

Expected Impact of EU-Vietnam Free Trade Agreement on Bulgaria's Exports

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Summary

In December 2015 the European Union reached an agreement on a free trade deal with Vietnam (EVFTA) that will contribute to further market access by eliminating nearly all tariffs on goods traded between the two economies. This paper aims to analyse the impact of EVFTA on Bulgaria's exports to Vietnam. To this end, we calculate relevant trade indicators and employ a partial equilibrium model by using the Software on Market Analysis and Restrictions on Trade. The results show that EVFTA will provide opportunities for increase of Bulgaria's exports to Vietnam with the highest positive impact on the products from the food, chemical and textile industries.

Key words: Vietnam, Bulgaria, preferential trade, EU Trade Policy

JEL: F13, F14, F15, F17, O52, O53

Introduction

Vietnam is one of the key Asian partners of the European Union and of Bulgaria as well. As shown in Table 1, Vietnam ranks fifth in the EU's imports from Asia and tenth in the EU's exports to this part of the world.

Table 1. EU Trade with Main Asian Countries (2017, Bill. €)

Partner	EU Exports	EU Imports	Trade Balance
China	198	374	-176
Japan	60	68	-8
South Korea	50	50	0
UAE	43	10	33
India	42	44	-2
Singapore	33	20	13
Saudi Arabia	33	22	11
Thailand	15	22	-7
Malaysia	14	25	-11
Vietnam	11	37	-26
Indonesia	10	17	-7
TOTAL	509	689	-180

Source: compiled by the authors based on Eurostat data, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ext_lt_maineu&lang=en

With regard to Vietnam, the dynamics of development is more important than the static situation. It can be seen in Figure 1, according to the World Bank data for the period 2000-2017, Vietnam's average GDP growth rate is 6.4% and the world's is 2.9%. Vietnam is already among the "Asian Tigers" alongside China, Japan, Indonesia and some other ASEAN countries. Vietnam's foreign trade has been extremely dynamic. For the indicated period, according to WTO data, exports of Vietnamese goods have grown 12 times, and imports 11 times!¹

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¹ World Trade Organization, Statistics, http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=ext_lt_maineu&lang=en

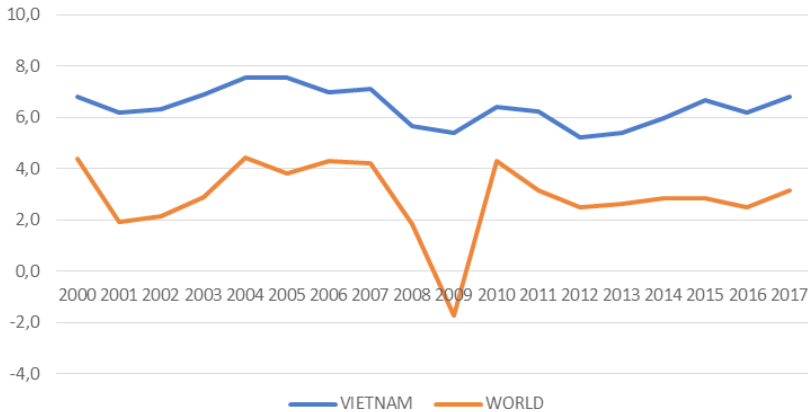


Figure 1. Dynamics of GDP growth in Vietnam and the world (2000 – 2017)

Source: World Bank, <https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?end=2017&locations=VN-1W&start=2000&view=chart>

As far as Bulgaria's trade with Vietnam is concerned, it has very positive dynamics. The Socialist Republic of Vietnam has traditionally been a partner of the Republic of Bulgaria in the Southeast Asia region. In the period up to 1988, Bulgaria supported the post-war reconstruction of Vietnam by providing multilateral assistance (including grants). Bulgaria participated in the construction of 125 different sites - industrial enterprises, forage works, refrigeration installations, among other facilities, worth more than USD 30 million. From 1972 to 1989, there were several thousand Vietnamese workers in Bulgaria, who subsequently left the country, according to the signed agreements in 1990-1993.

Currently, the trade and economic relations between Bulgaria and Vietnam are based on the Economic Partnership Agreement between the two countries signed in 2006 (in force since 8 January 2008). After Bulgaria's accession to the EU, what was related to trade in the Agreement became irrelevant since Bulgaria as an EU member state adheres fully in its foreign trade policy to the EU Common Commercial Policy and to the EU Customs policy.

