability to exploit data and advantages of models, in the current study, an econometric model was constructed using time series data for the case of Vietnam when participating in CPTPP. Wherein:

**Dependent Variable:** FDI into Vietnam.

**Proposed Explanatory Variables** include:

**Market Size / Economy and Its Growth Potential:** As indicated in the overview of quantitative models, most quantitative analysis results have shown positive and meaningful effects of domestic market size and expected growth on FDI capital received by a country. *Representative variables are GDP and / or GDP growth rates.* For Vietnam, the economic growth rate is relatively high and relatively stable compared to many other developing countries, which indicates the country's development potential and is considered one of Vietnam's FDI determinants. Participation in FTAs, including CPTPP, can have a positive impact on Vietnam's economic growth. Therefore, there is a solid basis to include the GDP variable and / or GDP growth rates in the model.

**Trade Openness:** Similar to GDP / GDP growth rates, trade openness is one of the important variables in most econometric models to assess the impact of FTAs on FDI inflows to a country. The nature of FTAs is the trade agreements between partner countries. Trade openness reflects the impact of trade barriers in FTAs. Greater trade openness stimulates lower trade barriers. The case of Vietnam shows that over 70% of import and export turnover is from the FDI sector. Therefore, trade openness as an explanatory variable is applied in the quantitative model with the expectation that lower trade barriers will be one of Vietnam's FDI determinants when the country participates in FTAs. In this article, trade openness is measured by the export-to-GDP ratio.

**Investment Climate:** CPTPP offers not only trade agreements but also content about the investment climate (agreements, constraints and requirements for investment and investment climate are introduced in the whole chapter 9 and some appendices of the CPTPP Agreement). Therefore, the article proposes to introduce the investment climate as an explanatory variable in the model to assess the impact of CPTPP on FDI inflows to Vietnam. Jaumotte (2004) also used this variable in the model to assess the impact of FTAs on FDI inflows to developing countries. In this study, the variable representing the investment climate is the Foreign Direct Investment Restriction Index (FDIR). The use of the FDIR index to reflect legal regulations on foreign direct investment in FTAs has recently been

applied in many studies. Dadkhah and Ciuriak (2017) reviewed the FDIR index in OECD countries and suggested using this index to assess the impact of FTA on FDI flows. In the last years, Vietnam's FDIR index has improved, meeting the requirements of institutional improvement and the business investment environment in CPTPP. Vietnam's FDIR index is expected to be improved considerably.

**Labour Costs:** A part of FDI in developing countries is driven by cheap labour costs. In many econometric models, the labour costs used are variables representing investment costs. The inclusion of labor costs in the model is based on the recommendations in most Knowledge - capital models. Some other studies (such as Jaumotte, 2004) also used this as an explanatory variable in the model to assess the impact of FTA on FDI flows. In fact, attracting FDI based on the abundance of cheap labour force is one of the advantages present in Vietnam. Although this advantage has come to a halt in the context of the widespread 'Industry 4.0', it is still necessary to consider its impact.

**Actual FDI Amount in the Previous Period:** This proposal is based on reference to quantitative studies such as: Jaumotte (2004), Thangavelu and Findlay (2011) (in Extended Gravity model), and several other studies due to the correlation between actual FDI in the previous period and the ability to attract FDI in the future through Agglomeration effects. In recent years in Vietnam, there have been quite a number of FDI projects that continue to expand and increase investment (the rate of increased investment capital accounts for about 20.0-25.0% of the total annual FDI). Therefore, it is considered to be appropriate to include the lagged stock of FDI in the research model.

The proposed model to assess the impact of the CPTPP on the movement of FDI inflows to Vietnam is given by:

$$\text{FDI} = f(\text{GDP}_{\text{vn}}, \text{Trade Openness}, \text{FDIR}, \text{Labor Cost}, \text{FDI}_{t-i}) \quad (1)$$

Wherein:

Trade openness is measured by the export-to-GDP ratio, denoted by "Open";

FDIR shows the level of restrictions on FDI in the legal framework of Vietnam; this index takes values from 0 to 1 in which 0 is unlimited, 1 is completely limited.

