

The Persistence of Non-Tariff Measures in ASEAN

De volharding van niet-tarifaire maatregelen in ASEAN

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# List of Abbreviations

<b>AEC</b>	ASEAN Economic Community
<b>AFTA</b>	ASEAN Free Trade Area
<b>AG</b>	Agriculture, Value Added
<b>AIA</b>	ASEAN Investment Area
<b>AICO</b>	ASEAN Industrial Cooperation Scheme
<b>ASEAN</b>	Association of Southeast Asian Nations
<b>ASEAN-5</b>	Brunei Darussalam, Indonesia, Malaysia, Singapore, and Thailand
<b>ATIGA</b>	ASEAN Trade in Goods Agreement
<b>BULOG</b>	Badan Urusan Logistik (Logistics Bureau, Indonesia)
<b>CEPT</b>	Common Effective Preferential Tariff
<b>CLMV</b>	Cambodia, Lao PDR, Myanmar, and Vietnam
<b>DPI</b>	Database of Political Institutions
<b>Ex</b>	Exports
<b>EXP</b>	Export-related Measure
<b>FDI</b>	Foreign Direct Investment
<b>GDP</b>	Gross Domestic Product
<b>HS Code</b>	Harmonized Commodity Description and Coding System
<b>IDN</b>	Indonesia
<b>Im</b>	Imports
<b>IMF</b>	International Monetary Fund
<b>IND</b>	Industry, Value Added
<b>IPR</b>	Import Penetration Ratio
<b>KHM</b>	Cambodia
<b>Lao PDR</b>	Lao People's Democratic Republic
<b>MAV</b>	Minimum Access Volume
<b>MFN</b>	Most Favored Nation
<b>MYS</b>	Malaysia
<b>NTB</b>	Non-tariff Barrier
<b>NTM</b>	Non-tariff Measure
<b>PHL</b>	Philippines
<b>PR</b>	Proportional Representation
<b>PTA</b>	Preferential Trade Agreement
<b>SGP</b>	Singapore
<b>SPS</b>	Sanitary and Phytosanitary Measure
<b>SVCS</b>	Services, Value Added

<b>TBT</b>	Technical Barrier to Trade
<b>THA</b>	Thailand
<b>TRAINS</b>	Trade Analysis Information System
<b>TRT</b>	Thai Rak Thai
<b>UN COMTRADE</b>	United Nations Commodity Trade
<b>VNM</b>	Vietnam



# 1 Introduction

International trade continues to be a relevant and contentious topic. While various agreements have substantially reduced the tariffs applied on most traded goods, trade is still burdened by restrictive laws, policies, and regulations. As a result, policymakers have shifted their focus to non-tariff instruments which may potentially block market access and act as barriers to trade. One such example is the Association of Southeast Asian Nations' (ASEAN) efforts to harmonize and reduce non-tariff measures (NTMs), and eliminate non-tariff barriers (NTBs). Nevertheless, NTMs have not only continued to persist in the region, but the incidence of NTMs has even increased in recent decades.

This thesis examines the persistence of NTMs in the ASEAN region. *Section 1* of this introductory chapter begins with a brief overview of NTMs, the ASEAN efforts relating to NTMs, and the NTM regimes of the Member States. *Sections 2* and *3* outline the research questions, and the methodologies used in answering them, respectively. Lastly, *Section 4* provides an overview of the contents of this thesis.

## 1.1 Motivation

### 1.1.1 Non-Tariff Measures

NTMs are laws, regulations, and other policy instruments which can affect the quantities and/or prices of internationally traded goods.<sup>1</sup> As such, this term encompasses a broad range of instruments, from price<sup>2</sup> and quantity<sup>3</sup> measures to standards and quality requirements. NTMs become NTBs when they (*i*) are

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1. United Nations Conference on Trade and Development, *Non-Tariff Measures to Trade: Economic and Policy Issues for Developing Countries* (Geneva: United Nations, 2013), 2.

2. Such as anti-dumping measures and subsidies.

3. Such as quotas and tariff-rate quotas.

used to discriminate against foreign firms, (ii) have protectionist purposes, or (iii) are improperly or unjustifiably applied.<sup>4</sup> In other words, NTBs are NTMs that “are protectionist either by intent or effect.”<sup>5</sup>

This definition of NTBs recognizes the fact that NTMs are generally issued to address market failures. For example, measures such as limits on pesticide levels in food products, and carbon dioxide emissions standards for vehicles, aim to address externalities. Nevertheless, even NTMs with ostensibly legitimate justifications may have protectionist motivations or effects. Notably, quality standards<sup>6</sup> are potentially burdensome for developing countries, as the latter may lack the required infrastructure and resources to comply with requirements. These measures may substantially raise production and trade costs, such as when the requirements exceed generally accepted norms and standards. Exporters may also need to bear significant information costs when importing countries have different NTM regimes in place. Consequently, NTMs have the potential to adversely affect trade flows.

### 1.1.2 ASEAN Initiatives on Non-Tariff Measures

With the signing of the Bangkok Declaration in 1967, ASEAN was formed by Indonesia, Malaysia, the Philippines, Singapore, and Thailand. Brunei Darussalam joined in 1984. By 1999, ASEAN’s membership had expanded to 10, with the addition of Cambodia, the Lao People’s Democratic Republic (PDR), Myanmar and Vietnam. Ostensibly, the goal was to “*accelerate economic growth, social progress and cultural development in the region through joint endeavors in the spirit of equality and partnership in order to strengthen the foundation for a prosperous and peaceful community.*”<sup>7</sup> The primary focus, however, was on political-security objectives, and economic matters took a backseat.

4. United Nations Conference on Trade and Development, *Non-Tariff Measures to Trade: Economic and Policy Issues for Developing Countries*, 2.

5. United Nations Economic and Social Commission for Asia and the Pacific, *Trade and Non-Tariff Measures: Impacts in the Asia-Pacific Region* (Bangkok, Thailand: United Nations, 2015), 11.

6. Such as sanitary and phytosanitary (SPS) measures and technical barriers to trade (TBTs). SPS measures aim to protect the public’s well-being by preventing the spread of diseases, pests and contaminants. TBTs refer to a broad range of measures, including labeling requirements, which aim to ensure safety and quality, and promote other non-trade objectives. United Nations Conference on Trade and Development, *Non-Tariff Measures to Trade: Economic and Policy Issues for Developing Countries*, 33

7. Article I, Bangkok Declaration.

The earliest efforts to address NTMs date back to 1977. Under the Agreement on ASEAN Preferential Trading Arrangements, the Member States<sup>8</sup> pledged to liberalize NTMs on a preferential basis. In 1987, the Member States<sup>9</sup> signed the Memorandum of Understanding on the Standstill and Rollback on NTBs among ASEAN Countries. This Memorandum contained the dual commitments *(i)* not to introduce new or additional NTMs which would impede intra-regional trade, and *(ii)* to remove any NTMs which impede intra-regional trade. It was not until 1992 that definite schedules for the elimination of NTBs were set under the Agreement on the Common Effective Preferential Tariff (CEPT) Scheme for the ASEAN Free Trade Area (AFTA):

- “1. Member States shall eliminate all quantitative restrictions in respect of products under the CEPT Scheme upon the enjoyment of the concessions applicable to those products.
2. Member States shall eliminate other non-tariff barriers on a gradual basis within a period of five years after the enjoyment of concessions applicable to those products.”<sup>10</sup>

However, due to a lack of specific implementing plans, the Member States failed to comply with these commitments.<sup>11</sup>

In 2003, the Member States agreed to establish an ASEAN Community by 2020. This Community would be a deeper form of integration than that of a free trade area, and would be built on 3 pillars: *(i)* the ASEAN Political-Security Community; *(ii)* the ASEAN Socio-Cultural Community; and *(iii)* the ASEAN Economic Community (AEC).<sup>12</sup>

The AEC Blueprint, which contains the commitments and Strategic Schedule for the establishment of the AEC, was adopted in 2007. The aim was to transform the region into a single market and production base characterized by, among other things, the free flow of goods. In order to do so, the Member States committed to, among others: remove all NTBs by 2015; enhance the

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8. Indonesia, Malaysia, the Philippines, Singapore, and Thailand.

9. The founding members, including Brunei Darussalam.

10. Agreement on the Common Effective Preferential Tariff Scheme.

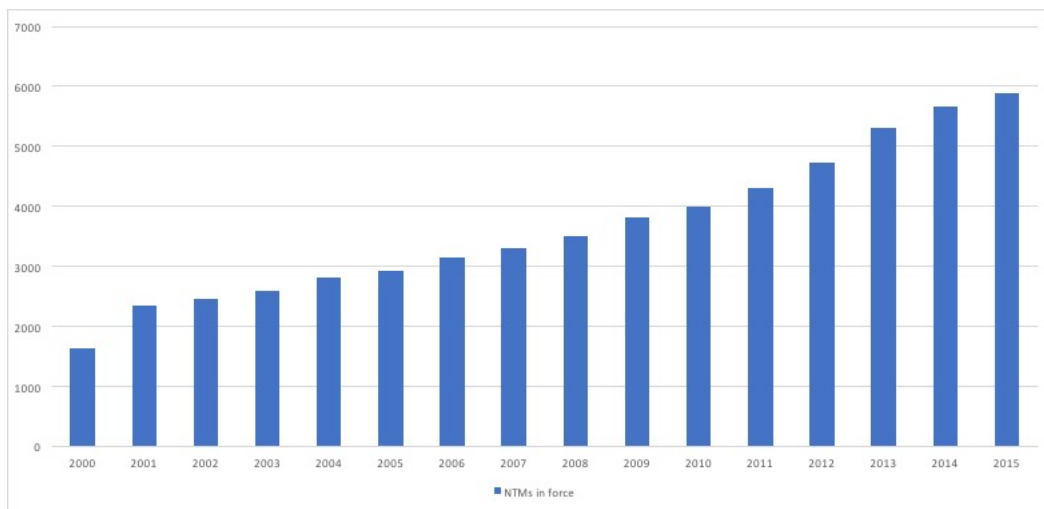
11. Myrna S. Austria, “Non-Tariff Barriers: A Challenge to Achieving the ASEAN Economic Community,” in *The ASEAN Economic Community: A Work in Progress*, ed. Sanchita Basu Das et al. (Singapore: ISEAS Publishing, 2013), 36.

12. Rodolfo C. Severino and Jayant Menon, “Overview,” chap. 1 in *The ASEAN Economic Community: A work in progress*, ed. Sanchita Basu Das et al. (Singapore: Institute of South-east Asian Studies, 2013), 5.

transparency of NTMs; simplify, harmonize, and standardize trade and customs processes and procedures; establish the ASEAN Trade Repository; harmonize standards, technical regulations, and conformity assessment procedures with international practices; and develop mutual recognition agreements on conformity assessment for specific sectors.<sup>13</sup> These commitments were supplemented by the ASEAN Trade in Goods Agreement (ATIGA), which was signed in 2010. This treaty contained additional trade facilitation measures, and emphasized the commitments regarding the removal of NTBs and the harmonization of NTMs.

Originally scheduled for 2020, the AEC's launch was brought forward to 2015. In November 2015, however, ASEAN recognized its failure to fulfill the NTM-related commitments. For example, the ASEAN Trade Repository was still under construction, and efforts to remove NTBs were still ongoing. As *Figure 1.1* below shows, the number of NTMs has even increased in the region.

FIGURE 1.1: NTMs in Force in ASEAN, 2000 to 2015<sup>14</sup>.



Nevertheless, ASEAN remained committed to its goal of economic integration. That being so, ASEAN adopted the AEC Blueprint 2025 as the successor to the AEC Blueprint. The aim was to complete those actions that had remained unfinished under the previous Blueprint, namely the elimination of NTBs, the

13. ASEAN Secretariat, *ASEAN Economic Community Blueprint*, Jakarta, 2008.

14. Adapted from Lili Yan Ing et al., “Non-Tariff Measures in ASEAN: A Simple Proposal,” in *Non-Tariff Measures in ASEAN*, ed. Lili Yan Ing, Santiago Fernandez de Cordoba, and Olivier Cadot (Economic Research Institute for ASEAN, 2016), 22, <http://asean.i-tip.org>.

convergence of Member States' trade facilitation regimes, and the harmonization of standards and technical regulations.<sup>15</sup>

Given the region's track record vis-à-vis its NTM-related commitments, however, doubts remain as to its ability to achieve the aforementioned goals. The problems may well lie with the underlying instruments themselves, *i.e.* the AEC Blueprint and ATIGA. The instruments' ineffectiveness may be rooted in drafting issues, such as the lack of specificity of stated commitments and obligations.<sup>16</sup> Alternatively, the region's policymakers may have focused on general aims without regard for the Member States' economic and political contexts.<sup>17</sup> Domestic factors may hinder the Member States' compliance with their regional commitments.