The state of commodity exchange between the two countries is shown in Table 2.

Table 2. Foreign trade of Bulgaria with Vietnam (2008-2017, million USD)

Year	Exports	Imports	Trade turnover	Trade Balance
2008	14.9	105.7	120.6	-90.8
2009	14.7	69.7	84.3	-55.0
2010	27.4	37.5	64.9	-10.1
2011	16.1	26.7	42.8	-10.6
2012	23.4	40.5	63.9	-17.1
2013	23.3	40.5	63.8	-17.1
2014	24.8	67.8	92.6	-43.1
2015	42.8	50.3	93.0	-7.5
2016	93.0	44.7	137.7	48.2
2017	28.2	49.3	77.4	-21.1

Source: International Trade Center, <https://www.trademap.org>

Based on the above mentioned, it is clear how important it is to examine the effects of implementing the EVFTA in order to ascertain how much it will help to restore the good trade and economic relations that previously existed between these two countries.

By concluding EVFTA, Vietnam and the EU have committed to provide improved access to their markets. The agreement contains full dismantling of nearly all tariffs except for a few tariff lines that are subject to duty-free tariff

rate quotas. Already upon the Agreement's entering into force, 65% of EU exports to Vietnam will come duty free from day one. The remaining trade – with the exception of a few sensitive products – will be liberalised after transitional period of maximum 10 years so that domestic producers could gradually adapt to heightened competition. The EU will liberalise 71% of its imports from Vietnam from day one and 99% will enter duty-free after a transitional period of maximum seven years. (Delegation of the EU to Vietnam, 2016, p.24). EVFTA is anticipated to bring benefits to competitive producers from both sides boosting their export competitiveness. In this context, the aim of the paper is to analyse the expected impact of EVFTA on Bulgaria's exports to Vietnam.

Review of Literature

The EU-Vietnam Free Trade Agreement is part of the EU global policy on trade liberalization. The pursuit of large-scale preferential trade agreements was proclaimed by the European Commission in 2006 as the Global Europe Program.² As some researchers have noted, this strategy fully fits into the broader concept of globalization, which mainly relies on the theory of the global win-win effect. In the pre-crisis years, substantiating the win-win effect was relatively easy, based on the vast empirical data of the positive impact of foreign trade on economic growth. For instance, in a study carried out by the Hamburg Institute of International Economics, covering 42 emerging economies over a period of three decades, it has been proven by econometric methods that liberalization “has a significant positive relationship with economic growth” (Parikh and Stirbu, 2004, p.18).

During the period 2000-2006, when the world economy grew by an average of 3.5% per year, it was easy to stand for trade liberalization. Yet the situation changed because of the economic crisis of 2007-2008. For some time, optimism about trade liberalization was on the wane, and some authors reasonably expressed doubts as to whether this “idealism” dominating the Global Europe strategy will withstand the challenges of growing protectionism, often referred to as “realism”. (Garcia, 2013). However, in the post-crisis period the European Commission succeeded in preserving the open nature of the Common Commercial Policy of the EU, which allowed for a new stage of trade liberalization to set in. The beginning of this stage was marked by the successful signing and ratification of the EU-Korea Free Trade Agreement. (Siles-Brügge, 2011).

By joining this positive assessment of the European Commission's actions, it is necessary to emphasize that, at the current stage, following the changes in the US trade policy with the election of President Trump, it is all the more important to resist protectionist pressure. In this respect, it is very useful to study the interdependence of the economies that has appeared recently (Solar-Arouet, Tersen, 2017). These authors yet again argued that protectionism is untenable. They provide a good case in point: the introduction by the EU of protective anti-dumping measures against the import of photovoltaic Chinese solar panels in 2013 reciprocated into ... a significant reduction in China's imports of French wine, and hence a severe deterioration in the economic situation of Bordeaux châteaux.

That it is worth keeping the course of trade liberalization has been proved by a recent study of the Ifo Institute for Economic Research in Munich. Its authors assess the impact of the entry into force of the EU-Japan Free Trade Agreement using the econometric model applied in the impact assessment of the

² See: DG Trade, European Commission (2006) Global Europe. Competing in the World. A Contribution to the EU's Growth and Jobs Strategy, Brussels.

EU-Korea Free Trade Agreement (Felbermayr, et.al, 2017). They reach the conclusion that an in-depth and comprehensive EU-Japan agreement, which not only eliminates tariffs but also reduces costs of non-tariff measures, will bring GDP gains worth about EUR 10.7 bn. (Felbermayr, et.al, 2017, p.43).

