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Economic and distributional Impacts of the EVFTA and CPTPP in Vietnam[1]

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Abstract

EVFTA will bring significant benefits to the Vietnamese economy through higher growth, greater trade and faster poverty reduction. The full implementation of EVFTA could increase Vietnam's GDP by 2.4 percent, boost exports by 12 percent and lift an additional 0.1-0.8 million people out of poverty by 2030. When considering the implementation of EVFTA and CPTPP the GDP increase would reach to 3.2 percent. Exports with EVFTA and CPTPP would increase to 16%, lifting 0.2-1.2 million out of poverty. Both EVFTA and CPTPP will also help to close the gender wage gap by 0.15 percentage points, particularly for households in the bottom 40 percent of the income distribution. In addition to implementing trade agreements, if Vietnam adopts complementary domestic reforms to raise productivity, its GDP could increase further by 6.8 percent by 2030— four percentage points more than the income gains from EVFTA alone.

[1] The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the views of the International Bank for Reconstruction and Development/World Bank and its affiliated organizations, or those of the Executive Directors of the World Bank or the governments they represent.

1. Introduction

On June 2019, in Hanoi, one of the most promising and ambitious free trade agreements between a major economic block and an emerging economy was signed. The European Union (EU) and Vietnam have together strengthened their partnership by jointly creating the European Union Vietnam Free Trade Agreement (EVFTA), with the goal of promoting further economic development by reinforcing their trade and investment ties. This agreement creates an unprecedented opportunity for Vietnam to access a market of more than 500 million consumers that account for 16% of the global GDP, making Vietnam, after Indonesia, the second most important trading partner within the Association of Southeast Asian Nations (ASEAN) members of the European Union. The EVFTA is the most recent effort in the list of free trade agreements that Vietnam is deeply committed to, taking its place in history next to the Comprehensive and Progressive Pacific Partnership (CPTPP), signed on March 2018[2]. Both trade agreements represent a step forward for Vietnam in terms of diversification of its trading partners and better integrate the economy in more productive global value chains. This note will analyze the impact of the implementation of the EVFTA alone and also the impacts of the implementation of both EVFTA and CPTPP combined in the Vietnamese economy, focus on the macroeconomic indicators and its poverty and distributional impacts.

2. Methodology

2.1 The Model

A top-down macro-micro modeling framework is applied to evaluate the economic and distributional impacts of the EVFTA and the combined scenario (CPTPP and EVFTA). LINKAGE (van der Mensbrugghe 2013) is a global dynamic computable general equilibrium (CGE) model. It allows the incorporation of complex interactions in a comprehensive economic modeling framework. For instance, the model reflects differences in productivity between countries, sectors, and factors of production; shifts consumer demand as income varies; and adjusts comparative advantage and trade flows due to trade liberalization. In finer detail, production is specified as a series of nested constant elasticity of substitution functions; the model uses a vintage structure of production that allows for semi-putty capital.[3] Demand is specified with each domestic agent at Armington level.[4]

A microsimulation model—the Global Income Distribution Dynamics (GIDD)—is linked to the LINKAGE model, allowing us to measure the heterogenic nature of the impact of a free-trade

[2] In addition to Vietnam, ten other economies are signatories of the CPTPP: Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, and Singapore. Once the agreement is implemented, this trading bloc will represent 496 million consumers which together own 13.5% of the global GDP.

[3] Semi-putty capital is when new capital is more mobile across sectors than old capital is.

[4] The CGE closure rules used in this application are based on the following assumptions: (a) aggregate investment is savings-led, meaning that private savings rates are considered exogenous and private investment is considered endogenous; and (b) government expenditures, fiscal balance, and net capital flows are fixed as a proportion of GDP.

agreement across different types of households and workers, offering a better understanding of the impacts of poverty and distributional effects in the Vietnamese economy[5]. The microsimulation model will distribute the CGE macroeconomic results to households on top of the Vietnam's Household Living Standards Survey (2012).

The two models operate mainly through the labor supply, skill formation, and real earnings. In terms of labor supply, the macro and micro models incorporate projections of the skilled and unskilled workers available over time. These projections are based on standard population projections and educational trends. The GIDD framework captures the reallocation of labor across sectors in a dynamic setting. On the earnings side, the GIDD incorporates the CGE-based simulated changes in skilled wage premia, income growth, and changes in relative prices for food and nonfood items.[6]

This study covers two scenarios: a baseline without FTAs (CPTPP and EFFTA), and with implementation of the EVFTA. The baseline functions as a representation of a reality where neither the CPTPP nor the EVFTA would have been implemented. The key macroeconomic indicators for the baseline follow the projections of the World Bank until 2018, and therefore include any FTAs already set to be implemented by 2030. The FTAs included are the same as the list of FTAs by the WTO, described in the International Trade Centre database. The baseline, therefore, will differ from the other scenarios in terms of market openness for Vietnam and the net effect of the reduction in tariffs and non-tariff barriers.