### 1.1.3 ASEAN Member States and Non-Tariff Measures

NTM regimes are, by their nature, broad and complex. By definition, any instrument can be considered an NTM as long as it can affect the prices and/or quantities of traded goods. As an exhaustive discussion of the Member States' NTM regimes would be unduly long and complex, this sub-section merely outlines their basic features.

Legislation can be in the form of statutes or subsidiary legislation, such as rules, regulations, memoranda, proclamations, and other ministerial or administrative issuances. Statutes provide for the general policies and objectives underlying the measure, while subsidiary legislation fleshes out the administrative and implementing details. The Member States' NTMs are embodied in both types of legislation, although a majority take the form of subsidiary legislation.<sup>18</sup> For example, Cambodia's technical barriers to trade (TBTs) are composed of *anukret*<sup>19</sup>, *prakas*<sup>20</sup>, and laws, as illustrated by *Figure 1.2*. As legislative instruments, and regardless of their form, NTMs are binding on the public.

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15. ASEAN Secretariat, *ASEAN Economic Community Blueprint 2025*, Jakarta, 2015.

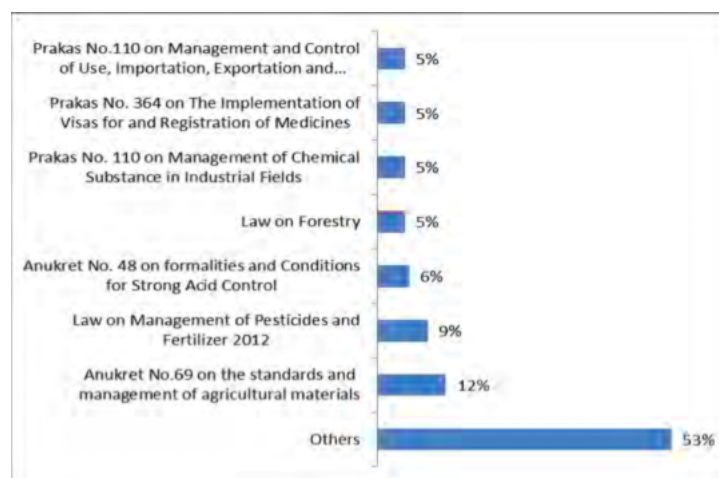
16. See *Chapter 2*.

17. See *Chapters 3* and *4*.

18. See Ing et al., "Non-Tariff Measures in ASEAN: A Simple Proposal."

19. These are sub-decrees adopted following a cabinet meeting, and signed by the Prime Minister.

20. These are regulatory proclamations issued by members of the Government.

FIGURE 1.2: Technical Barriers to Trade, Cambodia<sup>21</sup>.

A majority of the region's NTMs are quality measures, *i.e.*, sanitary and phytosanitary (SPS) measures and TBTs. Export-related measures are the third most common type of NTM. *Table 1.1* provides a breakdown of the most prevalent types of NTM in the region, as a percentage of total NTMs.

TABLE 1.1: Top NTM Types, as of 2015<sup>22</sup>.

Type	%
Technical Barriers to Trade	43.1
Sanitary and Phytosanitary Measures	33.2
Export-related Measures	12.8

The issuance of NTMs is highly decentralized within Member States. NTMs are issued by the ministries, agencies, departments, or bureaus having jurisdiction over the relevant subject matter, objectives, or policy goals. Health and agriculture ministries have issued the majority of NTMs, except in Indonesia and Myanmar. *Table 1.2* shows the top issuing authority in each Member State, as well as the total number of NTMs they have issued, in percentage terms.

21. From Chap Sotharith, c. Ruth Elisabeth L. Tobing, and Anika Widian, "Classification of Non-tariff Measures in Cambodia," in *Non-Tariff Measures in ASEAN*, ed. Lili Yan Ing, Santiago Fernandez de Cordoba, and Olivier Cadot (Economic Research Institute for ASEAN, 2016), 58, <http://asean.i-tip.org>.

22. Data from Ing et al., "Non-Tariff Measures in ASEAN: A Simple Proposal," 24.

23. Data from *ibid.*, 41, 56, 69, 81, 89, 110, 117, 133, 145, 160.

TABLE 1.2: NTMs by Issuing Body, as of 2015<sup>23</sup>.

Member State	Ministry/Agency	Total, in %
Brunei Darussalam	Ministry of Health	68.8
Cambodia	Ministry of Agriculture, Forestry & Fisheries	30
Indonesia	Ministry of Trade	29.2
Lao PDR	Ministry of Agriculture & Forestry	19.93
Malaysia	Ministry of Health	70.41
Myanmar	Ministry of Livestock, Fisheries & Rural	49
Philippines	Department of Agriculture	36.8
Singapore	Agri-Food & Veterinary Authority	59.92
Thailand	Ministry of Public Health	42.6
Vietnam	Ministry of Agriculture & Rural Development	34.2

## 1.2 Research Questions

This thesis aims to shed light on the incidence of NTMs in ASEAN by addressing this main research question:

*Why do NTMs persist in ASEAN, despite the region's legal commitments to harmonize and minimize these instruments?*

In order to arrive at a more nuanced answer, this question is tackled from different perspectives. The logical starting point is an analysis of the region's trade regime, as embodied in both treaty and soft law instruments, and its underlying enforcement mechanisms.<sup>24</sup> In particular, it is necessary to establish whether the Member States are interested in complying with their international law commitments. In other words, the persistence of NTMs is initially examined as a question of international law compliance, as reflected in the first sub-question:

*i. Does the ASEAN trade regime provide sufficient incentives for compliance with the commitments relating to NTMs?*

Any analysis of State behavior necessarily needs to delve into the underlying motivations of the States concerned.<sup>25</sup> In particular, the ASEAN experience is noteworthy in that the increasing incidence of NTMs coincided with structural changes and deeper integration efforts. The growth of the manufacturing sector

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24. See *Chapter 2*.

25. See *Chapter 3*.

and of intra-regional production networks seemingly spurred a paradoxical demand for both liberalized trade and NTMs. This begs the second sub-question of whether societal preferences for certain types of policies, such as NTMs, are linked to economic trends and changes:

*ii. Can the region's structural changes, such as the increased prominence of industry and production networks, explain the demand for NTMs?*

Additionally, policies cannot be detached from their underlying socio-economic and political contexts.<sup>26</sup> While societal preferences for trade policies may be explained by economic trends, how these preferences are actually translated into laws and regulations depends on the existing political institutions. As such, the link between economic and political factors, on the one hand, and NTM incidence, on the other, bears looking into:

*iii. Are political and economic factors linked with NTM incidence? Can the former account for the rising incidence of NTMs in ASEAN?*

It is hoped that by investigating the factors underlying the persistence of NTMs in ASEAN, fruitful insights may be gained for the purpose of policymaking at both regional and national levels. This assessment may deepen our understanding of policy-making dynamics by illuminating a wide range of issues, from societal preferences for certain policies, to compliance with multilateral obligations. Consequently, these insights may help policymakers draft more effective and responsive legislation and commitments.

### 1.3 Methodology and Scope

In answering the above questions, this thesis adapts an interdisciplinary approach and relies on the tools and methods of law and economics. The analysis is guided by the literature on *(i)* compliance with international law, *(ii)* the political economy of trade protection, *(iii)* public choice theories of regulation, and *(iv)* the economic effects of political institutions.

The primary approach is a qualitative analysis of the ASEAN trade regime. This method is useful and appropriate in light of the nature of the research

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<sup>26</sup>. See *Chapter 4*.



questions. Specifically, this thesis aims to make sense of Member States' motives and the resulting increase in NTMs in ASEAN. The qualitative method enables the ASEAN trade regime to be examined in relation to the underlying legal, economic and political contexts. This type of analysis yields insights into both the behavior and underlying motives of the Member States with regard to trade policy.

While the qualitative analysis shows the importance of political and economic factors for trade policy, it fails to establish the actual relationship between these factors and NTM incidence. To supplement the insights of this analysis, this thesis also uses correlation analysis, *i.e.*, Spearman's correlation and independent samples t-tests, to examine the link, if any, between NTM incidence and economic and political factors. Correlation analysis is useful in establishing the link between different variables. Independent samples t-tests can also identify whether there is a significant difference in trade policy, *i.e.*, NTM incidence, among Member States falling into different institutional categories. The present thesis can use these quantitative analyses to identify the possible determinants of NTM incidence.

In general, this thesis focuses on the way in which the ASEAN Member States respond to regional and domestic preferences for trade policies. Considering the region's relative success in its tariff-related commitments,<sup>27</sup> this thesis considers the incidence of NTMs only. While investigations into the trade effects of NTMs (such as the identification of ASEAN NTBs and the determination of changes in trade flows) are undoubtedly timely and important, these are beyond the scope of this study.

Finally, the contents of the ASEAN instruments are taken at face value. Specifically, given that the region's efforts at economic integration comprise a reduction in trade barriers, the literature on federalism and harmonization can be linked to the questions raised in this thesis. For example, the question of whether ASEAN, rather than its Member States, should be responsible for determining which measures are to be considered NTBs, is pertinent to the issue of NTM incidence. The efficiency of the region's trade-related commitments, such as standards harmonization and the use of mutual recognition agreements, is likewise pertinent. However, the scope of this thesis is limited to an examination of

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27. By 2014, the average tariff rates for the Member States under the ATIGA was 0.54%. ASEAN Secretariat, *ASEAN Integration Report 2015*, Jakarta, 2015, 9-10

Member States' (non)performance of their trade liberalization efforts, *i.e.* their NTM-related commitments. The goal of this thesis is limited to gaining insights into the incidence of NTMs in the ASEAN region. While the NTM-related commitments do form part of regional integration endeavors, the latter is not the focus of the current research project. Additionally, given the complexity of the issues pertaining to fiscal federalism and harmonization, they merit a separate, in-depth analysis which due to the limited scope of this thesis, is best left for future research.

## 1.4 Chapter Overviews

This thesis consists of 5 chapters, including this introductory chapter. The subsequent 3 chapters each tackle a specific question, and may be read independently of one another.

*Chapter 2* addresses the question of whether the ASEAN trade regime offers sufficient incentives for compliance. The provisions of the applicable legal instruments, together with the region's enforcement institutions, will be analyzed in light of the theories on compliance with international law. This chapter suggests that, because of the vague and general language used in detailing the commitments, the ASEAN's legal instruments have failed to facilitate cooperation and compliance by Member States. This problem may have been exacerbated by the lack of effective enforcement and dispute settlement mechanisms in the region.

*Chapter 3* examines the incidence of NTMs in the ASEAN region within the context of the region's structural changes. In particular, it asks whether NTMs were motivated by a desire to protect sectors which have been adversely affected by the growing importance of industry. Alternatively, it asks whether NTMs promote and enhance the Member States' participation in production networks. Guided by scholarship on the political economy of trade protection and public choice theories of regulation, the trends in the imposition of NTMs were examined in relation to the characteristics of the Member States concerned. *Chapter 3* illustrates the fact that NTMs may be motivated not just by protectionist desires, but also by an increased demand for regulatory quality.

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The persistence of NTMs may likewise be due to ASEAN's failure to account for the underlying determinants of policy. *Chapter 4* aims to identify the determinants of NTM incidence in the ASEAN region. Possible correlations between NTM incidence on the one hand, and different political and economic characteristics on the other, will be analyzed together with the strength and direction of any such association. The results would seem to indicate that sectoral trends matter. Additionally, the degree of political insulation and accountability may affect how responsive governments are to demands for increased protection.

Lastly, *Chapter 5* summarizes the insights of *Chapters 2* to *4*, and discusses the policy implications of this thesis' findings. It concludes with a brief discussion of possible extensions of this analysis.



# 3 Motivations Matter: Changing Preferences and Non-Tariff Measures<sup>1</sup>

## 3.1 Introduction

The ASEAN Economic Community (AEC) represents a shift in the trade policies of Southeast Asia. Its earlier trade initiatives, such as the ASEAN Free Trade Area (AFTA), were shallow agreements<sup>2</sup> focusing exclusively on tariff liberalization. The AEC is a deeper form of integration. Deep integration is “a process of economic integration that erodes differences in national economic policies and regulations and renders them more compatible for economic exchange.”<sup>3</sup> In the AEC’s case, it involves commitments which affect beyond-the-border measures such as non-tariff measures (NTMs). In particular, ASEAN Member States are tasked to remove non-tariff barriers (NTBs) and harmonize NTMs. The aim is to facilitate the free flow of goods in order to transform ASEAN into a single market and production base, with the specific emphasis on enhancing the region’s capacity to be part of the global production chain.<sup>4</sup> This change in regional preferences, from shallow to deeper integration, is not

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1. This chapter is based on my paper “Structural Change and Protection: Non-Tariff Measures in ASEAN,” in *Public Law and Economics: Economic Regulation and Competition Policies* (forthcoming). I would like to thank Emanuela Carbonara, Michael Faure, Roger van den Bergh, the participants of the EDLE Winter Seminar at Erasmus University Rotterdam, and the participants of the World Economics Association conference on “Public Law and Economics: Economic Regulation and Competition Policies 2017” for their valuable comments.