There are many papers on the EU – Vietnam economic relations and more specifically on the expected impact of EVFTA on both economies and their bilateral trade patterns. A study by Philip MJ, et. al. (2011), funded by the European Commission, utilized a composed methodology: a quantitative assessment following the reduction of customs duties with a Computable General Equilibrium (CGE) model and a qualitative assessment conducted on three selected sectors of interest for Vietnamese exports (footwear, garments and furniture) and three on Vietnamese imports (automotive, electronics and machinery, and banking). The authors reached positive results for all the economic variables analyzed. In terms of trade they find that Vietnamese exports would increase on average by 4% annually, with peak of more than 6% annually for sectors of interest for Vietnam which, at present, have to face relevant high tariffs on export to the EU, and 3% on average for the other sectors. On average, imports would increase by 3.1%; among the most important import from the EU, electronic and machinery +2.7%, chemical +2.5% and other industries, including pharmaceuticals, 3%. (Philip MJ, et. al., 2011, p.6)

Nguyen (2014) adopted the gravity model to estimate changes in the bilateral trade flows between Vietnam and the EU finding that the Agreement will have a positive impact on bilateral trade bringing benefits to both sides. In a more recent study facilitated by the German Federal Ministry for Economic Cooperation and Development Grumiller J., et.al. (2018) using a structuralist CGE model confirm the positive economic effects of trade liberalization between Vietnam and the EU.

While Vietnam enjoys already preferential market access to the EU via GSP and up to 24.5% of tariff lines enter the EU market duty and quota free (equivalent to 59% of the EU import volume), the major export sectors, textile, apparel and footwear, will benefit significantly from the reduction of tariffs by the EU and bilateral exports in these sectors contribute strongly to positive export effects. The liberalization of import tariffs by Vietnam increases the inflow of goods from the EU by more than 7%, with only a limited number of sectors (motor vehicles, machinery and foods) being negatively affected with regard to declining output (Grumiller J., et.al., 2018, p.74).

All of the above papers examined the possible impact of EVFTA from the viewpoint of Vietnam or the EU but they did not study how Bulgaria's foreign trade would be affected. Even though Vietnam is among the fastest growing economies in South-East Asia, rapidly turning into a middle-income country, there is altogether a lack of recent studies dedicated to Bulgarian-Vietnamese economic relations. Some papers briefly touch on that topic in the context of Bulgarian economic relations with developing countries (Tosheva, S., 2011) or EU's relations with ASEAN (Mateev, I., 2005). A paper that focuses particularly on EVFTA and its possible impact on Bulgaria is presented by Marinov, E. (2016). The author discusses the development of the institutional framework of the EU-Vietnam trade relations and presents the main features of the EVFTA. By using qualitative methods of analysis he draws conclusions on the export opportunities that EVFTA offers to Bulgaria. The researcher contends that the Agreement will boost the export potential of Bulgarian product groups traditionally exported to Vietnam such as pharmaceuticals, machinery and equipment, textiles, raw and processed food products.

The review of the past literature exhibits that there is a lack of research estimating comprehensively the possible trade impact

of EVFTA on Bulgaria's exports by sector at disaggregated level and the present paper tries to fill this gap.

Methodology

In order to assess the relevance of the implementation of the EU-Vietnam Free Trade Agreement, it is first necessary to identify the different types of customs regimes that are in place or could be applied in the trade between the EU and Vietnam, respectively Bulgaria and Vietnam. Next one needs to identify the effects that arise from the transition from one customs system to another, for example, from the implementation of the customs regime of most favored nation treatment in trade (regime of the WTO) to a regime of "free trade", i.e. using zero tariffs.

Furthermore some method should be used to quantify the result of the change in the duty rates. There are various methods that are commonly used to evaluate ex-ante the impact of trade liberalization and especially of preferential regional trade agreements (RTAs). Some are intended to assess the macroeconomic impact while others focus on industry-level effects. The former are general equilibrium models that are based on complex econometric methods and usually require a lot of high-quality data that is often incomplete or unavailable. The latter are partial equilibrium models that consider specific markets without capturing linkages between them. They are less data demanding and unlike general equilibrium models can explore effects on very detailed product level.