Labour costs used in the model are wages for workers, denoted by "Wage";

$\text{FDI}_{t-i}$ : is the lagged FDI inflows  $i$ , period  $t$ .

Accordingly, the model (1) is rewritten into (2):

$$\text{FDI} = f(\text{GDP}_{\text{vn}}, \text{Open}, \text{FDIR}, \text{Wage}, \text{FDI}_{t-i})$$



Note:

The model assessing the impact of Vietnam's participation in the CPTPP Agreement on the movement of FDI flows into the country is designed based on the Extended Knowledge - capital model, the extended Gravity model and empirical research results of other econometric models.

In contrast to reference studies (assessing the impact of FTAs which take effect over a period of time on member countries' inward FDI), this article only assesses the potential impact of the CPTPP (as CPTPP newly came into force in January 2019 in Vietnam). Therefore, the proposed model forecasts the possible movement of Vietnam's FDI inflows when the CPTPP takes effect compared with the previous non-CPTPP base scenario.

The estimates are made in logarithmic form.

### *Data*

The data set used in the model was collected from the following sources:

Vietnam's indicators were obtained in the 1995-2016 period from the General Statistics Office (GSO). Variables were converted to USD value.

The data on other countries were collected from the World Bank database (WB), in which the concepts of national indicators were used in accordance with those of the GSO.

Tariff<sup>3</sup> (%): The tariff in the model is the applicable tax, simple average (no weight for the applied level) is valid to all taxable business goods. 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).

Wage: is defined as the average income of employees, obtained from ILOSTAT database.

Foreign direct investment restriction index - FDIR: is calculated and measured by OECD and taken from the OECD database.

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<sup>3</sup> Data on tariffs are used to forecast and measure the effects of CPTPP on the movement of FDI flows into Vietnam till 2035.

## Empirical Results and Discussion

### *Empirical Results*

As mentioned before, the assessment model will simulate the potential effects of the CPTPP Agreement on the movement of FDI flows into Vietnam. In other words, the model will be used to forecast the effects. Therefore, in the process of estimation, statistically insignificant variables in the model will be rejected (ensuring strict requirements for a forecasting model). Accordingly, with the empirical results, FDIR was removed from the final model (as this variable is not statistically significant in estimates). That FDIR is not statistically significant in estimates can be explained as follows: (1) the change in the value of FDIR in Vietnam over the years is quite small and the very slow changing process reflects certain but unclear improvements in Vietnam's legal conditions for foreign direct investment; (2) Vietnam has had many favorable conditions in attracting FDI which can be great enough to overwhelm investment climate constraints. As a result, the FDIR index in the proposed model cannot show its impact on FDI inflows to Vietnam in recent years. Therefore, in order to meet the requirements of the forecast, FDIR was eliminated in this study although it was expected to be an important variable reflecting the impact of CPTPP on FDI when Vietnam satisfies the requirements on institutional improvement, and investment environment in CPTPP. This suggests the possibility of continuing to consider the impact of CPTPP on investment regulations that can be implemented after the agreement takes effect and has certain results in practice.

The final estimation result of model (2) is obtained as follows:

**Table 1:** The impact of the CPTPP on FDI inflows in Vietnam

	<b>Dependent variable: DLog(FDI)</b>
Log(GDP <sub>vn(-1)</sub> )	-0.039499
	(-2.09)**
Log(Open)	0.227548
	(2.55)**
DLog(Wage)	-0.708257
	(-1.66)*
Log(FDI <sub>(-1)</sub> )	-0.232702
	(2.44)**
Dum_07_08	0.420761
	(4.45)***
R-squared	0.703116
Adj.R-squared	0.628895

**Note:** \*, \*\*, \*\*\* show the level of statistical significance of the coefficient  $\beta = 0$  with the significance level of 10.0%, 5.0% and 1.0% respectively; (.): T-value. R-squared = 0.703

shows that the selected variables can explain more than 70% of the fluctuation of FDI inflows to Vietnam.