2. World Trade Organization, *World Trade Report 2011*, 110.

3. Soo Yeon Kim, “Deep Integration and Regional Trade Agreements,” in *The Oxford Handbook of the Political Economy of International Trade*, ed. Lisa L. Martin (Oxford University Press, 2015), 361.

4. ASEAN Secretariat, *AEC Blueprint*, 6.

surprising in light of the increasingly greater role played by the Member States in production networks.<sup>5</sup>

The distinguishing feature of today's production networks is the unbundling of production stages not only among different firms but also across different countries.<sup>6</sup> This is reflected in the growth of trade in intermediate goods, namely parts and components.<sup>7</sup> Today, production networks encompass multiple countries, and products may entail multiple border crossings up to the final processing stage. Different and conflicting trade-related domestic laws and regulations, such as NTMs, thus have the potential to significantly increase the production costs of production networks.<sup>8</sup> The increased transboundary movement of both intermediate and final goods highlights the importance of deeper integration, as this lowers trade costs through legal and regulatory convergence, and strengthens ties between signatories.<sup>9</sup> Notably, increased production network trade is one of the driving forces behind the surge in deep integration agreements.<sup>10</sup> In fact, the primacy of enhancing production networks in ASEAN is one of the main factors behind efforts to harmonize NTMs and eliminate NTBs.

NTMs include any measure or policy, other than tariffs, that may affect the price or quantity of traded goods.<sup>11</sup> This definition includes statutes, regulations, and policies that on the face of it are unrelated to trade. The existing scholarship generally identifies two types of underlying motivations for the existence of NTMs, namely (i) concern for public welfare and (ii) political economy goals.<sup>12</sup> Measures prompted by concerns for public welfare address market failures, such

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5. AFTA has one of the highest intra-regional shares of exports of parts and components (28%), as noted by the World Trade Organization in the *World Trade Report 2011*

6. Gianluca Orefice and Nadia Rocha, "Deep Integration and Production Networks: An Empirical Analysis," *The World Economy* 37, no. 1 (2014): 106, doi:-0.1111/twec.12076.

7. Prema-Chandra Athukorala and Jayant Menon, "Global Production Sharing, Trade Patterns, and Determinants of Trade Flows in East Asia" (2010), 1, <https://www.adb.org/publications/global-production-sharing-trade-patterns-and-determinants-trade-flows-east-asia>.

8. World Trade Organization, *World Trade Report 2011*, 111.

9. World Trade Organization, *World Trade Report 2011*; Orefice and Rocha, "Deep Integration and Production Networks."

10. World Trade Organization, *World Trade Report 2011*, 109; Kim, "Deep Integration and Regional Trade Agreements," 360.

11. United Nations Conference on Trade and Development, *Non-Tariff Measures to Trade: Economic and Policy Issues for Developing Countries*, 2.

12. World Trade Organization, technical report (World Trade Organization, 2012), 50, [https://www.wto.org/english/res\\_e/booksp\\_e/anrep\\_e/world\\_trade\\_report12\\_e.pdf](https://www.wto.org/english/res_e/booksp_e/anrep_e/world_trade_report12_e.pdf).

as information asymmetries<sup>13</sup> or externalities. On the other hand, producers and import-competing sectors may lobby for protection against the effects of trade liberalization. Politicians who issue such protectionist measures are thus driven by political economy motives.<sup>14</sup> The motivation for NTMs “*can best be deduced from the type of NTM chosen, from the sector to which it is applied, from its design and implementation, and from its impact.*”<sup>15</sup> However, even NTMs with stated legitimate objectives may have unintended consequences on trade flows, or be used to achieve protectionist aims. Furthermore, those NTMs having protectionist or discriminatory effects, whether intentional or otherwise, are NTBs.

There is no one way to categorize or classify NTMs. An easy way to make sense of these measures is to distinguish them based on their effects, such as price measures (subsidies), quantity measures (quotas) or quality measures. Price and quantity measures affect the prices or quantities of traded goods, respectively. Quality measures impose standards and requirements on either the production process or product features.<sup>16</sup> Sanitary and phytosanitary (SPS) measures and technical barriers to trade (TBTs) are the most commonly used quality measures in the world.<sup>17</sup> SPS measures aim to protect human, plant and animal life against contamination and the spread of diseases. TBTs are more general, and refer to measures which impose technical and quality requirements.<sup>18</sup>

The motives and effects of NTMs become especially salient in the context of increased participation in production networks. For example, countries may have different standards for the quality of products and processes. Lower quality intermediate products and processes may compromise the quality of final goods. However, as the actual quality of intermediate inputs is not immediately apparent, total demand for them may be adversely affected. Quality measures such as SPS and TBTs may serve to address this information asymmetry by signaling that the traded goods meet the quality and safety standards of the importing countries, thus stimulating demand for the intermediate inputs.<sup>19</sup>

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13. There is an information asymmetry where one party to an exchange or transaction has an informational advantage over the other parties.

14. World Trade Organization, *World Trade Report 2012*, 50.

15. Ibid., 51.

16. Ibid.

17. United Nations Conference on Trade and Development, *Non-Tariff Measures to Trade: Economic and Policy Issues for Developing Countries*, 4-5.

18. Ibid., 4.

19. World Trade Organization, *World Trade Report 2012*, 62.

Alternatively, SPS and TBTs may act as disguised protectionist measures, as when these measures require foreign producers to use costlier, and even unnecessary, production methods. As export costs increase, the market share of domestic firms increase.<sup>20</sup> Thus, NTMs may significantly increase trade costs, and this hinders the further development of intra-regional production networks. Considering the role played by production networks in their economies, the Member States clearly have an interest in minimizing costly trade barriers and harmonizing trade-related domestic policies.

The persistence of NTMs among the Member States despite the region's avowed policy of trade liberalization, is an interesting phenomenon. The increased participation of the Member States in both production networks and deeper integration efforts coincided with a rising incidence of NTMs. Is there a link between participation in production networks and trade liberalization efforts on the one hand, and NTM incidence on the other? Did the promotion of trade in sectors involved in transboundary production networks cause a demand for protection, in the form of NTMs, in other sectors? These questions drive the discussion in this chapter.

As a starting point, the emergence of production networks in the Member States must be placed in due context. From the late 1980s onwards, there was an increase in both the economic importance of production networks and efforts to enhance the region's attractiveness as a production base. Initiatives like the AFTA promoted the intra-regional movement of intermediate goods through the institution of preferential tariff rates for networks operating in the Member States. This contributed to the increased involvement of the Member States in production networks in the last 2 decades, along with the rise of the industrial and manufacturing sectors. Industries and firms involved in production networks are clearly the main beneficiaries and proponents of the AEC and of deeper regional integration. However, the AFTA has also meant the removal of tariff protection for import-competing industries such as agriculture. The rise of industry and manufactures has also diminished the economic importance of agriculture. Agricultural producers therefore have an incentive to lobby, and the complexity and opacity of NTMs makes these measures the ideal form of protection.

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20. World Trade Organization, *World Trade Report 2012*, 59-60, 62.



In other words, the structural changes in the economies of the Member States may have influenced the interests of political and economic actors, and these interests are embodied in the enacted instruments, policies, and regulations. This explains the apparent disconnect between the region's stated policy of trade liberalization on the one hand, and the persistence of NTMs and NTBs on the other. Firms involved in production networks are pushing for freer trade in intermediate goods. This has led to efforts at integration geared towards the promotion of the region as a production base. However, producers in import-competing sectors and/or declining industries favor protection. This would cushion them against losses, preserve jobs, and ensure their market share in the face of foreign competition. As the governments are prevented by their international commitments from imposing tariffs and quotas, they resort to less transparent means of protection, *i.e.*, NTMs. Thus, structural and policy changes favoring trade liberalization have created a demand for a more subtle form of protection in the declining sectors.

At this point, it should be said that this analysis does not aim to prove causation. The goal is merely to derive useful insights into the use and incidence of NTMs. This chapter uses a qualitative approach in examining the features of Member States, production networks and NTM usage. Since NTMs are essentially instruments issued by political actors, this examination shall be guided by the literature on the political economy of protection. It is hoped that by looking at the structural characteristics of the Member States, together with the nature of their involvement in production networks, and the trends and features of their NTM usage, useful insights into the use and persistence of NTMs in the region can be gleaned.

*Section 3.2* provides a brief discussion of the literature on the political economy of protection. *Section 3.3* examines the trends in ASEAN, guided by the existing scholarship. It begins by looking into the rise of production network trade, as promoted by the region's trade agreements and policies. This is followed by an examination of the data in order to identify any trends in the incidence of NTMs vis-a-vis the participation of Member States in production networks and the structural changes in their economies. NTM types, regulated product categories, and issuing authorities are also examined to determine whether the trends support the hypothesis that NTM incidence is the result of political economy motives. *Section 3.4* summarizes.

## 3.2 Structural Change and the Political Economy of Protection

The evolving nature of trade is among the main drivers of structural change. Unbundled production enables more countries, notably those from the developing world, to participate in manufacturing processes. The increased economic importance of manufacturing has significant effects in both the economic and political spheres.

To illustrate, consider the simple case of a country endowed with labor, capital and land. These resources can be used in either agriculture or manufacturing.<sup>21</sup> Labor and land can be used for agricultural purposes, while labor and capital can be employed in manufacturing. A country with limited capital resources, such as the majority of developing countries, will mainly focus on agricultural activities. Agricultural goods will be produced and traded for manufactures.<sup>22</sup> As capital accumulates or flows in from foreign investment, increasingly more labor will be attracted to the manufacturing activities. This increase in capital initiates the switch from agriculture to manufactures. This change is reflected in the changing composition of export goods, from primary agricultural products to manufactured goods.

As a result of this transition: (i) the importance of agricultural products as export items tends to decline as the economy shifts in favor of manufacturing activities; and (ii) agriculture's economic importance, as measured by labor share and output, will tend to decline relative to manufacturing.<sup>23</sup> These structural changes affect incentives from, and support for, certain kinds of economic

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21. Kym Anderson, "Economic Growth, Comparative Advantage, and Agricultural Trade of Pacific Rim Countries," *Review of Marketing and Agricultural Economics* 51, no. 3 (December 1983): 232; Kym Anderson, "Economic Growth, Structural Change and the Political Economy of Protection," in *The Political Economy of Agricultural Protection: East Asia in International Perspective*, ed. Kym Anderson and Yujiro Hayami (Australia: Allen & Unwin, 1986), 7.

22. Anderson, "Economic Growth, Structural Change and the Political Economy of Protection," 7; Anderson, "Economic Growth, Comparative Advantage, and Agricultural Trade of Pacific Rim Countries," 232.

23. Anderson, "Economic Growth, Structural Change and the Political Economy of Protection," 8.

policies. For example, agriculture's lessened economic significance is often accompanied by increased protection relative to export industries.<sup>24</sup> As these policies are nothing but governmental enactments, the political economy theories on regulation help shed light on the underlying processes and motivations for different policies.

One view is that governmental policies, statutes, and regulations are mainly motivated by politicians' desire to promote the "common welfare", "public interest", or "public good". Specifically, the *public interest theory* states that regulations are necessary to protect the public against market failures such as information asymmetry, externalities, imperfect competition, and the like.<sup>25</sup> For example, where market forces alone are incapable of generating sufficient incentives for optimal information disclosure, *i.e.*, on product safety and quality, there is room for disclosure regulations and quality standards.<sup>26</sup>

Critics of the public interest theory have pointed out that regulations often fail to achieve their stated aims, or that they only do so at great cost.<sup>27</sup> This regulatory failure can be traced to the self-interest of politicians and regulators, which is used by private and special interests to influence policies and regulations to their benefit.<sup>28</sup> The *private interest* or *public choice* theories of regulation seek to explain why policies often seem to favor, rather than regulate, their subject sectors and interests. Politicians and regulators are assumed to interact with the private sector within the context of a political market. Laws, policies and regulations are issued only insofar as these can generate public support for the incumbent. Citizens support public officials only to the extent that they benefit from these enactments. Public officials are "captured" by private interests

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24. Johan F.M. Swinnen, Anurag N. Banerjee, and Harry de Gorter, "Economic Development, Institutional Change, and the Political Economy of Agricultural Protection: An econometric study of Belgium since the 19th century," *Agricultural Economics* 26 (2001): 29; Johan F.M. Swinnen, "A Positive Theory of Agricultural Protection," *American Journal of Agricultural Economics* 76, no. 1 (1994): 1; Johan F.M. Swinnen, "The Political Economy of Agricultural and Food Policies: Recent Contributions, New Insights, and Areas for Further Research," *Applied Economic Perspectives and Policy* 32, no. 1 (2010): 35-36.