Besides economic modelling researchers use trade indicators in order to evaluate the potential effects of RTAs. A broad definition of a trade indicator is that it is an index or a ratio that can be used to describe and assess the state of trade flows and trade patterns of a particular economy or economies and can be used to monitor these flows and patterns over time or across economies/regions (Mikic and Gilbert, 2007, p. 4). Using trade indicators is

a method easy to implement with lesser data requirements and straightforward calculation but it does not provide precise numbers that quantify the effects of a FTA and can answer only a limited number of specific questions (Plummer, M., et.al. 2010).

Given the research objective of the paper, namely to evaluate the effects of EVFTA on Bulgarian exports and more specifically which sectors and products will benefit the most from free trade access on the Vietnamese market, both trade indicators and a partial equilibrium model as methodological tools will be applied.

The sectors that are most likely to benefit from trade liberalization are those that are the most efficient, i.e. the sectors in which a country possesses comparative advantages and is specialized within the international division of labour. The trade indicator that is most widely used to measure comparative advantages of countries is proposed by Bela Balassa (1965). Known as revealed comparative advantage index (RCA) or also Balassa index, it uses the trade pattern to identify sectors in which an economy has a comparative advantage, by comparing the country of interests' export profile with the world average.

The formula of the Balassa index is:

$$RCA_{ij} = \frac{X_{ij}/X_{it}}{X_{wj}/X_{wt}} \quad (1)$$

where: X_{ij} and X_{it} , are values of country i 's exports of product j and country i 's total exports, respectively;

X_{wj} and X_{wt} are values of world exports of product j and total world exports, respectively.

When the product's share in national exports is higher than the product's share in the world exports ($RCA > 1$), we interpret it as the country possesses revealed comparative advantage in this particular product. In contrast, for products whose $RCA < 1$, country is said to have revealed comparative disadvantage (Zhelev, 2018, p.5).

While the RCA index gives good grounds to draw inferences about the potential effects

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of joining a RTA it does not provide specific estimations. Hence the analysis will be expanded by applying a simulation model that is based on the partial equilibrium approach. For this purpose a modeling tool included in the World Integrated Trade Solution (WITS) trade database and software suite provided jointly by the World Bank and the United Nations Conference on Trade and Development called SMART (Software for Market Analysis and Restrictions on Trade) will also be used.³ Using the SMART model to analyze the future impact of a FTA is increasingly common due to the usefulness of this approach in assessing trade impacts at disaggregated level to provide better implications for governments and enterprises (Vu, 2016).

The SMART model focuses on one importing market and its exporting partners and assesses the impact of a tariff change scenario by estimating new values for a set of variables. It represents a counterfactual simulation analysis – it shows how trade flows would have been different if tariffs were different, in other words, what would be the changes if the importing country changes the tariffs to one/some of the exporters.

The setup of SMART is based on several assumptions:

- On the export supply side, different countries compete to supply (export to) a given home market with a given good. Export supply of a given good by a given country supplier is assumed to be related to the price that it fetches in the export market. The degree of responsiveness of the export supply to changes in the export price is given by the export supply elasticity. By default, SMART assumes infinite export supply elasticity (value of 99). That, referred as the price taker assumption, means that an increase in demand for a given good will always be satisfied by the

producers and exporters of that good without changing the world prices of each variety which are exogenously given. Such an assumption is justified (as most developing countries including Vietnam are usually price takers on the world market) and reasonably realistic in the Vietnam-EU relations.

- On the import side, SMART relies on the Armington assumption that imports are differentiated by national origin, i.e. goods (defined at the HS six-digit level) imported from different countries, albeit similar, are imperfect substitutes. That means that a RTA does not shift the overall import demand to the beneficiary of the preferential tariff, given that the importing country purchases different varieties from different countries and not only from the cheapest destination, because of existing quality differences. The SMART model further rests on the assumption that the representative consumer maximizes welfare through a two-stage optimization process. First, given a general price index, consumers choose the level of total spending/consumption on an imported good. The relationship between changes in the price index and the impact on total spending is determined by a given import demand elasticity whose values in the SMART model have been empirically estimated for each country and every HS six-digit product based on Stern et al. (1976). Then they allocate the chosen level of spending among the different varieties of the good from different import sources, depending on the relative price of each variety. The rate of change of expenditure between two varieties from different origin with change of relative prices is known as import substitution elasticity. In the SMART model, the import substitution elasticity is considered to be 1.5 for each good.

³ The SMART model is contained in the WITS software, available at <https://wits.worldbank.org>

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- The SMART model supposes perfect competition that among other things means that tariff cuts are fully reflected in the prices paid by consumers.

