



VIETNAM INSTITUTE FOR ECONOMIC AND POLICY RESEARCH
(University of Economics and Business - Vietnam National University)

The Impacts of TPP and AEC on the Vietnamese Economy:

Macroeconomic Aspects and the Livestock Sector

(Presentation)



Hanoi, August 2015

TENTATIVE AGENDA

Workshop: “Analyzing the Impacts of Transpacific Partnership (TPP) and ASEAN Economic Community (AEC) on Vietnamese Economy - Impacts on Macro Economy and Livestock Sector”

Time: Monday, 3 August 2015

Venue: Plaza Meeting Hall – 1st floor, Sofitel Plaza Hotel, No. 01 Thanh Nien road, Ha Noi.

Time	Agenda
08:30 – 09:00	Registration
09:00 – 09:05	Introduction
09:05 – 09:15	Opening Remarks <i>Mr. Okiura Fumihiko, JICA Vice Chief Representative in Viet Nam</i>
09:15 – 10:00	The Impacts of TPP and AEC on the Vietnamese Economy: Macroeconomic Aspects and the Livestock Sector <i>Dr. Nguyen Duc Thanh – President of Viet Nam Institute for Economic and Policy Research (VEPR)</i>
10:00 – 10:15	Tea Break
10:15 – 11:30	Discussion between participants and research team
11.30 – 13.00	Lunch



The Impacts of TPP and AEC
on the Vietnamese Economy:
Macroeconomic Aspects
and the case of Livestock Sector

August, 2015

ABOUT VEPR

VIET NAM INSTITUTE FOR ECONOMIC AND POLICY RESEARCH (VEPR) was established on July 7, 2008 as a research center under the University of Economics and Business of Viet Nam National University, Ha Noi (VNU). VEPR has legal status and headquarters is located in the University of Economics and Business (UEB), Xuan Thuy, Cau Giay, Ha Noi.

VEPR considers its primary mission as carrying out economic and policy research to assist in improving the decision-making quality of policy-making institutions, enterprises, and interest groups by providing insights into the social, political, and economic factors that drive the economic affairs of Viet Nam and the region. The main activities of VEPR include (i) providing quantitative and qualitative analysis of changing economic conditions in Viet Nam and assessments of their impacts on various interest groups throughout the country; (ii) organizing policy dialogues among policy-makers, entrepreneurs, and other stakeholders to improve solutions to emerging issues; and (iii) conducting advanced training courses in economics, finance and policy analysis regularly and upon request.

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Despite our efforts, we understand that there may be limitations and even errors in the Report. We sincerely hope to receive comments and contributions from the readers.

Ha Noi, August 1st, 2015

On behalf of the Authors

Dr. Nguyen Duc Thanh

EXECUTIVE SUMMARY

Viet Nam's deeper integration into the global economy, especially via such a comprehensive free trade agreement as the Trans-Pacific Partnership (TPP) or the establishment of the ASEAN Economic Community (AEC), brings various opportunities and challenges. Accompanying these are the gains and losses for the participants of the integration process. At the same time, the welfare of those who are not direct participants is also affected due to this process via changes in various aspects such as economic growth, trade, prices, labour... Previous studies on the impacts of TPP on signatory countries gave a promising economic prospect for Viet Nam, which is going to be the largest beneficiary compared to the other 11 TPP countries. Similar studies on the impacts of AEC shows much smaller changes on Viet Nam's economy.

Viet Nam's international integration over the past couple of decades has helped the country gain much in terms of economic growth, investment, export and income. However, the higher degree of openness also means higher exposure to external risks and possible worsening of internal risks. Great expectations came with the accession into the WTO, for example. Increases in export and foreign investment were remarkable. Yet, great influx of capital coupled with the inexperienced monetary policy (under fixed exchange rate management and greater openness) contributed to the asset price bubbles and the returning of double digit inflation in 2008. The heavily dependence of Viet Nam on imports and foreign investment, the long lasting consequences of the world economic crisis and sustaining internal weaknesses during the post-WTO period give the warning signs for Viet Nam not to be complacent with the promising TPP and, to a lesser extent, AEC. In order to make the best of the opportunities and overcome the challenges from integration, Viet Nam needs to continue to make further fundamental changes in economic structure, institutions and governing policies.

In addition, the impacts of this regional integration are expected to vary across industries. Comparatively advantageous industries are expected to benefit the most while disadvantageous industries may suffer albeit with different degrees. Livestock is the second largest sector of Viet Nam's agriculture, following crop cultivation. However, it is considered as unsustainable, uncompetitive and vulnerable to FTAs. Viet Nam's livestock sector's difficult conditions are reflected in the followings: (i) The size of production is small, unreliable and based on households (instead of large commercial farms), using leftovers as feeds and lacking care of animal diseases; (ii) Heavy dependence on foreign breeds and feeds; (iii) Disease-stricken problem is common though still under control; (iv) Slaughter hygiene and food safety remain limited, causing food poisoning; and (v) Environmental pollution due to livestock industry, harming producers and neighbouring households as well. Regardless of the fact that the opportunities are mainly offered to a limited number of big commercial farms in Viet Nam thanks to reduced cost of inputs (breeds and feeds), having the above characteristics,

the livestock sector of Viet Nam would face fierce competition from foreign producers when the tariffs and NTBs are reduced and removed thanks to FTAs.

Recent literatures, despite having already covered either the impacts of TPP and/or AEC on member's economic performance in general or the consequences of trade liberalization on Viet Nam's livestock sector and the welfare of livestock farming households, lack certain in-depth analysis. For example, Linh, Burton and Vanzetti (2008) construct numerous trade liberalization scenarios including VN only, AFTA, AFTA+3, VN-US, VN-EU25 but no scenarios include TPP. Another study by Todsadee Kameyama and Lutes (2012) already studied TPP's impacts on the livestock sector in particular, their findings lack of in-depth analysis on the sub-sectors as well as the market structure in member countries. In other words, the literatures still leave room for a comprehensive analysis in terms of the impacts of TPP and AEC on Viet Nam's economy and specifically on Viet Nam's livestock sector and its sub-sectors, which combines both desk-based and field-based studies. In the context of active lobbying of both pro- and anti-TPP sides, in line with the secrecy of TPP contents to media and the public, there exists a need for a thorough study to improve public awareness and policy makers' understanding about the soon-coming TPP and AEC. As a result, we conduct this study in order to investigate the potential impacts of TPP and AEC on Viet Nam's economy and its livestock sector to improve the knowledge of decision-makers, stakeholders (including investors) and the public regarding this promising and comprehensive integration.

This study attempts to make a quantitative evaluation of the potential economic impacts of liberalizing trade in goods and services under the TPP and AEC on Viet Nam. Based on the recently published Global Trade Analysis Project (GTAP) Data Base version 9 by Narayanan, Aguiar and McDougall (2015) and the GTAP model (Hertel 1997; McDougall, 2003), we conduct a set of numerical experiments to simulate the economic effects arising from the establishing TPP and AEC on both the macroeconomy and the livestock sector. Also, with the ambition to measure the diverse results across livestock sub-sectors (which GE models tend not sufficient to cover details), we use a PE model at the same time. Based on the data from UN Comtrade, we also run similar simulation exercises using the Global Simulation Analysis of Industry-level Trade Policy (GSIM) for our PE analysis of the livestock sector. We assume that bilateral tariffs on trade in goods among member countries will be completely removed and the non-tariff barriers will be reduced for trade facilitation. These liberalizations of trade in goods and services would generate economic gains to the participating countries. It should be noted that TPP and AEC are expected to liberalize not only trade in goods and services but also investment and movement of labour, but our analysis is confined to the former due to the data limitation.

The results allow us to draw a number of conclusions about the Vietnamese macroeconomy and the livestock sector.

Our main findings are of two folds. *For the economy as the whole*, in almost all simulation scenarios, Viet Nam is shown to be the member achieving largest GDP change in percentage term. However, the economic impact of AEC is insignificant compared to that of TPP. When decomposing the GDP change, it is observed that the increase in GDP, thanks to trade liberalization, comes primarily from increases in consumption and investment, surpassing the surge in import after tariff cut. Moreover, Viet Nam also gains the most in economic welfare in percentage change.

Regarding investment, the gain for Viet Nam is the most outstanding among member countries, approximate to Japan and almost double that of Australia, Malaysia and the US (in scenarios without spillover effect of trade facilitation to non-TPP economies). Concerning the sectoral change thanks to the TPP, we observe an adjustment in Viet Nam's production and labor away from industries without comparative advantage or with eroding comparative advantage (such as MProc, OthMnfc and agricultural sectors) and towards the comparatively advantaged ones or those with negligible trade (especially Apparel, Leather Manufacturing and Utility Services & Construction). At the same time, we observe a significant movement of production resources from shrinking sectors to expanding ones.

Examining the scenarios assessing TPP's impacts, results show that Viet Nam's trade with other TPP countries increases in all case. Meanwhile, Viet Nam increases imports and slightly decreases exports with non-TPP economies. Exports in textiles, apparel, leather and footwear from Viet Nam to the US surge impressively while Viet Nam's total exports slightly declines. The possible reasons for this decrease include the contraction of a number of domestic industries due to the competition from other countries, the competition (and constraints) in primary factors and the change in trade directions from outside TPP to TPP. In particular, once the condition of fixed endowment of labor is relaxed, exports turn to increase because of labor supply increase and more resources are employed. Unavoidable weaknesses of the model, the static nature and the fixed endowment assumption in particular, also cause bias in the results.

For Viet Nam's livestock sector, the study provides in-depth analysis of the trends in consumption, production, and trade as well as markets structure in the livestock sector. Viet Nam's livestock sector has low competitiveness, featuring mostly small scale farming and production, heavy dependence on imported breeds and feeds, common disease-stricken problems, limited slaughter hygiene and food safety and environmental pollution. These features are prominent across all livestock sub-sectors such as swine, poultry, cattle, milk and diary. They cause low productivity, production output and the increasing need for imports from TPP countries, especially the US, Australia, New Zealand, Canada, and some AEC countries such as Thailand. Livestock domestic production will face further and fiercer competition when

Viet Nam integrate deeper into the regional and world economies and specifically when TPP is expected to come into effects in 2016.

The simulation results reveal that in both free trade blocs, output will decline in almost all livestock industries, except for other animal products (mainly live swine and poultry). In particular, the output of other meat (swine meat, poultry meat, offal and fat) will fall most remarkably in terms of absolute value and percentage change. Moreover, the declining output also leads to a drop in the labour demand (both skilled and unskilled) in the livestock sector. We observe the narrowing down of the whole sector after TPP and to a smaller degree AEC. Given the low productivity and competitiveness of the sector, poultry (and to a lesser extent swine meat) producers will suffer the most in terms of output and welfare though the current consumption habit of Vietnamese people most of whom prefer fresh/warm meat than frozen one may slow down the impacts. On the other hand milk and beef producers have better chance of survival. The sector needs quick restructuring efforts to improve efficiency in facing foreign competitors.

In those scenarios assessing the impacts of trade liberalization on Viet Nam's livestock sector, the impact of Viet Nam participation in AEC is almost negligible. Meanwhile, TPP has clear impacts on the livestock sector through welfare, imports and domestic production. Considering the overall livestock sector, consumers/importers will have access to cheaper products, while producers/exporters which largely affected for not being able to compete with the influx of products from other countries such as bovine from Australia and poultry and swine meat from the US. Along with that, the reduction in welfare due to the loss of import tariff revenue causes the welfare of the livestock sector to decline after TPP effect.

Trade liberalization aims for complete removal of tariff barriers and partial removal of non-tariff barriers, which leads to a change in trade flows between countries. The results show that trade flows tend to re-direct from countries with low levels of tariff reduction to countries with greater reductions. By sub-sector, Viet Nam reduce its import of milk powder and dairy products from the US and shifts to import from New Zealand. It also increases the import of live bovine from Australia and meat products from the United States.

Changes in export prices lead to a new equilibrium prices in the market including manufacturer's prices and consumer prices. In the case of Viet Nam, meat products from abroad will flood the domestic market, causing negative impacts on the welfare and output value of domestic producers. On the other hand, the consumers will benefit from more competitive markets which leads to reduced prices.

Regarding the sub-sectors, except for poultry meat group, in all live animals and other meat sub-sectors consumers/importers and producers/exporters are slightly affected. Meanwhile, poultry meat sub-sector is significantly affected because of the higher current applied tariffs and larger import volumes than other sub-sectors. Therefore, after TPP, this sub-

sector will be most strongly affected, however the welfare of this sub-sector is still balance as the benefits of consumers/importers could compensate for the losses of tariff revenue and producers/exporters.

