FUTURE VIETNAM-EU FREE TRADE AGREEMENT (VIETNAM-EU FTA): AN ANALYSIS OF TRADE CREATION AND TRADE DIVERSION EFFECTS

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Abstract

This paper aims to analyze trade creation and trade diversion effects of future Vietnam-EU FTA, in a framework of negotiations from 2012 to ensure an effective environment for trade and investment. The theory of trade creation and trade diversion will be used to evaluate impacts of an FTA on Vietnam's welfare. By using a gravity model and a panel data analysis, we show that the reduction of tariffs in the framework of the FTA will have a positive impact on bilateral trade between Vietnam and the EU. In addition, Vietnam-EU FTA will offer many new opportunities such as trade creation in automotive industry, but it also poses challenges for Vietnam.

Key words: *FTA, Trade creation, Trade diversion, Vietnam- EU, Welfare*

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1. Introduction

Since the Renovation in 1986, Vietnam has achieved substantial progress in macroeconomic management and international integration. Vietnam's recent accession to ASEAN, APEC, and the accession process to WTO offer substantial opportunities to liberalize further its economic system. As a rapidly developing and fast growing economy, Vietnam holds substantial potential for EU businesses. The Partnership and Cooperation Agreement between the EU and Vietnam - signed in June 2012 - offers a solid foundation to intensify relations between the two part ies, Vietnam enjoys trade preferences with the EU

under the Generalized Scheme of Preferences. Negotiations for a comprehensive free trade agreement constitute an important step

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towards further intensifying bilateral relations. Both sides seek a comprehensive agreement. Negotiations cover tariffs as well as non-tariff barriers to trade and other trade related aspects such as public procurement, regulatory issues, competition, services, intellectual property rights, and sustainable development.

Even though the integration into international trading system increased trade with the rest of the world, the effects of liberalization on welfare of Vietnam remain a critical issue among Vietnamese policy makers. A Free Trade Agreement (FTA) between Vietnam and the EU is expected to offer many new opportunities, but also pose challenges for Vietnam's economy. Information on the consequences of future FTA between Vietnam and the EU is clearly needed as a basis for decisions of policy makers.

In this context, this paper aims to analyze the impact of future Vietnam-EU FTA on the welfare of country. The first part analyses the trade betweenVietnam and EU and Vietnam-EU FTA negotiations process. The next part presents the theoretical framework of trade creation and trade diversion effects of an FTA. After that, a gravity model will be used to analyze impacts of tariff reduction in the framework of Vietnam-EU FTA on Vietnam's bilateral trade with EU. The last part analyzes possible effects of Vietnam-EU FTA on some key industries of Vietnam.

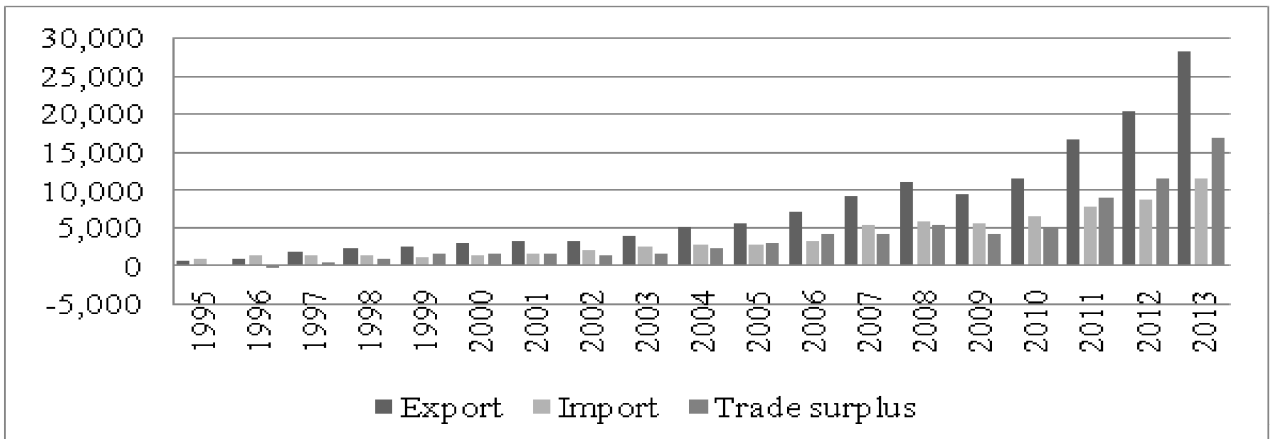
2. Overview of the Vietnam-EU Free Trade Agreement

2.1. Vietnam- EU trade picture

In 2013, the EU outstripped the United States to become Viet Nam's biggest export market with its turnover figure of US$28.11 billion, up 38.45% compared to 2012 (Figure 1). Vietnam is an export-driven economy, with 69% of GDP exported in 2008 (64% in 2009 and 61% in 2005); 16% of the GDP value is exported to the EU, for a value of 14.9 bn. USD (14% in 2009 for 12.6 bn.) and it represents the 17% of all Vietnamese exports (constant from 2005).

Characteristics in import – export structure between Vietnam and EU is the high level of mutual complement and less direct competition. In 2013, two-way trade turnover between Vietnam and EU reached 33.8 billion USD, increasing by 16.11% over the figure

Figure 1: Vietnam's trade with EU



Source: GSO (2013)

of 2012, in which export to and import from EU were respectively 24.4 billion USD and 9.4 billion USD. Main exports to EU include garments, footwear, coffee, wooden items, aqua-products.

