Estimating the Economic Effects of the potential Trans-Pacific Partnership (TPP) Agreement on Vietnam Economy

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Abstract

Some of ASEAN are experiencing a rapid proliferation of free trade agreements (FTAs) and regional trade arrangements (RTAs). These FTAs have been creating a potential "noodle bowl" situation. Therefore, FTAs must be modelled to reduce "noodle bowl" effects. Conducting solid economic studies of FTA or RTA impact assessment is particularly important for ASEAN countries because it is not only to adjust the policies of each country but also to contribute the formation of the ASEAN Economic community (AEC) by 2015. However, understanding and discover the appropriated models of an impact assessment is not easy. Developed countries usually use Computable General Equilibrium (CGE) models or partial equilibrium models to estimate the economic effect of a FTA. These models assume a stable market economy and prices are set by the equilibrium between supply and demand. However, the some ASEAN countries are still in transition to market economy. CGE or partial equilibrium models are not suitable for such economies. In addition, it is difficult to find enough data for constructing CGE or partial equilibrium models from ASEAN countries because these models are sensitive to missing or incorrect data. The research uses a new approach by combing the static Input-Output, Johansen models and trade indicators for estimating the economic effects of TPP on the Vietnamese economy in the next 10 years. The calculation of industry multipliers of each scenario provides impact assessments.

Introduction

- It is not an exaggeration to say that policy making in connection with free trade agreements (FTAs) should start and end with impact assessment (ADB, 2008).
- There are two ways, one ex-ante (before agreement) and one ex-post (after agreement) to estimate the economic effects of an FTA (Baier, 2008).
- There are many methods to estimating ex-ante economic effects such as GTAP and the Michigan model.

These existing models have not identified "noodle bowl" effects in FTAs; assuming a stable market economy and prices are set by the equilibrium between supply and demand is not suitable for some ASEAN countries; finding enough data for constructing CGE or partial equilibrium models from some ASEAN countries is difficult.
Introduction (cont.)

- Our a new economic model is based on Input-Output Models, which were first developed by Walras Leontief in the late 1930s.
- This involves classifying the effects of international linkages such as direct, indirect and feedback effects.
- Our model will be multi-market, with markets for final goods, intermediate goods, traded goods, and factors of production.
- The model analyses these markets in detail to estimate the effects of trading bloc linkages.
- The model contains particular production and utility functions rather than described according to a standard neo-classical approach.
- Our model combines RAS and In-depth Delphi Interview technique.

Introduction (cont.)

- The paper provides valuable data and advice to government leaders on how to improve growth in the Vietnamese economy and the scenarios for the Vietnamese economy to gain maximize possible benefits from its economic relationship with the members of the potential TPP, particularly Australia and New Zealand. Through the scenarios established, the paper also makes recommendations to Vietnam’s government and entrepreneurs in implementing and maximizing the benefits from the potential TPP.
Contents

Part I.  TPP Parties and background

Part II. The compilation process of the Extended Input-Output Table

Part III. The examination of key products

Part IV. Scenarios - Combining the Extended Input-Output Model, RAS and the Delphi method
Problem statement

- The Trans-Pacific Partnership (TPP)
- The Compilation of the Extended I-O Table
- The scenarios for estimating of economic effects of TPP on the textile & apparel, footwear and furniture industries in the Vietnamese economy

- Viet Nam has signed and in effect 8 FTAs; just signed 1 FTA; launched negotiation 6 FTAs; under consultation and study 4 FTAs.
- These FTAs must be modelled to maximize the governments’ efforts and the entrepreneurs can identify the opportunities and challenges.
- The need of the ASEAN Economic Community by 2015 (AEC) and the Trans-Pacific Partnership (TPP) also require Viet Nam using economic models to identify interdependence of economic sectors in the ASEAN and TPP trading bloc as a whole.
- Determining the appropriate model for an impact assessment is not easy.
- Developed countries usually use Computable General Equilibrium (CGE) models or partial equilibrium models to estimate the economic effect of a free trade agreement. These models assume a stable market economy with prices set by the equilibrium between supply and demand. However, Viet Nam and the majority of ASEAN countries are still in transition to market economy. CGE model or partial model are not suitable for such economies. In addition, it is difficult to find enough data for constructing CGE model from Vietnam and ASEAN countries because these models are sensitive to missing or incorrect data.
- Japan has used an international Input-Output model to analyse industrial linkages which spread beyond national borders. However, this model is expensive in money and time. It is not appropriate model for Vietnam.
- My research explored the appropriate model for Vietnam as well as some ASEAN countries, namely the Extended Input-Output model.
- My presentation is the quantitative assessment of economic effects of the AEC and TPP for textile & apparel, footwear and furniture industries on Vietnamese economy.
Part I