The regression results show that trade openness has a positive impact on Vietnam's inward FDI (an increase of 1.0% in trade liberalisation can result in an increase of 0.23% in FDI inflows to Vietnam). Therefore, it is expected that there will be a strong movement of FDI flows when the CPTPP becomes effective, thus reducing trade barriers between Vietnam and partner countries.

With the removal of the FDIR from the model, the Open now becomes a very important variable directly conveying the impact of CPTPP on FDI inflows to Vietnam. To forecast effects of CPTPP on the movement of FDI flows into Vietnam in the coming time, estimates for export and import are also made, thereby forecasting trade openness under the influence of CPTPP.

The proposed models for estimating exports and imports are as follows<sup>4</sup>

$$\mathbf{EX} = \mathbf{f}(\mathbf{Tariffs}, \mathbf{GDP}_{\mathbf{cptpp}}, \mathbf{GDP}_{\mathbf{orther}}, \mathbf{Inf}_{\mathbf{vnm}}, \mathbf{Exc}_{\mathbf{rate}}) \quad (3)$$

$$\mathbf{IM} = \mathbf{f}(\mathbf{Tariffs}, \mathbf{GDP}_{\mathbf{vnm}}, \mathbf{Inf}_{\mathbf{vnm}}, \mathbf{Exc}_{\mathbf{rate}}) \quad (4)$$

Where:

EX: Export turnover of Vietnam

IM: Import turnover of Vietnam

Tariffs: Applicable tax rates

$\mathbf{GDP}_{\mathbf{cptpp}}$ : GDP of CPTPP member countries

$\mathbf{GDP}_{\mathbf{orther}}$ : GDP of non-CPTPP countries

$\mathbf{GDP}_{\mathbf{vnm}}$ : GDP of Vietnam

$\mathbf{Inf}_{\mathbf{vnm}}$ : Inflation of Vietnam, measured by CPI

$\mathbf{Exc}_{\mathbf{rate}}$ : USD / VND exchange rate

The estimates are made in logarithmic form.

Regression results of models (3) and (4) are obtained as follows:

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<sup>4</sup>The proposed models are based on classic models of export – import forecast.

**Table 2:** The impact of the CPTPP on export in Vietnam

	<b>Dependent variable : Log(EX)</b>
Tariffs	-0.053557
	(-4.90)***
Log(GDP <sub>cptpp</sub> )	6.465606
	(17.06)***
Log(Inf <sub>vnm</sub> (-1))	1.147818
	(4.99)***
EXC <sub>rate</sub>	5.84E-05
	(5.03)***
C	-61.65526
	(16.10)***
R-squared	0.898228
Adj.R-squared	0.897683

**Table 3:** The impact of the CPTPP on import in Vietnam

	<b>Dependent variable: Log(IM)</b>
Tariffs	-0.272089
	(-19.05)***
Dlog(GDP <sub>vnm</sub> )	13.92740
	(1.94)**
Dlog(EXC <sub>rate</sub> )	-3.639129
	(2.16)**
C	5.995648
	(14.09)***
R-squared	0.865434
Adj.R-squared	0.858027

**Note:** \*, \*\*, \*\*\* show the level of statistical significance of the coefficient  $\beta = 0$  with the significance level of 10.0%, 5.0% and 1.0% respectively; (.): T-value. R-squared = 0.703 in both exports and imports is quite high. The coefficient R<sup>2</sup> is 89.8% and 96.5% in the export function and the import function, respectively. Adjusted R<sup>2</sup> is 89.7% and 85.8% accordingly.

This suggests that the selected variables in the import and export functions are reasonable as they explain more than 80.0% of the fluctuations in Vietnam's export flows. Thus, at this time, trade barriers in CPTPP selected for the model are on tariff barriers. Here, to assess the impact of CPTPP on FDI in the coming time, the article is based on tariff reduction as a reference to build 2 simulation scenarios:



The first scenario (base scenario) assumes that the economy evolves in the context of no changes in tariffs as in the CPTPP Agreement.

The second scenario (CPTPP scenario) - is where there are reactions in the economy to new tariff conditions when CPTPP becomes effective in Vietnam from January 2019.