A remarkable point is that for milk powder and dairy products (except for raw milk), changes in trade flows causes Viet Nam's consumers/importers to suffer due to the reduction in supplies after TPP. Reduction in tax revenues of this sub-sector is also the main cause leading to the losses of total welfare of Viet Nam's livestock sector.

The sensitivity analysis results show that the assumptions of elasticity have no major influence on the outcome of the overall welfare. It only redistributes the benefits of different factors involved in the livestock sector, producer surplus will gradually shift to consumer when substitution elasticity increases. In the short term, as consumer habits cannot change quickly, the impacts of trade liberalization on domestic producers are not as severe. However, in the mid and long term, as frozen meat will become more widely accepted, domestic production will face more difficulties in competing with meat products from TPP countries.

The research findings above provide the foundation and evidences for our policy discussion. The discussion is divided into two main parts. The first part focuses on the macroeconomic level, arguing for or against certain policies that have broad impacts on the economy as a whole. On the other hand, the second part goes into detailed discussion on the implications for sectoral policies that address specific issues of the livestock sector.

The desk study and the field trips show that at sectoral level, businesses, suppliers, farmers,... are not aware of the contents and expected impacts and implications of TPP and AEC even though they wish to be more involved. In the case of TPP, where talk contents are still secretive in many aspects, understanding and awareness are even lower. Thus, raising awareness, understanding and involvement of stakeholders regarding the contents and implications of each FTA, particularly TPP and AEC, is essential. Thus the measures to raise awareness and involvement of the public, the policy makers, the businesses, labors, farmers... need to be paid due attention from the beginning and throughout all trade talks.

In addition, the government also needs to orient particular policy measures to support comparatively advantageous industries, create new comparative advantages, to facilitate the restructuring of affected industries and the smooth transition of sufferers/losers during trade liberalization process. In particular, the followings should be considered.

At macroeconomic level

First, this study again confirms the need of institutional reforms and liberalization of primary inputs such as labor, capital and land. Integration without those reforms will not only hinder Viet Nam from taking advantage of the opportunities, but also create negative impacts on its export and economic growth. Sooner than later, Viet Nam will not be able to sustain the

advantage of cheap labor due to the increase in demand for skilled labor in particular and economic growth in general like what is happening in China. Free movement of labor, not only within but also across border, assistance in training and re-training programs and ultimately investment in education will help facilitate the restructuring of the economy as the results of trade liberalization. Skilled labors are much needed not only to take advantage of the current comparative advantages but also help to create more and/or alternative comparative advantages.

Second, once TPP and AEC are implemented, resulting in reduction in tax revenue from tariffs, the government may try to offset the budget deficit by other sources. These may include increasing other taxes and borrowings or cutting current expenditures, subsidies and/or public investment in order to maintain budget balance. However, some of these policies may hinder the recovering efforts of the economy, increasing the risk of macroeconomic instabilities. Policies to improve the budget balance need to be put into thorough consideration to achieve macroeconomic stability, promote production and consumption, and avoid conflicts with other policies. These policies should focus on cutting current expenditures.

Third, Viet Nam needs to implement policies to foster sectoral restructuring in order to enhance the productivity. For expanding industries, the most important factor is to ensure mobility of production resources such as labor, capital, land and other resources to these industries. For disadvantaged industries, restructuring is important to increase efficiency. Besides, reasonable supports should be directed to industries with comparative advantage to improve competitiveness of domestic products and encourage exports, advancing Viet Nam's position in global value chains.

Fourth, FTAs nowadays do not only require the tariff removal but also concern about the non-tariff barriers such as transportation costs and customs procedures. AEC aims to establish a single market with the aim to attract investment from outside of the community. TPP, on the other hand, has a strategic role in redesigning the world's trade and investment structure and direction. Participating in these blocks, thus, requires Viet Nam to adjust non-trade issues such as labor, intellectual property rights, etc. Therefore, the implementation of the related commitments requires thorough reforms in domestic policies and legal system.

Fifth, it is necessary to promote research, training, and implementation of suitable technical standards in order protect domestic producers in line with supporting Vietnamese exporters in satisfying the demand of trade partners. All FTAs, including TPP and AEC aim to reduce and ultimately remove tariff barriers for almost all commodity groups. As a result of this, member countries are trying to increase non-tariff barriers to protect their domestic industries. Currently, Viet Nam's knowledge and technologies involving technical standards are very limited. Thus, these standards are not effectively used in Viet Nam. On the other hand, our export products are facing high level of technical standards and sometimes even returned

for not meeting technical requirements. To address these issues, the Government should not only assist in training exporters on technical standards to help their products penetrate difficult markets but also consider investing in appropriate technical standards to assist domestic producers during the transition process under the pressure of international integration.

Finally, with the implementation of TPP and AEC, Viet Nam's investment (including domestic and foreign investment) will increase significantly due to increases in trade and investment from within and outside these blocks. This is an opportunity and a challenge at the same time in attracting and utilizing the FDI inflows. Therefore, Viet Nam needs to implement administrative reforms, effective investment policies and accelerate the development of supporting industries (such as infrastructures, services, intermediate goods, processing manufacturing) to benefit from the TPP.

As a result of TPP, the model simulation results clearly demonstrate that Viet Nam will gain in consumption and investment, particularly because such industries as apparel, textile, and light manufacturing will increase output and export. However, such industries require inexpensive labor to attract investment. Once wage rates in Viet Nam increase continuously, such relatively "foot-loose" foreign investors may look for and choose different countries as investment destinations. Thus, Viet Nam should not rest on the one time benefits which TPP brings and rather continue and accelerate its rigorous efforts in the area mentioned above.

At sectoral level

Decision number 210 (210/2013/NĐ-CP) issued by the Government and its accompanying Circular number 05/2014/TT-BKHĐT issued by Ministry of Planning and Investment together with a number of decisions on cooperatives, household farming, high-tech agriculture...are the most important legal documents that specify the policies to encourage investment in agriculture and rural areas in general and the livestock sector in particular. Together with the Restructuring Scheme and its Action Plans, these are expected to re-shape Viet Nam's agriculture and specifically livestock sector with the aim to improve productivity, added values and competitiveness, especially in the context of further integration. These recent efforts of Viet Nam should be noted. However, these policies need to be clearer, more specific and should be accompanied by detailed sets of criteria for implementation, evaluation and financial resources. Also, many problems arise during the implementation process which are considered as slow and unclear.

On the whole livestock sector

The research results confirm that livestock is not one of the sectors that Viet Nam currently has comparative advantage. More competition from imported products will force the sector to restructure to be more efficient in order to survive. Inefficient households, farms and firms, for example those in swine and poultry meat subsectors, will exit the market while surviving ones will need to restructure to be able to compete. In the meantime, policies toward

restructuring the livestock sector are needed to satisfy the need for increasing food consumption, to assist the smooth change for those who are required to change their jobs and to ease the losses suffered by those who are forced to move out of the sector. The recent scheme on “livestock sector restructuring towards raising added values and sustainable development” and its accompanying action plans are heading in this direction with proposed changes in production regions, livestock types, production methods and value chains. However, the plans need more details with more specific targets and the implementation process is slow. The Government needs to consider policies that can further support research and development activities to improve added values to Vietnamese products.

During integration process, temporary measures such as optimal tariff reduction schedule, and the use of non-tariff barriers might be considered to protect priority subsectors and assist in the transition of resources from disadvantageous subsectors to other priority subsectors or even to other advantageous sectors of the economy such as textile and apparels... However, these protective measures should not be sustained for more than a few years as they go against the rules of free trade.

Restructuring schemes and action plans should also give priority to subsectors that are and will not be under fierce competition from abroad due to: consumption habits, natural trade barriers (fresh milk, eggs) or specialized Vietnamese products such as certain kinds of chickens (happy/free roaming chickens), *lon man*, *lon cap nach* (special kinds of swine)... It should be noticed that the consumption habit will change gradually over time. Also, the livestock subsectors benefiting from the natural barriers mentioned above have low productivity and/or are insufficient for domestic demand. For these specialized products, potential expansion is limited due to the constraints in domestic demand and export opportunities, thus restructuring should aim at improving productivity and sanitary/phytosanitary standards.

Tax policies for the livestock sector also need to encourage new models of development such as high-tech farms, modern collective farms or large scale farms with closed linkages to households and distributors. Tax and fee structure for livestock products also need to be restructured. Current taxes and fees are high and/or complicated in certain cases such as the case of eggs and chickens which are carrying 14 to 17 different kinds of taxes and fees from import tariffs for feed, pesticide, and veterinary medicines to VAT or fees for SPS (sanitary and phytosanitary) controls. In addition, many taxes and fees for agricultural products are overlapping and unreasonable, increasing costs for farmers and businesses. Measures to minimize these problems are still ad-hoc rather than systematic and thorough.

On primary factors: land, labor, capital

As discussed above, restructuring needs to be accompanied by liberalizing the markets for primary factors. This applies to livestock as well. Liberalization of these markets improves

credit accessibility, labor transition from one place to another, one (sub) sector to another during restructuring, and land to be changed to other purposes.

The issues of land, for example, are quite intriguing. Our review of agricultural land shows that although the areas devoted to rice to ensure food security has been reduced, the areas for livestock sector are still very limited. Where possible, especially around large scale farms, land has been converted to more profitable planting of animal feed crops. Also, according to IPSARD (2012), even in the worst case scenario where the loss during and after harvest is unchanged at 10%, higher than expected climate change impacts, low average productivity (only 5.8 ton/ha), slow reduction in rice consumption (still at 120kg/person/year in 2030), with only 3.0 million ha of rice land Viet Nam can still guarantee domestic food security and have excess for export. Thus, we propose to continue to cut down on rice land and increase land for animal feed crops in suitable areas.

Agricultural land conversion is governed mainly by Article 11, Circular number 02/2015/TT-BTNMT which provides guidance for implementing certain articles in Decision number 43/2014/NĐ-CP together with Decision number 44/2014/NĐ-CP and by Article 8 of Decision number 210/2013/NĐ-CP. Though certain suitable farm land can now be converted from rice cultivation to other crops including animal feed crops such as grass, corns, cassava or soya..., converting rice land or other crop land into husbandry land is not simple. Problems arise during this process especially for large scale livestock farms and those using high-tech machineries for planting, harvesting and processing animal feed crops. These includes delays in the conversion process due to the need to negotiate with individual land users/owners, higher than expected land compensation costs, more than planned local labor needed to be absorbed into new modern farms (even in the case of converting land of old cooperative farms)... These issues raise the production costs of these new modern farms, delaying break-even point and in general discourage new investors. Incentives given for this conversion are limited to reduction or exemption of land use tax and only for priority projects which themselves are complicated to be categorized and approved. Clearer and more transparent guidelines and procedures for land conversion and incentive approval will help investors estimate better the costs and reduce implementation time.

On production chains

Viet Nam already has policies that encourage linkages along production chains in but in practice, linkages are weak with many intermediaries from lower to upper stream, increasing costs incurred by farmers (costs on animal feed, medicines, lodges, environmental protection...) for large scale enterprises, there are the difficulties in ensuring the market for their outputs.

The Restructuring Scheme for the livestock sector, its accompanying action plans and Decision 210 all pay attention to creating the incentives to build both horizontal and vertical

linkages to help reduce transaction costs and improve efficiency of the sector. Ideally, horizontal linkages create large scale and leading enterprises that can attract smaller scale households and firms as satellites to form separate areas for animal feed crops, for livestock supporting industries and for farm groups away from residential areas. On the other hand, vertical linkages promotes cooperation within closed production chains, “from breeds to table food.” A large scale firm that manage all of the production chain from inputs, to production, processing, to distribution and retailing will be able to self-supply or outsource with competitive prices.

Such linkages not only help reduce intermediary costs, stabilize both input and output market, utilize economies of scales but also help reduce pollution through building waste plants and recycling animal wastes for feed, fertilizers and even generating electricity.

In the current context of Viet Nam where most firms are small scale, a feasible option is to set up separate areas for livestock, concentrating areas for animal feed crops and factories, lodges, slaughterhouses, processing plants, combining with developing distribution network, long-term and efficient retail contracts to reduce transport costs and transit losses. However, though husbandry activities are being relocated away from residential areas, the process is very slow, and the lack of infrastructure in those areas are hindering all the stages in the production chains.