TPP - Parties and background
Members of AFTA, TPP, RCEP & FTAAP

AFTA

Cambodia
Indonesia
Laos
Myanmar
Philippines
Thailand

RCEP

China
Korea

TPP

Australia
Japan
New Zealand
Canada
Chile
Mexico
Peru
United States

FTAAP

Russia
Taiwan

• Association of Southeast Asian Nations (ASEAN)  The first economic cooperation scheme was the ASEAN Preferential Trading Arrangement in 1977; the ASEAN Free Trade Area (AFTA) in 1992 further increased economic integration between the members of ASEAN. Since then, the members of ASEAN have committed themselves to create a single market by 2015, to be called the ASEAN Economic Community (AEC).

• Regional Comprehensive Economic Partnership (RCEP): It aims to broaden and deepen ASEAN +1 pacts (Australia, China, India, Japan, Korea, New Zealand) with the other 6 by end of 2015.

• The creation of Free Trade Agreement Asia-Pacific (FTAAP) by 2020 is goal of Asia-Pacific Economic Cooperation (APEC). In 1994, the Bogor Goals which firmed APEC goal towards FTAAP was adopted.

• After 19 years since FTAAP was announced in 1994, the progress towards FTAAP is still very slow. In the APEC trade minister’s meeting in China 2014, China want to use a November international summit to start to put in place a new free trade zone among Asia-Pacific rim countries. China is looking for an endorsement of the new trade Zone, known as the FTAAP, by 2025 and for backing for a “feasibility study”.

TPP - Parties and background
TPP - Parties and background

- Trans-Pacific Partnership (TPP): TPP aims to strengthen and tie Asia and Americas. It was originally called Trans-Pacific Strategic Economic Partnership Agreement (TPSEP), a FRA agreement between Brunei, Chile, New Zealand and Singapore in 2005. Since 2010, the membership was expanded and given new name TPP. Since then, has been regarded as an initiative predominantly pushed and led by the US. TPP is a massive “free trade” agreement currently being negotiated behind closed doors by officials from 12 countries. The Obama administration plans to sign TPP by end of 2014.

- Together with the proposed Transatlantic Trade and Investment Partnership (TTIP), the proposed Trans-Pacific Partnership (TPP) agreement is the most significant negotiation for the U.S since the North American Free Trade Agreement (NAFTA).

- TPP creates a trade bloc of substance and don’t include China.

- The baseline: the U.S existing trade and investment agreements such as NAFTA, U.S and Korea

- Job creation is one of the pact’s main goals and must be through TPP value chain.

- Apply “yarn-forward” style rules of origin to ensure that the third parities such as China do not take advantage of the agreement.
Part II
The compilation process of the Extended Input-Output Table
The compilation process of the Extended Input-Output Table

- Compiling the Extended Input-Output Table (Extended I-O Table) is starting point for estimating the potential economic effects of a free trade agreement.
- There are four steps to compile the Extended Input-Output Table.
- In the first Step of our construction process, we collected the data of Viet Nam’s Input-Output Table in 2007 (2007 Vietnam I-O Table) for 138 industrial sectors from General Statistics Office (GSO). This is an agency of the Ministry of Planning and Investment that functions to advise and assist the management of the nation’s statistic as well as to organize and provide economic and social statistic for different agency, organization, individuals in terms of domestic and international, subject to the Vietnam’s legislation (GSO, 2015).
- In the second step, we collected data from international trade statistics to construct import matrices. Basically, we have converted from Harmonized System (HS) to Central Product Classification (CPC). Harmonized System is a standard system of numbers for categorizing traded products. It is developed and maintain by the World Customs organization (WCO) (WCO, 2015). Regarding to Central Product Classification (CPC), this is standard system of names and numbers for classifying products and services. This system is developed and maintain by the United Nation Statistical Commission (UNSD, 2015).
- In the third step, we have constructed export vectors of considering country to member countries and the rest of the world.
- The last step was to link and balance the table.
The compilation process of the Extended Input-Output Table