25. Anthony Ogus, *Regulation: Legal Form and Economic Theory* (Hart Publishing, 2004), 29-54; Michael E. Levine and Jennifer L. Forrence, "Regulatory Capture, Public Interest, and the Public Agenda: Toward a Synthesis," *Journal of Law, Economics & Organization* 6 (1990): 167-168.

26. Ogus, *Regulation*, 38-41.

27. *Ibid.*, 55-56.

28. Levine and Forrence, "Regulatory Capture, Public Interest, and the Public Agenda: Toward a Synthesis," 169.

when policies are traded by the former for both pecuniary and non-pecuniary benefits from private interests.

Stigler (1971) presented this political process as a market for regulation. Industries can benefit from certain types of regulation, such as subsidies, price fixing policies, and controls on new entrants.<sup>29</sup> However, these benefits are lower than the social costs imposed on the community. An informed democratic society would reject industries' demands for protection.<sup>30</sup> However, requiring voters to decide on every single issue is expensive, as "*information must be sought on many issues of little or no direct concern to the individual.*"<sup>31</sup> Instead, voters rely on representatives, namely political parties and politicians, to act and decide for them. Representatives who are able to act and decide in accordance with the voters' preferences are the ones who get elected.<sup>32</sup>

However, discernment of voter preferences is not an easy task. If a minority group is injured by a certain policy by only a negligible amount, then this group will have no interest in discovering this and opposing such policy. Only "*strongly felt preferences*"<sup>33</sup> are adhered to by representatives. Industries are able to take advantage of this asymmetry. Acting as buyers of regulation, they can offer representatives votes and resources that allow them to stay in power.<sup>34</sup> Nevertheless, larger industries are at a disadvantage as benefits accruing to larger industries impose higher social costs, inciting increased opposition from voters.<sup>35</sup>

Some policies and regulations are issued not by elected representatives, but by bureaucrats and regulators. In this case, it is useful to view capture in the context of a principal-agent model involving a principal (the government), the regulator, and the agent (industry).<sup>36</sup> Let us assume that the government aims to maximize social welfare. To incentivize industry to produce enough to maximize net surplus, the government offers to transfer remuneration to high

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29. George J. Stigler, "The Theory of Economic Regulation," *The Bell Journal of Economics and Management Science* 2, no. 1 (1971): 4-6.

30. Ibid., 10.

31. Ibid., 11.

32. Ibid.

33. Ibid., 12.

34. Ibid.

35. Ibid.

36. Ernesto Dal Bó, "Regulatory Capture: A Review," *Oxford Review of Economic Policy* 22, no. 2 (2006): 207.

cost industries. This transfer is ultimately borne by consumers.<sup>37</sup> Industry, however, has private information regarding its costs.<sup>38</sup> Low cost industries have an incentive to misrepresent their costs in order to achieve higher profits. This information asymmetry between the government and industry can be mitigated by the appointment of a regulator tasked with monitoring industry's production costs.<sup>39</sup> As truthful regulators who are informed of the true costs can dissipate industry's profits, the latter has an incentive to buy the former's silence either through positive or negative incentives.<sup>40</sup> Regulatory capture "*depends on the amount of information that the regulator may obtain, and on how easy the environment makes it to bribe regulators.*"<sup>41</sup>

As with elected representatives, information and monitoring costs provide regulators with considerable discretion in enacting policies, thus shielding them from public scrutiny.<sup>42</sup> This shield ultimately allows regulators to pursue policies which benefit special interests at the expense of the majority. Regulators may also cite public interest justifications for policies touching on complex subject matter, for which information and monitoring costs are particularly high. This way, regulators can signal that their actions, which are difficult to monitor, are in the general interest and need not be independently verified by the public.<sup>43</sup> Regulators can also take advantage of this information asymmetry by deliberately choosing vague and complex instruments which mask the extent of costs borne by the public.<sup>44</sup> In addition to complex instruments, regulators can also enact complex and burdensome administrative processes, which make the granting of protection to certain industries less conspicuous.<sup>45</sup>

Olson's (1964) seminal work on collective action predicts which interest groups will succeed in influencing political outcomes. Groups aiming for the establishment of a policy which is in the nature of a public good<sup>46</sup> are necessarily plagued by the free rider problem. Specifically, group members are not barred from

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37. Ibid., 208.

38. Ibid., 207.

39. Ibid., 209.

40. Ibid., 209, 212-213.

41. Ibid., 210.

42. Levine and Forrence, "Regulatory Capture, Public Interest, and the Public Agenda: Toward a Synthesis," 185.

43. Ibid., 180.

44. Arye L. Hillman, *The Political Economy of Protection* (Harwood Academic Publishers, 1989), 73.

45. Ibid., 75.

46. Such as benefits or outcomes which are non-excludable and non-rivalrous.

enjoying the public good even though they did not contribute to the group's lobbying efforts.<sup>47</sup> The larger the group's membership, the greater this free rider problem will be, resulting in sub-optimal lobbying efforts and contributions from members. This implies that smaller groups, which have fewer members who can enjoy the benefits of the policy aimed for, are more successful in their lobbying efforts.<sup>48</sup> This is possible since "*in some small groups each of the members, or at least one of them, will find that his personal gain from having the collective good exceeds the total cost of providing some amount of that collective good  $x$* ".<sup>49</sup> For example, producer groups can more effectively lobby for, and receive, favorable policies than more disperse consumer groups.<sup>50</sup> Groups which provide "*separate and 'selective' incentives*"<sup>51</sup> are likewise able to overcome the free rider problem, by either punishing or rewarding members based on their contributions to the group's lobbying efforts.<sup>52</sup>

The prediction of the effectiveness of small lobby groups is contradicted by the ability of some sizable industries, namely agriculture, to successfully obtain favorable policies. Posner (1974) was among the first to offer an explanation for this. He argued that lobby groups can be likened to cartels, as favorable policies can maintain group profits close to monopoly prices.<sup>53</sup> Nevertheless, while a large group size may be detrimental for cartels, this characteristic may actually encourage lobbying efforts.<sup>54</sup> Firstly, the fact that a sizable group is constrained from pursuing other options, *i.e.*, organizing a cartel, actually stimulates demand for favorable regulations.<sup>55</sup> Secondly, government intervention can take many forms, ranging from clear-cut quotas and tariffs to more subtle requirements and standards. A heterogenous group will necessarily be composed of members with asymmetric political power and influence. More powerful and influential members will have an interest in lobbying for the type of regulation that will benefit them more than other members.<sup>56</sup> Lastly, larger groups

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47. Mancur Olson, *The Logic of Collective Action: Public Goods and the Theory of Groups* (Harvard University Press, 2002), 11.

48. Ibid., 35-36.

49. Ibid., 33-34.

50. Ogus, *Regulation*, 71.

51. Olson, *The Logic of Collective Action*, 51.

52. Ogus, *Regulation*, 51.

53. Richard A. Posner, "Theories of Economic Regulation," *The Bell Journal of Economics and Management Science* 5, no. 2 (1974): 345.

54. Ibid., 347.

55. Ibid., 345.

56. Ibid., 346.

have voting power, which is an important determinant of political influence in democratic systems.<sup>57</sup>

Declining industries have also been identified as a “*natural candidate*”<sup>58</sup> for protection. Competitive industries which enjoy protection derive economic benefits therefrom. However, these same benefits can stimulate entry into the industry. New entrants can dissipate these profits, which will necessarily reduce the industry’s support for the protectionist government. On the other hand, new entrants will not be attracted to protected declining industries. Thus, there is only a given set of beneficiaries from protection, which will remain inclined to support the government.<sup>59</sup>

The existing literature supports the idea that structural changes incentivize adversely affected industries and firms to lobby for beneficial regulation. In fact, previous studies have shown that policies have shifted in favor of agriculture as a response to certain structural changes that have affected the political incentives for, and costs and benefits of, protection.<sup>60</sup> For one, consumption patterns in growing economies shift from food to other commodities. This means that consumers are less affected by any price hikes caused by protectionist agricultural policies, and will offer little to no opposition.<sup>61</sup>

Secondly, as agricultural incomes grow relatively slowly compared to other sectors, farm workers and fishermen are pressured to look for other sources of income and lobby for increased government support.<sup>62</sup> Politicians can increase support for the agricultural sector in light of this income gap, as this will have less marginal welfare effects on (higher) manufacturing wages.<sup>63</sup>

Lastly, the transition from an agricultural to a manufacturing economy is accompanied by a decrease in agriculture’s relative and absolute labor share. As

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57. Ibid., 347.

58. Hillman, *The Political Economy of Protection*, 26.

59. Ibid.

60. Swinnen, “The Political Economy of Agricultural and Food Policies,” 36; Swinnen, Banerjee, and Gorter, “Economic Development, Institutional Change, and the Political Economy of Agricultural Protection,” 27.

61. Swinnen, “The Political Economy of Agricultural and Food Policies,” 36; Anderson, “Economic Growth, Comparative Advantage, and Agricultural Trade of Pacific Rim Countries,” 15.

62. Anderson, “Economic Growth, Comparative Advantage, and Agricultural Trade of Pacific Rim Countries,” 15-16; Swinnen, “The Political Economy of Agricultural and Food Policies,” 37.

63. Swinnen, “A Positive Theory of Agricultural Protection,” 4.

there are fewer farmers and fishermen in relative terms, the per unit costs of protection shouldered by taxpayers also decline.<sup>64</sup> The lower labor share also translates to lower political organization costs. Following Olson's theory, this reduced membership should make their lobbying efforts more effective.<sup>65</sup>

The following section will look at the development of, and patterns characterizing, the Member States, in an attempt to determine how closely they conform to the theory.

### 3.3 The ASEAN Experience: A Closer Look

The ASEAN experience began with tentative tariff liberalization efforts in the 1970s. The regionalization of trade and the growth of production networks stimulated the creation of new rules and institutions designed to address the needs of the changing economies. The increased importance of production networks and intra-industry trade led to structural changes in the economies of the Member States, which transitioned from agriculture to industry, manufactures, and even services.

This economic transformation created a demand for deeper integration in order to maintain the region's centrality in the global economy. The focus has now shifted to measures, *i.e.*, NTMs and NTBs, which affect the free flow of goods within the region. Paradoxically, however, it seems that the growth of production networks itself stimulated the use of NTMs among the Member States.

This section begins with an overview of the growth of production networks in the region. *Section 3.3.2* examines the incidence of NTMs in the context of the structural changes affecting the Member States.

#### 3.3.1 Changing Trade Patterns

ASEAN's early regional economic projects were mainly unsuccessful.<sup>66</sup> During the 1960s, the Member States felt little need to pursue regional integration and

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64. Swinnen, "A Positive Theory of Agricultural Protection," 5; Swinnen, "The Political Economy of Agricultural and Food Policies," 36.

65. Swinnen, "The Political Economy of Agricultural and Food Policies," 37.

66. Bowles and MacLean, "Understanding Trade Bloc Formation," 321-322.



trade initiatives. Their individual trade policies were mainly protectionist, with restrictions on the import of manufactures and a strong emphasis on import substitution.<sup>67</sup>

A number of political and economic factors during the 1980s contributed to the formation of AFTA. The changing global political economy, coupled with a regional economic downturn, forced the largest Member States<sup>68</sup> to move from import-substitution to outward-oriented policies, *i.e.*, the promotion of exports and foreign direct investment (FDI).<sup>69</sup> These policies served to attract, among others, a significant portion of Japanese FDI.<sup>70</sup> This period also saw the rise of intra-industry, particularly intra-firm, trade in the region. From 1979 to 1988, intra-industry trade rose by 91% in the Philippines, 90% in Indonesia, 85% in Thailand, and 64% in Malaysia.<sup>71</sup> Trade in parts and components rose from 2% of intra-regional trade in 1967 to 18% in 1992.<sup>72</sup> The growing political clout of private business interests within ASEAN, which favored trade liberalization, also played a role in the creation of AFTA.<sup>73</sup> Since much of the intra-industry trade stemmed from the intra-ASEAN activities of multinational corporations, the idea of the creation of a regional trading area became more appealing.<sup>74</sup>

In 1992, the Member States<sup>75</sup> embarked on the creation of the AFTA. The underlying motivation was “*to increase ASEAN’s competitive edge as a production base geared for the world market.*”<sup>76</sup> The primary aim was to integrate<sup>77</sup> the region into the global economy by reducing trade costs and making the Member

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67. Ian Coxhead, “Southeast Asia’s Long Transition,” in *Routledge Handbook of Southeast Asian Economics*, ed. Ian Coxhead (New York: Routledge, 2015), 9.