The SMART model requires the following data inputs:

- values for the 3 elasticities (export supply elasticity, import demand elasticity and import substitution elasticity);
- the tariffs applied by the importer on each exporter;
- values of the bilateral trade flows;
- scenario of the preferential tariff liberalization.

The SMART software calculates the percentage change in the price of each variety sourced from different countries and applying the three elasticities computes the change in each bilateral trade flow. As it is embedded within the World Bank's WITS it uses trade data included in the database - from COMTRADE and tariff data from UNCTAD's TRAINS.

Findings

The EU-Vietnam Free Trade Agreement has an impact on producers and traders in the EU and more specifically in Bulgaria in two directions – on EU imports of Vietnamese goods and on EU exports to Vietnam. In the case of imports, the impact is mainly related to the possible increase in competitive pressure due to the easy access of Vietnamese goods to the EU internal market. Exports will have an impact on export conditions for EU goods to Vietnam both in terms of the expected export size and the export prices and, therefore, the profitability of exports.

When Vietnamese goods are imported into the EU, the preferential regime under the so-called Generalized System of Preferences –

GSP⁴ will continue to be implemented until the entry into force of the EU-Vietnam Free Trade Agreement.

Until 2023, the GSP has three sub-regimes, ranked by the amount of preferences given (from stronger to less pronounced):

- GSP ++ (Everything except weapons). It is implemented in the 49 economically least developed countries, mainly in Africa. It is the most favorable customs regime in the EU, in which all commodities in the EU with the exception of weapons are imported with a zero tariff. Countries in Asia include Afghanistan, Bangladesh, Bhutan, Cambodia, Laos, Myanmar, Nepal, East Timor, Yemen.
- GSP + is a special regime for those countries that fulfill certain conditions related to the implementation of international agreements in the fields of ecology, social relations, fight against drugs, etc. Nine developing countries benefit from this regime. Countries from Asia include Pakistan, the Philippines and Sri Lanka.
- GSP – a standard regime that has fewer preferences than the above-mentioned preferential regimes but is also much more advantageous than the conventional non-preferential WTO regime known as “Most Favourite Nation” treatment or MFN. The standard GSP is applied in 18 developing countries among which the Asian ones are – India, Indonesia, Tajikistan, Uzbekistan, etc. Vietnam is also included here.

The preferences under the standard GSP regime are mainly in the area of industrial goods where the level of EU development is high enough to withstand any additional competitive pressure. The total value of

⁴ Regulation (EU) No 978/2012 of the European Parliament and the Council of 25 October 2012 applying a scheme of generalized tariff preferences and repealing Council Regulation (EC) No. 732/2008, Official Journal of the European Union, L 3030/1-82, 31.10.2012.

preferences under the standard scheme, in terms of duty foregone if the same imports had been declared for MFN treatment, stands at about €1.5 – 2.0 billion per year.⁵

The European Commission takes into account the “sensitive” nature of some sectors in the EU. This applies above all to textiles, clothing, sports shoes, steel products, some types of chemical products where preferences are lower. Moreover, in order to avoid problems in production in the EU, the so-called graduation mechanism is applied. It relates to the following:

- When the average value of imports from a GSP beneficiary country (divided by the total value of all GSP imports for that Section) over 3 years exceeds the general threshold of 57%.
- For vegetable products, animal or vegetable oils, fats and waxes and mineral products, graduation applies when the percentage share referred to exceeds 17.5%.
- For textiles, graduation applies when the percentage share referred to exceeds 47.2%.⁶

According to Article 2(j) of Regulation (EU) No 978/2012⁷ restrictions on preferences have been imposed on four countries benefiting from the GSP - Standard regime - India, Indonesia, Kenya and Ukraine. Thus, the consideration is that there is no such group of goods produced in Vietnam and imported into the EU that pose a threat to some “sensitive” production in the EU.

This shows that the entry into force of the EU-Vietnam Free Trade Agreement will lead to a transition from one type of

preferential trade to another kind of slightly more pronounced preferential trade. Under the current preferential trade, according to WTO figures, approximately 90% of Vietnamese agricultural imports and about 71% of non-agricultural imports enter at zero duty in the EU.⁸ After the entry into force of the agreement this percentage will become approximately 99% for all commodities.