The Conversion HS-CPC-VN code table

1. Collecting data
2. Create correspondent between HS and CPC
3. Construct correspondent table between HS code and VN code

The compilation process of the Extended Input-Output Table

The Conversion import-export data by VN code

1. Process import-export data using HS code
2. Convert HS code and construct import-export table according to the VN code
The extended input-output table

Determine total import value used for production and final consumption

Determine import matrix of each block that used it for production

Determine matrix for import for each block that use it for final consumption

Construct Extended I-O Table

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
<th>J</th>
<th>K</th>
<th>L</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Correspondence table for product codes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Code</td>
<td>Label</td>
<td>Code</td>
<td>Label</td>
<td>HS2002</td>
<td>HS2007</td>
<td>CPC compatible with ISIC</td>
<td>ISIC</td>
<td>VN</td>
<td></td>
<td></td>
</tr>
<tr>
<td>---</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>'010110</td>
<td>Pure-bred breeding horses and asses</td>
<td>'010110</td>
<td>Pure-bred breeding horses and asses</td>
<td>010110</td>
<td>010110</td>
<td>02113</td>
<td>02113</td>
<td>0121</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
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<td>'010110</td>
<td>Pure-bred breeding horses and asses</td>
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<td>Horses, live pure-bred breeding</td>
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<td>010110</td>
<td>#N/A</td>
<td>02113</td>
<td>02113</td>
<td>0121</td>
<td>8</td>
</tr>
<tr>
<td>6</td>
<td>'010110</td>
<td>Pure-bred breeding horses and asses</td>
<td>'010120</td>
<td>Asses, mules and hinnies, live</td>
<td>010120</td>
<td>010110</td>
<td>#N/A</td>
<td>02113</td>
<td>02113</td>
<td>0121</td>
<td>8</td>
</tr>
<tr>
<td>7</td>
<td>'010110</td>
<td>Pure-bred breeding horses and asses</td>
<td>'010121</td>
<td>Live horses ; Pure-bred breeding animals</td>
<td>010121</td>
<td>010110</td>
<td>#N/A</td>
<td>02113</td>
<td>02113</td>
<td>0121</td>
<td>8</td>
</tr>
<tr>
<td>8</td>
<td>'010110</td>
<td>Pure-bred breeding horses and asses</td>
<td>'010130</td>
<td>Live Asses</td>
<td>010130</td>
<td>010110</td>
<td>#N/A</td>
<td>02113</td>
<td>02113</td>
<td>0121</td>
<td>8</td>
</tr>
<tr>
<td>9</td>
<td>'010190</td>
<td>Live horses, asses, mules and hinnies (excl. pure-bred for breeding)</td>
<td>'010119</td>
<td>Horses, live except pure-bred breeding</td>
<td>010119</td>
<td>010190</td>
<td>#N/A</td>
<td>02113</td>
<td>02113</td>
<td>0121</td>
<td>8</td>
</tr>
<tr>
<td>10</td>
<td>'010190</td>
<td>Live horses, asses, mules and hinnies (excl. pure-bred for breeding)</td>
<td>'010120</td>
<td>Asses, mules and hinnies, live</td>
<td>010120</td>
<td>010190</td>
<td>#N/A</td>
<td>02113</td>
<td>02113</td>
<td>0121</td>
<td>8</td>
</tr>
</tbody>
</table>
Firstly, an national input-output table is represented, with closed economy, by four quadrants:

- **firms can be grouped into n number of (industrial) sectors (I, \( \mathcal{I} \) is sectors)**
- **Quadrant 1 is a square matrix \(( \mathcal{F} \_i \_j )\). \( \mathcal{F} \_i \_j \) is value of goods and services produced by sector \( i \) and used by sector \( j \)**
- **Quadrant 1 defines the two-way links between sectors. One-way links followed by rows and other-way links followed by column in this matrix. So, if looking across each row. It shows that the good and services that were produced and sold to other sectors. If looking down each column. It shows that all the goods and services that were input or purchased from other sectors in the economy.**
- **For example, automobile factory produced and sell trucks for transit company (looking across row) and if looking down column, automobile factory input (purchased) the steel from steel factory.**
- **Quadrant 2 is final use vector \(( \mathcal{Y} \_i )\). \( \mathcal{Y} \_i \) is a value of goods or services produced and sell by sector \( i \) for household \(( \mathcal{C} \_i )\), government \(( \mathcal{G} \_i )\) and investments \(( \mathcal{I} \_i )\) by other sectors. For example, automobile factory sell individual car for household consumption.**
- **Quadrant 3 is primary input (value added) \(( \mathcal{V} \_j \_i )\). \( \mathcal{V} \_j \_i \) is the value generated by sector \( i \) to pay salary for workers, capital use, tax and operating surplus in the process of production. For example automobile pay salary for its workers.**
- **The main balances in a national Input Output table: (1) total output for an industry \(( \mathcal{X} \_i )\) can be found by adding its intermediate use \(( \mathcal{F} \_i \_j )\) and for final use \(( \mathcal{Y} \_i )\), (that is, across quadrants 1 and 2). (2) Total input of that industry \(( \mathcal{X} \_j \_i )\) can also be found by adding its intermediate input \(( \mathcal{F} \_j \_i )\) and primary inputs \(( \mathcal{V} \_j \_i )\) (that is, down quadrants 1 and 3). (3) Total input equals total output; (4) total Final use (quadrant 2) equals total primary input (quadrant 3); (5) total intermediate use equals total intermediate input.**
- **Secondly, if the firms implement imported and exported behaviors (open economy), Quadrant 3 (final use vector) will be plus exports and less imports.**
**Extended Input-Output table**

<table>
<thead>
<tr>
<th></th>
<th>Intermediate use</th>
<th>Final use</th>
<th>Total use of domestic output</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Country A</strong></td>
<td>Intermediate use of domestic output (F_{ij}^d)</td>
<td>Domestic final use of domestic (E_{ij}^d)</td>
<td>Total use of domestic output (X_{ij}^d)</td>
</tr>
<tr>
<td><strong>Member countries from trading bloc</strong></td>
<td>Intermediate use of imports (F_{ij}^m)</td>
<td>Domestic final use of imports</td>
<td>Re-Exports</td>
</tr>
<tr>
<td><strong>Rest of World</strong></td>
<td>Intermediate use of imports (F_{ij}^m)</td>
<td>Domestic final use of imports</td>
<td>Re-Exports</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>Total input</td>
<td></td>
<td>(X)</td>
</tr>
</tbody>
</table>

**Extended Input-Output table**

- The extended Input-output is of product by product type.
- The fundamental different between Chenery-Moses table and Isard table is that the interregional trade flow in Chenery and Moses table is only specified by region of origin and region of destination, thus it has ignored the relationship between industry and industry while Isard table are specified by this relationship.
- The fundamental different between extended Input–Output table and Chenery-Moses table is that extended Input–Output table is a single-region table while Chenery-Moses table is a many-region table.
- My model is “half-way” between Isard (which requires too much data – eg Japanese research) and C-M (which doesn’t use all available data).
- The fundamental difference between national table and extended Input-Output table is that the intermediate input matrix is broken down according to their origin. Each intermediate input may be by a domestic product or by ASEAN countries or by an import from Australia or New Zealand or the rest of the world. In contract to the national I-O table, this information is made explicit in the extended I-O table.
- An important accounting identity is that total input is equal total use.
- The factors of production is estimated by the Johansen model.
The Extended Input-Output Table for Vietnam
Part III
The examination of key sectors
The examination of key sectors

TPP and Viet Nam: complement or compete?