68. Namely Indonesia, Malaysia, the Philippines, and Thailand.

69. Bowles and MacLean, “Understanding Trade Bloc Formation,” 332.

70. Bowles and MacLean, “Understanding Trade Bloc Formation,” 333; Walter Hatch, Jennifer Bair, and Günter Heiduk, “Connected Channels: MNCs and production networks in global trade,” chap. 13 in *The Oxford Handbook of the Political Economy of International Trade*, ed. Lisa L. Martin (New York: Oxford University Press, 2015), 237; Masahiro Kawai and Ganeshan Wignaraja, “Trade Policy and Growth in Asia” (Tokyo, 2014), 7, <http://www.adbi.org/working-%20paper/2014/08/15/6375.trade.policy.growth.asia/>.

71. Bowles and MacLean, “Understanding Trade Bloc Formation,” 334.

72. World Trade Organization, *World Trade Report 2011*, 147.

73. Bowles and MacLean, “Understanding Trade Bloc Formation,” 337-339.

74. *Ibid.*, 334.

75. During this time, ASEAN was composed of Brunei Darussalam, Indonesia, Malaysia, the Philippines, Singapore, and Thailand. Vietnam joined in 1995, Lao People’s Democratic Republic and Myanmar in 1997, and Cambodia in 1999.

76. ASEAN Secretariat, “AFTA Reader,” accessed January 3, 2017, [http://asean.org/?static\\_post=afta-reader-volume-1-november-1993-table-of-contents](http://asean.org/?static_post=afta-reader-volume-1-november-1993-table-of-contents).

77. Bowles and MacLean, “Understanding Trade Bloc Formation,” 333.

States more appealing to foreign investors. AFTA implements a sectoral Common Effective Preferential Tariff (CEPT) Scheme which covers all manufactured products, including capital goods, and agricultural products which originate<sup>78</sup> from the Member States.<sup>79</sup> Under the CEPT Scheme, tariffs on covered goods were scheduled to be reduced to a 0-5% range by January 2003.

The AFTA is supplemented by two initiatives, the ASEAN Investment Area (AIA) and the ASEAN Industrial Cooperation Scheme (AICO). AIA aims to give investors “a framework highly conducive to regional integrated production activities, procurement, manufacturing and resources based investment activities.”<sup>80</sup> AICO caters specifically to vertically integrated firms engaged in production networks in the region, *i.e.*, at least two companies operating in different Member States. The output of these companies under AICO-approved projects are entitled to preferential tariff rates of 0-5% and access to the markets of participating Member States.<sup>81</sup> As of 2007, 140 regional supply projects have been approved under the AICO program.<sup>82</sup>

Outward-oriented trade policies such as these played a role in the structural changes experienced by the Member States.<sup>83</sup> As tariffs and trade costs declined during the 1990s, intra-regional trade and production network-related trade were stimulated. For example, during the 1990s the composition of traded goods in ASEAN shifted from primary and natural-resource intensive goods to manufactures such as electronics, machineries, and transport equipment.<sup>84</sup> From 1992/1993 to 2005/2006, AFTA’s exports of parts and components as a

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78. A product is deemed to have originated from a Member State if at least 40% of its contents originates from a Member State.

79. *Agreement on the Common Effective Preferential Tariff (CEPT) Scheme for the ASEAN Free Trade Area (AFTA)*, 1992.

80. Tan, “Will ASEAN Economic Integration Progress Beyond a Free Trade Area?,” 942.

81. *Ibid.*

82. Asian Development Bank, *Emerging Asian Regionalism: A Partnership for Shared Prosperity*, technical report (Philippines, 2008), 62.

83. Yue and Plummer, “Introduction,” 2; Masahiro Kawai and Kanda Naknoi, “ASEAN Economic Integration through Trade and Foreign Direct Investment: Long-Term Challenges” (Tokyo, 2015), 3,10, <http://www.adb.org/publications/asean-economic-%20integration-through-trade-and-foreign-direct-investment-long-term/>; Kawai and Wignaraja, “Trade Policy and Growth in Asia,” 6.

84. Prema-chandra Athukorala, “Production Networks and Trade Patterns in East Asia: Regionalization or Globalization? ADB Working Paper Series on Regional Economic Integration” (2010), 5, [https://aric.adb.org/pdf/workingpaper/WP56%7B%5C\\_%7DTrade%7B%5C\\_%7DPatterns%7B%5C\\_%7Din%7B%5C\\_%7DEast%7B%5C\\_%7DAsia.pdf](https://aric.adb.org/pdf/workingpaper/WP56%7B%5C_%7DTrade%7B%5C_%7DPatterns%7B%5C_%7Din%7B%5C_%7DEast%7B%5C_%7DAsia.pdf); Yue and Plummer, “Introduction,” 4.

percentage of total manufactured goods exported increased from 29% to 44%.<sup>85</sup> By 2005, “the concentration of component trade in electronics is much larger in AFTA (over 60%) compared with the regional average.”<sup>86</sup> Today, trade in parts and components, as a share of GDP, “is among the highest in the world in the ASEAN.”<sup>87</sup>

Elliott and Ikemoto (2004) used a gravity model to analyze intra- and extra-regional trade flows in ASEAN to assess the effects of AFTA on intra-regional trade. Using data from 1982 to 1999, they found that while trade flows were not significantly affected immediately after the CEPT Scheme was launched, there was evidence of a positive but gradual AFTA effect.<sup>88</sup> Intra-regional trade only began to increase after the Asian financial crisis of 1997, suggesting that this economic shock stimulated regional integration efforts.<sup>89</sup> However, this study did not distinguish trade in final goods from trade in intermediate goods.

Pomfret and Sourdin (2009) estimated trade cost functions in terms of exogenous country characteristics to determine whether trade facilitation efforts in the region worked to reduce trade costs.<sup>90</sup> They used the data for Australian imports from 1990-2007 at the 6-digit Harmonized Commodity Description and Coding System (HS Code) level.<sup>91</sup> Asian countries’ trade costs were examined vis-a-vis the costs of other countries to discern any temporal trends.<sup>92</sup>

They found that *ad valorem* trade costs from the ASEAN Member States decreased from 10.3% in 1990 to 3.9%<sup>93</sup> in 2007.<sup>94</sup> The average costs for Indonesia, Malaysia, the Philippines, Singapore, and Thailand fell by more than 50% from

85. Athukorala and Menon, “Global Production Sharing, Trade Patterns, and Determinants of Trade Flows in East Asia,” 9.

86. Athukorala and Menon, “Global Production Sharing, Trade Patterns, and Determinants of Trade Flows in East Asia,” 10; Athukorala, “Production Networks and Trade Patterns in East Asia,” 7.

87. Asian Development Bank, *Emerging Asian Regionalism*, 64.

88. Elliott and Ikemoto, “AFTA and the Asian Crisis,” 20-21.

89. Ibid., 17.

90. The term “trade costs” was defined as the gap between free-on-board (FOB) values when a good reaches the port in the exporting country and import values that include cost, insurance and freight (CIF).

91. The authors opined that Australia would be a good indicator of the trade costs of its trading partners, as it is a large economy with little geographically discriminatory policies and limited transport modes for imports.

92. Richard Pomfret and Patricia Sourdin, “Have Asian trade agreements reduced trade costs?,” *Journal of Asian Economics* 20, no. 3 (May 2009): 256.

93. This is bigger than the drop from 8% to 5% in the *ad valorem* trade costs on all other exports to Australia.

94. Pomfret and Sourdin, “Have Asian trade agreements reduced trade costs?,” 262.

1990 to 2007.<sup>95</sup> The significant decline occurred between 1994-2003, with average trade costs converging to 4-5.5% in 2007.<sup>96</sup> For Indonesia, the Philippines, Malaysia, Singapore, and Thailand, the decline occurred before 2002.<sup>97</sup> The trade costs for Myanmar and Vietnam fell after they joined ASEAN in the late 1990s.<sup>98</sup> The authors concluded that the period of the decrease in trade costs “corresponds to the period during which AFTA was being established and suggests that the importance of AFTA lies in the environment for trade facilitation.”<sup>99</sup> They also raised the possibility that both the rise in Asian preferential trade agreements (PTAs) and the decline in trade costs may be linked to the emergence of production networks, which created a demand for reduced trade costs.<sup>100</sup>

Orefice and Rocha (2014) specifically focused on the role played by production networks in trade. They found dual links between PTAs and production networks, *i.e.*, that PTAs generated increases in production network trade, and that countries involved in production networks were more likely to sign deeper agreements. They also examined the impact of production network trade on the probability of Asian countries to sign deeper agreements. For Asian countries, production networks had a positive and significant effect on the probability of signing deeper PTAs. Production networks had an insignificant effect on the same probability for Europe, South and Central America, and Africa.<sup>101</sup>

Table 3.1 presents the main production network-related industries per Member State.<sup>102</sup> The wholesale and retail trade tops the list, followed by computers and electronics. Cambodia, Indonesia, Thailand and Vietnam are exporters of agricultural inputs in production networks.

95. Pomfret and Sourdin, “Have Asian trade agreements reduced trade costs?,” 262.

96. Ibid., 263-264.

97. Ibid., 265.

98. Ibid., 263.

99. Ibid., 265.

100. Ibid.

101. Orefice and Rocha, “Deep Integration and Production Networks,” 125-126.

102. As there was no available data for Lao People’s Democratic Republic (PDR) and Myanmar, these countries were excluded.

103. “S” denotes that the Member State is a “seller” within the context of production networks, *i.e.*, its domestic value added is exported as intermediates. “B” denotes that the Member State is a “buyer”, *i.e.*, an importer of foreign intermediates to produce exports of both intermediate and final goods. Data from World Trade Organization, “Trade in Value-Added and Global Value Chains: Statistical Profiles,” accessed January 3, 2017, [https://www.wto.org/english/res\\_e/statis\\_e/miwi\\_e/countryprofiles\\_e.htm](https://www.wto.org/english/res_e/statis_e/miwi_e/countryprofiles_e.htm).

TABLE 3.1: Production Network Industries<sup>103</sup>.

	BN	KH	ID	MY	PH	SG	TH	VN
Mining	S,B		S,B	S				S
Transport, storage	S,B	S,B			S,B	S,B		
Other business services	S							
Construction	B							
Agriculture		S	S				S	S
Textiles		B						B
Wholesale, retail		S,B	S	S	S	S	S	S
Basic metals			B		B			
Chemical products			B	B			S	
Computers, electronics				S,B	S,B	S,B	B	B
Food, beverages				B				B
Petroleum products						B		
Motor vehicles							B	
Machinery and equipment							B	

### 3.3.2 Structural Change and Non-Tariff Measures

The evolving nature of ASEAN trade has stimulated and enhanced the structural changes that have been underway since the 1950s. These structural changes are reflected in the indicators for output, employment and trade, among others. *Tables 3.2* and *3.3* illustrate the increased significance of industry and services for the economies of the Member States, as measured by their contribution to gross domestic product (GDP). In the cases of Indonesia, Malaysia, the Philippines and Thailand, the shift from agriculture to industry which began during the 1950s and 1960s continued during the 1980s and thereafter.<sup>104</sup> While agriculture made up around a quarter of those countries' total output in 1980, by 2015 it contributed between 8 to 14% of their total GDP.

The structural change is more dramatic in the newer Member States. Before Vietnam joined ASEAN, agriculture comprised more than a third of its GDP. By 2015, agriculture represented only 16% of its GDP. Agriculture's share in the GDPs of Cambodia, Lao People's Democratic Republic (PDR), and Myanmar dropped from around 50 - 61% to just over 25%. Services currently constitute the most important sector within the region.

104. Anne E. Booth, *Colonial Legacies: Economic and Social Development in East and South-east Asia* (University of Hawai'i Press, 2007), 168-170.

TABLE 3.2: Value Added as % of GDP<sup>105</sup>.