Vietnam's imports from EU are dominated by high tech products including electrical machinery and equipment, aircraft, vehicles, and pharmaceutical products. The EU has a negative balance of trade in goods with Vietnam. In 2012, EU-Vietnam trade in goods was worth over €23.8 billion, with €18.5 billion in imports from Vietnam into the EU, €5.3 billion in exports from the EU to Vietnam

EU is one of the largest foreign investors in Vietnam. In 2012, EU investors committed a total US$ 1.061 billion in Foreign Direct Investment and thus remain Vietnam's fourth largest foreign investor's partner (GSO, 2012). In 2013 registered capital invested in Vietnam by EU businesses was over 17 billion USD with nearly 1400 projects. EU investors are present in most pivotal economic sectors, mainly in industries, construction and service sub-sector.

2.2. Vietnam - EU FTA negotiations

The EU and Vietnam, one of the 10 members of ASEAN, announced the start of bilateral FTA negotiations in Brussels in June 2012. The EU and Vietnam have strong trade ties. Vietnam is the EU's fifth largest trading partner within ASEAN (and 35th out of the EU's total trade). In 2012, two-way trade amounted to almost €24 billion. The EU is one of the largest foreign direct investors, committing €1.37 billion in total. Vietnam is the third ASEAN country to hold FTA negotiations with the EU after Singapore and Malaysia, and followed by Thailand. While pursuing a bilateral approach, the EU is not losing sight of the ultimate goal of achieving an agreement with ASEAN as a whole, one of the most dynamic regions in the world. The EU is therefore looking to reach an ambitious agreement with Vietnam that is coherent with other individual FTAs with ASEAN member states.

EU – the huge market with 27 members- is one of the most important trade partners of Vietnam. In 1995, the two sides signed a Framework Cooperation Agreement. Vietnam and EU relation are further strengthened through signing off Partnership and Cooperation Agreement (PCA). Vietnam and EU intend to launch a free trade negotiation with large and deep market access commitments.

From 2012 to 2014, Vietnam and EU passed 7 negotiations rounds. The 7th negotiation round of Vietnam – EU Free Trade Agreement (EVFTA) was held from March 17 to 26, 2014 in Hanoi. Two sides have been active in accelerating negotiation in all aspects, especially is the fields both sides have benefits in.

Vietnamese Delegation of representatives from Ministries and branches led by Deputy Minister of Industry and Trade, Head of Government's Negotiation Delegation on international economic and commercial integration, participated in the negotiation round. Negotiation was conducted at Head Delegation level, Deputy Head Delegation level and at 10 Working Groups including Trade in Goods, Trade in Service, Investment, Rule of Origin, SPS, Trade Protectionism, Sustainable development, Legislation – Institutions...

On occasion of negotiation round, EU Trade Commissioner had visit to Vietnam for negotiation accelerating and promoting trade, investment between Vietnam and EU. In the talk between Vietnam's Minister of Industry and Trade and EU Trade Commissioner, Vietnam and EU affirmed determination on soon finalizing the comprehensive and high quality agreement. In spirit of negotiation accelerating as affirmed by EU Trade Commissioner, Technical Groups had open-minded and constructive negotiation.

During negotiation session, groups continued having discussion on consolidated text based on in-depth and detail exchange on view and approach to specific issues, having further introduction on legal system for clarifying proposals and requests. Groups on Trade in Goods, Trade in Service and Government's procurement had further negotiation on offers and request in respective aspects.

Wrapping negotiation round, Technical Groups such as transparency, dispute settlement have basically agreed on the text. Remaining Groups had narrowed the gap in many questions. Black-bone and complicated issues directly impacting negotiation schedule have been exchanged by Heads of Negotiation Delegations on solving roadmap for finding out appropriate solutions satisfactory to expectation of both sides, targeting on benefit-balancing based positive progresses.

3. Impact of FTA on the welfare of import country

3.1. The theoretical background

From an analytical viewpoint, before 1950, analysts often assumed that customs union would be welfare improving, since some tariffs would fall..

Jacob Viner (1950) shows that a customs union will not necessarily improve welfare since the tariff reductions occur, the formation of a customs union would be welfare improving depending on the source of the increased trade. Viner mentions two important notions: trade creation and trade diversion.Trade creation takes place when Trade creation takes place when economic integration results in a movement in product origin to a lower-cost member country. Trade diversion, on the other hand, occurs when the removal of tariffs causes trade to be diverted from a third country to the partner country despite the fact that, were the countries treated equally, the third country would be the low cost source of imports. In the Vinerian framework, welfare therefore depends on the extent of trade creation relative to trade diversion.

After the original Vinerian study (l950), the magnitude of these effects would still be of interest. Kimberly A. Clausing (2001) examines the changes in trade patterns introduced by the Canada-United States Free Trade Agreement. Variation in the extent of tariff liberalization under the agreement is used to identify the impact of tariff liberalization on the growth of trade both with member countries and non-member countries. Data at the commodity level are used, and the results indicate that the Canada-United States Free Trade Agreement had substantial trade creation effects, with little evidence of trade diversion.

Krueger (1999) studies effects of Mexican entry into NAFTA. Although the fraction of Mexican trade with the U.S. and Canada has risen sharply, a number of factors have contributed to this result. Mexican reduction of tariffs and quantitative restrictions and the

Mexican alteration of exchange rate policy at the end of l994 were both important. Based on early returns, the impact of NAFTA over its first three years does not appear to have been large relative to the effects of these other events.

Cline (1978) examines trade shares before and after an agreement in order to assess what effect the agreement may have had on trade patterns. It is often implicitly assumed that the share of trade occurring with partner countries would not have changed in the absence of the agreement. Krugman (1994) believes that preferential arrangements between natural trading partners are likely to be positive developments.

Many empirical researchers have also had difficulty reaching firm conclusions regarding the effects of preferential trading agreements. However, until now, many economists followed the Viner's point of view to evaluate effects of trading agreement: welfare depends on the extent of trade creation relative to trade diversion.