- Revealed symmetric comparative advantage index
- Intra-industry trade index
- Trade specialization index
- Bilateral trade intensity index
- Trade complementarity index

The steps of the calculation

1. Calculate average data import - export 2007-2013
2. Synthesis and converter from the HS code to VN code
3. Calculate the proportion of each product in total
4. Identify of trade indicators
## Revealed symmetric comparative advantage index (all products)

<table>
<thead>
<tr>
<th>HS code</th>
<th>Animal &amp; Animal Products</th>
<th>RSCA of Vietnam, relative to TPP</th>
<th>Global</th>
<th>RSCA of TPP, relative to Vietnam</th>
<th>Global</th>
</tr>
</thead>
<tbody>
<tr>
<td>01-05</td>
<td>0.5</td>
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<td>(0.5)</td>
<td>0.5</td>
</tr>
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<td>06-15</td>
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<td>(0.5)</td>
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</tr>
<tr>
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<td>(0.1)</td>
<td>0.1</td>
<td>(0.1)</td>
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</tr>
<tr>
<td>25-27</td>
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<td>0.0</td>
<td>(0.0)</td>
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<tr>
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<td>(0.7)</td>
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<td>39-40</td>
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<td>0.1</td>
<td>(0.1)</td>
<td>0.1</td>
<td>(0.1)</td>
</tr>
<tr>
<td>41-43</td>
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<td>(0.7)</td>
<td>0.7</td>
<td>(0.7)</td>
<td>0.7</td>
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<tr>
<td>44-49</td>
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<td>0.1</td>
<td>(0.1)</td>
<td>0.1</td>
<td>(0.1)</td>
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<td>50-53</td>
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<td>(0.0)</td>
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<td>68-71</td>
<td>(0.2)</td>
<td>0.2</td>
<td>(0.2)</td>
<td>0.2</td>
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</tr>
<tr>
<td>72-75</td>
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<td>(0.3)</td>
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<td>(0.3)</td>
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<td>81-85</td>
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<td>(0.2)</td>
<td>0.2</td>
<td>(0.2)</td>
</tr>
<tr>
<td>90-97</td>
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<td>(0.0)</td>
<td>0.0</td>
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<tr>
<td>98-99</td>
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<td>(0.7)</td>
<td>0.7</td>
<td>(0.7)</td>
<td>0.7</td>
</tr>
</tbody>
</table>

**Explanatory notes**

- **Maximum value**: 1
- **Minimum value**: -1
- **Critical point**: Comparative advantage = >0

## Revealed symmetric comparative advantage index (top ten products)

<table>
<thead>
<tr>
<th>HS code - top ten</th>
<th>RSCA of Vietnam, relative to TPP</th>
<th>Global</th>
<th>RSCA of TPP, relative to Vietnam</th>
<th>Global</th>
</tr>
</thead>
<tbody>
<tr>
<td>'85</td>
<td>0.0</td>
<td>(0.1)</td>
<td>0.1</td>
<td>(0.1)</td>
</tr>
<tr>
<td>'27</td>
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<td>(0.1)</td>
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<td>(0.1)</td>
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<td>'62</td>
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<td>(0.7)</td>
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<tr>
<td>'61</td>
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<td>0.7</td>
<td>(0.7)</td>
<td>0.9</td>
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<td>(0.4)</td>
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<td>(0.1)</td>
<td>0.8</td>
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<td>(0.5)</td>
<td>1.0</td>
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<tr>
<td>'10</td>
<td>0.6</td>
<td>0.7</td>
<td>0.2</td>
<td>0.6</td>
</tr>
</tbody>
</table>

**Explanatory notes**

- **Maximum value**: 1
- **Minimum value**: -1
- **Critical point**: Comparative advantage = >0
The examination of key sectors

Australia & New Zealand and Viet Nam: identify key sectors?