COUNTRY	INDICATOR	1980	1985	1990	1995	2000	2005	2010	2015
Brunei Darussalam	Agriculture	0.63	1.21	0.97	1.16	1.02	0.95	0.73	1.10
	Industry	84.82	71.81	61.56	54.27	63.67	71.56	68.66	61.36
	Services	14.54	26.98	37.48	44.57	35.31	27.49	30.61	37.54
Indonesia	Agriculture	25.80	23.76	20.93	17.14	15.60	13.13	13.93	13.52
	Industry	44.90	36.71	42.17	41.80	45.93	46.54	42.78	40.01
	Services	36.93	41.93	44.71	41.06	38.47	40.33	40.67	43.32
Malaysia	Agriculture	23.03	20.28	15.22	12.95	8.60	8.26	10.09	8.45
	Industry	41.79	39.23	42.20	41.40	48.32	45.93	37.80	36.43
	Services	35.18	40.48	42.59	45.65	43.08	45.81	52.11	55.12
Philippines	Agriculture	25.12	24.58	21.90	21.63	13.97	12.66	12.31	10.27
	Industry	38.79	35.07	34.47	32.06	34.46	33.83	32.57	30.77
	Services	36.10	40.35	43.62	46.31	51.58	53.50	55.12	58.96
Singapore	Agriculture	1.57	0.96	0.34	0.16	0.10	0.06	0.04	0.04
	Industry	36.23	33.44	32.34	33.75	34.83	32.36	27.63	26.40
	Services	62.20	65.60	67.32	66.09	65.07	67.58	72.33	73.56
Thailand	Agriculture	23.24	15.81	12.50	9.08	8.50	9.20	10.53	9.14
	Industry	28.68	31.84	37.22	37.53	36.84	38.63	40.03	35.72
	Services	48.08	52.35	50.28	53.39	54.66	52.17	49.44	55.14

TABLE 3.3: Value Added as % of GDP<sup>106</sup>.

COUNTRY	INDICATOR	1990	1995	2000	2005	2010	2015
Cambodia	Agriculture		49.62	37.84	32.40	36.02	28.25
	Industry		14.83	23.03	26.37	23.25	29.42
	Services		35.55	39.13	41.23	40.73	42.33
Lao PDR	Agriculture	61.23	55.68	45.17	36.18	31.45	27.38
	Industry	14.51	19.24	16.61	24.61	32.29	30.95
	Services	24.26	25.08	38.23	39.21	36.26	41.67
Myanmar	Agriculture			57.24	46.69	36.85	26.75
	Industry			9.69	17.51	26.47	34.54
	Services			33.07	35.80	36.68	38.71
Vietnam	Agriculture	38.74	27.18	22.73	19.30	18.38	16.99
	Industry	22.67	28.76	34.20	38.13	32.13	33.25
	Services	38.59	44.06	43.07	42.57	36.94	39.73

105. Data from World Bank, "World Development Indicators," accessed January 14, 2017, <http://databank.worldbank.org/>.

The declining economic importance of agriculture is also seen in the decreasing agricultural labor force. *Table 3.4* shows the percent of the Member States' population employed in agriculture, industry and services.<sup>107</sup> Despite the structural changes in the Member States, and with the exception of Malaysia and Cambodia, the agricultural sector still ranks second to services in terms of employment. In the case of Cambodia, most of its population is still engaged in agricultural work. As of 2009, 67% and 64% of the economically active populations in Myanmar and Vietnam, respectively, were in agriculture.<sup>108</sup>

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106. Data from *ibid.*

107. Brunei Darussalam is excluded due to lack of data.

108. Food and Agriculture Organization, "Food and Agriculture Country Profiles," accessed January 16, 2017, <http://www.fao.org/faostat/en/#home>.

TABLE 3.4: % of Total Employment<sup>109</sup>.

COUNTRY	SECTOR	1980	1985	1990	1995	2000	2005	2010
Cambodia	Agriculture					73.70		54.10
	Industry					8.40		16.20
	Services					17.9		29.60
Indonesia	Agriculture	56.40	54.70	55.90	44	45.30	44	38.30
	Industry	13.1	13.4	13.7	18.4	17.4	18.70	19.30
	Services	30.4	31.80	30.20	37.60	37.30	37.20	42.30
Lao PDR	Agriculture				85.4			71.30
	Industry				3.5			8.30
	Services				11.1			20.20
Malaysia	Agriculture	37.2	30.4	26	20	18.4	14.6	13.30
	Industry	24.1	23.8	27.5	32.3	32.2	29.7	27.60
	Services	38.7	45.8	46.5	47.7	49.5	55.6	59.2
Myanmar	Agriculture	67.1	66.1	69.7				
	Industry	9.8	10.6	9.2				
	Services	23.1	23.3	21				
Philippines	Agriculture	51.80	50	45.20	44.10	37.10	36	33.20
	Industry	15.4	13.8	15	15.6	16.20	15.6	15.00
	Services	32.80	36.5	39.70	40.30	46.70	48.5	51.80
Singapore	Agriculture	1.3	0.7	0.4	0.2		1.1	
	Industry	35.7	35.2	37.9	31		21.7	30.40
	Services	62.6	63.9	61.7	68.8		77.3	68.90
Thailand	Agriculture	70.80		63.30	51.60	48.5	42.60	38.20
	Industry	10.3		13.6	18.9	17.9	20.20	20.60
	Services	18.9		23	29.4	33.60	37.10	41
Vietnam	Agriculture					65.30		
	Industry					12.4		
	Services					22.30		

Except for Brunei Darussalam and Indonesia,<sup>110</sup> the increased importance of

109. Data from World Bank, "World Development Indicators."

110. Neither Brunei Darussalam nor Indonesia show any obvious shifts in the composition of their traded goods. Brunei Darussalam is mainly an exporter of fuels and mineral products, and an importer of manufactures. In general, Indonesia's trade in agricultural items, fuels and minerals, and manufactures have increased during the past decades. A majority of its imports are manufactures. *ibid.*



industry, specifically the manufacturing sector, is also reflected in the composition of the exports and imports of the Member States. *Figures 3.1 to 3.6* depict the trends in the exports and imports of the Member States by commodity.<sup>111</sup>

The trends for Cambodia and Vietnam are shown in *Figures 3.1* (Cambodia) and *3.2* (Vietnam). These newer Member States trade mainly in manufactures, and this trade intensified shortly after their entry into ASEAN.<sup>112</sup> Cambodia's leading traded products are textiles and clothing.<sup>113</sup> The textile industry is also the country's leading importer of foreign inputs for items which are subsequently exported as intermediate products, *i.e.*, items which are meant for further processing. It is reasonable to suppose that this sector's involvement in production networks is one reason for the increasing textile imports. Starting from the early 2000s, Cambodia's imports of machinery and transport equipment also began to increase. One possible explanation for this is Cambodia's increased participation in transport industry production networks.<sup>114</sup>

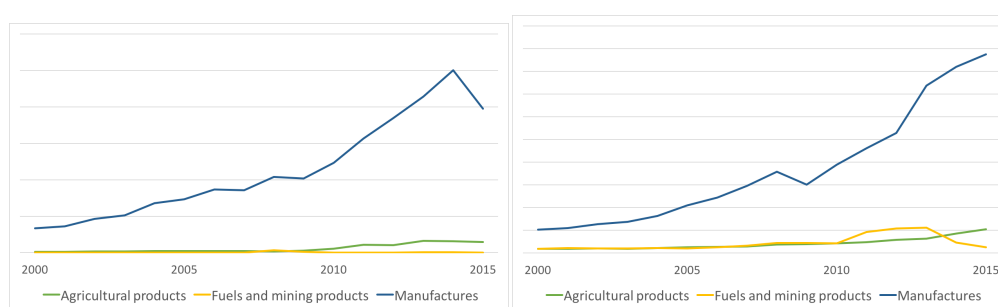


FIGURE 3.1: Cambodia Exports and Imports<sup>115</sup>.

Vietnam's exports and imports of manufactures steadily rose during the early 2000s, following its joining ASEAN in 1995. By 2015, trade in manufactures greatly surpassed trade in agricultural, fuel and mining products. Vietnam's leading export industries are food and beverages, wholesale and retail trade, and textiles. However, exports and imports of machineries and transport equipment, including parts and components thereof, are considerably greater than its trade

111. Due to insufficient data, Lao People's Democratic Republic and Myanmar are excluded.

112. Cambodia and Vietnam joined ASEAN on 1999 and 1995, respectively.

113. World Trade Organization, "Time Series on International Trade," accessed January 3, 2017, <https://stat.wto.org>.

114. World Trade Organization, "Trade in Value-Added and Global Value Chains: Statistical Profiles."

115. Data from World Trade Organization, "Time Series on International Trade."

in other products.<sup>116</sup> This may be due to the country's involvement in computers and electronics production networks. In fact, this industry is the top importer of foreign inputs for exported intermediate items.<sup>117</sup>

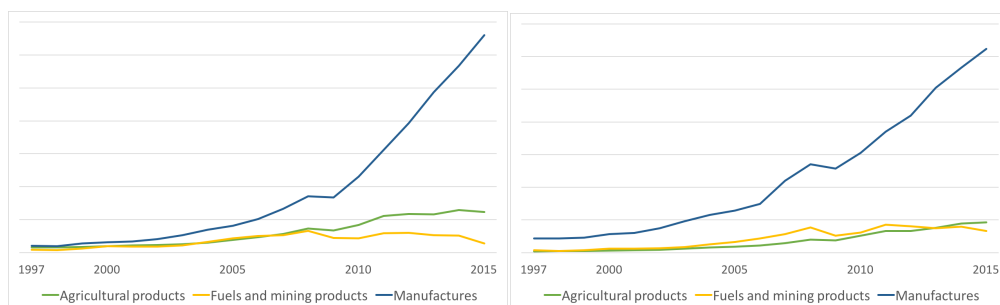


FIGURE 3.2: Vietnam Exports and Imports<sup>118</sup>.

Trends in exports and imports for the remaining Member States can be seen in *Figures 3.3* (Malaysia), *3.4* (the Philippines), *3.5* (Singapore) and *3.6* (Thailand). These Member States' trade in manufactures noticeably increased during the early 1990s. This coincided with the launch of the AFTA. While this is not conclusive proof of causality, it is likely that the AFTA stimulated and contributed to this trade growth. These Member States are also active participants in production networks, most notably in the information and communication technology sector.<sup>119</sup> The active trade in machineries, particularly of electronics parts and components,<sup>120</sup> reflects the importance of this sector in these Member States.

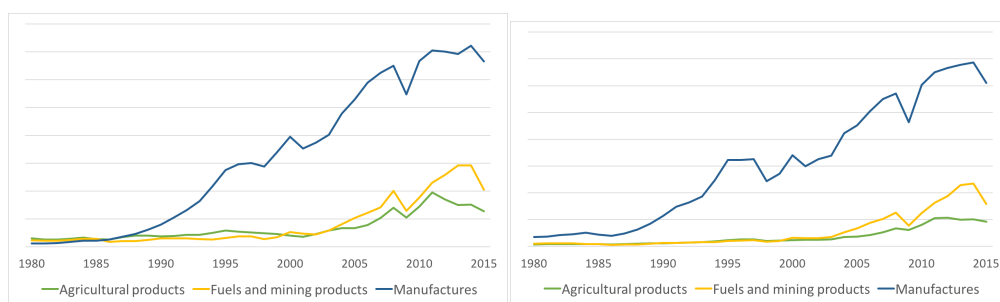


FIGURE 3.3: Malaysia Exports and Imports<sup>121</sup>.

116. World Trade Organization, "Time Series on International Trade."

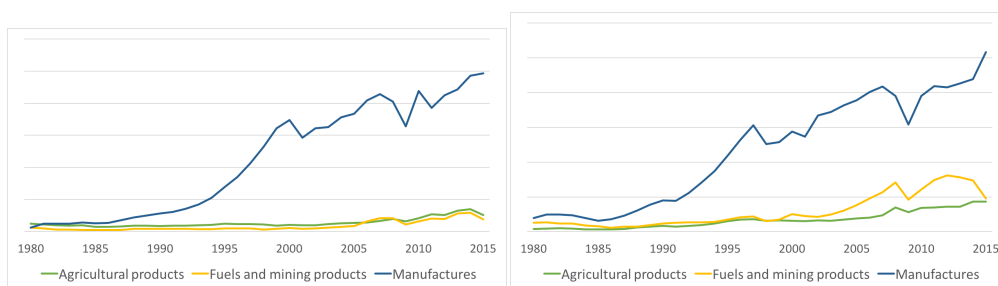
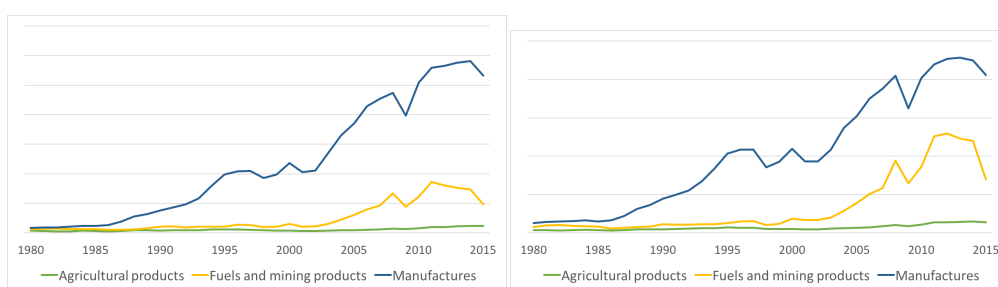
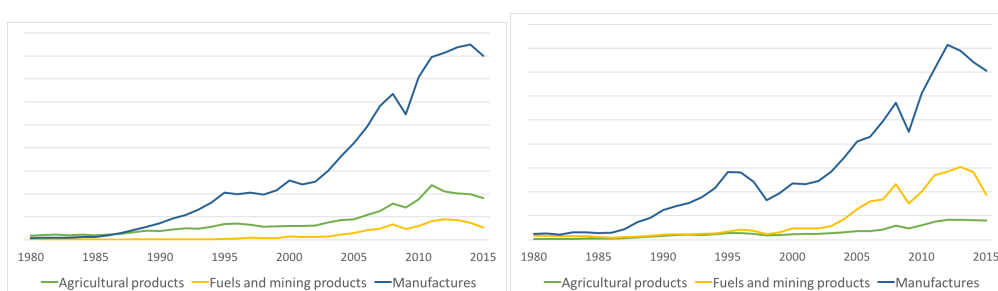
117. World Trade Organization, "Trade in Value-Added and Global Value Chains: Statistical Profiles."