2.2 Caveats

The modeling framework focuses on tariff and non-tariff measure (NTM) liberalization, including some productivity gains, but fails to capture deep FTA commitments, extensive margin in trade, or potential FDI inflows. While FTAs reduce barriers (tariffs and non-tariff barriers) for Vietnam in relation to other partners, and from other partners to Vietnam, the treaty also includes other noteworthy and ambitious provisions that the model is not able to fully capture. These provisions include intellectual property rights, investment liberalization, and sustainable development. The results of the model derived from lower barriers primarily show gains related to the impact of the reallocation of production to more productive sectors and countries. Trade openness also offers other potential gains for Vietnam; however, these factors are hard to quantify in a way that can be comprehensively modeled. For example, it is expected that Vietnam will be able to attract additional foreign investment and that trade reforms would create opportunities for entrepreneurs to jump into new markets or develop new products. But since these consequences are hard to account for, the model can only provide an estimation of the potential of gains with limited assumptions. To allay these difficulties, the EVFTA scenario will have an alternative version called the productivity kick, with higher productivity based on the calculation of the trade-weighted average barriers reduction. For a representation of its potential effects, we assume that a 10 percent decrease in trade protection leads to 0.5 percentage points of productivity gains, following the results of Topalova and Khandelwal 2011.

[5] Bussolo, De Hoyos, and Medvedev 2010; Davies 2009; Francois Bourguignon, Bussolo, and Pereira da Silva 2008; Cruz et al. 2017

[6] Bourguignon and Bussolo 2013; Balistreri et al. 2018.

2.3 Policy scenario

EVFTA would lead to substantial liberalization of bilateral trade with full elimination of tariffs and halving of NTMs**.** Almost full removal of tariffs is expected after implementation, including the elimination of over 99 percent of customs duties on exports for the Vietnamese and EU economies, as Table 1 shows. Non-tariff barriers will also be reduced, with Vietnam aligning itself with international standards in sectors such as motor vehicles and pharmaceuticals. In addition, customs procedures will be simplified and standardized. EU products will require neither additional testing nor certification when entering the Vietnamese market. The implementation of tariff reductions in this scenario matches the agreed EVFTA tariff commitment schedule, which has implementation starting in 2020. Non-tariff barrier reductions in goods and services are aligned with the results of Petri and Plummer (2016), starting in 2016, with 10 percent of maximal reduction, and eventually reaching 100 percent in 2025 (see Figure 1 and Figure 2).

The implementation of the CPTPP begins in 2018 with a reduction of tariffs as per the TPP tariff commitment scheduled (International Trade Centre 2016) and a reduction of non-tariff measures in goods and services from Petri and Plummer (2016). The level of tariffs that Vietnam will be faced by and imposed to CPTPP members will have a drastic decrease, from the initial average trade weighted tariff level faced by Vietnam of 1.7 percent to 0.2 percent. In terms of tariffs faced by Vietnam there would be a reduction from 2.9 percent to 0.1 percent. In terms of non-tariff measures (NTMs) faced by Vietnam are expected to decline on average 3.6 percentage points (ad-valorem equivalent), while NTMs imposed by Vietnam will be reduced by 2.9 percentage points for CPTPP.

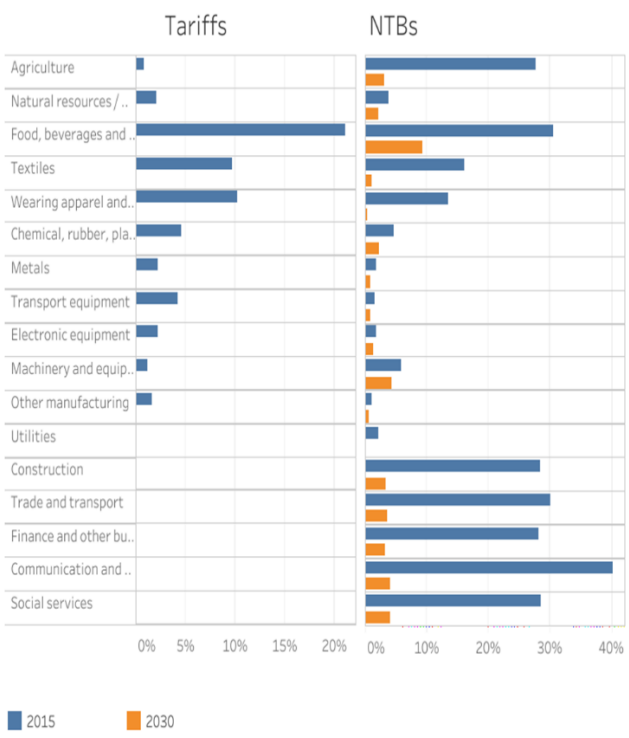
The sectoral composition of the potential market access will impact the distribution of gains across sectors and households. Figure 1 to Figure 4 below show, both for the EVFTA scenario and the combined scenario (EVFTA and CPTPP), the tariffs and NTMs in 2015 and the 2030 projection by economic sectors. Under EVFTA, tariffs are reduced to minimum levels and NTMs are reduced significantly across all sectors, particularly in food, beverages, and tobacco; agriculture, and all services exports. While for the combined scenario we see higher decreases in transport equipment, wearing apparel, textiles, food and beverages and other manufacturing.