- Revealed symmetric comparative advantage index
- Intra-industry trade index
- Bilateral trade intensity index

The examination of key sectors

The examination of the key sectors

Average and top ten export-import Vietnam (2007-2013)
Average and top ten export-import Australia & New Zealand (2007-2013)
The key sectors
The examination of key sectors

Three special sectors of Vietnam

Export

Other products 74%

Costume 14%

Shoes, sandal 8%

Bed, cabinet, tables, chairs 4%

AU_NZ

TPP*

China

Costume 23%

Shoes, sandal 6%

Bed, cabinet, tables, chairs 6%

Export
Part IV
Scenarios
Scenarios

The model of imported behaviors for exports

- Extended Input-Output table supplies the data for building the extended input-output model. It is the starting point for initial solution of the model.
- $A$: Direct requirement matrix. $A_{ij}$ is the amount of intermediate input $i$ necessary to produce one monetary unit of output $j$ in region. For example, automobile assembly factory need the direct cost: steel, glass, plastic, tires... If the household such as individual consumers or trucking company increase their automobile, the direct requirement at automobile factory will be increased.
- And then steel, glass and plastic and tires factories will also increase their intermediate input requirements. This requirement is indirect requirement for level 1 and then indirect requirement for level 2... This is called indirect requirement matrix $(A^\top)$.
- $I$: Identity matrix.
- $[(I-A)^\top]^{-1}$: Leontief inverse (total requirements = direct requirements plus indirect requirements).
- $S$: considering country, $r$: member countries.
- The different scenarios represent different $A$ and $Y$.
- For example, what will happen if Viet Nam’s textile (or footwear) industry increases exports to U.S market with constraining intermediate goods would be imported from Australia and New Zealand—“what will happen” here: total output, Total employments, total income and the change of Viet Nam’s economic structure?
- The scenarios of my research is based on this formula is a future I-O picture describes the international trade of intermediate imports between countries in trading bloc: AANZFTA. This scenarios is called the model for the imports behaviours for the export.
Scenarios

The model of imported behaviors for consumption

- This is the models of imported behaviours for consumption
- For Example:
  - what will happen if Viet Nam’s food packaging industry increases domestic consumer of beef with constraining intermediate goods would be imported from Australia and New Zealand—“what will happen” here is also total output, total employments, total income, value chains and the change of Viet Nam’s economic structure?
Scenarios

The model of the demand (Leontief model)

- This is the models of imported behaviours for consumption
- For Example:
- what will happen if Viet Nam’s food packaging industry increases domestic consumer of beef with constraining intermediate goods would be imported from Australia and New Zealand—“what will happen” here is also total output, total employments, total income, value chains and the change of Viet Nam’s economic structure?
Scenarios

The model of the supply (Cobb-Douglas)

\[
\text{Input (X)} = \text{The quantity of input} / A \prod X_i^\alpha
\]

- This is a hypothetical scenario!
- The Extended Input-Output table supplies the data for building the extended input-output model. It is the starting point for initial solution of the model.
- \( A \): Direct requirement matrix. \( A_{ij} \) is the amount of intermediate input \( i \) necessary to produce one monetary unit of output \( j \) in region. For example, automobile assembly factory need the direct cost: steel, glass, plastic, tires… If the household such as individual consumers or trucking company increase their automobile, the direct requirement at automobile factory will be increased.
- And then steel, glass and plastic and tires factories will also increase their intermediate input requirements. This requirement is indirect requirement for level 1 and then indirect requirement for level 2… This is called indirect requirement matrix(\( A \))\(^{-1}\)
- \( I \): Identity matrix.
- \( [(I-A)]^(-1) \): Leontief inverse (total requirements = direct requirements plus indirect requirements).
- The scenario represents different \( A \) and \( Y \). For example, what is happen if China puts trade sanctions to Viet Nam – what is happen is: the change of the output, the employments and the income including changing of Viet Nam’s economic structure and AEC and TPP value chain.
- The scenarios based on this formula is a future I-O picture describes the international trade of intermediate imports between countries in two trading blocs: AEC and TPP.
Scenarios

Using Excel and GEMPACK software to build the models

Gather the data of the extended I-O table
Write The equation system by GEMPACK
Write the change of variables by GEMPACK

Scenarios

Choose the scenario

Recruit experts ➔ In-depth interviews ➔ Construct I-O model ➔ Survey experts ➔ Synthesise responses ➔ Consensus!

Feedback
### Scenarios

**The most optimistic scenario: Prosperity**

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**GDP + 26%**

### Scenarios

**The most pessimistic scenario: Emergent**

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**GDP + 11%**
### Scenarios

**The most likely scenario: Dominance**

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GDP + 18%

### Conclusion