118. Data from World Trade Organization, "Time Series on International Trade."

119. Kawai and Naknoi, "ASEAN Economic Integration through Trade and FDI," 3.

120. World Trade Organization, "Time Series on International Trade."

121. Data from *ibid*.

FIGURE 3.4: Philippines Exports and Imports<sup>122</sup>.FIGURE 3.5: Singapore Exports and Imports<sup>123</sup>.FIGURE 3.6: Thailand Exports and Imports<sup>124</sup>.

This increasing trade in manufactures coincided with an increased involvement in production networks. These trends imply that the region's trade policies promoted increased participation in production networks. In particular, liberalized tariffs within the context of the region's trade agreements coincided with increased trade in parts and components. The decision to pursue a deeper form of integration in ASEAN was also reached in this context. With increased intra-regional trade links, it is now in the Member States' common interest to reduce

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122. Data from *ibid.*

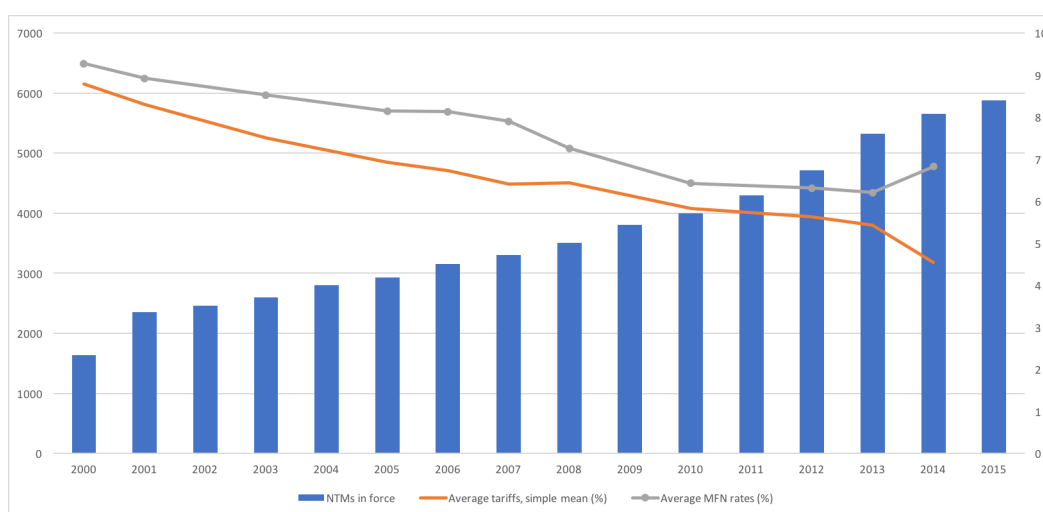
123. Data from *ibid.*

124. Data from *ibid.*

trade costs between one another. In this way, they became more amenable to trade liberalization.<sup>125</sup>

The lessened role of agriculture, however, also coincided with the rising incidence of NTMs. *Figure 3.7* illustrates the trends in both tariffs and NTMs in the region. The bars indicate the number of NTMs which are in force per year in the region. The averages of both applied and most favored nation (MFN) tariff rates are indicated by the two lines. It is apparent that the decline in average tariff rates coincided with the increasing incidence of NTMs. This begs the question: are NTMs used as a substitute for tariffs as a source of protection?

FIGURE 3.7: NTMs Initiated, 2001-2015<sup>126</sup>.



The idea that NTMs are used in lieu of tariffs is not new.<sup>127</sup> The theory is “that treaties that remove or reduce one type of distortion may lead to the use of other policies that are even worse”,<sup>128</sup> such as NTBs. In the ASEAN case, however, the analysis of this issue must be conducted bearing in mind that tariff liberalization was pursued in order to foster regional production networks. The question then becomes: are NTMs used to protect domestic industries that although unconnected with production networks, were affected by the structural changes brought about by tariff liberalization?

125. World Trade Organization, *World Trade Report 2011*, 145; Orefice and Rocha, “Deep Integration and Production Networks,” 107; Kim, “Deep Integration and Regional Trade Agreements,” 367.

126. Adapted from Ing et al., “Non-Tariff Measures in ASEAN: A Simple Proposal,” 22.

127. Ibid.

128. Simon P. Anderson and Nicolas Schmitt, “Nontariff Barriers and Trade Liberalization,” *Economic Inquiry* 41, no. 1 (January 2003): 80.

Alternatively, rising NTM incidence may be due to an increased demand for regulations in an increasingly modernized and globalized economy. Rising incomes lead to increased demand for both product variety and quality. In other words, *“trade liberalization leads to import-quality heterogeneity which itself causes regulatory controls.”*<sup>129</sup> In the context of production networks, NTM use may be the outcome of increased demand for both process and product quality. As production processes become increasingly unbundled, countries involved in production networks are driven to impose high quality standards. Quality measures in particular may serve to address information asymmetries, by signaling that products and processes comply with generally accepted international standards. This serves the dual purpose of: (i) ensuring that intermediate and final goods are compliant with the standards and regulations of the ultimate consumers, *i.e.*, developed countries; and (ii) enabling producers to signal the quality of their production processes and products to their buyers. In this context, are NTMs used to promote and enhance production networks?

If the use of NTMs was due to an increased regulatory demand, there would be a greater incidence of measures dealing with the quality of products and processes, *i.e.*, SPS and TBTs.<sup>130</sup> The regulatory demand hypothesis may also be supported by the issuance of NTMs by governments’ health and environmental agencies, as there is a presumed public welfare motive for these measures. Still, the possibility that these ministries are vulnerable to capture and lobbying should not be discounted.<sup>131</sup> The use of health, safety, and other welfare justifications may merely be a ruse to *“generate general support or tolerance for actions or policies that cannot be fully monitored”*.<sup>132</sup> On the other hand, NTMs which affect *“declining industries”*<sup>133</sup> and which were issued by trade or industry agencies<sup>134</sup> may evidence protectionism. Declining industries have a greater incentive to lobby for protection from industry or trade agencies in order to protect them against further losses. Additionally, since new entrants

129. Ing et al., “Non-Tariff Measures in ASEAN: A Simple Proposal,” 23.

130. Ibid.

131. Ibid., 28.

132. Levine and Forrence, “Regulatory Capture, Public Interest, and the Public Agenda: Toward a Synthesis,” 180.

133. Richard E. Baldwin and Frédéric Robert-Nicoud, “Entry and Asymmetric Lobbying: Why Governments Pick Losers,” *Journal of the European Economic Association* 5, no. 5 (2007): 1065-1066, [http://www.jstor.org.proxy.library.cornell.edu/stable/40005032.pdf?acceptTC=true](http://www.jstor.org.proxy.library.cornell.edu/stable/40005032%7B%5C%7D5Cnhttp://www.jstor.org.proxy.library.cornell.edu/stable/pdfplus/10.2307/40005032.pdf?acceptTC=true).

134. Ing et al., “Non-Tariff Measures in ASEAN: A Simple Proposal,” 28.

are unlikely in declining industries, incumbent industry players are the sole recipients of the benefits of protection. Industry's support for the government is preserved.

The identity of the issuing authorities is thus enlightening. *Table 3.5* shows a breakdown of total ASEAN NTMs based on the issuing authorities. Regional health ministries are the leading issuing authority, being responsible for 31.3% of total NTMs. However, more than 60% of NTMs have been issued by bodies which either cannot rely on a presumed public welfare motivation, or which may be susceptible to capture by local interests. This warrants a closer look at the trends in each of the Member States.

TABLE 3.5: ASEAN NTMs By Issuing Authority, as of 2015<sup>135</sup>.

Ministry/Agency	Number of NTMs	Percentage of NTMs
Ministry of Health	1868	31.3%
Ministry of Agriculture (including forestry, plantation, fisheries)	1865	31.2%
Other institutions	759	12.7%
Ministry of Trade	468	7.8%
Ministry of Industry	425	7.1%
Ministry of Environment	178	3.0%
Cabinet Office, State Secretary	175	2.9%
World Trade Organization	87	1.5%
Ministry of Finance	86	1.4%
Ministry of Energy	64	1.1%

A number of characteristics suggest that the use of NTMs in Brunei Darussalam, Malaysia and Singapore can be supported by the regulatory demand hypothesis.<sup>136</sup> Firstly, the number of NTMs in Brunei Darussalam and Malaysia have been relatively stable in recent years. It is true that the number of NTMs in Brunei Darussalam increased noticeably from 2000 (74 NTMs) to 2001 (424). However, by the end of 2013, Brunei Darussalam had 516 NTMs in force. In the case of Malaysia, the number of NTMs rose from 579 in 2000 to 713 by 2014. These numbers show that increased participation in production networks

135. Adapted from Ing et al., "Non-Tariff Measures in ASEAN: A Simple Proposal," 29.

136. "Non-Tariff Measures Based on Official Regulations, ASEAN," accessed January 3, 2017, <http://asean.i-tip.org/>.

did not coincide with the increased incidence of NTMs. Secondly, a majority of the NTMs in Brunei Darussalam and Malaysia have been issued by health ministries. 68.6%<sup>137</sup> and 70.41%<sup>138</sup> of the NTMs in Brunei Darussalam and Malaysia, respectively, were issued by their Ministries of Health. It can be assumed that these NTMs were issued by health ministries acting in accordance with their mandate, *i.e.*, to promote public health. Nevertheless, it is equally possible that public health motivations were used merely as a ruse to justify possibly protectionist policies.

Thirdly, the high incidence of TBTs and SPS measures in foodstuffs and agricultural products in Brunei Darussalam, Malaysia and Singapore suggests that the aim is to enhance the quality of these products, thus supporting the regulatory demand hypothesis. It is also worth noting that some of the most highly regulated products<sup>139</sup> are used in production network trade. Since production network trade in these Member States does not appear to have been adversely affected, the NTMs could be functioning as a signal of product quality and safety.

For the other Member States,<sup>140</sup> however, a number of characteristics indicate that there may be underlying political economy motives. These motives may have resulted from their increased participation in production networks. Firstly, the increasing trend in NTMs coincided with their enhanced participation in production networks. *Figures 3.8 to 3.11* show the time trends of NTMs in Cambodia, Indonesia, Thailand, and Vietnam. For these Member States, there is a clear upward trend in the incidence of NTMs. This trend is more noticeable in countries<sup>141</sup> which, until recently, were not as involved in production networks as the other Member States. This suggests that there is a link between increased participation in production networks and the use of NTMs.

137. Christina Ruth Elisabeth, "Classification of Non-tariff Measures in Brunei Darussalam," in *Non-Tariff Measures in ASEAN*, ed. Lili Yan Ing, Santiago Fernandez de Cordoba, and Olivier Cadot (Economic Research Institute for ASEAN, 2016), 41, <http://asean.i-tip.org>.

138. Evelyn S. Devadason, V.G.R. Chandran, and Tang Tuck Cheong, "Non-tariff Measures in Malaysia," in *Non-Tariff Measures in ASEAN*, ed. Lili Yan Ing, Santiago Fernandez de Cordoba, and Olivier Cadot (Economic Research Institute for ASEAN, 2016), 89, <http://asean.i-tip.org>.

139. These are machineries and electrical products, for Singapore, and foodstuffs and chemical products, for Malaysia.

140. Lao PDR and Myanmar were excluded from this analysis due to insufficient information regarding their participation in production networks.

141. Namely Indonesia, Cambodia, and Vietnam.

FIGURE 3.8: Cambodia NTMs, 2000-2015<sup>142</sup>.