On large scale production

According to Article 11, Decision 210/2013/NĐ-CP, large scale projects in livestock sector receive partial financing for infrastructure construction for electricity, water, storage, waste processing, for the purchase of machineries, the import of high yield breed and milk cows from advanced countries. These investment projects have to be in the approved list by relevant authorities or approved by provincial People’s Committee. At the same time, these projects are required to ensure sanitary conditions, disease precaution measures, food safety, and environmental protection and use at least 30% of local labor. However, the fact is both firms and households find it hard to access these incentives due to a variety of reasons such as application process is complicated, slow and unclear, approval and supervisory authorities are not clearly known,...

According to Article 10, Decision 210/2013/NĐ-CP, investment projects in large scale (industrial) slaughterhouses are financially supported for infrastructure construction for electricity, water, storage, waste processing, and for the purchase of machineries. Similarly, these are required to ensure sanitary conditions, disease precaution measures, food safety, and environmental protection and use at least 30% of local labor.

The purpose of these incentives is to encourage the planning of slaughtering and processing activities, i.e. moving from small and scattered grassroots slaughterhouses to large scale/industrial ones. Large scale/industrial slaughterhouses are to be set up in suburban areas,

servicing neighboring wholesale market or in big cities and concentrated husbandry areas. At the same time, supervision to minimize unlicensed slaughtering activities, regulations on import of live animals, environmentally friendly and humane slaughtering methods, controls on animal transport at border and gateway to large urban areas are necessary.

However, in practice, though some firms/investors can meet the high standards of concentrated (industrial) slaughterhouses, they are not keen on joining this market. The main reason is the problem with distribution of outputs. Outputs from these slaughterhouses have higher quality, meet the high standards of food safety and environment protection and thus more costly than small household slaughterhouses. Industrial slaughterhouses also need more advanced distribution systems which comprises of cooling vehicles and refrigerated display stalls... The sale of large daily volumes requires close and efficient relationship between slaughterhouses and big retailers (such as supermarkets). Furthermore, the habit of buying meat from open market by the majority of the population though the quality and safety of these sources are questionable. In the future, together with urbanization and the expansion of the middle class in Viet Nam, consumer habits will gradually change. In the near future, to encourage and increase the compatibility of these concentrated slaughterhouses, short term reduction of VAT for them should be considered.

On the market

As analyzed above, the problems related to the markets for products from large scale farms and slaughterhouses are some of the most serious difficulties for the livestock sector. Developing the market and improving customers' trust are the firms' responsibilities. High quality and safe products will gain consumers' trust and thus increase consumption. Only then, the demand for the products can be guaranteed which in turn become the guarantee for firms to invest to utilize economies of scale, reducing costs and improving the competitiveness of domestic products.

However, at present, small scale businesses still dominate and due to the need for large investment in infrastructure, technology, plants and machineries, large scale ones still have to face high costs and difficulties in selling their products. As a result, potential investors are not keen on joining the market. Small scale with low tech but fast sale models are still more appealing. None the less, when join FTAs, the products of firms and households using these models will not be able to compete with imported ones and may have to leave the market.

Thus, measures to increase sales of firms need to match with national programs on encouraging domestic goods consumption, especially with safe and high quality products. The Government and relevant authorities need to provide more detailed guidelines and regulations on brand development and registration, ensure clear and timely market information so domestic firms and households in the livestock sector can prepare for integration.

At present, the problems of lack of transparent market information and commercial frauds are also a great hindrance for firms as well as consumers. The ability of consumers to differentiate authentic and quality products from fakes and low quality ones is also hindered by the lack of information about the producers in the market and on product labels. The current regulations on product traceability such as Circular 03/2011/TT-BNNPTNT or Circular 74/2011/TT-BNNPTNT are neither systematic nor complete, ad-hoc and suggestive rather than required. It is necessary to quickly complete the set of required standards on product traceability for livestock products making it possible to identify the ingredients, production date and region, breed source... throughout all stages of from production to distribution. Such required standards will help protect the consumers, assist firms in managing and controlling their production and distribution processes and facilitated dispute settlement.

Take liquid milk market as an example. Viet Nam is one of a few countries currently still using reconstituted milk (i.e. liquid milk made from mixing imported powder milk with water). The main bases for this practice are (i) Viet Nam's fresh milk production has not been able to meet with growing demand for milk consumption and (ii) reconstituted milk can be made with lower costs and thus can be supplied at lower price to the poor. However, the facts that should be noted are that reconstituted liquid milk offers only 70-80% of the nutrition level compared to fresh milk and that the market price of the former is not much lower than the latter.

Current policy, TCVN 7029:2002 explaining that Decision 178/1999QĐ-CP requires reconstituted milk to be labeled "reconstituted". However, TCVN is not compulsory while the Circular explaining Decision 178/1999QĐ-CP only provides general guidelines for labeling ingredients of food and drink without specific wordings. Also there have not any specifications for liquid milk that is made partly from powder and partly from fresh milk. Thus, the fact is that it is not easy for consumers to tell the difference between fresh milk and reconstituted or partly reconstituted milk.

Ministry of Industry and Trade in cooperation with Ministry of Health need to consider adding the following information on the label of commercial liquid milk

1. Specify the ***percentage of most important ingredients*** in liquid milk and yogurt i.e. the percentage of fresh milk and of powder milk if any.
2. Specify which ***farm the fresh milk come from***.

Our policy suggestion provides 3-fold benefits. Specifying correct and clearer information on the milk label is essential in improving the transparency of the market, protecting consumer rights and raising awareness of consumers regarding the milk we consume. At the same time, this policy will help bring the prices of fresh milk and reconstituted milk back to their levels, enabling the poor to have access to more reasonably priced milk. Also, domestic milk producers will be encouraged to invest and thus increase milk production and reduce the need to rely on imported milk.



The Impacts of TPP and AEC on the Vietnamese Economy: Macroeconomic Aspects and the Livestock Sector

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NGUYEN Thi Linh Nga & NGUYEN Thanh Tung

Ha Noi, August 3rd, 2015

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- I. Introduction**
- II. Background of Viet Nam's integration**
- III. The Impacts of TPP and AEC on the Vietnamese Economy: Macroeconomic Aspects**
- IV. The Impacts of TPP and AEC on the Vietnamese Economy: the Livestock Sector**
- V. Conclusions and policy discussions**

VEPR I. Introduction

- Integration always brings opportunities and challenges to participating countries and indirectly affects the outsiders. It affects deeply and widely on all aspects of the entire economy
- Aim of the study: a quantitative evaluation of potential economic impacts of liberalizing trade in goods and services under the TPP and AEC on Viet Nam's economy and livestock sector in particular.
- Study uses GTAP model with GTAP database version 9 to evaluate the macroeconomic aspects
- Regarding the livestock sector, the study use a combination of GTAP and GSIM model.

VEPR II. Background of Viet Nam's integration

FTAs Viet Nam has signed up-to-date

FTA	Coverage (% tariff lines)	Effect date	Complete date
WTO	100	2007	2019
AFTA	97	1999	2015/2018
ACFTA	90	2005	2015/2018
AKFTA	86	2007	2016/2018
AANZFTA	90	2009	2018/2020
AIFTA	78	2010	2020
AJFTA	87	2008	2025
VJFTA	92	2009	2026
VCFTA	89	2014	2030
VKFTA	88	2016	2031
VCUFTA	90	2016	2027

VEPR Overview of TPP

- Negotiation progress: 12 members and 19 official rounds up to date
- 5 main characteristics: (i) comprehensive market access, (ii) fully regional agreement, (iii) cross-cutting trade issues, (iv) new trade challenges, (iv) living agreement
- The tentative content consists of 29 chapters, of which 14 chapters have finished negotiation up to May 2015, such as: *Customs, Services, Government Procurement, Sanitary and Phytosanitary Standards, Temporary Entry*, etc.

VEPR Overview of TPP

19 Official Rounds of TPP Negotiations up to May 2015

Round	Date	Venue	Member countries
1	15-19/3/2010	Melbourne, Australia	Pacific-4 (P-4), US, Australia, Peru, Viet Nam
2	14-18/6/2010	San Francisco, US	
3	5-8/10/2010	Brunei	
4	6-10/12/2010	Auckland, New Zealand	
5	14-18/2/2011	Santiago, Chile	
6	24/3 – 1/4/2011	Singapore	
7	15-24/6/2011	Ho Chi Minh City, Viet Nam	P-9 (P-4, US, Australia, Peru, Viet Nam, Malaysia)
8	6-15/9/2011	Chicago, US	
9	22-29/10/ 2011	Lima, Peru	
10	5-9/9/2011	Kuala Lumpur, Malaysia	
11	2-9/3/2012	Melbourne, Australia	
12	8-18/5/2012	Dallas, US	
13	2-10/7/2012	San Diego, US	
14	6-15/9/2012	Virginia, US	
15	3-12/12/2012	Auckland, New Zealand	P-11 (P-9, Canada, Mexico)
16	4-13/3/2013	Singapore	
17	15-24/5/2013	Lima, Peru	
18	14-24/7/2013	Kota Kinabalu, Malaysia	
19	23-30/8/2013	Bandar Seri Begawan, Brunei	12 current members (P-11, Japan)

Chapters on Trade

- Goods
- Customs
- Textiles, Apparel and Footwear
- Agriculture
- Remedies
- Trade facilitation and Capacity building

Chapters on Administration

- Initial Provisions
- Exceptions
- Dispute Settlement
- Living agreement

Chapters on non-trade

- Services
- Financial services
- E-commerce
- Telecommunications
- Technical barriers
- Competition/SOEs
- Intellectual Property Right
- Investment
- Government Procurement
- Sanitary and Phytosanitary Standards
- Rule of Origin
- Temporary entry
- Competitiveness and Global supply chain
- Labour
- Environment
- Safety
- Legal Coherence
- SMEs
- Development

- Four pillars of AEC

- Single market and production base
- Competitive Economic Region
- Equitable Economic Development
- Integration into the Global Economy

- Route map has 4 periods: 2008-2009, 2010-2011, 2012-2013, and 2014-2015. Pillai (2013) concluded that the level of implementation of the measures was estimated at 79.7% in total three first stages.

- Various opportunities for Viet Nam

- regional stability support for Viet Nam's socio-economic development
- a community that unites and allows free flow of capital and labour to attract external investment
- improves the bargaining power of Viet Nam with other major trade and investment partners

Trade between Viet Nam and other TPP members

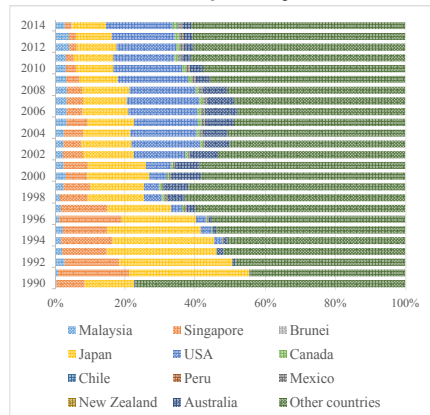
■ **Exports**

- Increase continuously, yet unstable share in total exports of Viet Nam, dropping from the peak of about 50% to 38-39% currently.
- The US and Japan are two main markets of Viet Nam's exports to TPP partners

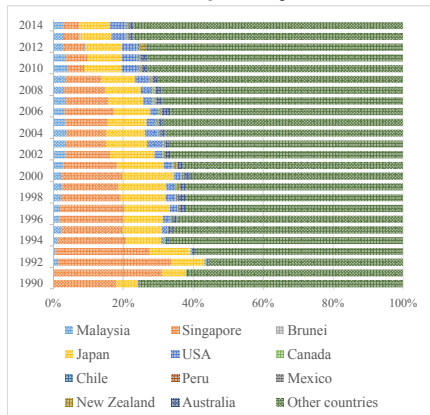
■ **Imports**

- Share of imports from TPP decreases gradually (to 23% of total Viet Nam's imports in 2014), replaced by imports from China (29.6%)
- Major partners: Singapore, Japan and the US