The unilateral removal of a tariff generally increases imports of the good in question, increasing domestic consumption and reducing domestic production (Kimberly A. Clausing (2001), Krugman.P (2006). The gains to consumers outweigh the loss of tariff revenue and producer surplus, leading to overall welfare gains. As Viner pointed out, however, the analysis is more complex if the tariff is only reduced on partner imports.

Trade creation refers to a situation where two countries within the FTA begin to trade with each other, whereas formerly they produced the good in question for themselves. In international trade terms it means the countries go from autarky (in this good) to trading with zero tariffs, and they both gain. Trade diversion, on the other hand, occurs when two countries begin to trade within the FTA, but one of these countries had formerly imported the good from outside the FTA. The importing country formerly had the same tariffs on all other countries, but purchased from outside the FTA because that was lowest. After the union, the country switches its purchases from the lowest – price to a higher – price country, in this case there is negative efficiency effect. An examination of Figure 2 makes this ambiguity clearer.

Figure 2: Trade creation and trade diversion

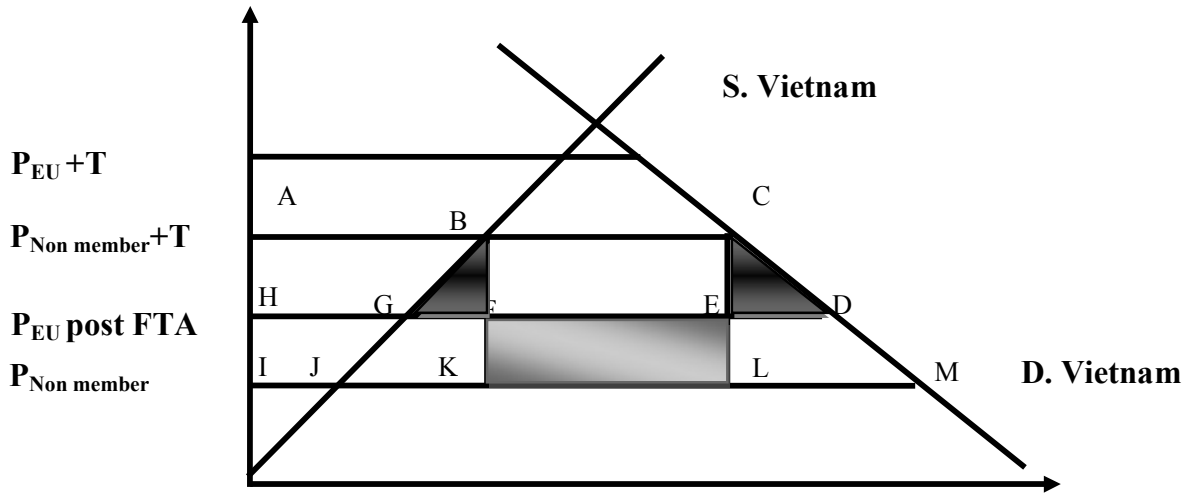


Figure 2 above shows an analysis of a good in Vietnam that is initially protected by a tariff. Imports are equal to the quantity BC, the difference between domestic demand and domestic supply at the tariff-inclusive price. Consider, firstly, the case where Vietnam applies the same tariffs (T) on imports from all countries. Vietnam's consumer will buy at price P_{NM} + T. Secondly, once the tariff is eliminated on EU's goods, imports from the EU replace those from the rest of the world. Since the EU duty-free price (P_{EU} post FTA) is lower P_{NM} + T, demand increases and Vietnamese domestic production reduces. Imports increases, equal to GD. Domestic consumers gain the areas ACDH, domestic producers lose the area ABGH, tariff revenue falls by BCEF, and the overall welfare effects are ambiguous. ***Trade creation*** leads to a gain of BFG and CDE, but ***trade diversion*** leads to a loss of FELK, as the imports from EU replace imports from non member countries.

In practice, there are several cases when the outcome would be less ambiguous. For example, if the EU were already the low cost producer before the FTA, trade creation would result in welfare gains equal to areas JBK and LCM, without any trade diversion losses. However, if EU were instead uncompetitive before the tariff reduction and just a very little less than the rest of the world tariff inclusive price after the FTA, only trade diversion would take place, with a loss in tariff revenue of BCLK but no noticeable gains.

3.2. Panel data analysis of the impact of tariff reduction on trade

3.2.1. Model specification and data

Gravity models have become predominant in the last four decades in empirical analysis of bilateral trade because of its convenience and high degree of flexibility. The basic underpinning of gravity models is Newton's Law of Gravitation which states that two celestial bodies are subjected to a force of attraction that is positively proportional to their mass and negatuvely proportional to their distance. The application of gravity equations to empirical analysis of international trade was pioneered by Tinbergen (1962). According to the early gravity equations, the amount of trade between two countries is explained by their economic size and geographical distance:

$$F_{ij} = \frac{AY_iY_j}{D_{ij}}$$

where:

F_{ij} is the trade flow (i.e. migration, trade, capital) from country i to country j at time t

A is a constant of proportionality

Y_i and Y_j is a proxy of the country size (GDP, or population)

D_{ij} is the geographical distance between countries' capitals or economic centers

The estimations employ a log-linear form of the above equation: the expected signs of the coefficients state that bilateral flow between country i and country j is positively associated with size (Y_i and Y_j) and inversely related to distance (D_{ij}), the latter being a proxy for transaction costs. The underlying assumption is that a high level of income indicates a high level of production which would lead to a high level of exports in the exporting country. In a similar way, a high level of GDP in the importing country also implies a high level of imports from the partner. On the other hand, trade is restrained by longer distance as it

makes trade costlier.