Table 1. Vietnamese and foreign tariffs and NTM ad valorem equivalents (trade weighted) before and after EVFTA and CPTPP – for trading partners, (%)

	CPTPP		CPTPP+EVFTA	
	2015	2030	2015	2030
Tariffs imposed by Vietnam on FTA members, %	2.9%	0.1%	4.0%	0.1%
Tariffs faced by Vietnam on FTA markets, %	1.7%	0.2%	3.8%	0.1%
NTB imposed by Vietnam on FTA members, %	7.9%	5.0%	13.7%	4.0%
NTB faced by Vietnam on FTA markets, %	9.4%	5.8%	12.5%	2.5%

Source: World Bank staff estimates.

Figure 1. Trade restrictions faced by Vietnam from EU and CPTPP partners, combined scenario (%)

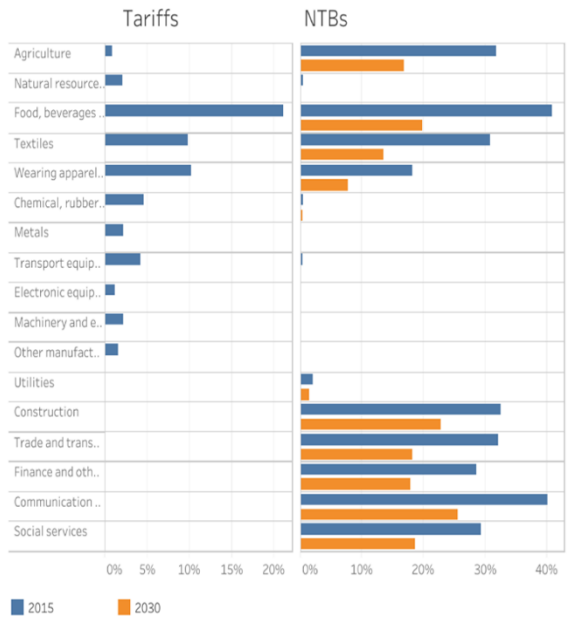


Source: World Bank staff estimates.
Note: NTBs = non-tariff barriers.

Figure 2. Trade restrictions imposed by Vietnam on EU and CPTPP partners, combined scenario (%)

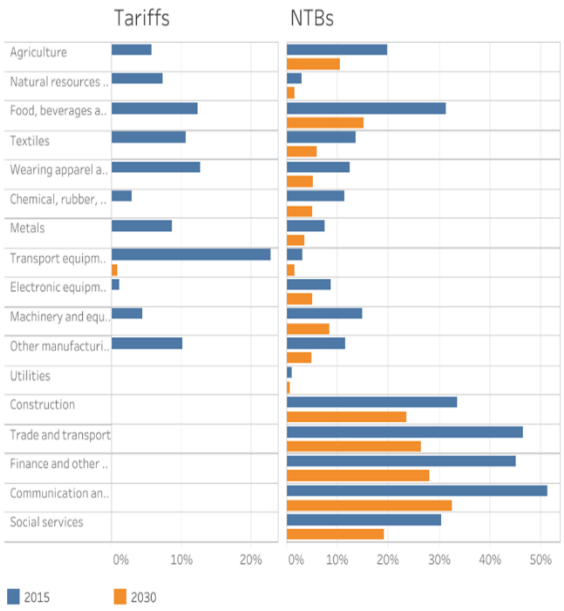
Source: World Bank staff estimates.
Note: NTBs = non-tariff barriers.

Figure 3. Trade restrictions faced by Vietnam from EU partners, EVFTA scenario (%)



Source: World Bank staff estimates.
Note: NTBs = non-tariff barriers.

Figure 4. Trade restrictions imposed by Vietnam on EU partners, EVFTA scenario (%)



Source: World Bank staff estimates.
Note: NTBs = non-tariff barriers.