Viet Nam's Exports by Partner

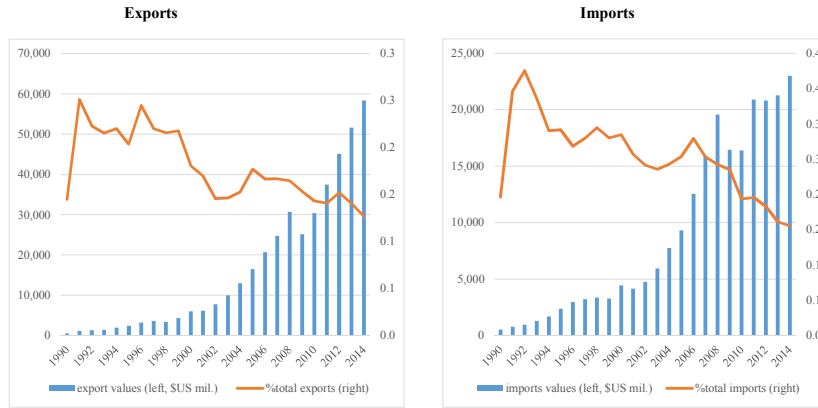


Viet Nam's Imports by Partner



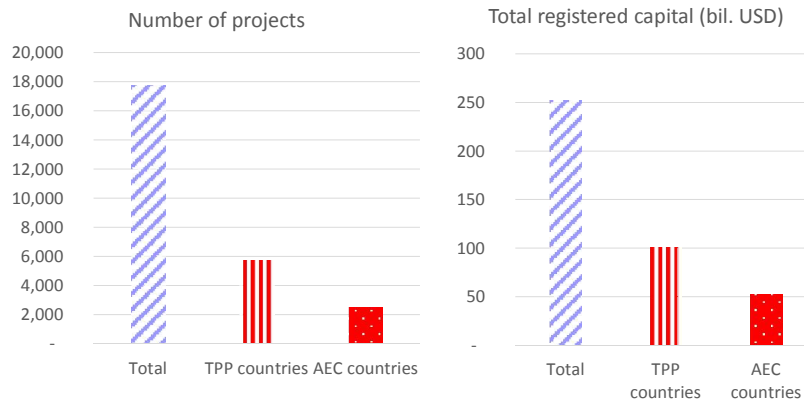
Source: Authors' calculation from CEIC Database and GSO (2015)

VEPR Trade of Viet Nam - AEC



Source: Calculation from CEIC Database, GSO (2015)

VEPR FDI flows into Viet Nam



Note: Accumulation of projects having effect as of 20th December, 2014
Source: GSO (2015)

THE IMPACTS OF TPP AND AEC TO THE VIETNAMESE ECONOMY: MACROECONOMIC ASPECTS

- The standard GTAP model is a comparative static general equilibrium model of global trade
- It assumes perfect competition, constant returns to scale of production technology, and differentiation of trades based on the place of origin (Armington 1969).
- Database: **GTAP version 9 (5/2015)** with 140 countries/territories, 57 sectors and 2011 as base year.
- This is the first study conducted by a Vietnamese research team on this issue

VEPR Data and Description

Regional Aggregation

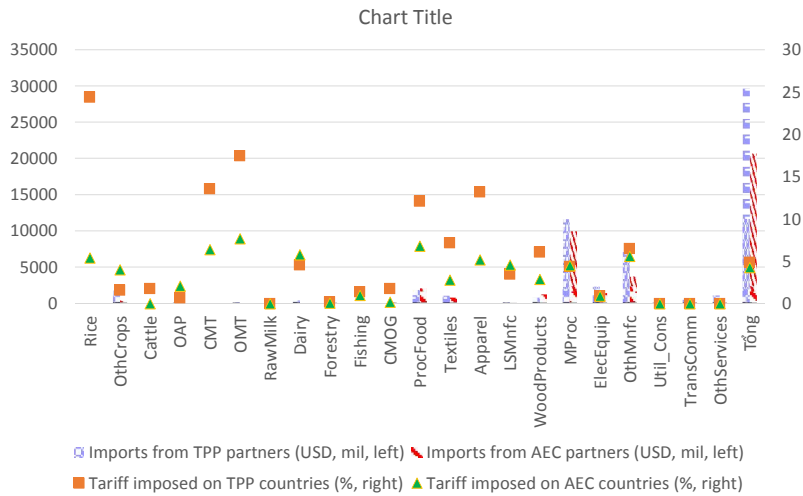
No.	Regions	GTAP 140 regions
1	VietNam	Viet Nam.
2	Australia	Australia.
3	NewZealand	New Zealand.
4	Japan	Japan.
5	Brunei	Brunei Darassalam.
6	Malaysia	Malaysia.
7	Singapore	Singapore.
8	Canada	Canada.
9	US	United States of America.
10	Mexico	Mexico.
11	Chile	Chile.
12	Peru	Peru.
13	Cambodia	Cambodia.
14	Indonesia	Indonesia.
15	Laos	Lao People's Democratic Republ.
16	Philippines	Philippines.
17	Thailand	Thailand.
18	RoSEAsia	Rest of Southeast Asia.
19	China	China; Hong Kong.
20	Korea	Korea.
21	India	India.
22	EU_25	Austria; Belgium; Cyprus; Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; Netherlands; Poland; Portugal; Slovakia; Slovenia; Spain; Sweden; United Kingdom.
23	RestofWorld	Rest of the World

VEPR Data and Description

Sector Aggregation

No.	Sectors	GTAP 57 Sectors
1	Rice	Paddy rice; Processed rice.
2	OthCrops	Wheat; Cereal grains nec; Vegetables, fruit, nuts; Oil seeds; Sugar cane, sugar beet; Plant-based fibers; Crops nec.
3	Cattle	Cattle,sheep,goats,horses.
4	OAP	Animal products nec.
5	CMT	Meat: cattle,sheep,goats,horse.
6	OMT	Meat products nec.
7	RawMilk	Raw milk.
8	Dairy	Dairy products.
9	Forestry	Forestry.
10	Fishing	Fishing.
11	CMOG	Coal; Oil; Gas; Minerals nec.
12	ProcFood	Vegetable oils and fats; Sugar; Food products nec; Beverages and tobacco products.
13	Textiles	Textiles.
14	Apparel	Wearing apparel.
15	LSMnfc	Wool, silk-worm cocoons; Leather products.
16	WoodProducts	Wood products; Paper products, publishing.
17	MProc	Petroleum, coal products; Chemical,rubber,plastic prods; Mineral products nec; Ferrous metals; Metals nec; Metal products.
18	ElecEquip	Electronic equipment.
19	OthMnfc	Motor vehicles and parts; Transport equipment nec; Machinery and equipment nec; Manufactures nec.
20	Util_Con	Electricity; Gas manufacture, distribution; Water; Construction.
21	TransComm	Trade; Transport nec; Sea transport; Air transport; Communication.
22	OthServices	Financial services nec; Insurance; Business services nec; Recreation and other services; PubAdmin/Defence/Health/Educat; Dwellings.

VEPR Data and Description: Tariff

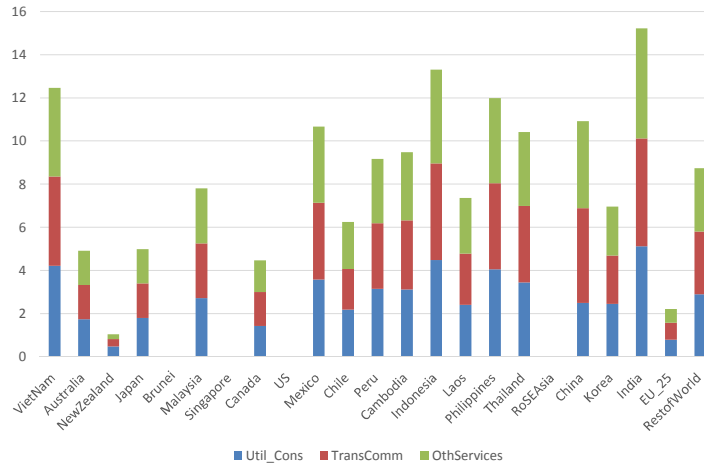


VEPR Data and Description

- Non-tariff barriers:
 - tariff equivalents of services trade barriers (Thelle, *et al.* (2008), Wang, *et al.* (2009)
 - average cost of time delays in trade (Minor, 2013).
- These NTBs are difficult to removed completely due to the existence of nature barriers such as language, etc.
- This study chose the maximum possible reduction of NTBs (by 7%) (Hayakawa and Kimura, 2014)

VEPR Data and Description

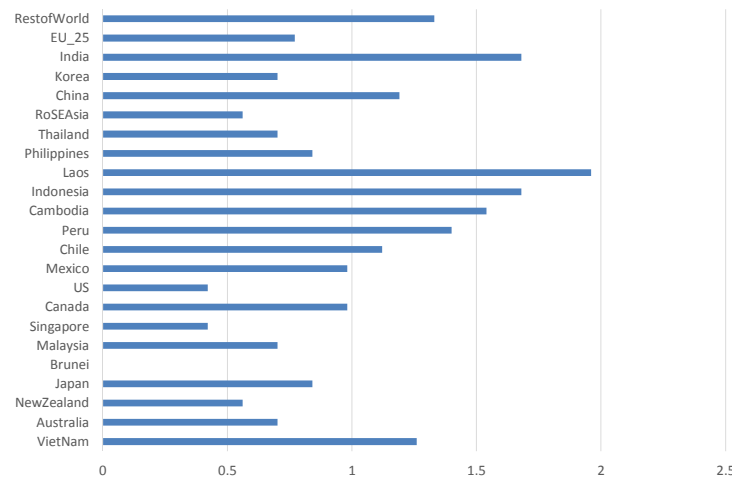
■ The size of reduction in tariff equivalents of services trade (%)*



*: Note that Singapore and US are used as benchmark countries, and Brunei doesn't have estimate due to data limitation.

VEPR Data and Description

■ Time delays to be reduced (days)



■ Assumptions:

- No explicit treatment of time, perfectly competitive markets
- Constant returns to scale production technology
- Fixed endowments of primary factor inputs such as land, natural resources, capital, skilled and unskilled labor

■ Scenarios

- Scenario a: tariff removal within TPP countries.
- Scenario b: a + 7% reduction of NTBs for TPP countries
- Scenario c: a + 7% reduction of NTBs for 23 countries/regions.
- Scenario d: tariff removal within AEC countries
- Scenario e: d + 7% reduction of NTBs for AEC countries
- Scenario f: a + d + 7% reduction of NTBs for all countries/regions in the world

- Real GDP
- Investment
- Trade
- Output
- Demand for labor
- Welfare
- Budget revenue

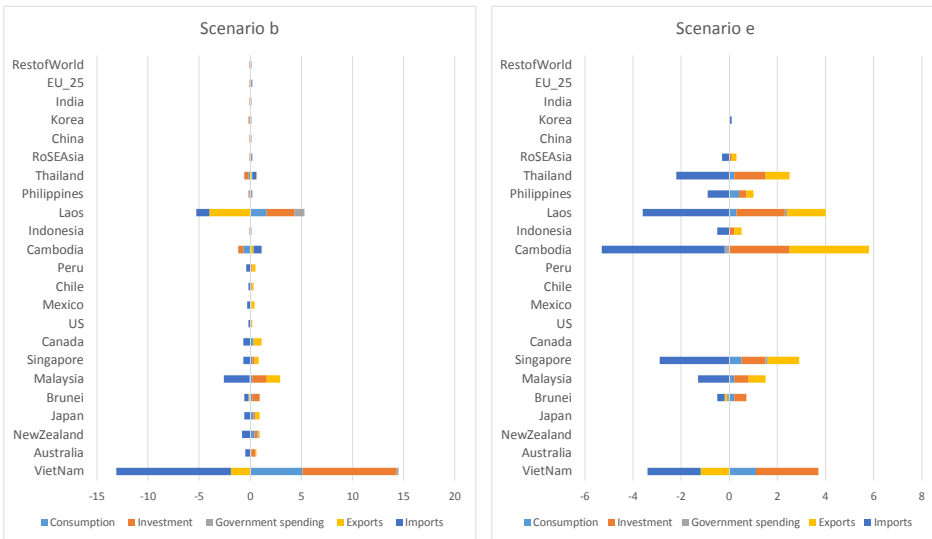
VEPR Real GDP

- Liberalization improves GDP growth for partner countries while negatively affects GDP of the rest.
- As a member of both TPP and AEC, Viet Nam may gain the most in terms of percentage change in GDP growth in all scenarios. However, impacts of AEC is small and insignificant compared to TPP.
- Countries that are not member of TPP or AEC, such as China, India, and South Korea, will face disadvantages after TPP/AEC members cut their tariffs.