Several modifications have contributed to the improvement of the early gravity equations by adding new variables such as the level of economic development (per capita GDP), the share of rural population, cultural similarities, linguistic characteristics, tariff, political stability and institutions et cetera. In the specific case of preferential trading arrangements, Aitken (1973) was the first to apply cross-section gravity models to assess the impact of RTA membership on bilateral trade flows. Since then, a huge number of empirical studies used gravity models to explore the effects of regional groupings. In a recent study, Nguyen and Xing (2008) apply the gravity model to analyze Vietnam's exports; however, any single-country approach needs to estimate both exports and imports as the trade flows are asymmetric. Nguyen (2002) attempts to address the effects of AFTA on Vietnam by examining both exports and imports: but his cross-section regression was only estimated for the years 1995, 1996, 1997 and 1998. Also, Chaisrisawatsuk S. and Chaisrisawatsuk W. (2007) use the gravity model to explain simultaneously the imports, exports and total trade of 29 Organization for Economic Co-operation and Development (OECD) countries and 6 ASEAN member countries. But their study did not mention Vietnam. By contrast, Tumbarello (2006) investigates the extent to which Vietnam's favourable trade performance may have been excessively centred on trade with other countries in the region: however, the study was applied to cross-country data for only one year (that is 2002) and regressed for the total trade.

Despite extensive literature using this approach, the empirical studies based on gravity model to estimate effect of tariff on trade are still rather limited in the case of Vietnam. In a recent study, MUTRAP III project applies the CGE model to analyze effect of tariff on Vietnam's economy. But the limit of CGE is that this model based on the assumption of perfect competition market, rarely exist in reality. So that, to overcome these limitations, we use gravity model with a panel dataset to estimate effects of tariff on trade. The main reason for preferring panel data analysis is that the cross-section specification is very likely to suffer from omitted variable bias because of the unobserved country specific effects. Cross-section specification has also the disadvantage to completely neglect the temporal aspects of foreign trade. Therefore adopting panel regression techniques allow us to take advantage of these different types of information.

Let us estimate effect of tariff reduction on Vietnam's bilateral trade. The empirical study assumes a log-linear functional form for gravity equations. Compared to the traditional gravity equation, we add new variables such as: GNI per capita (indicating the size of economies), tariff for imports, exchange rate (indicating factors that encourage/discourage the trade flow). The model is defined and then estimated as follows:

$$\text{Log BTI}_{c,d,t} = a_0 + a_1 \log (\text{GNI}_{c,t} * \text{GNI}_{d,t}) + a_2 \log (\text{PCGNI}_{c,t} * \text{PCGNI}_{d,t}) + a_3 \log (\text{POP}_{c,t} * \text{POP}_{d,t}) + a_4 \text{DIST}_{c,d} + a_5 \log (1 + \text{TR}_{d,c}) + a_6 \log (1 + \text{TR}_{c,d}) + a_7 \log \text{EXT}_{c,d,t} + e_{c,d,t}$$

where:

$BTI_{c,d,t}$: Vietnam's bilateral trade with country d at time t

$GNI_{c,t}$ and $GNI_{d,t}$: Gross national income of Vietnam at time t and Gross national income of country d at time t

$PCGNI_{c,t}$ and $PCGNI_{d,t}$:Per capita gross national income of Vietnam at time t and Per capita gross national income of country d at time t

$POP_{c,t}$ and $POP_{d,t:}$ Population of Vietnam at time t and Population of country d at time t

$DIST_{c,d}$: Distance (km) between Vietnam and country d, which is time-invariant

$TR_{d,c}$ and $TR_{c,d}$: Vietnam's tariff for imports from country d and EU's tariff for imports from Vietnam

$EXT_{c,d,t}$: Bilateral exchange rate between Vietnam and country j (foreign currency in terms of Vietnamese currency) at time t

$e_{c,d,t}$: error ($e_{c,d,t} = u_c + v_d + w_t + \eta_{c,d,t}$)

u, v: captures all individual (country specific) effects omitted from our model specification

w: time effects; h: random effects

We built a panel data including Vietnam and 27 EU countries (Appendix), from 1997 to 2011. The data of Vietnam's bilateral trade (equal to the total value of Vietnam's exports and imports) are annual data, obtained at dollar values from the General Statistics Office and Trademap database. The Gross national income (GNI) of both Vietnam and its trading partners are collected from the World Bank database, Per capita Gross national income

Table 1: Description of data

	Variales	Mean	Standard error	Min value	Max value
1	$GNI_{c,t}$ (Bn.USD)	54,29	14,3	34,26	79,55
2	$GNI_{d,t}$ (Bn.USD)	496,27	767	4,88	3.120,95
3	$PCGNI_{c,t}$ (USD/ capita)	660,50	141,45	460,9966	905,58
4	$PCGNI_{d,t}$ (USD/ capita)	24.189,59	15.194,07	2.274,164	69.495,52
5	DIST (km)	8.256,17	1.145,75	3.961,51	10.532,99
6	POP (person)	18.200.000	22.600.000	375.236	82.500.000
7	$TR_{d,c}$ (%)	14,85	3,02	8,75	16,82
8	$TR_{c,d}$(%)	5,70	0,79	4,19	7,5
9	$EXT_{c,d,t}$ (VND)	14.460,88	9.103,89	50,21	40.918,57

Table 2: Matrix of correlation

Variable	lnY	lnPCY	lnPOP	lnDIST	lnTEU	lnTVN	LnEXT
lnY	1						
lnPCY	0,5604	1					
lnPOP	0,8789	0,1107	1				
lnDIST	0,4518	0,4629	0,2881	1			
lnTEU	-0,1577	-0,1264	-0,0339	-0,0196	1		
lnTVN	-0,1522	-0,1150	-0,0331	-0,0204	0,7408	1	
LnEXT	0,1871	0,3319	0,0295	0,0538	-0,1242	-0,1315	1

(PCGNI) data are calculated by the quotient between GNI and population data, taken from the World Bank database. The imports duties data is MFN rate of Vietnam and EU countries, taken from the website of the World Bank. The bilateral exchange rates between the VN and European countries are calculated based on data of the exchange rate between Vietnam(and its partners) and the U.S. dollar, obtained from the World Bank database. Geographical distances are obtained online from the chemical - ecology.net website.