### ***Simulation Results***

*The first scenario (base scenario)* - is one that assumes that an economy evolves in the context of no changes in tariffs as in CPTPP.

Under the normal economic development conditions without crises, exogenous variables are assumed until 2035 as follows:

Based on the target of the socio-economic development plan for 2016-2020 period and evaluation of Vietnam Report 2035, Vietnam's average GDP growth rate is expected to be 6.6%/ year, 6.08%/ year, 5.16%/ year, 4.92%/ year in the period 2016-2020, 2021-2025, 2025-2030 and 2031-2035 respectively.

Growth rate of CPTPP member countries: 1.8% (the average growth rate of CPTPP countries in the period 1995 - 2017).

Growth rate of non-CPTPP countries: 3.2% (the average growth rate of non-CPTPP countries in the period 1995 – 2016).

Vietnam's consumer price index (CPI) is about 4.0% / year on average.

USD / VND exchange rate movement in the period 1995 - 2017, excluding the years witnessing strong fluctuations in the exchange rate (in between 1998 and 2009-2011), shows that the USD / VND exchange rate remained stable and fluctuated by 1.0% -3.0%. Based on the current policy orientation of administering the USD / VND exchange rate according to the central exchange rate, flexible management, sticking to market development, ensuring macroeconomic stability in addition to the current satisfactory foreign exchange reserves, it is assumed that the USD / VND fluctuates by 1.0% and 2.0% in the forecast period.

Employees' income in the foreign investment sector continues to increase and is determined by the trend function.

**Tariffs:** continue to decrease following the trend of the period 2008-2017 until 2035.

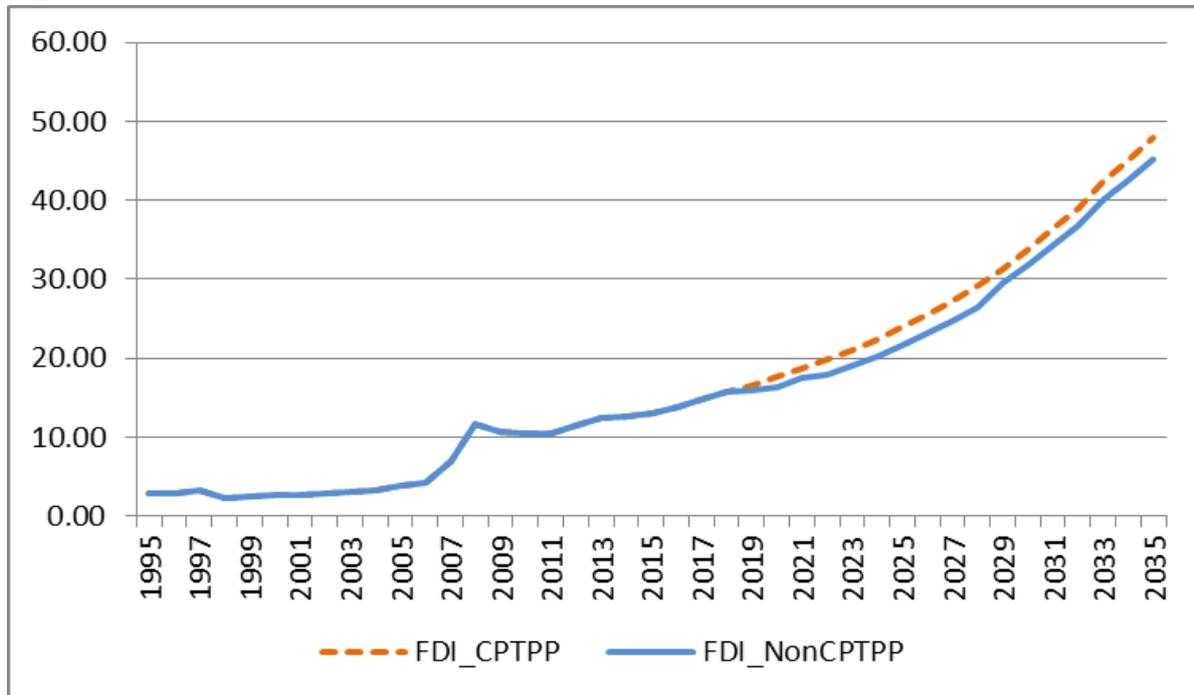
In addition, FDI determinants include: Supporting conditions: (i) Relatively stable macroeconomy, orientation to regulate macroeconomic policies towards promoting long-term potential economic growth are an important basis to attract foreign direct investment. (ii) Increasingly improved business environment, especially the strong reform of business conditions and the change in administrative procedures from 2014 to present; Investment Law Amendments in 2014 have created favourable conditions for foreign investors. (iii) Vietnam's increasingly integrated economy, many important trade agreements that have been signed over the past years and are going to be effective are having good effects on Vietnam's economy and attracting investment to the country. In addition, objective and subjective limiting factors affecting the volume and quality of FDI inflows to Vietnam are as follows: Industry 4.0 leads to businesses' tendency to improve automation technology in production to reduce labour, increase productivity while Vietnam's labour quality has not fully met the requirements, cheap labour is no longer one advantage of Vietnam in FDI attraction. Although Vietnam's investment environment and competitiveness have improved, they have not met the needs of foreign investors: administrative procedures are cumbersome, infrastructure has not been improved much, supporting industries are weak, many policies are still in the process of improvement, while the demand for quality of FDI projects is increasing (in terms of technology, high value-added, environmental standards, etc.). All these cause investors' caution about the long-term operating environment, thus reducing the attractiveness of the investment climate.