VEPR Real GDP

Scenario	% change						Change value (mil. USD)					
	a	b	c	d	e	f	a	b	c	d	e	f
VietNam	1.03	1.32	2.11	0.11	0.28	2.04	1399	1792	2855	152	376	2768
Australia	0.07	0.12	0.20	0.00	0.00	0.19	963	1650	2737	-20	-24	2693
NewZealand	0.06	0.11	0.15	0.00	0.00	0.15	100	181	242	-2	-3	246
Japan	0.21	0.23	0.28	0.00	0.00	0.31	12435	13800	16597	-87	-108	18358
Brunei	0.19	0.19	0.19	0.16	0.16	0.20	32	32	32	26	26	34
Malaysia	0.14	0.30	0.57	0.12	0.19	0.67	409	865	1657	344	533	1948
Singapore	0.01	0.07	0.14	0.06	0.09	0.17	38	190	395	164	257	460
Canada	0.22	0.34	0.41	0.00	0.00	0.42	4002	6031	7263	-9	-11	7545
US	0.00	0.01	0.03	0.00	0.00	0.03	37	1883	4185	-89	-105	4241
Mexico	0.03	0.15	0.22	0.00	0.00	0.24	316	1742	2625	4	3	2861
Chile	0.01	0.11	0.26	0.00	0.00	0.26	32	274	641	0	0	659
Peru	0.00	0.10	0.27	0.00	0.00	0.27	7	171	463	-1	-1	467
Cambodia	-0.16	-0.17	0.74	0.12	0.59	1.75	-20	-21	95	15	76	225
Indonesia	-0.02	-0.02	0.25	0.02	0.08	0.35	-127	-147	2120	208	681	2952
Laos	0.01	0.01	0.69	-0.04	0.45	0.70	1	1	57	-3	37	58
Philippines	-0.01	-0.02	0.27	0.08	0.14	0.40	-32	-37	611	186	305	904
Thailand	-0.06	-0.07	0.58	0.10	0.19	0.90	-208	-237	1993	346	649	3114
RoSEAsia	-0.01	-0.01	0.04	-0.01	0.01	0.06	-3	-4	24	-5	6	34
China	-0.03	-0.03	0.17	0.00	0.00	0.14	-1988	-2245	12855	-142	-182	10770
Korea	-0.03	-0.04	0.22	-0.01	-0.01	0.21	-363	-433	2627	-71	-87	2479
India	-0.01	-0.01	0.52	-0.01	-0.01	0.50	-203	-252	9723	-98	-123	9445
EU_25	0.00	0.00	0.17	0.00	0.00	0.17	-666	-832	29760	-228	-268	29356
RestofWorld	-0.01	-0.01	0.34	0.00	0.00	0.33	-847	-1125	50138	-207	-262	49584

Decomposition of Real GDP



Investment

- All member countries gain investment while non-members see declines in their investment after TPP and AEC coming into effect
- TPP will stimulate Viet Nam's fixed capital formation. Under TPP scenarios, Japan's investment gains the most in terms of absolute value, while Viet Nam's figure gains the most in terms of percentage change.
- Cambodia may see largest increase in percentage changes of investment under AEC scenarios.
- Investment in non-members of AEC and TPP may fall, especially in China and the EU.

VEPR Investment

	% change						change in billion USD					
	a	b	c	d	e	f	a	b	c	d	e	f
Viet Nam	25.33	27.05	29.81	6.86	8.11	30.62	10.73	11.46	12.63	2.91	3.44	12.97
Australia	1.56	1.69	1.58	-0.07	-0.09	1.50	5.76	6.27	5.86	-0.26	-0.32	5.53
NewZealand	1.48	1.69	1.40	-0.07	-0.08	1.41	0.46	0.52	0.43	-0.02	-0.02	0.43
Japan	0.77	0.89	0.59	-0.23	-0.26	0.99	9.24	10.66	7.05	-2.73	-3.11	11.87
Brunei	3.90	3.81	3.35	3.17	3.15	3.49	0.13	0.13	0.11	0.10	0.10	0.11
Malaysia	5.68	6.28	6.27	2.21	2.64	7.02	3.97	4.39	4.38	1.55	1.85	4.91
Singapore	0.33	0.69	0.62	2.83	3.35	1.82	0.25	0.52	0.46	2.12	2.50	1.36
Canada	-0.27	0.10	-0.12	-0.04	-0.05	-0.17	-1.13	0.40	-0.49	-0.16	-0.19	-0.71
US	0.13	0.26	-0.12	-0.09	-0.10	-0.35	3.77	7.40	-3.38	-2.47	-2.84	-10.17
Mexico	-0.16	0.19	-0.10	-0.04	-0.04	-0.13	-0.39	0.46	-0.25	-0.09	-0.10	-0.32
Chile	0.12	0.32	0.06	-0.03	-0.04	0.09	0.07	0.18	0.04	-0.02	-0.02	0.05
Peru	0.00	0.55	1.13	-0.03	-0.03	1.00	0.00	0.22	0.46	-0.01	-0.01	0.41
Cambodia	-3.65	-3.79	-0.73	18.26	20.01	39.72	-0.08	-0.08	-0.02	0.39	0.42	0.84
Indonesia	-0.38	-0.46	-0.31	0.59	0.74	1.54	-1.04	-1.25	-0.84	1.62	2.03	4.23
Laos	-0.28	-0.38	0.81	6.13	7.69	7.59	-0.01	-0.01	0.02	0.14	0.17	0.17
Philippines	-0.63	-0.78	-0.14	1.39	1.73	2.90	-0.28	-0.35	-0.06	0.62	0.77	1.29
Thailand	-1.35	-1.55	-0.11	4.78	5.31	12.37	-1.26	-1.45	-0.11	4.48	4.97	11.58
RoSEAsia	-0.34	-0.41	-0.53	0.18	0.23	-0.30	-0.06	-0.07	-0.09	0.03	0.04	-0.05
China	-0.22	-0.27	-0.27	-0.05	-0.06	-0.42	-7.42	-9.36	-9.37	-1.88	-2.19	-14.26
Korea	-0.40	-0.50	-0.26	-0.11	-0.13	-0.49	-1.47	-1.86	-0.95	-0.41	-0.49	-1.83
India	-0.20	-0.25	0.28	-0.05	-0.06	0.16	-1.28	-1.57	1.78	-0.33	-0.38	1.00
EU_25	-0.45	-0.56	-0.14	-0.07	-0.08	-0.32	-14.61	-18.44	-4.66	-2.27	-2.62	-10.35
RestofWorld	-0.36	-0.46	0.15	-0.05	-0.06	-0.01	-11.61	-14.68	4.77	-1.70	-1.99	-0.22

VEPR Trade: the world trade

- Impacts of TPP to the world trade may far exceed impacts of AEC
- Imports
 - Imports surge, thanks to liberalization, in all TPP members, especially the US, Japan and Canada. However, Viet Nam may see the largest increase in imports in terms of percentage change.
 - China, South Korea and India tend to decrease imports as TPP/AEC members cutting tariffs.
- Exports
 - With exception of Viet Nam and Brunei, a rise in exports may be seen in almost all countries, among which Japan, Canada and the US have the largest increase.
 - Even non-TPP members such as China, South Korea, and the EU may also see a slight growth in exports, especially in case of c and f in which NTBs were lowered to non-members.

VEPR Trade: the world trade

Simulation Result on Import Volume (% change, billion USD)

	% change						change in billion USD					
	a	b	c	d	e	f	a	b	c	d	e	f
Viet Nam	10.98	11.49	12.21	2.19	2.45	12.19	13.34	13.96	14.83	2.66	2.98	14.80
Australia	2.35	2.60	2.97	-0.16	-0.19	3.03	6.05	6.71	7.65	-0.41	-0.50	7.82
NewZealand	2.56	2.88	2.81	-0.09	-0.10	2.96	1.12	1.26	1.23	-0.04	-0.05	1.29
Japan	3.54	3.82	4.09	-0.24	-0.28	5.06	33.86	36.54	39.16	-2.34	-2.71	48.45
Brunei	1.70	1.66	1.43	1.33	1.31	1.42	0.09	0.08	0.07	0.07	0.07	0.07
Malaysia	3.38	3.67	3.73	1.61	1.81	4.21	7.29	7.90	8.04	3.47	3.89	9.08
Singapore	0.53	0.71	0.57	2.43	2.80	1.68	1.38	1.87	1.49	6.37	7.36	4.40
Canada	2.43	2.92	2.97	-0.03	-0.04	3.11	11.56	13.90	14.14	-0.14	-0.17	14.82
US	0.79	1.05	1.02	-0.09	-0.10	1.00	21.08	28.14	27.31	-2.33	-2.73	26.68
Mexico	0.56	1.03	1.00	-0.01	-0.01	1.18	1.79	3.33	3.21	-0.04	-0.04	3.79
Chile	0.56	0.75	0.54	-0.02	-0.02	0.63	0.45	0.61	0.44	-0.01	-0.02	0.51
Peru	0.72	1.77	3.32	-0.01	-0.01	3.33	0.29	0.70	1.33	0.00	-0.01	1.33
Cambodia	-1.28	-1.31	-0.91	7.81	7.91	16.55	-0.14	-0.14	-0.10	0.83	0.84	1.77
Indonesia	-0.57	-0.66	0.06	1.91	2.19	5.94	-1.14	-1.32	0.13	3.81	4.36	11.86
Laos	-0.08	-0.12	0.00	7.24	7.79	6.50	0.00	0.00	0.00	0.29	0.31	0.26
Philippines	-0.39	-0.46	0.13	2.13	2.31	4.26	-0.35	-0.40	0.11	1.88	2.03	3.76
Thailand	-0.56	-0.65	0.25	3.29	3.59	7.53	-1.37	-1.61	0.62	8.09	8.84	18.52
RoSEAsia	-0.25	-0.30	-0.24	1.34	1.36	1.99	-0.03	-0.04	-0.03	0.17	0.17	0.25
China	-0.36	-0.45	0.26	-0.14	-0.16	-0.11	-6.64	-8.18	4.76	-2.53	-3.00	-1.96
Korea	-0.23	-0.30	0.31	-0.12	-0.15	0.09	-1.35	-1.80	1.82	-0.72	-0.90	0.55
India	-0.18	-0.23	0.92	-0.10	-0.12	0.74	-0.96	-1.20	4.86	-0.51	-0.61	3.89
EU_25	-0.12	-0.16	0.28	-0.04	-0.05	0.21	-8.56	-11.08	19.59	-2.80	-3.25	14.76
RestofWorld	-0.19	-0.25	0.79	-0.04	-0.05	0.66	-8.13	-10.66	33.17	-1.83	-2.19	27.74

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VEPR Trade: the world trade

Simulation Result on Export Volume (% change, billion USD)

	% change						change in billion USD					
	a	b	c	d	e	f	a	b	c	d	e	f
Viet Nam	-2.23	-2.57	-3.15	-1.30	-1.65	-3.63	-2.17	-2.49	-3.06	-1.26	-1.60	-3.53
Australia	0.19	0.30	0.87	-0.03	-0.03	1.03	0.55	0.85	2.45	-0.08	-0.10	2.90
NewZealand	0.17	0.28	0.42	0.00	-0.01	0.49	0.08	0.13	0.20	0.00	0.00	0.23
Japan	2.17	2.24	2.94	0.17	0.19	3.04	20.48	21.12	27.70	1.63	1.81	28.64
Brunei	-0.31	-0.29	-0.20	-0.29	-0.28	-0.21	-0.03	-0.03	-0.02	-0.03	-0.03	-0.02
Malaysia	1.53	1.65	1.82	0.82	0.87	2.10	3.77	4.05	4.47	2.02	2.15	5.15
Singapore	0.27	0.32	0.22	0.92	1.05	0.67	0.87	1.03	0.72	3.00	3.43	2.20
Canada	2.91	3.13	3.45	0.00	0.00	3.63	13.99	15.04	16.59	0.02	0.02	17.45
US	0.60	0.67	1.26	0.07	0.07	1.75	11.38	12.60	23.70	1.24	1.39	33.00
Mexico	0.78	1.04	1.32	0.01	0.01	1.54	2.75	3.66	4.64	0.04	0.05	5.41
Chile	0.23	0.32	0.49	0.00	0.00	0.56	0.21	0.30	0.46	0.00	0.00	0.52
Peru	0.65	1.01	1.78	0.01	0.01	1.89	0.32	0.50	0.88	0.00	0.00	0.93
Cambodia	0.42	0.44	0.11	5.85	5.61	5.82	0.04	0.04	0.01	0.57	0.55	0.57
Indonesia	0.06	0.10	1.02	1.04	1.19	4.24	0.12	0.20	2.11	2.15	2.45	8.77
Laos	0.36	0.41	-0.19	4.90	4.37	3.65	0.01	0.01	-0.01	0.15	0.14	0.11
Philippines	0.24	0.30	0.50	0.96	0.88	2.61	0.17	0.21	0.34	0.66	0.61	1.80
Thailand	0.24	0.25	0.63	1.51	1.58	2.96	0.61	0.63	1.59	3.82	3.99	7.48
RoSEAsia	0.51	0.62	0.90	1.71	1.66	3.16	0.05	0.06	0.08	0.16	0.15	0.29
China	0.05	0.08	1.03	-0.01	-0.02	0.96	1.13	1.68	22.14	-0.23	-0.32	20.62
Korea	0.09	0.10	0.59	-0.01	-0.02	0.60	0.56	0.63	3.67	-0.04	-0.10	3.69
India	0.16	0.19	1.81	0.00	0.00	1.86	0.61	0.71	6.78	0.02	0.00	6.95
EU_25	0.14	0.17	0.39	0.01	0.01	0.43	9.57	11.92	26.31	0.61	0.68	29.06
RestofWorld	0.09	0.12	0.87	-0.01	-0.01	0.87	4.53	5.67	42.06	-0.53	-0.60	42.17

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VEPR Export by sector and country

- In all scenarios, Viet Nam's exports mainly decreases in a number of industries because of competition, such as processed food (ProcFood) from the US, electronics from China, means of transportation, machines,... (OthMnfc) from Japan,...
- In TPP scenarios, Viet Nam's exports mainly increase in industries that Viet Nam has comparative advantage such as Apparel and LSMnfc (mostly to the US market)
- In case AEC taking into effect, despite insignificant impact, even in industries that Viet Nam has comparative advantage may also see a contraction in exports. Only rice and a number of industrial products see a gain in exports.