3.2.2. Description of data

The table 1 shows that the minimum value of GNI is 4,878 (billion U.S. $), the largest value is 3120.95 (billion USD). The minimum value of GNI per capita is 460.99 (U.S. $ / person), the maximum value of GNI per capita is 69495.52 (U.S. $ / person), we can see that the gap between the richest and poorest is relatively large, 150 times approximately.

From data collected, we can see that the average tariff on imports of Vietnam is approximately 2 times higher than the EU's average tariff on imports. In addition, we also need to consider the correlation between variables. The table 2 shows that the correlation between variables is weak, except that there is correlation between lnPOP and LnY, we should pay attention in the model

3.2.3. Empirical results

The model includes GNI, GNI per capita, and population variab les. Including all of these variables at the same time perhaps create multicolinearity. To avoid this problem, we estimate separately three models by dropping either of these variables: the model (1) dropping GNI per capita; the model (2) dropping GNI; and the model (3) dropping Population variable.

In all the three models, we use inspection Breusch and Pagan Lagrangian multiplier test for the selection between pooled OLS and Random effect model (REM). The results show that the REM model is chosen for three models. Next, for the selection between Random Effect Model and Fixed Effect Model (FEM), the Hausman test result show that the null hypothesis H0 is rejected in all the three models, so the FEM model is chosen.

Table 3: Gravity models results with fixed effects for model (1), model (2) and model (3)

lnBTI	FE (1)	FE (2)	FE (3)
lnGNI	1.423752***		1.187394***
lnPCGNI		1.366953***	.2634189*
lnEXT	.6659961***	.7278193***	.0925223
lnPOP	-.122924	1.245682*	
lnTEU	.0540587	.0178816	-.3496935
lnTVN	-.8496801***	-.8543372***	-1.181699***
lnDIST	.5211195	1.581139*	-.5316351
_cons	-71.91563***	-79.15566***	-52.12185***
Observations	405	405	405

So, we choose to estimate the gravity models in a panel data framework with fixed effects. Among the three models, the model (2) gives the best results; we chose this model for the next step of estimation (Table 2).

For the model (2) with fixed effects chosen, we have to test the presence of heteroscedasticity, correlation and autocorrelation on error terms, cross section dependence. The empirical results show that correlation and autocorrelation between errors and cross section dependence are absent, but there is heteroscedasticity on error terms of the model; this may arise due to misspecification of the equation or variation in the coefficients. We correct the heteroscedasticity and the result is presented in below table. The table 3 below shows the model (2) with fixed effects and corrections for heteroscedasticity.

In the FEM with corrections for heteroscedasticity, R^2 equal to 0.74 shows that independent variables explain 74% the variations of dependant variable. As expected, the coefficient associated with the gross national income per capita of Vietnam and EU is statistically significant in the model at the 99 percent confidence level and of positive sign, indicating that an increase in national income per capita leads to an increase in Vietnam's bilateral trade with EU. In the model, the coefficient explains that an increase of 1% GNI leads to an increase of 1, 28% of Vietnamese trade. Vietnam's export oriented strategy is then partly explained by supply capacity: a high level of national income per capita indicates a high level of investment, which increases the availability of goods for exports. In addition, a high level of trading partner's income per capita indicates a high level of consumption. Our results confirm that, like most of the Asian developing countries, Vietnam experienced a dramatic increase in export growth and this outstanding performance was mainly driven by domestic supply capacity growth (Diaw, Rieber and Tran, 2009). Another quantitative

Table 4: The model (2) with fixed effects and corrections for heteroscedasticity

lnBTI	FE (2) (hetero corrected)
lnPCGNI	1.288712 ***
lnEXT	-.1443601 ***
lnPOP	1.13561 ***
lnTEU	-.5153166 *
lnTVN	-.9501048 ***
lnDIST	-.8905999 ***
_cons	-42.71687 ***
Observations	405

research of Nguyen and Tran (2010) shows that Vietnam's economic structure tends to be more dependent on imports, despite the option for an export oriented strategy. Rather, the latter may explain ceteris paribus an increase in the income elasticity of imports and the resulting constraint on balance of payments.

Vietnam's bilateral trade is positively influenced by population of Vietnam and EU partner countries. The coefficient, statistically significant and equal to 1.13, shows that the bilateral trade of Vietnam with EU is influenced much by the number of consumers and producers. An increase of 1% population leads to an increase of 1.13% in the bilateral trade of Vietnam with EU.

As expected, the coefficient on distance is statistically significant and has the expected sign in trade. The model suggests that geographical proximity is one of factors explaining Vietnam's bilateral trade with EU. The coefficient on the bilateral exchange rate is statistically significant in the model and equal to -0.14. An increase of 1% exchange rate leads to a decrease of 0.14% of Vietnam's bilateral trade with EU, it shows that exchange rate played a minor role in Vietnam's bilateral trade with the countries under study.