3. Results

3.1 Macroeconomic results

The EVFTA has the potential to increase Vietnamese GDP by 2.4% with trade flows increasing by 12-14%, while in the combined scenario GDP increase by 3.2%, with trade flows increasing by 16-19%. Under the EVFTA, Vietnam would be able to grow faster and increase its trade flows (Figure 5). The estimated gains indicate a GDP increase of 2.4%, in standard productivity, by 2030, relatively to the baseline scenario, increasing to 6.8% when the productivity kick is applied. In the combined scenario, Vietnam sees an increase of 3.2% in GDP for standard productivity, by 2030, comparatively with the baseline scenario, while the productivity kick it would go up to 7.9%. Exports and imports also would increase by 12% and 14% respectively, for EVFTA, and 16% and 19.1% for the combined scenario. Exports and imports also get a higher boost when the productivity kick assumption is applied with an increase of 18% for EVFTA, and 25% for the combined.

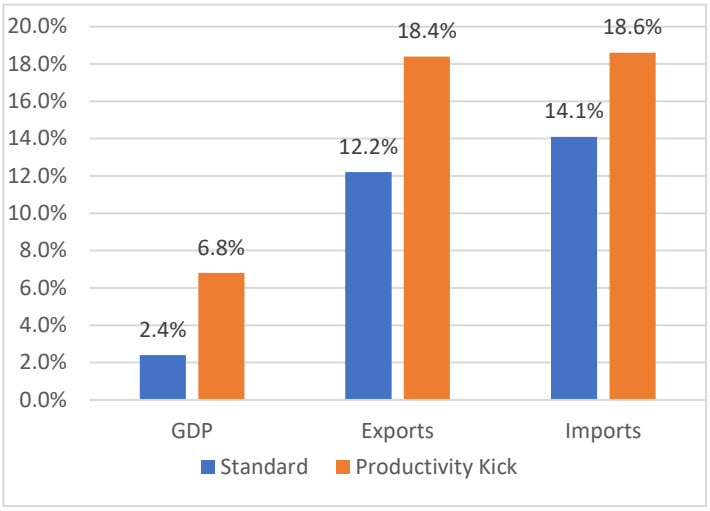
EVFTA entails substantial trade liberalization, trade flows from and to the EU are likely to register significant increases. In 2018, one of the most dynamic export sectors for Vietnam[7] was apparel (around 22 percent of its trade), with the United States, the East Asia and Pacific region, and the EU[8] being the main export destinations. However, for the electronics and electrical equipment sector, the EU is a more modest export destination than China and other countries in the East Asia and the Pacific region. One of the reasons Vietnam trades mostly with regions other than the EU may be the high barriers between Vietnam and the EU. Vietnam has tariff and non-tariff barriers vis-à-vis the EU of around 6 percent and 23 percent, respectively. On the other hand, due to the existence of several FTAs among Asian economies, the barriers to trade within the region are a lot smaller. Under EVFTA, Vietnam tariffs in bilateral trade would be gradually eliminated, while NTBs imposed by Vietnam on EU imports would go down from 23% to 13%.

To maximize the benefits, Vietnam should proceed with implementation of the EVFTA and CPTPP. Due to deeper liberalization and a higher number of potential markets opening to Vietnam under the CPTPP, Vietnam will see the highest benefits while participating in both FTAs (Figure 6). Vietnam's GDP could increase by up to 3.2 percent compared to the EVFTA alone. With both FTAs, North America (Canada and Mexico) and the EU become important trade partners, and Vietnam sees an increase of trade flows with all the economies involved. Total exports could increase 16 percent relative to the baseline in the combined scenario compared with 12.2 percent under the EVFTA. Imports growth is also stronger in the combined scenario at 19.1 percent higher relative to the baseline compared to 14.1 percent under the EVFTA.

[7] Based on the Global Trade Analysis Project (GTAP) v.9 database and model simulations. (Aguiar, Narayanan, and McDougall 2016)

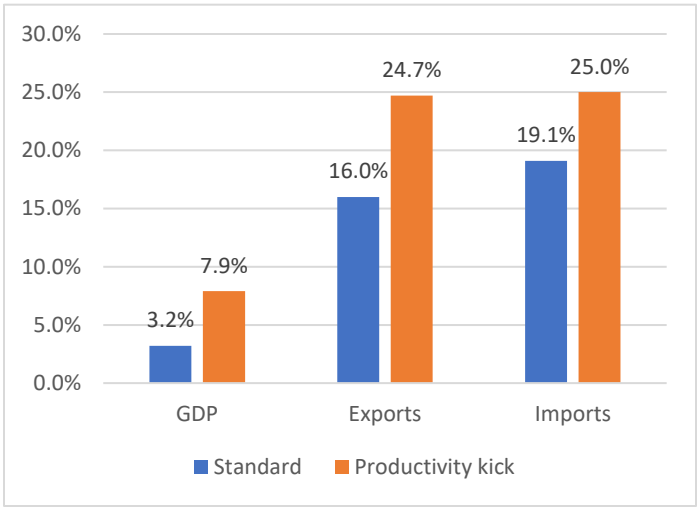
[8] Vietnam exports around 7.7 percent of its trade to the United States, 4.7 percent to East Asia and Pacific, and 4.2 percent to the EU.