### ***The Second Scenario (CPTPP Scenario)***

The difference between scenario 2 and scenario 1 lies in assumptions about tariffs. When the CPTPP is officially in force, tariffs will be adjusted in line with the roadmap, specifically 65.8% of tariff lines will be subject to a 0% tax rate as soon as the agreement takes effect; 86.5% of tariff lines will be eliminated after 4 years; 97.8% of tariff lines will be completely removed after 11 years, and the remaining items will apply a maximum elimination roadmap of 16 years or tariff-rate quotas. The study adopts assumptions and results of calculating tariff rates of Vietnam and CPTPP partner countries from existing studies by Petri and Plummer (2016) and report of the World Bank (2018) to adjust the tariff rate applied when CPTPP commitments are implemented.

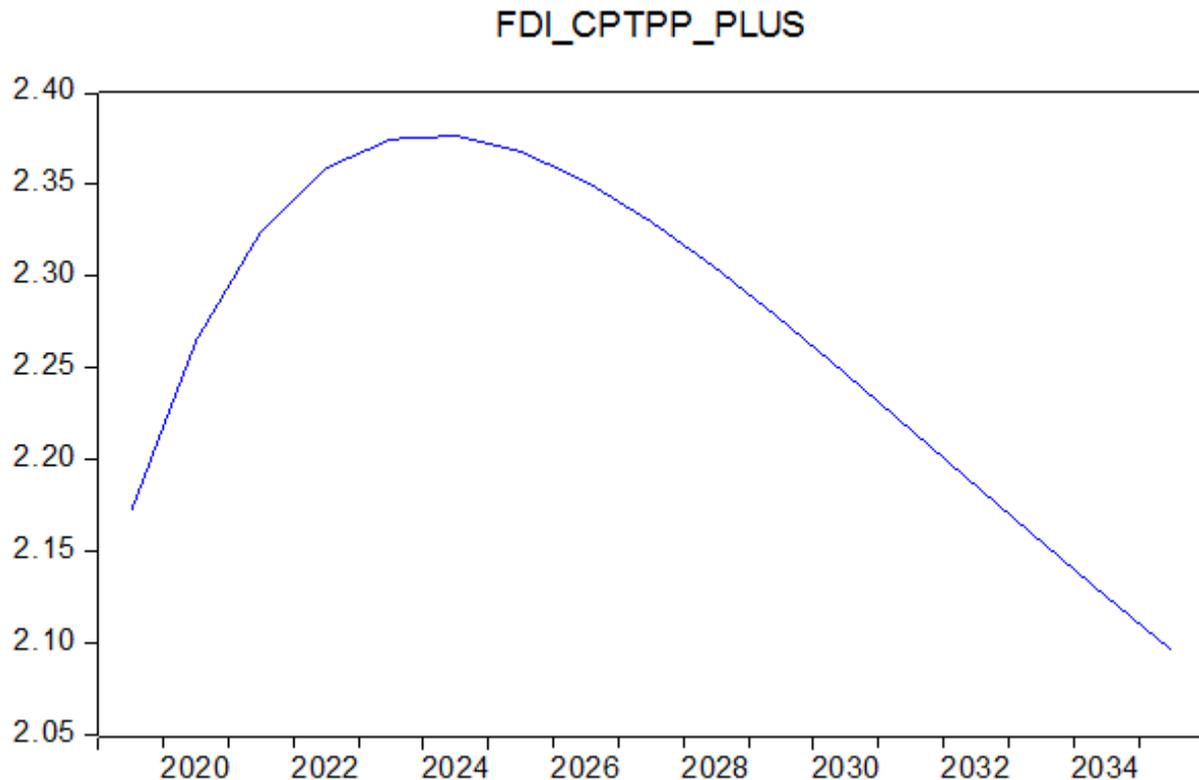
Under the assumption that tariffs will follow an elimination roadmap as committed in the CPTPP agreement, the results of the quantitative assessment show that CPTPP has a positive impact on FDI inflows to Vietnam, making this stock increase faster than that in the non-CPTPP scenario (Figure 1).