Finally, as expected, the coefficients of EU and Vietnam's tariffs for imports are significant and equal to -0,51 and -0,95 respectively suggest that tariff reduction is one factor promoting bilateral trade between Vietnam and EU countries. In the model, the coefficient explains that a decrease of 1% EU's tariffs for imports leads to an increase of 0.51% of Vietnamese trade, and a decrease of 1% Vietnam's tariffs for imports leads to an increase of 0.95% of Vietnamese trade with EU According to the commitments in the WTO, most of Viet Nam's duties will have been reduced to their final bound level by 2014, except for certain fish products (tariff line 0303.29 Other) and motor cars and vehicles (under heading 8703), which will not reach their final bound level until 2017 and 2019, respectively. So, in FTAs Viet Nam and EFTA agree that an FTA should be established

in accordance with WTO rules, thus aiming to reduce and/or eliminate duties and other restrictive regulations on substantially all the trade. With regard to market access for industrial goods, EFTA's basic position is to offer duty free access for goods of HS chapters25-97, as of the entry into force of the agreement (with very limited exceptions for some agricultural products within these chapters), depending on the overall balance in the outcome of the negotiations. Fish and other marine products are considered industrial goods in accordance with the framework of the WTO and are included in EFTA's basic position of duty free access. In all its existing FTAs, EFTA has granted the total elimination of duties on industrial products. In Viet Nam's existing FTAs, there is no distinction between industrial and agricultural goods. The coverage and time frame for overall tariff reduction and abolition for Viet Nam varies from FTA to FTA (e.g. ACFTA: 90% by 2018; AIFTA: 70% by 2021; AJCEP: 84.6% by 2023; AJCEP:92% by 2025; AKFTA: 90% by 2018). For industrial goods, the current estimated proportion of tariff lines with zero duty applied by Viet Nam is 37.2%, increasing to 56% by 2012.

3.3. Trade creation and trade diversion effects on some key industries of Vietnam: a qualitative analysis

In the previous part, we have used a quantitative analysis to evaluate impact of tariffs reduction on the trade between Vietnam and EU. In this part, we will use a qualitative analysis to evaluate trade creation and trade diversion effects on some key industries of Vietnam. Before choosing the industries to analyze, we compare the tariffs level of Vietnam with ASEAN countries. Table 4 shows that the automotive sector of ASEAN has the highest CEPT and MFN tariff rate, at 5.72 and 19.17 per cent, respectively. The sector with the lowest tariff rates is the healthcare sector, with respective rates of 2.12 and 5.08 per cent.

The country with the highest MFN rate is Vietnam, with an average rate of 21.98 per cent. Cambodia is the country with the highest CEPT rate with an average rate of 9.30 per cent .The country with the lowest tariff is Singapore, which has zero CEPT and MFN tariffs.

We choose industries to analyze by basing on

Table 5: ASEAN's Average Tariff Rate (%)

Sectors	Vietnam		Brunei		Cambodia		Indonesia		Lao		Malaysia		Myanmar		Philippines		Thailand	
	MFN	CEPT	MFN	CEPT	MFN	CEPT	MFN	CEPT	MFN	CEPT	MFN	CEPT	MFN	CEPT	MFN	CEPT	MFN	CEPT
Agro-Based	23.8	5.91	0	0	12.9	6.94	3.55	0.32	22.42	7.54	2.06	0.76	4.48	4.09	8.35	2.69	26.8	4.38
Fisheries	32.7	5.79	0	0	19.08	14.83	5.03	0.58	14.03	4.46	2.62	0.83	7.7	4.21	8.81	3.06	6.94	4.79
Healthcare	11.3	3.12	2.19	0.9	6.24	2.03	5.29	1.74	9.34	4.69	1.3	0.4	3.52	3.16	4.14	2.44	7.47	2.69
Rubber-Based	18.6	4.46	9.7	2.5	18.57	8.53	11.02	3.95	8.67	4.63	19.2	4.37	4.09	3.74	7.63	3.59	16.6	1.82
Wood-Based	12.1	3.56	13.6	3.9	14.32	14.62	5.15	0.61	27.68	6.55	8.69	2.08	13.16	9.69	9.24	3.48	8.48	4.04
Textiles & Garments	37.4	6.14	0.71	0.56	16.46	11.36	10.98	1.61	9.6	2.92	13.1	3.98	12.14	8.59	11.6	4.08	20.4	0.49
ICT	9.01	3.29	9.88	2.04	18.31	9.3	5	1.64	7.76	3.93	2.96	1.08	4.14	2.85	2.97	1.13	5.75	1.99
Electronics	13	4.12	9.62	2.8	18.77	10.17	5.79	1.61	8.23	4.09	5.13	1.28	4.47	3.21	4.02	1.41	8.94	2.33
Automotives	39.9	9.8	18.14	5.73	21.41	5.91	24.85	3.83	22.27	8.8	21.1	6.84	11.35	7.67	16.7	3.93	16	4.65

Source: Rina Oktaviani, Amzul Rifin, and Henny Reinhardt (2007)
Note: Singapore's tariff rates are close to zero

Table 6: Vietnam's imports from European Union

SITC Rev.3 (UN, WTO/ITS) & AMA/NAMA** (WTO) Product Groups	2008		2010		2012	
	Millions euro	%	Millions euro	%	Millions euro	%
0000 - Total	3,382	100.0%	4,676	100.0%	5,351	100.0%
1000 - Primary products	473	14.0%	813	17.4%	1,066	19.9%
1100 - Agricultural products (Food (incl. Fish) & Raw Materials)	372	11.0%	593	12.7%	821	15.3%
1200 - Fuels and mining products	101	3.0%	220	4.7%	245	4.6%
2000 - Manufactures	2,813	83.2%	3,759	80.4%	4,189	78.3%
2100 - Iron and steel	63	1.9%	83	1.8%	98	1.8%
2200 - Chemicals	495	14.6%	759	16.2%	956	17.9%
2300 - Other semi-manufactures	227	6.7%	300	6.4%	351	6.6%
2400 - Machinery and transport equipment	1,702	50.3%	2,230	47.7%	2,321	43.4%
2410 - Office and telecommunication equipment	252	7.5%	208	4.5%	168	3.1%
2420 - Transport equipment	422	12.5%	874	18.7%	1,147	21.4%
2430 - Other machinery	1,010	29.9%	1,062	22.7%	1,005	18.8%
2500 - Textiles	115	3.4%	108	2.3%	126	2.4%
2600 - Clothing	9	0.3%	15	0.3%	22	0.4%
2700 - Other manufactures	194	5.7%	249	5.3%	315	5.9%
3000 - Other products	49	1.5%	62	1.3%	49	0.9%
Agricultural Products (AMA)	321	9.5%	508	10.9%	650	12.1%
Non-Agricultural Products (NAMA)	2,998	88.6%	4,105	87.8%	4,631	86.5%
Other Products	62	1.8%	63	1.3%	70	1.3%