VEPR Export by sector and country

Export Changes by Selected Country and Sector (scenario b, million USD)

	VietNam	Australia	Japan	Malaysia	Canada	US	Mexico	China	EU 25	RestofWorld
Rice	-209	601	17	32	1	6743	0	-18	3	-8
OthCrags	549	274	258	-17	666	1174	65	188	278	416
Cattle	-1	-39	1	0	36	-31	14	1	17	20
CAF	-12	-45	11	6	19	39	-6	-30	-67	-25
CMT	0	1703	6	0	268	982	34	-6	225	70
CMT	-32	-55	8	-7	3445	6283	322	-1284	-1545	-1747
RawMlk	0	0	0	0	0	-1	0	0	0	0
Dairy	-7	-8	17	30	1564	6303	1	-4	-641	-32
CMDC	-497	-720	-17	-84	-182	15	-41	23	112	1825
ProdFood	-1096	542	305	344	1940	4073	63	-631	-754	-815
Textiles	772	-11	214	323	-1	-52	-40	280	72	-183
Apparel	5227	10	47	1007	-1	201	-137	-750	-145	-952
LSMnfc	2931	-141	233	87	34	1382	-1	-2504	-393	-164
WoodProducts	-1371	-31	-75	300	455	-272	112	584	691	220
MProc	-2121	-479	4717	2052	1127	-1325	613	30	2991	705
ElecEquip	-1700	-37	-3412	-740	72	-1081	602	6999	1731	2166
OthMnfc	-2107	-121	16222	803	1531	-9385	1565	189	1241	517
OthServices	-985	-371	-1011	-389	17	-2052	-38	480	3325	1326

VEPR Export by sector and country

Export Changes by Selected Country and Sector (scenario e, million USD)

	VietNam	Australia	Japan	Malaysia	Singapore	Cambodia	Indonesia	Laos	Philippines	Thailand	China	Korea	India	EU 25	RestoWorld
Rice	674	3	1	22	0	-11	1	-1	6	204	1	0	62	17	1
OthCrops	-273	-56	2	58	1	82	297	49	800	31	-186	-2	-106	28	-288
Cattle	-1	3	0	0	0	-1	0	0	0	0	0	0	0	-1	0
OAP	-7	1	0	18	6	-1	7	0	0	2	3	0	1	2	2
CMT	0	16	0	4	0	-1	3	0	0	28	0	0	6	-2	1
OMT	-13	9	0	14	3	1	-3	0	-7	-82	18	0	0	49	32
RawMilk	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
Dairy	-4	22	0	20	3	0	2	0	9	2	2	0	1	14	5
CMOG	-109	151	3	-217	5	0	-324	24	-52	-20	29	1	12	53	1450
ProcFood	-180	-38	-14	1246	556	6	-260	7	47	620	-139	-42	-40	-54	-390
Textiles	-201	1	31	106	26	258	-109	1	-18	-106	79	-19	45	1	-45
Apparel	-343	1	0	27	79	-133	-159	-12	-83	-175	277	-4	44	59	102
LSMnfc	-346	7	0	35	69	107	-161	-1	-8	-54	249	-2	20	83	14
WoodProducts	-327	5	31	-10	241	2	-232	4	-54	-141	76	11	2	139	15
MProc	-15	-258	188	1742	-5054	39	6	39	-82	-427	-274	-263	-36	96	-1316
ElecEquip	-189	7	660	-1898	-2701	6	13	1	-1043	711	798	368	13	440	237
OthMnfc	175	-36	394	1151	1904	129	3170	39	1392	2861	-1141	-35	-167	-2663	-867
TransComm	-111	52	281	-261	-1331	9	-140	-6	-190	-966	394	48	54	792	415
OthServices	-285	65	247	-305	-2431	-39	-82	3	-205	-424	233	103	155	1075	400

VEPR Output

- Corresponding to the larger increases in sectoral export volume, Apparel, LSMnfc, and Textile expand its production. So is utility and construction (Util_Cons) under TPP scenarios.
- Notice that Util_Cons increases its output to support the large fixed capital formation for investment demand.
- Under AEC, rice output increase significantly to export to countries in the region.
- In all scenarios, output of a number of Viet Nam's industries that fail to compete in the global market tends to fall.

VEPR Output

	% change						change in million USD					
	a	b	c	d	e	f	a	b	c	d	e	f
Rice	-0.55	-0.68	-0.65	5.92	5.86	3.85	-110	-136	-131	1,184	1,173	770
OthCrops	-5.69	-6.04	-6.58	-3.50	-3.73	-8.31	-654	-694	-756	-402	-428	-955
Cattle	3.45	3.75	4.40	0.24	0.43	4.09	44	48	57	3	5	53
OAP	2.12	2.46	3.08	0.21	0.39	2.76	103	120	150	10	19	134
CMT	-2.27	-2.32	-2.34	-1.10	-1.15	-2.95	-2	-2	-2	-1	-1	-3
OMT	-22.67	-23.00	-23.48	-3.47	-3.76	-24.89	-179	-181	-185	-27	-30	-196
RawMilk	-6.81	-7.06	-7.04	-1.69	-1.81	-7.47	0	0	0	0	0	0
Dairy	-6.69	-6.87	-6.84	-1.61	-1.69	-7.22	-72	-74	-73	-17	-18	-77
Forestry	-16.07	-16.87	-18.25	-3.79	-4.41	-18.59	-467	-490	-531	-110	-128	-540
Fishing	-0.71	-0.65	-0.45	-0.29	-0.28	-0.54	-53	-49	-33	-22	-21	-40
CMOG	-4.97	-5.28	-5.83	-0.87	-1.05	-5.91	-802	-853	-941	-141	-169	-955
ProcFood	-6.87	-7.16	-7.56	-1.83	-2.05	-7.87	-1,503	-1,567	-1,654	-400	-449	-1,722
Textiles	12.28	11.83	10.68	-3.20	-3.69	8.48	1,373	1,322	1,194	-358	-413	948
Apparel	43.45	43.99	43.76	-2.60	-3.01	35.07	5,371	5,437	5,408	-322	-372	4,335
LSMnfc	28.13	27.46	27.22	-3.33	-3.86	23.54	3,608	3,522	3,491	-428	-495	3,019
WoodProducts	-17.99	-18.84	-20.41	-4.39	-5.13	-20.86	-1,777	-1,860	-2,016	-434	-507	-2,060
MProc	-8.74	-9.21	-10.33	-1.44	-1.75	-9.93	-3,250	-3,424	-3,839	-536	-652	-3,693
ElecEquip	-16.28	-16.25	-15.07	-1.81	-1.72	-14.93	-1,965	-1,962	-1,819	-219	-208	-1,801
OthMnfc	-13.36	-13.53	-14.08	-0.13	-0.27	-13.28	-3,016	-3,056	-3,180	-30	-61	-2,999
Util_Con	13.53	14.46	15.90	3.65	4.34	16.31	5,609	5,997	6,590	1,512	1,798	6,763
TransComm	2.59	2.81	3.16	0.58	0.74	3.17	775	842	946	173	223	950
OthServices	-1.64	-1.74	-1.76	-0.56	-0.57	-1.84	-555	-587	-592	-188	-193	-620

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VEPR Change in Demand for labour

- With assumption of fixed endowment, labor tends to move across industries corresponding to change in demand.
- Change in skilled labour is smaller than change in unskilled labour in all scenarios.
- Expanding sectors such as Textiles, Apparel and LSMnfc or Utility and Construction attract the most labour, especially when TPP coming into effect, both skilled and unskilled.
- Under AEC scenarios, rice sector may attract the most labour, mainly unskilled, due to a rise in exports to ASEAN.
- Meanwhile, a number of industries may not attract more labour such as processed food (ProcFood), chemicals and metals (Mproc).

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Source: Author's simulations

Change in Demand for labour

Change in Demand for Un-Skilled Labor in Viet Nam

	% change						change in million USD					
	a	b	c	d	e	f	a	b	c	d	e	f
Rice	-2.9	-3.2	-3.3	7.2	7.0	2.4	-85	-93	-96	211	206	70
OthCrops	-7.9	-8.4	-9.0	-3.8	-4.1	-10.5	-278	-294	-318	-132	-143	-371
Cattle	2.1	2.3	2.9	0.4	0.6	3.0	6	7	9	1	2	9
OAP	0.6	0.9	1.5	0.4	0.5	1.5	5	7	11	3	4	11
CMT	-1.5	-1.5	-1.4	-1.2	-1.2	-2.2	0	0	0	0	0	0
OMT	-22.2	-22.5	-22.9	-3.5	-3.8	-24.4	-18	-18	-19	-3	-3	-20
RawMilk	-9.1	-9.5	-9.5	-1.7	-1.9	-9.6	0	0	0	0	0	0
Dairy	-5.8	-6.0	-5.9	-1.7	-1.7	-6.5	-6	-6	-6	-2	-2	-7
Forestry	-17.0	-17.9	-19.3	-4.2	-4.8	-19.7	-180	-189	-204	-44	-51	-208
Fishing	-1.0	-0.9	-0.6	-0.5	-0.5	-0.8	-12	-11	-7	-6	-6	-9
CMOG	-7.0	-7.4	-8.2	-1.3	-1.6	-8.3	-82	-87	-96	-16	-19	-98
ProcFood	-6.0	-6.3	-6.6	-1.9	-2.1	-7.1	-106	-111	-117	-34	-37	-126
Textiles	13.4	13.0	12.0	-3.3	-3.7	9.5	103	100	92	-25	-29	73
Apparel	45.1	45.7	45.6	-2.7	-3.1	36.5	206	209	208	-12	-14	166
LSMnfc	29.4	28.7	28.6	-3.4	-3.9	24.6	218	214	212	-25	-29	183
WoodProducts	-17.1	-17.9	-19.4	-4.5	-5.2	-20.1	-120	-126	-137	-32	-37	-141
MProc	-7.8	-8.2	-9.3	-1.5	-1.8	-9.1	-261	-275	-310	-51	-60	-304
ElecEquip	-15.4	-15.3	-14.1	-1.9	-1.8	-14.1	-93	-92	-85	-11	-11	-85
OthMnfc	-12.5	-12.6	-13.1	-0.2	-0.3	-12.5	-254	-257	-267	-5	-6	-254
Util_Con	15.0	16.0	17.5	3.5	4.3	17.7	773	825	906	182	221	911
TransComm	3.9	4.2	4.6	0.5	0.7	4.3	191	205	227	22	33	214
OthServices	-0.2	-0.2	-0.1	-0.7	-0.6	-0.5	-6	-7	-4	-21	-19	-16