Figure 5. Macroeconomic impact of the EVFTA on the Vietnamese economy by 2030 (% deviations with respect to baseline)



Source: World Bank staff estimates.

Figure 6. Macroeconomic impact of the CPTPP and EVFTA on the Vietnamese economy by 2030 (% deviations with respect to baseline)



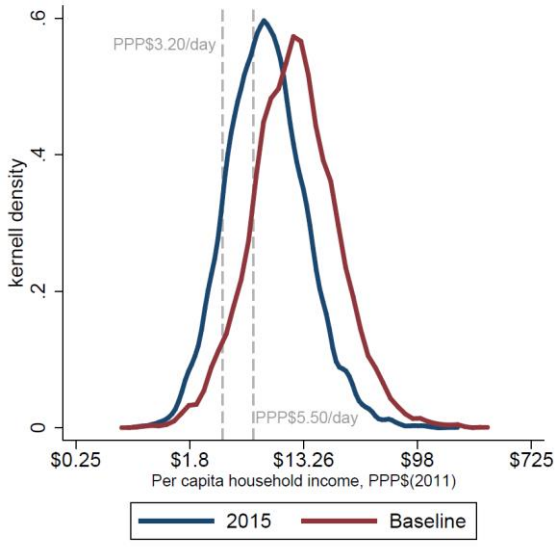
Source: World Bank staff estimates.

Selected manufacturing sectors such as textiles, food, and services would see their production expand under EVFTA, with a bigger boost under the combined scenario. In EVFTA, part of the increased output would be exported to the EU, including wearing apparel, textiles and food, beverages and tobacco, while in the combined scenario, Vietnam would have access to a broader set of trade partners. In terms of imports, we see an increase in most of the sectors with sharp increases of imports from the EU and CPTPP members. Although due to a redistribution of resources to more productive sectors and an increase of imports, some sectors in the economy will likely see their output decline. The sectors that could see a decline off production and exports are agriculture and selected manufacturing sectors.

3.2 Poverty and distributional impacts

In the baseline scenario Vietnam would see its poverty rate declining from 29% in 2016 to 12.6% by 2030 (at PP$5.50/day). Figure 7 shows the per capita income distribution in 2015 and 2030, for the baseline scenario. As income per capita grows, not only there is a shift of the income distribution to the right, but also a change in its shape resulting from modeling Vietnam's projected demographic and educational long-term outcomes. The proportion of population living in poverty, at each poverty line, can be calculated measuring the area below each distributional line and to the left of each poverty line. Under our baseline assumptions, Vietnam would achieve upper middle-income status by 2030. In this report, poverty lines of US$3.20 a day (purchasing power parity [PPP]) and US$5.50 a day PPP are preferred, instead of the extreme poverty line of US$1.90 a day that is typically used for low-income countries. A decrease in poverty is thus projected for the next 14 years, with the poverty at US$5.50 a day PPP having the sharpest decrease, declining from 29 percent in 2016 to 12.6 percent by 2030.[9] In the EVFTA scenario, poverty reduction would be more robust, further decreasing to 11.9 percent by 2030 (see Figure 8), while implementing both agreements the poverty reduction would reach to 11.5 for the same year (see Figure 9). At US$3.20 a day PPP, poverty reduction is expected to decline from 8 percent to 3.6 percent under our baseline assumptions, and to 3.5 percent with implementation of the EVFTA, and to 3.4 percent in the combined scenario.

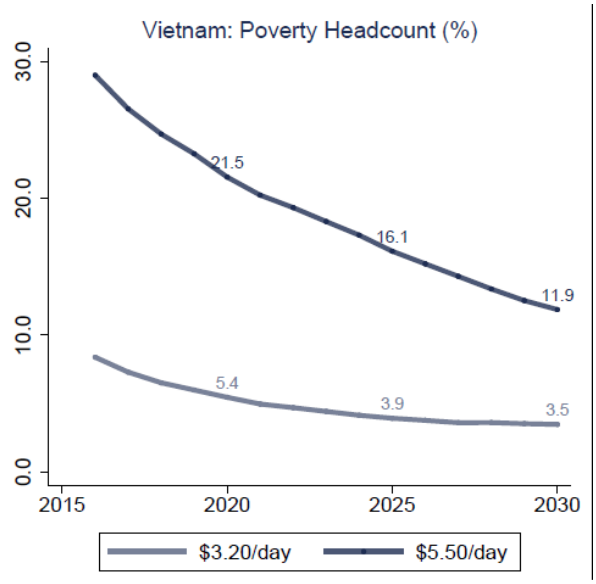
Figure 7. Income distribution in Vietnam under baseline conditions, 2015 and 2030



Source: World Bank staff calculations.