Source: trade.ec.europa.eu

tariff levels and imports of these industries compare to other industries. From theory, we see that ***trade creation*** will be great when, before FTA, the industry is much protected and imports of this industry is great. This fact shows that despite of the high protection by tariff, domestic demand for these goods still high. When we combine Vietnam's tariff (table 4) with Vietnam's imports (table 5) from EU, we can see that transport equipment has the highest tariff (39,9%, table 4), and also the highest weight in total import in 2012 (21,4%, table 5). This fact shows that demand for EU's transport equipment is great despite of the high protection by tariff. If tariff reduce in context of FTA, it maybe lead to trade creation for Vietnam in this industry.

In terms of ***trade diversion***, we remark that it can occur when the import tariff pre-FTA is high, but Vietnam had formerly imported the good from outside the FTA. In context of tariff reduction of FTA, imports from an EU can lead to trade diversion because it can replace imports from more efficient countries. For example, in case of Vietnam, the EVFTA can lead to trade diversion effects on electronics and machinery industries. This problem will be studied more clearly in the next part.

3.3.1. Impact on Vietnam's automotive industry

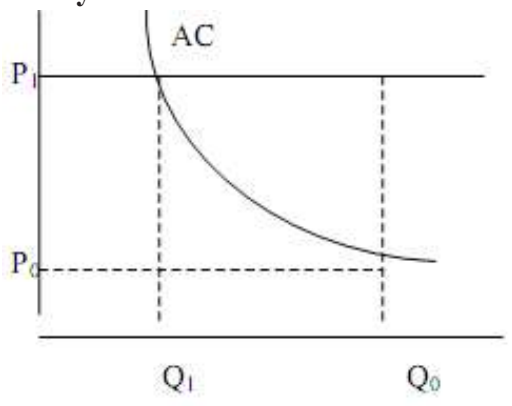
The Vietnamese automotive industry is still at its birth stage with only 25,480 cars produced in 2009. Compared with the 13,790,994 cars produced by China in the same year, it is clear that the automotive sector is not yet playing an important role in the industrial development of Vietnam. A study of Emiko Fukase and Will Martin (1999), a modern car industry embodies relatively high technology both in its processes and its products and provides great scope for the development of backward linkages to component manufactures. For this reason, many countries have attempted to persuade international auto firms to establish domestic production in replacement of car imports. In Vietnam, this has been done by imposing high protection on car imports and at the same time, by promoting self-sufficiency in production through local content programs.

The automotive industry is characterized by

considerable economies of scale. As is shown in Figure 3.1, the firms face a downward sloping average cost (AC) curve. The high rate of protection on automobiles initially allows automobile makers to sell at high prices at P1 and produce at Q0. The initial firms are extremely profitable because of the protection, and this profitability attracts additional entrants. Firms continue to enter until each firm is operating at sub-optimal scale at Q1. Given the strong scale economies prevailing in this industry, the small output level of the firms pushes up their average costs. The rise in average costs eventually eliminates all excess profits and hence removes the incentive for additional firms to enter, until a new equilibrium is reached where excess profits are zero.

The high rate of protection on automotive industry initially attracted fourteen foreign automakers such as Toyota, Ford to set up joint ventures in Vietnam. However, high protection resulted in high production costs rather than high profits.

Figure 3.1: Average cost of automotive industry



Source: Emiko Fukase and Will Martin (1999)

Vietnam's domestic market is small, which in turn, hampers the achievement of economies of scale. Given the low level of per capita income of $311 (around $1,590 in purchasing power parity terms in 1997), demand for vehicles is expected to be around 60,000 per year by the year 2,000 (GSO, 1997). In addition, a proliferation of models and corresponding fragmentation of production among component suppliers has resulted in small production runs and high costs for many local component suppliers.

The problem is exacerbated by the government's local content policy. In addition to imposing the localization ratio, Vietnam pursues a localization objective through the structure of tariffs and manipulation of quotas on a variety of completely and semi knocked down kits (CKD and SKD). For instance, each approved SKD kit requires that some parts be deleted in order that they might be supplied by local producers, raising the costs of producing the final goods expensive. Such schemes lead to endless political pressure for revision and fragmentation, and frequently lock in production of vehicles using obsolete technology.

These policies are likely to be extremely costly. Consumers lose from the high prices, the government loses potential revenues, while producers lose from sub-optimal scale and high average costs. The industry continues to lobby for further increases in protection given the high costs of production. When it is successful, a short period of increased profitability follows, until the benefits are reduced by additional entry. Then, profits are again at normal levels, and the cycle of lobbying starts over again.