Change in Demand for labour

Change in Demand for Skilled Labor in Viet Nam

	% change						change in million USD					
	a	b	c	d	e	f	a	b	c	d	e	f
Rice	-3.6	-3.9	-4.1	7.2	7.0	1.6	-8	-9	-9	16	16	4
OthCrops	-8.3	-8.8	-9.5	-3.8	-4.1	-10.9	-7	-8	-8	-3	-4	-10
Cattle	1.7	1.9	2.4	0.4	0.5	2.6	0	0	0	0	0	0
OAP	0.2	0.5	1.0	0.4	0.5	1.1	0	0	0	0	0	0
CMT	-3.2	-3.3	-3.4	-1.2	-1.3	-3.9	0	0	0	0	0	0
OMT	-23.5	-23.9	-24.5	-3.5	-3.8	-25.7	-7	-7	-8	-1	-1	-8
RawMilk	-9.5	-9.8	-10.0	-1.7	-2.0	-10.0	0	0	0	0	0	0
Dairy	-7.5	-7.7	-7.8	-1.7	-1.8	-8.1	-3	-3	-3	-1	-1	-3
Forestry	-17.3	-18.1	-19.6	-4.2	-4.8	-19.9	-5	-5	-5	-1	-1	-5
Fishing	-1.3	-1.3	-0.9	-0.5	-0.5	-1.1	0	0	0	0	0	0
CMOG	-7.3	-7.7	-8.5	-1.3	-1.6	-8.6	-37	-39	-43	-7	-8	-44
ProcFood	-7.7	-8.0	-8.5	-1.9	-2.2	-8.7	-52	-55	-58	-13	-15	-60
Textiles	11.2	10.7	9.4	-3.3	-3.8	7.3	33	32	28	-10	-11	22
Apparel	42.3	42.7	42.3	-2.7	-3.2	33.8	74	75	75	-5	-6	60
LSMnfc	27.0	26.3	25.9	-3.4	-4.0	22.4	77	75	74	-10	-11	64
WoodProducts	-18.7	-19.6	-21.2	-4.5	-5.3	-21.6	-51	-53	-58	-12	-14	-59
MProc	-9.6	-10.1	-11.3	-1.5	-1.9	-10.9	-124	-131	-146	-20	-24	-140
ElecEquip	-17.1	-17.1	-16.0	-1.9	-1.9	-15.8	-40	-40	-37	-4	-4	-37
OthMnfc	-14.2	-14.4	-15.1	-0.2	-0.4	-14.2	-112	-113	-118	-2	-3	-112
Util_Con	12.5	13.4	14.7	3.5	4.2	15.1	391	418	458	111	130	473
TransComm	1.2	1.4	1.6	0.5	0.5	1.7	16	18	21	6	7	22
OthServices	-2.1	-2.3	-2.4	-0.7	-0.7	-2.5	-146	-155	-161	-45	-49	-167

VEPR Change in Welfare

- Economic welfare in GTAP model is based on regional household income
- Similar to GDP, most of TPP and/or AEC members show an improvement in economic welfare.
- Non-members of both blocs, especially China, may see a slight decline in welfare.
- In the most optimistic scenario (f), as TPP and AEC bring benefits for non-members through reducing trade barriers, welfare of all countries increases substantially.

Source: Author's simulations

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VEPR Decline in tax revenue

- State budget revenue will decline by almost 1.9 billion USD (roughly 1.4% of GDP in 2011)
- Most of this reduction comes from the loss of tariff revenue in MProc (mainly petroleum, chemicals, metals), in OthMnfc (mainly vehicles, machineries) and ProcFood
- The reduction of tax revenue from livestock sector is insignificant, because trade of Viet Nam to other TPP, AEC accounted for a small share in total trade.

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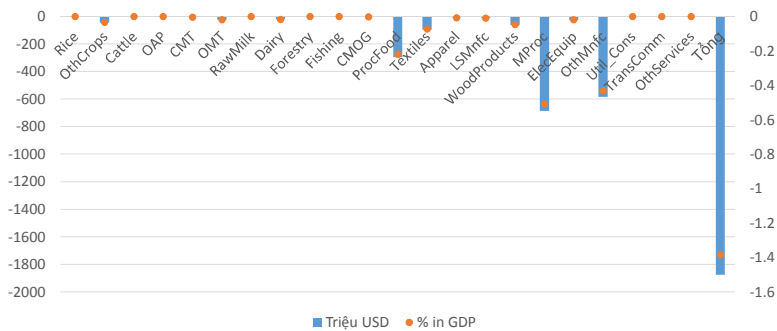
VEPR Change in Welfare

Simulation Result on Economic Welfare (% change, billion USD)

	% change						change in billion USD					
	a	b	c	d	e	f	a	b	c	d	e	f
Viet Nam	4.96	5.45	6.55	0.96	1.25	6.56	5.61	6.17	7.42	1.08	1.42	7.43
Australia	0.14	0.19	0.28	-0.01	-0.01	0.28	1.64	2.30	3.33	-0.11	-0.13	3.36
NewZealand	0.58	0.66	0.71	-0.01	-0.02	0.74	0.85	0.97	1.03	-0.02	-0.02	1.08
Japan	0.34	0.38	0.44	-0.03	-0.03	0.55	16.73	18.78	21.35	-1.39	-1.59	26.76
Brunei	0.75	0.73	0.67	0.58	0.56	0.69	0.11	0.11	0.10	0.09	0.08	0.10
Malaysia	0.21	0.43	0.69	0.17	0.29	0.78	0.52	1.05	1.69	0.42	0.72	1.91
Singapore	0.24	0.41	0.59	1.18	1.39	1.09	0.54	0.94	1.34	2.69	3.16	2.48
Canada	0.14	0.28	0.34	0.00	0.00	0.36	2.21	4.39	5.33	0.00	0.00	5.71
US	0.04	0.07	0.08	-0.01	-0.01	0.06	6.01	10.14	11.31	-1.21	-1.40	8.18
Mexico	-0.04	0.11	0.17	0.00	0.00	0.19	-0.38	1.19	1.79	0.02	0.02	1.94
Chile	0.12	0.24	0.34	0.00	0.00	0.35	0.27	0.52	0.74	0.01	0.01	0.78
Peru	-0.02	0.13	0.39	0.00	0.00	0.40	-0.03	0.19	0.57	0.01	0.01	0.57
Cambodia	-1.04	-1.07	0.01	-0.82	-0.32	4.98	-0.12	-0.12	0.00	-0.10	-0.04	0.58
Indonesia	-0.09	-0.10	0.17	0.09	0.15	0.47	-0.63	-0.75	1.25	0.65	1.13	3.47
Laos	-0.11	-0.13	0.66	-0.13	0.52	0.45	-0.01	-0.01	0.05	-0.01	0.04	0.03
Philippines	-0.13	-0.15	0.22	0.39	0.47	0.77	-0.25	-0.28	0.43	0.75	0.91	1.48
Thailand	-0.43	-0.48	0.40	0.25	0.42	1.59	-1.27	-1.40	1.17	0.73	1.24	4.64
RoSEAsia	-0.07	-0.08	0.00	-0.06	-0.03	0.12	-0.03	-0.04	0.00	-0.03	-0.02	0.06
China	-0.09	-0.11	0.10	-0.02	-0.02	0.02	-6.11	-7.26	6.21	-1.10	-1.30	1.41
Korea	-0.12	-0.15	0.20	-0.04	-0.05	0.12	-1.19	-1.50	2.04	-0.45	-0.53	1.25
India	-0.05	-0.06	0.49	-0.02	-0.03	0.44	-0.86	-1.03	8.30	-0.42	-0.49	7.43
EU_25	-0.03	-0.04	0.19	-0.01	-0.01	0.18	-4.85	-6.25	29.26	-1.41	-1.63	26.87
RestofWor	-0.03	-0.04	0.34	0.00	0.00	0.33	-3.58	-4.96	44.81	0.26	0.20	43.43

VEPR Tax revenue reduction

- In case of TPP and AEC in effect, budget revenue may reduce by 1.9 billion USD, most of which comes from tariff revenue reduction (1.87 billion USD)
- Most of this reduction comes from the loss of tariff revenue in MProc (mainly petroleum, chemicals, metals and their products), in OthMnfc (mainly vehicles, machineries and other manufacturing industries) and ProcFood (vegetable oil and fat, sugar, beverages and cigarettes).



THE IMPACTS OF TPP AND AEC TO THE VIETNAMESE ECONOMY: THE LIVESTOCK SECTOR

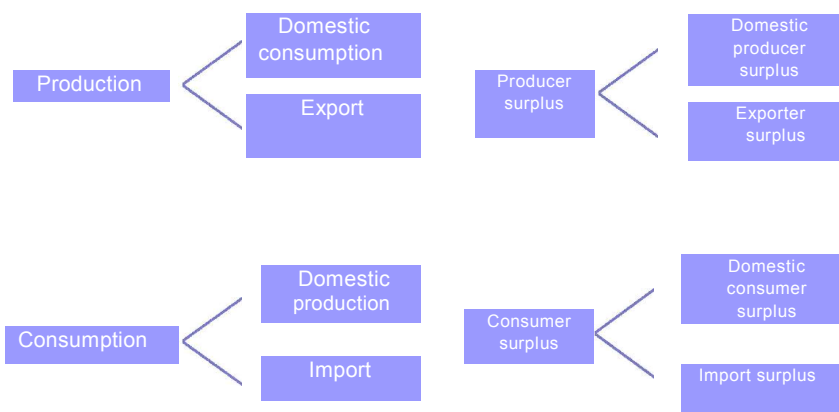
- The GSIM model developed by Francois and Hall (2003) is a partial equilibrium model developed for trade policy and analysis at industry level.
- It assesses changes in in welfare, prices, output and trade flows as a result of tariff removal and/or reduction of production/export subsidies.

VEPR GSIM Model

- The GSIM inputs required
 - A bilateral trade matrix at base year world prices (including data for trade with self if available)
 - An initial and final matrix of bilateral import tariffs
 - Export supply elasticities, aggregate import demand elasticities and elasticities of substitution
- Model outputs:
 - Welfare: Producer and consumer surplus, Tariff revenue, Net welfare
 - Other results: Change in output, Change in trade flows, Change in prices (consumer, producer and market)

VEPR Mô hình GSIM

GSIM: distribution of production and consumption



VEPR GSIM Model: database

■ Livestock sub-sectors

No	Sub-sectors	HS-6 Code*
1	Live bovine	010210, 010290
2	Live swine	010310
3	Live poultry	010511
4	Bovine meat**	020110, 020120, 020130, 020210, 020220, 020230
5	Swine meat**	020319, 020322, 020329, 021019
6	Poultry meat**	020712, 020725
7	Raw milk	040110, 040120, 040130
8	Milk powder	040210, 040221
9	Other dairy products	040291, 040299, 040310, 040391, 040410, 040490, 040510, 040520, 040590, 040610, 040620, 040630, 040690, 170211, 170219, 210610, 3501

* Only commodities which Viet Nam has trade with other TPP countries

** sub-sectors with data on self-trade (self-production over consumption)

VEPR GSIM Model: database

■ Reference year: 2013

■ Data and sources

Data	Unit	Source	Notes
Bilateral trade matrix	USD million	UN COMTRADE	
Domestic absorption	USD million	Estimated from UN COMTRADE and FAS*	Data available only for subsectors 2, 3, 4, 6
Tariff rate	%	ITC (MAcMap)	
Ad-Valorem Equivalents of Non-Tariff Measures	%	Looi Kee, Nicita, & Olarreaga (2009)	
Elasticity of substitution			The value 7.5 was adopted for all countries.
Import demand elasticity		Looi Kee, Nicita, & Olarreaga (2004), Francois and Hall (2003)	The default value of GSIM (Francois and Hall, 2003) equal to -1.25 for missing data
Elasticity of export supply		Francois and Hall (2003)	The default value of GSIM (Francois and Hall, 2003) equal to 1.5 for all countries

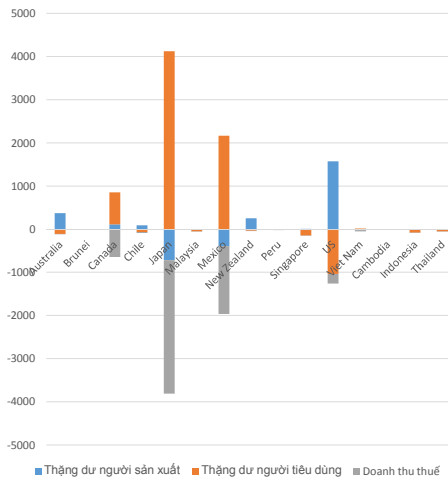
* Foreign Agricultural Service (US Department of Agriculture): Production, Supply and Distribution