It is quite a different picture when analyzing the effects of the EU-Vietnam Free Trade Agreement in the other direction of movement of goods - from the EU, respectively from Bulgaria to Vietnam. This is because the import of European goods into Vietnam will result in a transition from a completely non-preferential customs regime such as the MFN to the most preferential tariff regime (‘free trade’, i.e. zero-duty trade). The magnitude of tariff change by commodity groups is shown in Table 3, where the current duties are included, most of which are quite high. The table lists these commodity groups where the EU and respectively Bulgaria have the largest export opportunities in Vietnam.

Table 3. MFN applied duties on Imports in Vietnam by some product groups (2016, %)

	AVG	Max
Dairy products	10.3	20.0
Sugars and confectionery	17.8	40.0
Beverages & tobacco	42.7	135.0
Minerals & metals	8.2	45.0
Chemicals	3.1	27.0
Non-electrical machinery	3.3	50.0
Electrical machinery	7.8	35.0
Transport equipment	17.8	75.0
Manufactures, n.e.s.	9.7	35.0

Source: Based on data of WTO, Vietnam Tariffs and Imports: Summary and duty ranges, <http://stat.wto.org/TariffProfile/WSDBTariffPFView.aspx?Language=E&Country=VN>

More specifically, in order to identify the product groups with the highest potential

⁵ European Commission, Generalized System of Preferences, file:///C:/Users/dimit/Desktp/tradoc_143051.pdf (4.8.2018).

⁶ European Commission, Trade Helpdesk, Standard GSP, <http://trade.ec.europa.eu/tradehelp/standard-gsp> (04.08.2018)

⁷ Commission Implementation Regulation (EU) 2016/330 of 8 March 2016, Official Journal of the European Union, L 62/11, Brussels, 9.3.2016.

⁸ WTO, Viet Nam Tariffs and Imports: Summary and duty ranges, <http://stat.wto.org/TariffProfile/WSDBTariffPFView.aspx?Language=E&Country=VN> (3.8.2018).

for increased Bulgarian exports to Vietnam, the RCA index for both countries has been calculated. The bigger the difference between countries' RCA, the stronger the export potential between them (Plummer, et.al., 2010, op. cit. p.38).

Table 4 presents data on the two-digit HS product groups in which Bulgaria has comparative advantages on the world market and is also more competitive than Vietnam. In addition, the table presents data on the actual export value in these groups from Bulgaria to Vietnam and the average tariff rates faced by the EU (respectively Bulgaria) on the Vietnamese market. We can basically distinguish four cases:

- Product groups where the tariffs have been high and still Bulgaria exported to Vietnam. These products have the highest potential to increase their exports after the EVFTA takes effect and the high tariffs are eliminated. Such products are "Meat and edible meat offal", "Animal or vegetable fats and oils and their cleavage products", "Sugars and sugar confectionery", "Preparations of cereals, flour, starch or milk", "Tobacco and manufactured tobacco substitutes", "Essential oils and resinoids; perfumery, cosmetic or toilet preparations", "Albuminoidal substances; modified starches; glues; enzymes", "Glass and glassware", "Toys, games and sports requisites and their parts".
- Product groups where the tariffs have been high and Bulgaria didn't export at all to Vietnam. The elimination of the tariffs could possibly provide some cost advantage compared to other suppliers and opportunity for Bulgarian products to reach the Vietnamese market but it is unrealistic a huge growth of exports to be expected. This group of products consists of "Dairy produce; birds' eggs; natural honey", "Cereals", "Cocoa and cocoa preparations", "Preparations of vegetables, fruit, nuts or other parts of plants", "Articles of stone, plaster, cement, asbestos, mica or similar materials", "Ceramic products", "Miscellaneous articles of base metal".
- Product groups where the tariffs have been low and Bulgaria exported to Vietnam. Here we would expect the EVFTA to have weak positive effect on the competitiveness of European producers and a slight increase of Bulgarian exports might be anticipated. Among these products are "Oil seeds and oleaginous fruits", "Residues and waste from the food industries; prepared animal fodder", "Pharmaceutical products", "Miscellaneous chemical products", "Copper and articles thereof".
- Product groups where the tariffs have been low but Bulgaria did not export to Vietnam. Obviously other factors such as transportation costs, consumer preferences, etc., play a more important role than tariffs; hence EVFTA would not have a significant impact on these products exports, namely "Live animals", "Ores, slag and ash", "Inorganic chemicals; organic or inorganic compounds of precious metals", "Fertilisers", "Aluminium and articles thereof", "Lead and articles thereof", "Zinc and articles thereof", "Railway or tramway locomotives, rolling stock and parts thereof".