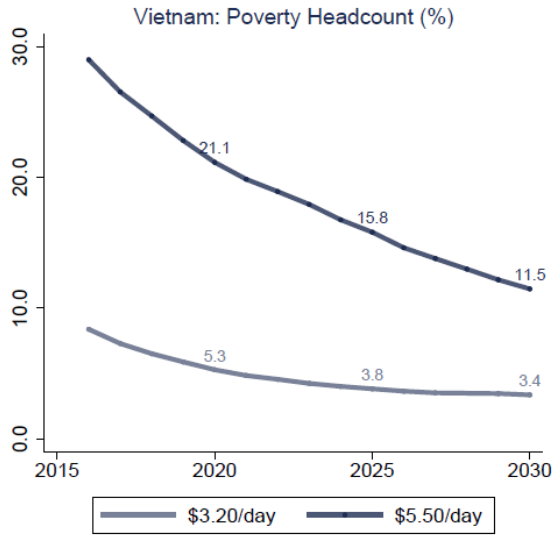
[9] Poverty rates were updated based on PovcalNet data as of February 2022 (http://iresearch.worldbank.org/PovcalNet/povOnDemand.aspx).

Figure 8.Poverty headcount ratio (%) in Vietnam under the EVFTA



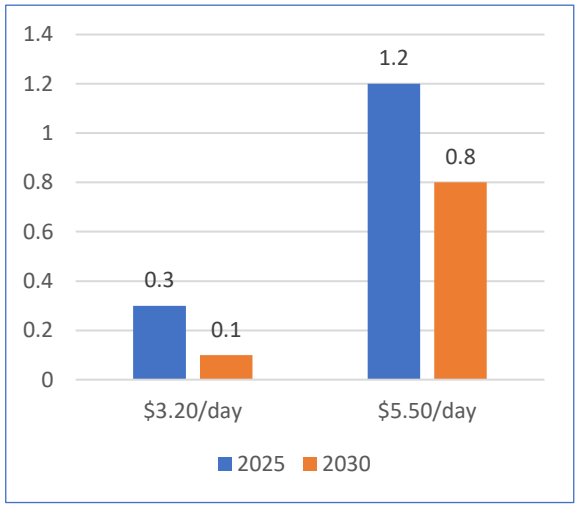
Source: World Bank staff estimates.

Figure 9. Poverty headcount ratio (%) in Vietnam under the combined scenario



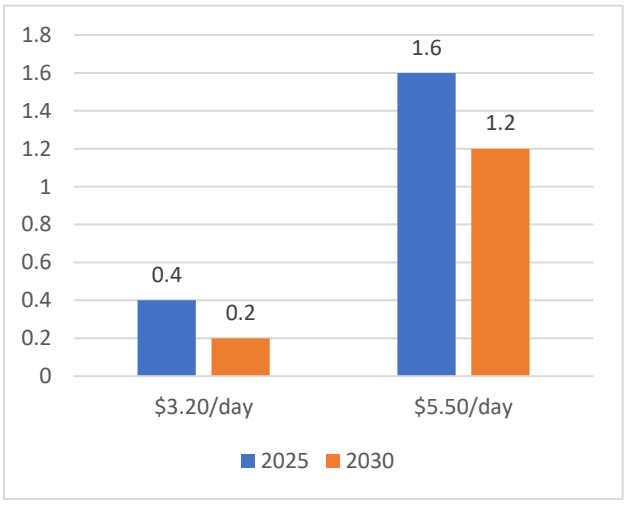
Source: World Bank staff estimates.

Figure 10. People lifted from poverty due to the EVFTA, standard productivity



Source: World Bank staff estimates.