VEPR Results of GSIM model

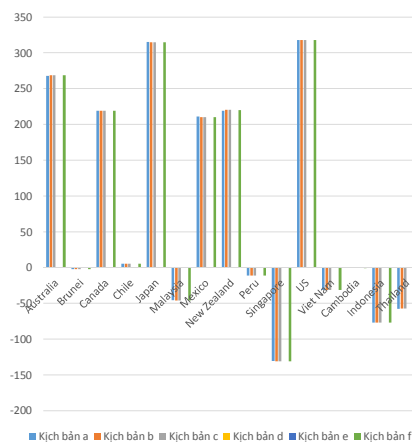
- Impact on welfare
- Change in trade flows
- Change in price
- Change in output

VEPR Impacts on Welfare of livestock sector

Decomposition of welfare of livestock sector by country and by component, mil. USD, scenario b



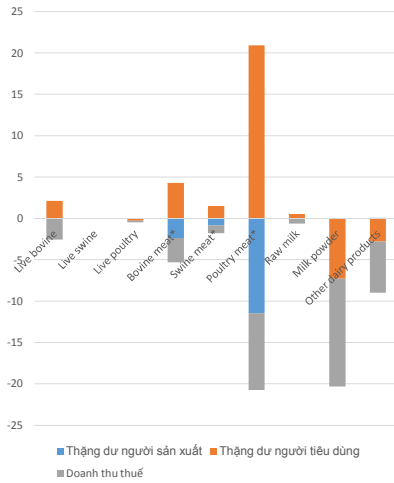
Change in welfare of livestock sector by country and by scenario, mil. USD



Source: authors' calculations

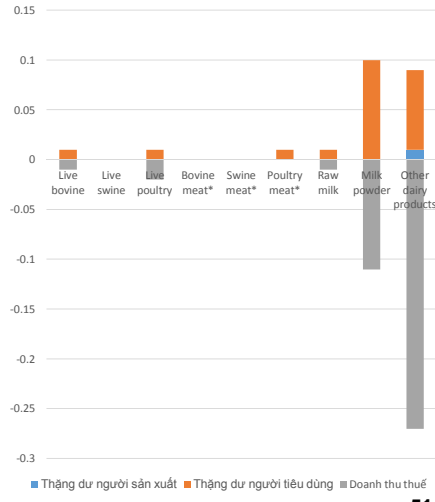
Impacts on Welfare of livestock sector

Decomposition of Viet Nam's welfare of livestock sector by component, mil. USD, scenario b



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Decomposition of Viet Nam's welfare of livestock sector by component, mil. USD, scenario e

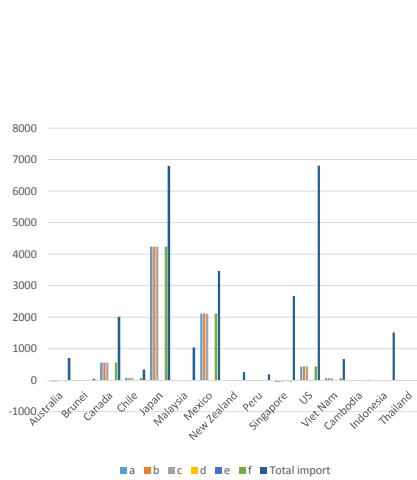


Source: authors' calculations

Change in trade flows

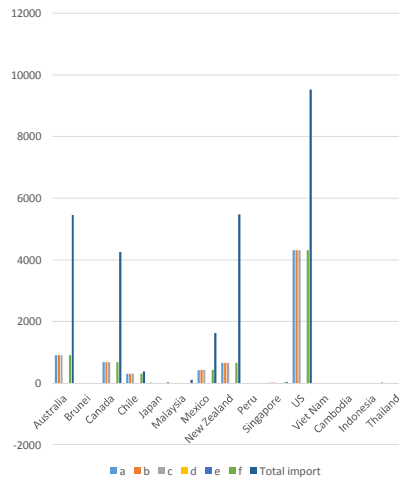
Change in total value of imports and exports of livestock by country, mil.USD

Import



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Export



Source: authors' calculations

Change in trade flows

Change in Viet Nam's import by countries and by sector, mil. USD, scenario b

	Live bovine	Live swine	Live poultry	Bovine meat*	Swine meat*	Poultry meat*	Raw milk	Milk powder	Others	Total
Australia	4.35	0	0.03	1.08	0.00	0.03	0.21	1.40	0.48	7.58
Brunei	0	0	0	0	0	0	0	0	0	0.00
Canada	0	0.00	0	0.01	1.98	0.08	0	0.31	-0.35	2.04
Chile	0	0	0	0	0	0	0	0	0	0.00
Japan	0	0	0	0	0	0.01	0	0.00	0.00	0.01
Malaysia	0	0	0.16	0	0.00	0.01	0	0.39	0.05	0.62
Mexico	0	0	0	0.05	0	0	0	0	1.60	1.65
New Zealand	-0.25	0	0.03	0.19	0	0	0.55	17.99	17.68	36.19
Peru	0	0	0	0	0	0	0	0	0	0.00
Singapore	0	0	0	0	0	0	0.00	0.12	-0.66	-0.54
US	0	0.00	-0.17	7.64	1.28	36.14	0.00	-9.97	-15.89	19.03
Viet Nam	0	0	0	-6.06	-2.25	-28.67	0	0	0	-36.98
Cambodia	0	0	0	0	0	0	0	0	0	0.00
Indonesia	0	0	0	0	0	0	0.00	0.00	-0.04	-0.04
Thailand	-1.12	0.00	0	0	0	0.00	-0.03	0	-0.06	-1.21
Total*	2.98	0.00	0.05	8.97	3.26	36.27	0.72	10.24	2.83	

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Source: authors' calculations

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Change in prices

- Producer price
 - Decline in meat group, due to competition
 - Increase in dairy group (change in trade flow)
- Consumer price
 - Decline in most groups
 - Increase in milk powder and other dairy products

Scenario	Change in Overall Consumer Prices						Change in Producer Price for Home Good					
	a	b	c	d	e	f	a	b	c	d	e	f
Live bovine	-2.3	-2.35	-2.36	0	-0.01	-2.36	0	0	0	0	0	0
Live swine	0.11	0.07	0.05	0	-0.02	0.05	0	0	0	0	0	0
Live poultry	6.92	6.92	6.92	-0.26	-0.26	6.92	0	0	0	0	0	0
Bovine meat*	-0.44	-0.45	-0.45	0	0	-0.45	-0.25	-0.26	-0.26	0	0	-0.26
Swine meat*	-0.06	-0.06	-0.06	0	0	-0.06	-0.03	-0.03	-0.03	0	0	-0.03
Poultry meat*	-1.35	-1.36	-1.36	0	0	-1.36	-0.78	-0.78	-0.78	0	0	-0.78
Raw milk	-5.23	-5.28	-5.29	-0.13	-0.13	-5.39	1.15	1.18	1.18	0.14	0.18	1.18
Milk powder	2.03	1.96	1.96	-0.03	-0.03	1.96	1.42	1.44	1.44	0.02	0.06	1.44
Other dairy products	1.89	1.84	1.84	-0.05	-0.06	1.82	2.63	2.64	2.64	0.3	0.33	2.66

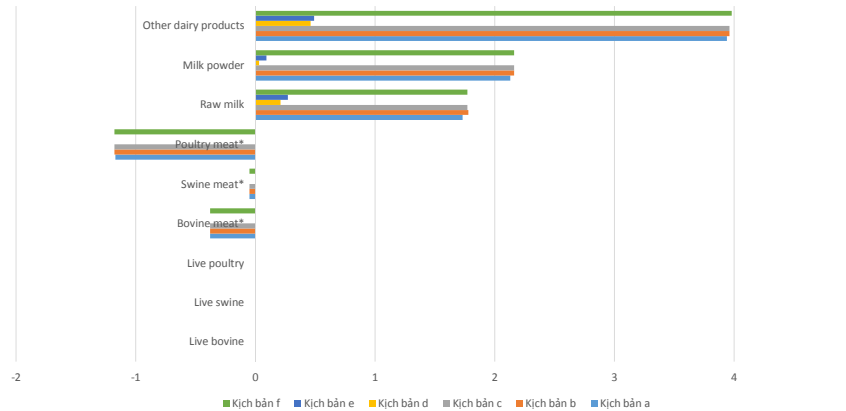
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Source: authors' calculations

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VEPR Change in Output

Change in Viet Nam's livestock output by scenario, %



VEPR V. Conclusion and policy discussion

On the whole economy

- Viet Nam will experience the largest increase in real GDP and welfare in percentage term, thanks mainly to the rise in investment and consumption
- Investment increase of Viet Nam is the most remarkable among TPP/AEC signatories
- Structure of the economy
 - Contraction of less-advantaged or declining sectors (ex. Swine meat, poultry, dairy, forestry, wood products, coal & mining, other mnfc.)
 - Expansion of advantaged sectors and less-trade sectors (Apparel, Textiles, Leather/Footwear, Utility services)
 - Obvious movement of primary factors from contracting sectors to expanding ones
- Trade: trade with TPP partners increases. With non-TPP countries: Viet Nam's imports surge while export decrease slightly. As a result, total exports fall slightly.

- **On Livestock sector:**

- Characteristics: small-scale, dependent on imports, diseases, environmental problems and low sanitary/phytosanitary standards, weak linkages => low productivity, low competitiveness, disadvantage in trade
- Both models show that impacts on livestock sector are mainly in the case of TPP, while impacts of AEC is insignificant.
- Domestic production tends to narrow down due to the competition from TPP partners, especially in meat sectors
- Consumers/Importers will gain, while producer/exporters will lose due to the incompetitiveness with imported products.
- Flows of trade change corresponding to the extent of tariff removal: Vietnam will shift away from US' milk powder and dairy to New Zealand's products; shift towards importing Australia's live bovine and US' meat

- **On macroeconomy**

- Institutional reforms go along with liberalization of primary factor such as labour, capital, land.
- Consider policies compensating for the loss in tax revenue, avoiding instabilizing the macroeconomy
- Restructure the economy: allocate primary factors for expanding sectors and improve efficiency of others
- Improve the non-trade issues such as labour rights, IP right,..
- Support research, training and applying the suitable technical barriers, together with support Vietnamese exporters to satisfy the technical barriers of destination partners.
- Reform the administration, investment policies; develop the supporting industries to make the best use of investment brought by TPP/AEC

VEPR Policy discussion

➤ On Livestock Sector

■ On the broad sector

- Materialize and push the implementation of Restructuring planes, action plans, decree 210/2013/NĐ-CP. Tax and fee structure for livestock products also need to be restructured, especially to encourage high-tech farms, modern collectives or large scale farms with closed linkages to households and distributors
- Restructuring schemes and action plans give priority to subsectors that are and will not face fierce competition from abroad due to: consumption habit (prefer warm meat), natural trade barriers (fresh milk, eggs) or Vietnamese specialty products such as certain kinds of chickens
- Temporary measures (e.g. tariff removal schedule, NTBs, etc.) should not be sustained for more than a few years.

VEPR Policy discussion

■ On primary factors: land, labor, capital

- Liberalization of markets for labour, capital and land encourage the movement and accessibility of these primary factors
- Decrease the land for planting rice to 3 mil.ha, increasing the land for planting livestock feed ingredients in suitable areas.

■ Supply chains

- Linkages helps reduce the intermediary costs, stabilize the input and output markets, take advantage of the economy of scale, cut environment pollution thanks to the concentration of waste for processing and recycling to produce feeds, fertilizer, and even electricity if having sufficient technology.
- There are policies on horizontal and vertical linkages, but still weak and fragmented by many intermediaries. Especially difficult for firms with large-scale/intensive farms to maintain stable sale

VEPR Policy discussion

■ *On large scale production*

- Already supported enterprises investing on large-scale production, but still difficult to access, with complicated, unclear and time-consuming procedure of administration.
- Enterprises do not have much incentives to invest due to the lack of competitiveness of output products (because of the tax and fee, distribution channel, consumption habit,..)

VEPR Policy discussion

■ *On market*

- Solution on market developing of enterprise need to incorporate with national schemes to stimulate the domestic product consumption, especially the high quality and safe products.
- The lack of transparency is also the obstacle for enterprises
- Propose the required standards on products traceability for livestock products, allowing to trace the ingredients, production date and regions, breed sources,... throughout all stages of supply chain, from production to distribution & retails

Thanks for your attention!

Q&A

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