Claudio Dordi (2011) shows that, for what

concern the automotive sector, a reduction of tariff and non tariff barriers from the Vietnam side will produce an effect on the imports of components from Europe and on the amount of FDI. For what concern the import side, due to the cost of transport and the vicinity of competing car producers, a reduction in tariff will not induce substantial increase in imports of already assembled cars from Europe, as the benefit of a preferential tariff reduction will be offset by the cost of transport. This is not true for the imports of parts and components, which under some circumstances could be imported in great number from European manufacturers. Indeed, the price elasticity of parts and components is high and a reduction of tariff would theoretically have an impact on the exports. On the other hand, without a robust domestic industry and without European investors located in Vietnam requiring components to be assembled, even a reduction in tariff will have only a limited effect on the imports. For what concerns components the real factor influencing the little demand is the limited amount of investment in the Vietnamese automotive industry. This limits drastically the effect of a reduction in tariff. However, the FTA will have a effect on FDI in the automotive industry. Indeed, European car manufacturers seem to be little attracted by Vietnam as a productive platform for the ASEAN area. By looking only at the tariff component, the high protection accorded to the Vietnamese producers, combined with the parallel reduction in custom duties by the other ASEAN members and ASEAN FTA partners, would virtually render extremely cheap to export cars from Vietnam to the Asian region. Furthermore, the cheap labour available in Vietnam would be another important factor. In reality, tariffs preferences and cheap labour are not sufficient to drive investment in the car manufacturing industry. The deficiencies mentioned above (poor infrastructures, lack of support industries, low technology) clearly inhibit foreign investors to locate the production in Vietnam. In this respect, the reduction in tariffs on machinery and components could facilitate the inflow of European investment into Vietnam; in this case, it can lead to a trade creation effects.

3.3.2. Impact on Vietnam's machineries and electronics industries

Firstly, in 2004-2009 Vietnam annual import turnover of electronics increased by 33.6% on average. From an import turnover of 2.6 bn. USD in 2005, after five years in 2008 it tripled reaching 7.6 bn. The MFN tariff rate on electronics is 13% (Table 4). For what concern electronic sector, a simple business analysis would endorse the conclusion that a reduction in tariff would have definitely an impact on the volume and prices of electrical products and components imported from Europe. Indeed, a reduction in tariff would at least offset the costs of transport from Europe and give a great business advantage to European exporters vis-à-vis their Asian competitors from Japan, Korea and China that are already benefitting from lower distances and reduced import duties (Claudio Dordi, 2011). In this case, future Vietnam-EU FTA can lead to a trade diversion effects because imports from EU can replace imports from Japan, Korea and China in the Vietnam's market.

Secondly, concerning Vietnam's machineries industry, the EVFTA can lead to a trade diversion effects. Table 3.3 shows that machineries industry takes an 18.8 per cent

of the total Vietnam's imports from EU. In addition, the MFN tariff rate of this industry is quite great, equal to 15.7% according to the research of Vietnam-EU joint study group, 2011. Over the years Vietnam has been constantly increasing its demand for high quality machineries and has thus relied heavily on importations. In 2008 Vietnam has imported 11.1 bn.USD worth of machinery. In this respect, the EU has around 14% of the market with 1.5 bn. of export to Vietnam. China is the biggest import partner with 2.75 bn. of export to Vietnam. For the machinery sector, a reduction of the already low tariff applied by Vietnam on the imports of machinery will not result in a substantial increase in imports. On the other hand, Vietnam could benefit from a consistent surge of FDIs from European manufacturers that could decide to locate here the production. Indeed, the growing domestic industries coupled with the general economic growth of Vietnam could have a domino effect on all the other support industries, which are now missing. In this respect, the general high quality of the European products could have an important market in Vietnam, and potentially also in the neighboring countries, such as Laos and Cambodia.). In this case, future Vietnam-EU FTA can lead to a trade diversion effects because imports from EU can replace imports from China in the Vietnam's market.

4. Conclusion

A Free Trade Agreement (FTA) between Vietnam and the EU is expected to offer many new opportunities, but also pose challenges for Vietnam's economy. Reduction on tax rates for most of the products under the FTA framework will give Vietnam an advantage over its rivals in the EU market. According to GSO, 2012, at present, the EU is imposing high taxes on Vietnam's main exports to the market, including footwear (12.4 percent), textiles and garments (11.7 percent), and seafood (10.8 percent).

However, after the agreement is signed the Vietnamese businesses will face certain challenges, both sides of difficulties that may arise thereafter. Firstly, technical barriers related to epidemiology and hygiene as well as animal and plant quarantines as challenges for Vietnamese goods entering the EU market. Secondly, product origins will be another obstacle for Vietnamese businesses. The EU presents the biggest challenges but the development gap between both sides and the competition pressure placed on Vietnamese enterprises are also significant factors. To coincide with the EU's tax reduction move, Vietnam will also have to cut taxes on imported goods. How Vietnamese businesses can survive and compete with similar items imported from the EU, even on their own turf, remains an open question. Lessons learnt from joining the WTO in 2007 have shown that increasing pressure from the outside will help Vietnam improve its economy. Competition with strong foreign businesses will push local enterprises to either restructure themselves, or fall apart.

This paper used the theory of trade creation and trade diversion and gravity model to evaluate impact of EVFTA on country welfare. We reviewed existing bilateral trade linkages between Viet Nam and the EU countries and come to the conclusion that there is a significant potential for Viet Nam and the EFTA States to strengthen their economic relationship by further developing their framework for trade and investment. In particular, we came to a positive conclusion

with respect to the feasibility of a FTA between the EU countries and Viet Nam. The quantitative result shows there is a negative relationship between tariff rate and VN-EU bilateral trade. In addition, qualitative research shows that Vietnam-EU FTA will offer many new opportunities; it perhaps leads to trade creation in automotive industry. Analysis of car industry in Vietnam shows that this industry is now highly protected. So, a tariff reduction in context of FTA will benefit Vietnamese consumer and total country welfare. Beside effect of trade creation, FTA also poses challenges for Vietnam; it maybe leads to trade diversion some industries like electronics and machineries industries.❑

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Sample countries

1. Autria	15. Latvia
2. Belgium	16. Lithuania
3. Bungaria	17. Luxumbourg
4. Cyprus	18. Malta
5. Crezch Republic	19. Netherlands
6. Denmark	20. Poland
7. Estonia	21. Portugal
8. Finland	22. Slovak Republic
9. France	23. Spain
10. Germany	24. Slovenia
11. Greece	25. Sweetden
12. Hungary	26. Romania
13. Ireland	27. United Kingdom
14. Italy	28. Vietnam