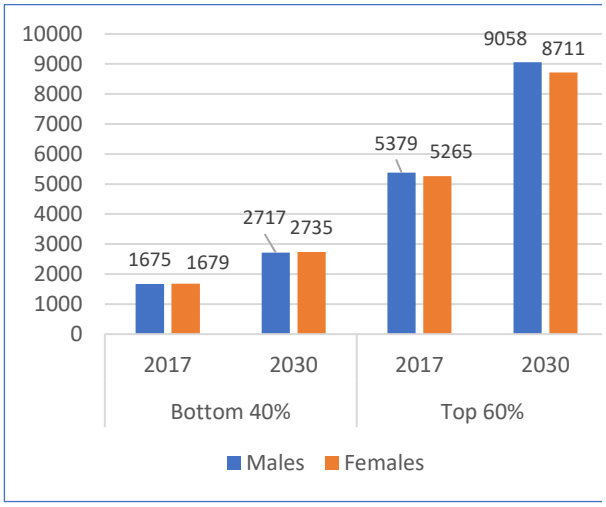
Figure 11. People lifted from poverty due to the combined scenario, standard productivity



Source: World Bank staff estimates.

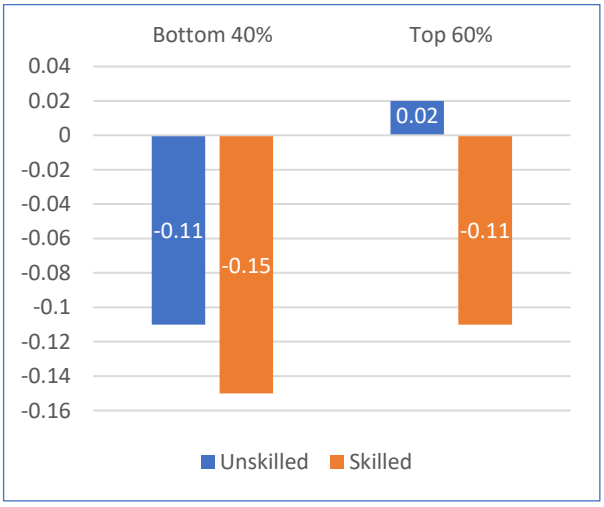
CPTPP and EVFTA could have a higher impact in lifting people out of poverty by 2030 and contribute to closing the gender wage gap. With the assumption of standard productivity and with respect to baseline, EVFTA could lift additional 0.1 million out of poverty at PPP$3.20/day while measured with the PPP$5.50/day poverty line, 0.8 million could be lifted out of poverty by 2030 (Figure 10). With the combined scenario, the impact in the reduction of poverty is higher, especially at PPP$5.50/day in 2030 where 1.2 million people are lift out of poverty. For PPP$3.20/day 0.2 million are lift out of poverty until 2030 with the implementation of both treatries (see Figure 11). Further, while the baseline scenario contemplates a moderate increase in the gender wage gap[10] (that results from an increasing demand for skilled labor in sectors that are dominated by men), with the implementation of the EVFTA and the CPTPP, the gender wage gap would decrease particularly for households in the bottom 40 percent of the income distribution and the unskilled workers. By contrasting Figure 12 and Figure 13, for the EVFTA scenario, it can be observed that the male-to-female earnings ratio for skilled workers in the bottom 40 percent would decrease 0.15 percentage points with respect to the baseline. While in CPTPP and EVFTA (Figure 14 and Figure 15) the effect on the skilled workers is not very significative, in terms of unskilled workers in the bottom 40 percent, there would be a decrease of 15% of male-to-female earnings ratio compared to the baseline. In comparison, the gender effects that the CPTPP and EVFTA would have on the top 60 percent of the income distribution are relatively smaller, with the male-to-female wage ratio decreasing 0.1 percentage points for the unskilled workers, while that of skilled labor would have negligible results. In EVFTA we see the skilled workers having a decrease of 11% of male-to-female wage ratio compared to the baseline, and the unskilled with a very small increase.

Figure 12. Gender gap in 2017 and 2030, EVFTA scenario with standard productivity



Source: World Bank staff estimates.

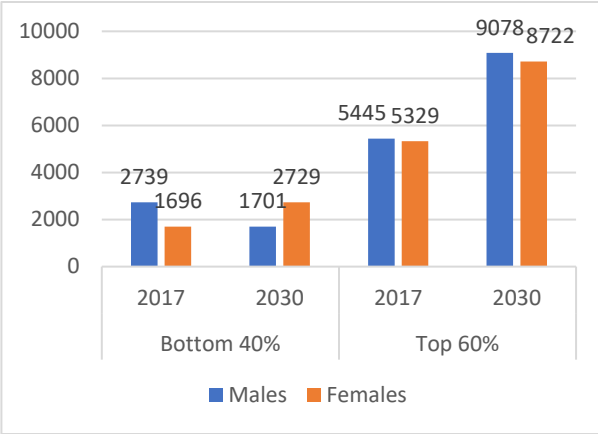
Figure 13. Gender gap effects with respect to the baseline, EVFTA scenario with standard productivity



Source: World Bank staff estimates.