Table 4. Two-digit HS product groups with (higher) comparative advantages of Bulgaria over Vietnam in 2015-2017

HS code	Product group	RCA _{BG} (2015-17 av.)	RCA _{VT} (2015-17 av.)	Exports of BG to VT in 2017 (000 \$)	Tariff faced by BG (%)
01	Live animals	1.31	0.28	0	4
02	Meat and edible meat offal	1.00	0.07	1 372	16
04	Dairy produce; birds' eggs; natural honey	1.62	0.19	0	8
10	Cereals	6.34	1.98	0	19
12	Oil seeds and oleaginous fruits	4.51	0.08	223	2
15	Animal or vegetable fats and oils and their cleavage products	2.00	0.20	98	12
17	Sugars and sugar confectionery	1.34	0.28	21	53
18	Cocoa and cocoa preparations	2.14	0.04	0	13
19	Preparations of cereals, flour, starch or milk	2.29	0.70	8	18
20	Preparations of vegetables, fruit, nuts or other parts of plants	1.44	0.83	0	28
23	Residues and waste from the food industries; prepared animal fodder	1.95	0.66	36	1
24	Tobacco and manufactured tobacco substitutes	5.01	0.53	943	106
26	Ores, slag and ash	1.87	0.07	0	0
28	Inorganic chemicals; organic or inorganic compounds of precious metals	1.59	0.69	0	2
30	Pharmaceutical products	1.06	0.02	7 407	2
31	Fertilisers	2.72	0.34	0	3
33	Essential oils and resinoids; perfumery, cosmetic or toilet preparations	1.46	0.21	328	14
35	Albuminoidal substances; modified starches; glues; enzymes	1.74	0.28	51	10
38	Miscellaneous chemical products	1.03	0.26	6 056	2
51	Wool, fine or coarse animal hair; horsehair yarn and woven fabric	6.22	0.04	260	8
68	Articles of stone, plaster, cement, asbestos, mica or similar materials	1.09	0.66	0	16
69	Ceramic products	2.07	0.76	0	25
70	Glass and glassware	3.64	1.15	14	16
73	Articles of iron or steel	1.44	0.63	32	8
74	Copper and articles thereof	10.27	0.34	63	2
76	Aluminum and articles thereof	1.38	0.37	0	5
78	Lead and articles thereof	14.17	0.77	0	0
79	Zinc and articles thereof	6.70	0.10	0	0
83	Miscellaneous articles of base metal	1.20	0.35	0	20
86	Railway or tramway locomotives, rolling stock and parts thereof; railway or tramway track fixtures ...	1.50	0.01	0	0
95	Toys, games and sports requisites and their parts	1.59	0.96	315	13

Source: authors' calculations based on ITC data

In order to present a more detailed picture of the products that are likely to enjoy the largest increase in the exports from Bulgaria to Vietnam as a result of EVFTA, the analysis proceeds with a simulation using the partial equilibrium model WITS-SMART. We apply a scenario in which there is a full liberalization, i.e. a 100% immediate tariff reduction to all

products at the HS-6 level. While this scenario is not entirely in line with what EVFTA envisages, given that for some sensitive products the liberalization will be partial and progressive, it aims to identify more clearly the liberalization effect by representing the maximal possible impact on Bulgaria's exports.