**Figure 1.** FDI flows to Vietnam in two scenarios (Unit: billion USD)



In particular, CPTPP can increase the growth rate of FDI into Vietnam from 2.0% -2.4%/year compared to the base scenario. However, the degree of impact will vary over time. In the period of 2019-2025, FDI inflows will tend to increase faster than in the following period 2026-2035. This shows that CPTPP will have a faster and stronger impact in the first 6 years (2019-2025) (with a steeper impact curve) when the agreement officially takes effect for Vietnam, then the impact will decrease gradually in the following years (the effect line goes down to a smaller slope) (See Figure 2).

**Figure 2.** Simulation results of CPTPP impacts on the growth rate of FDI into Vietnam (the percentage point will increase compared to the base scenario)



### Policy Implication

After more than 30 years implementing the policy of "opening up" the economy, Vietnam has attracted significant FDI inflows, constructing important infrastructures for socio-economic growth and development, creating millions of jobs. However, according to the study of Ha (2019), Vietnam's FDI attraction and management have also revealed many limitations. Specifically: i) High-tech and high value-added projects only account for a small proportion of FDI and have not attracted source technology; ii) There has been no breakthrough in the promotion and use of FDI, even when compared with other ASEAN countries; iii) Spillover effects from the FDI pattern to domestic enterprises are still limited; iv) Due to inadequate preparation and planning, the FDI sector may have an "overwhelming" effect on domestic enterprises. From the aforementioned research results and the current status of FDI in Vietnam, the research team would like to make some recommendations on policies to attract FDI inflows to Vietnam in the coming time as follows:

*Firstly*, seek for better quality in capital-intensive, advanced technology, environmentally friendly FDI projects which are in line with the orientation of restructuring the economy of each region, each industry and each source country.



**Secondly**, focus on attracting large-scale, highly competitive projects, participating in the global value chain of MNCs; prioritising supporting industrial projects or ones with high technology and modern services.

**Thirdly**, plan to attract capital or FDI by sectors, fields and partners in line with advantages of each region and the overall national interests to promote investment efficiency of each locality and each region.

**Fourthly**, gradually shift the advantage of cheap labour to that of high-quality resources to enhance the country's competitiveness in attracting capital or FDI.

**Fifthly**, continue to study, selectively receive low value-added FDI inflows from exploiting current resources, especially low-skilled labour force accounting for a high rate.

**Sixthly**, maximize opportunities from the commitments of new FTAs, including the CPTPP Agreement. In particular, prioritise investment projects from developed countries which offer source technology (such as the US, EU, Japan, etc.) and have potential to supply large-scale FDI stock in accordance with the strategic demand for investment attraction of Vietnam.



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