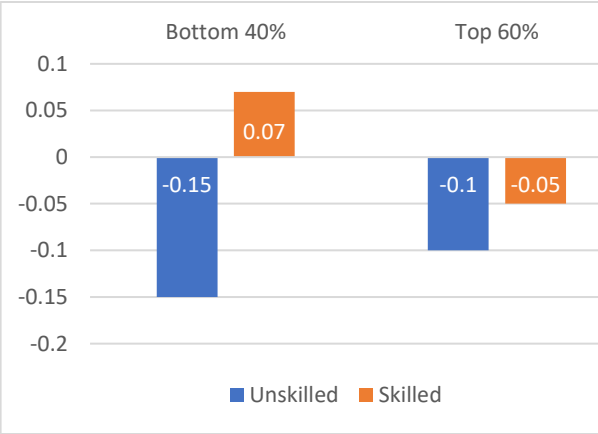
[10] Measured by relative per capita household consumption of males compared to females, age 15 to 64.

Figure 14. Gender gap in 2017 and 2030, combined scenario with standard productivity



Source: World Bank staff estimates.

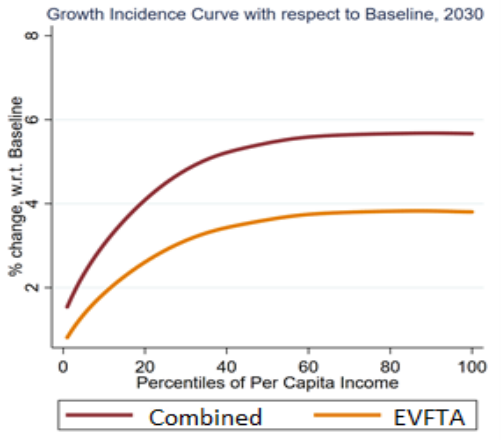
Figure 15. Gender gap effects with respect to the baseline, combined scenario with standard productivity



Source: World Bank staff estimates.

The EVFTA would create more economic opportunities for skilled workers, bringing more benefits to households at the higher end of the income distribution, while the implementation of both treaties would help the unskilled workers more. Figure 16 reflects, for each percentile of the income distribution, the absolute gains in income per capita relative to baseline conditions. Gains shown in the growth incidence curve result from applying the microsimulation based on the Vietnamese Household Living Standards Survey (2012). The microsimulation recovers macroeconomic shocks for EVFTA and for the combined scenario taking into consideration (a) sectoral reallocation of labor, (b) changes in relative wages, and (c) changes in real household consumption[11].

Figure 16. Growth incidence curves for the EVFTA and combined scenario, standard productivity assumptions



Source: World Bank staff estimates.

[11] For details see Maliszewska, Maryla; Olekseyuk, Zoryana; Osorio-Rodarte (2018) http://documents.worldbank.org/curated/en/530071520516750941/Economic-and-distributional-impacts-of-comprehensive-and-progressive-agreement-for-trans-pacific-partnership-the-case-of-Vietnam.

3. Conclusion

The EVFTA can bring significant benefits to the Vietnamese economy, not only on a macroeconomic level with increasing GDP and trade flows, but also in terms of poverty reduction. This assessment also suggests that implementation of the EVFTA and CPTPP together could result in higher gains compared to implementation of the EVFTA alone. However, the economic benefits from the FTA will not be equally distributed across the Vietnamese economy due to a reallocation of resources to more productive sectors, making it necessary to conduct a more comprehensive analysis to assess domestic policies to mitigate the potential negative effects on some sectors of the economy.

The impact on poverty by the EVFTA is also significant, and jointly with the CPTPP the impacts can be even more substantial. In EVFTA, an additional 0.8 million people could be lifted out of poverty at US$5.50 per day PPP by 2030, equivalent to a decline of 0.7 percent in the poverty headcount ratio. While for the implementation of both treaties, it would reach to 1.2 million people lifted out of poverty at US$5.50 per day PPP by 2030, which would translate in a decline of 1.7 percent in the poverty headcount ratio. Since the EVFTA ambitious trade agenda, and together with the CPTPP, it would create faster growth and a quick expansion of the economy, it will also increase demand for skilled labor in the case of EVFTA, and unskilled for CPTPP, which, other things being equal, will lead to higher income inequality. To take full advantage of the benefits of further trade integration, implementation of the EVFTA and the CPTPP should be followed by strong efforts to enhance competitiveness and trade facilitation, while also creating domestic policies that safeguard negatively impacted households. Vietnam also faces additional challenges in its continual improvement in connectivity to enable deeper integration into global value chains. These simulations are sensitive to the key assumptions such as no further improvements in the Vietnamese education system beyond current demographic trends and perfect mobility of workers across sectors.

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