Table 5. Increase in Bulgarian exports to Vietnam after EVFTA

HS Code	Product	Exports Before ('000 USD)	Exports After ('000 USD)	Exports Change ('000 USD)	Exports change (in %)	Tariff schedule category
1001	Wheat and meslin	20571	30425	9854	47.9	B3
2401	Unmanufactured tobacco; tobacco refuse	1968	4185	2218	112.7	B10-in quota
5515	Woven fabrics containing predominantly, but < 85% synthetic staple fibres	747	1425	678	90.8	A
3004	Medicaments consisting of mixed or unmixed products for therapeutic or prophylactic uses, put up in measured doses	11781	12231	451	3.8	A/B7
2836	Carbonates; peroxocarbonates "percarbonates"; commercial ammonium carbonate	6581	6852	271	4.1	A/B5
3808	Insecticides, rodenticides, fungicides, herbicides, anti-sprouting products and plant-growth regulators	3462	3600	138	4.0	A
6204	Women's or girls' suits, ensembles, jackets, blazers, dresses, skirts	213	322	109	51.2	A/B3/B5/B7
2106	Food preparations, n.e.s.	328	434	107	32.3	B7/B5
8536	Electrical apparatus for switching or protecting electrical circuits, or for making connections	378	480	102	27.0	B5/B3
2507	Kaolin and other kaolinic clays, whether or not calcined	1291	1391	100	7.7	A
5206	Cotton yarn containing predominantly, but < 85% cotton by weight	33	125	92	278.8	A
0307	Molluscs, fit for human consumption	530	611	81	15.3	A/B3
4202	Trunks, suitcases, vanity cases, executive-cases, briefcases, school satchels	31	75	44	141.9	B5
3902	Polymers of propylene or of other olefins, in primary forms	526	566	40	7.6	A
5210	Woven fabrics of cotton, containing predominantly, but < 85% cotton by weight	75	114	39	52.0	A
6203	Men's or boys' suits, ensembles, jackets, blazers, trousers	72	109	37	51.4	A/B3/B5/B7
1905	Bread, pastry, cakes, biscuits and other bakers' wares, whether or not containing cocoa	54	91	36	68.5	B5

Source: WITS-SMART simulation; EU-Vietnam Free Trade Agreement: Agreed text as of January 2016

Legend: A-customs duties eliminated entirely since the date of entry into force of EVFTA; B3 – customs duties eliminated in 4 equal annual stages since the date of entry into force of EVFTA; B5 - customs duties eliminated in 6 equal annual stages; B7 - customs duties eliminated in 8 equal annual stages; B10-in quota – the in quota customs duties eliminated in 11 equal annual stages, the out of quota customs duties are unbound.

The results from the simulation present what would have been the value of Bulgarian exports for the last year with available data (2016) had there been no tariffs in the trade relations with Vietnam. In total, Bulgarian exports to Vietnam would have been higher by 14.8 million USD (almost 16% growth) in a tariff-free trade regime. The biggest Bulgarian gainers from EVFTA will be the exporters of unprocessed agricultural products such as wheat (increase of 9.8 million USD) and tobacco (increase of 2.2 million USD). Other products expected to gain from increased exports include woven fabrics, medicaments,

carbonates, insecticides, apparel, food preparations, electrical apparatus. Here it is useful to look at the tariff liberalization schedule stipulated in EVFTA for Vietnam. Only products which fall into tariff schedule category A will experience immediate elimination of customs duties. Other customs duties will be eliminated over a transitional period of up to 10 years. In the case of tobacco, which is among the products with the largest increase of exports in the case of full and rapid removal of customs duties, a tariff rate quota will be maintained albeit with reduction of the in-quota rate to zero over 10

years. Therefore, producers of sensitive goods will have to wait quite some time before being able to take full advantage of the EVFTA.

Conclusions

The first conclusion that can be drawn is that there are very good traditions in the development of trade and economic cooperation between Bulgaria and Vietnam, and these traditions can be used as a basis to realize significant positive effects of the liberalization of mutual trade through the EU-Vietnam Free Trade Agreement. Positive influence can be expected not only in the international trade but also in investments, industrial and scientific cooperation.

Another conclusion is that given that Vietnam has already been using a customs regime with strong preferences such as the Generalized System of Preferences, the transition from this type of customs treatment to treatment following the entry into force of the EU-Vietnam Free Trade Agreement will not have a significant impact on EU imports and on competition on the EU internal market as a whole, and more specifically on the Bulgarian market. Some significant impacts from trade liberalization can be expected in the other direction of trade - from the EU to Vietnam.

Specifically with regard to Bulgarian exports, the partial equilibrium simulation by using the SMART model shows that in the case of full liberalization, Bulgarian exports to Vietnam will increase by almost 15 million USD which is less than 0.1% of total exports of Bulgaria to the world. On macroeconomic level this is not a significant value, yet in the long run EVFTA would open up good export opportunities for producers of goods in which Bulgaria possesses comparative advantages. Both the trade indicators analysis and the SMART model simulation suggest that these are products from the food and beverages industry (cereals, tobacco, meat, sugar confectionery, food preparations, etc.), the chemical industry (pharmaceuticals, inorganic

chemicals, insecticides and herbicides, essential oils and cosmetics, etc.) the textiles industry (woven fabrics, cotton yarn).

Since the EVFTA envisages long transition periods for sensitive goods, some Bulgarian producers (exporting tobacco, processed food, apparel) will need to wait for some years to reap the benefits arising from the Agreement.

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