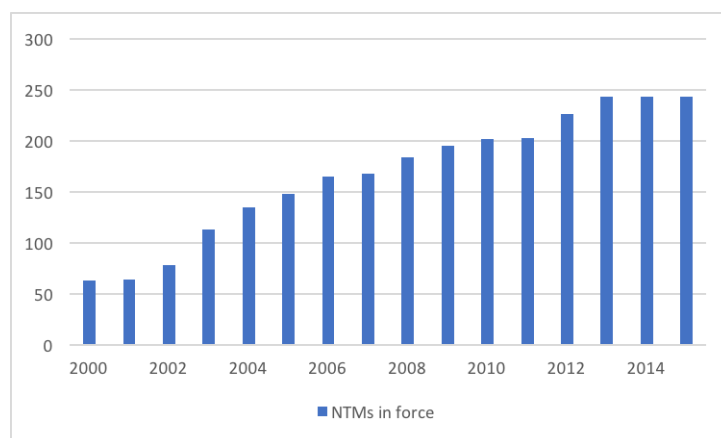


FIGURE 3.9: Indonesia NTMs, 2000-2015<sup>143</sup>.

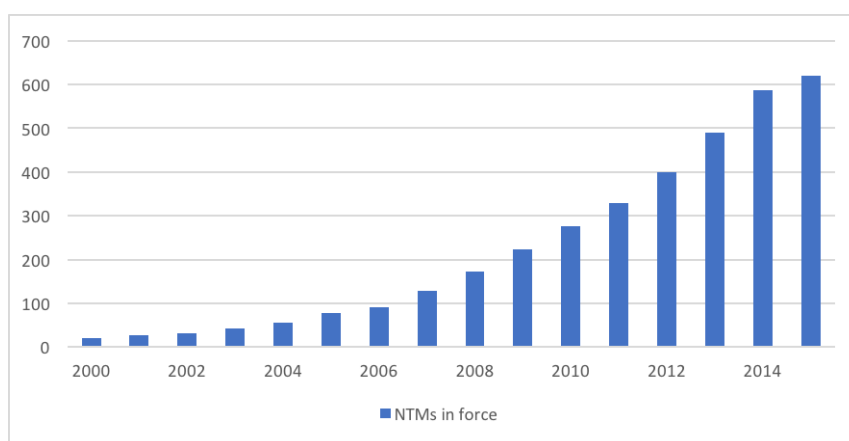
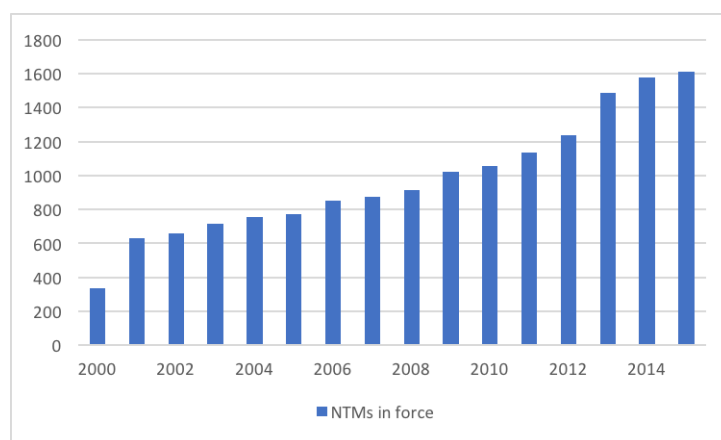


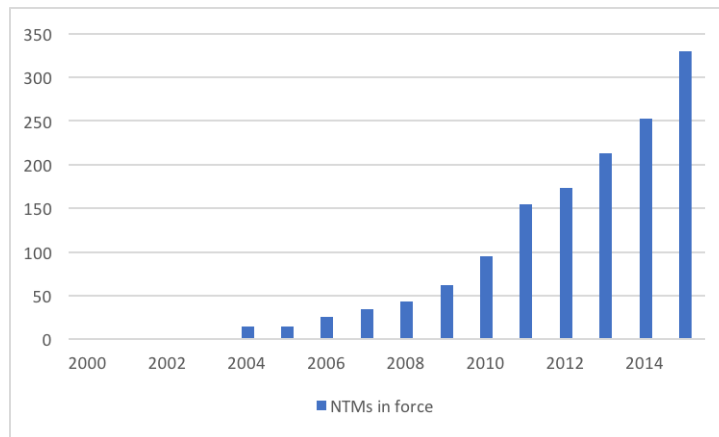
FIGURE 3.10: Thailand NTMs, 2000-2015<sup>144</sup>.



142. Adapted from Ing et al., “Non-Tariff Measures in ASEAN: A Simple Proposal,” 25.

143. Adapted from *ibid.*, 26.



FIGURE 3.11: Vietnam NTMs, 2000-2015<sup>145</sup>.

Secondly, the NTMs in these Member States mainly affect agricultural products and foodstuffs. *Table 3.6* shows the total NTMs affecting different industries, expressed as a percentage of total NTMs, in Cambodia (KHM), Indonesia (IDN), the Philippines (PHL), Thailand (THA), and Vietnam (VNM). 62% of the NTMs in these Member States affect agricultural and food products. Machineries are the second most regulated product category, with 12% of total NTMs. Among these Member States, Indonesia's NTMs are mainly focused on agricultural and food products.

TABLE 3.6: NTMs per Industry, as a %<sup>146</sup>.

	IDN	KHM	PHL	THA	VNM	Overall
Agricultural, Food	95	32	28	9	47	62
Chemicals	3	19	16	30	12	11
Light manufactures	1	23	22	12	23	9
Metals	0	4	9	6	5	3
Machineries	0	18	21	36	10	12
Others	0	3	5	8	3	3

Agricultural and food products are also among the most intensely regulated products in these countries. All the traded products in Cambodia, including

144. Adapted from *ibid.*

145. Adapted from *ibid.*

146. Data from "Non-Tariff Measures Based on Official Regulations, ASEAN."

agricultural products, are subject to at least 3 NTMs.<sup>147</sup> In Indonesia, 9% of the tariff lines of animal and animal products are subject to 3 or more NTMs.<sup>148</sup> Agricultural products and foodstuffs are likewise subjected to at least 3 NTMs in Thailand.<sup>149</sup> The most regulated products in these Member States include a number of their main crops, such as rice, sugar cane, vegetable varieties, coffee, sweet potatoes and other tubers, and tobacco. Edible meats, fish and different kinds of seafoods, along with preparations thereof, are also among the most regulated animal products.<sup>150</sup>

While most of the measures aim to ensure the quality and safety of agricultural products, others seem motivated by non-quality concerns. *Table 3.7* shows the breakdown of NTMs by type, expressed as a percentage of total NTMs, in these Member States. A majority of NTMs are quality measures, *i.e.*, SPS (43%) and TBTs (31%). However, more than 25% of NTMs fall under other NTM types such as pre-shipment inspections and other formalities (PSI), quantity measures (QTY), price control measures (PCE), finance measures (FIN), measures affecting competition (COMP), and export-related measures (EXP). Cambodia, the Philippines, and Vietnam all impose export-related measures (EXP) on a number of products.<sup>151</sup>

147. Sotharith, Ruth Elisabeth L. Tobing, and Widian, “Classification of Non-tariff Measures in Cambodia,” 60-61.

148. Ernawati Munadi, “Indonesia’s Non-tariff Measures: An Overview,” in *Non-Tariff Measures in ASEAN*, ed. Lili Yan Ing, Santiago Fernandez de Cordoba, and Olivier Cadot (Economic Research Institute for ASEAN, 2016), 71, <http://asean.i-tip.org>.

149. Chedtha Intaravitak, “Non-tariff Measures in Thailand,” in *Non-Tariff Measures in ASEAN*, ed. Lili Yan Ing, Santiago Fernandez de Cordoba, and Olivier Cadot (Economic Research Institute for ASEAN, 2016), 146-148, <http://asean.i-tip.org>.

150. “Non-Tariff Measures Based on Official Regulations, ASEAN.”

151. Export-related measures include, but are not limited to, quotas, export prohibitions, licensing requirements, and quantitative restrictions.

TABLE 3.7: NTMs by Type, in %<sup>152</sup>.

	IDN	KHM	PHL	THA	VNM	Overall
SPS	70	14	12	6	31	43
TBT	19	29	8	89	29	31
PSI	10	0	3	0	0	6
QTY	0	9	1	1	0	1
PCE	0	5	10	1	13	3
FIN	0	0	3	0	0	1
COMP	0	0	24	0	12	5
EXP	1	43	37	3	14	11

A closer look at these NTMs shows that they do not primarily aim to promote quality and safety. For example, a price control measure in Cambodia provides that the value-added tax on the importation of certain agricultural items, such as vegetables and cereal seeds, shall be borne by the State.<sup>153</sup> Indonesia can postpone the importation of meat products if the domestic price of beef is lower than the reference price of the former.<sup>154</sup> The import of fish and other kinds of seafood is only allowed in the Philippines if needed for food security<sup>155</sup> or, in the case of institutional buyers, if these items are not endemic in the country<sup>156</sup>. And a regulation in Vietnam discourages imports of items which can be sourced domestically, such as sugar, fish and seafood.<sup>157</sup>

Given the high incidence of NTMs on agricultural goods, their corresponding trade patterns also bears looking into. With the exception of the Philippines, these Member States are exporters of agricultural inputs for production networks.<sup>158</sup> However, agricultural exports are greatly outnumbered by manufactures exports. On the other hand, for the Philippines, Thailand, and Vietnam,

152. Data from “Non-Tariff Measures Based on Official Regulations, ASEAN.”

153. Prakas No. 303 on the Implementation of the Value Added Tax on the Importation and the Supply on Certain Goods.

154. Ministry of Trade Regulation No. 46/M-DAG/PER/8/2013.

155. Fisheries Administrative Order No. 195, series of 1999, *Rules and Regulations Governing Importation of Fresh/Chilled/Frozen and Fishery Aquatic Products*.

156. Fisheries Memorandum Order No. 001, series of 2000, *Guidelines in the processing of applications for importation for fresh/chilled/frozen fish and fishery/aquatic products*.

157. “Non-Tariff Measures Based on Official Regulations, ASEAN.”

158. See *Table 3.1*.

trade in machineries<sup>159</sup> and chemicals is seemingly unaffected by the high number of NTMs affecting these products. Cambodian and Vietnamese trade in light manufactures<sup>160</sup> are likewise unaffected.<sup>161</sup> As *Table 3.1* shows, these Member States are involved in production network trade in these industries. It can be surmised from this that NTMs on machineries, manufactures, and chemicals serve to promote production network trade, that is, as a signal of quality.

As NTMs fail to promote trade (including production network trade) in agriculture, the possibility that these have underlying protectionist motivations cannot be denied. The decrease in the number of people employed in agriculture may have made lobbying by the agricultural sector easier and more effective. That there is still a sizable agricultural workforce despite this fall in numbers, implies that this sector has much to gain by lobbying for, and gaining, protection. In addition, the agricultural workforce can deliver much-needed votes at elections.

The demand for NTMs in favor of agriculture may also come from landowning entities, such as corporations and cooperatives. A recent agricultural census in Cambodia identified 101 agricultural holdings of legal entities operating over 806,628 hectares.<sup>162</sup> Compared to the 2.13 million household agricultural holdings, working 3.30 million hectares,<sup>163</sup> the number of legal entity holdings is small. However, while around 90% of agricultural households conducted their activities on less than 4 hectares,<sup>164</sup> legal entities operated on large plantation areas of at least 1000 hectares, with 5 entities operating on 47% of those 806,628 hectares.<sup>165</sup>

Vietnam also has a pattern of legal entities operating larger agricultural holdings. *Table 3.8* shows the structure of agricultural units in Vietnam according to land use. As with Cambodia, household units are mainly smallholders, with 84% of households operating only 2 hectares or less. Holdings of legal entities,

159. Including transport products, computers, and electronics.

160. Including clothing and textiles.

161. World Trade Organization, "Time Series on International Trade."

162. National Institute of Statistics, *Census of Agriculture in Cambodia 2013: National Report on Final Census Results*, technical report (2015), 35, [www.fao.org/world-census-agriculture/wca2020/wca2010/countries2010/en/](http://www.fao.org/world-census-agriculture/wca2020/wca2010/countries2010/en/).

163. Ibid., 28.

164. Ibid.

165. Ibid., 35.

including both enterprises and cooperatives, operate the larger holdings.<sup>166</sup>

TABLE 3.8: Agricultural Units in Vietnam, 2011<sup>167</sup>.

	0-2 hectares	10 hectares or more
Enterprise	10.58%	38.95%
Cooperative	2.4%	22.68%
Households	83.76%	0.53%

Data from the Philippines provide information on the size, structure and legal status of agricultural holdings. *Table 3.9* shows the percentage of holdings and agricultural area that operate small<sup>168</sup> and large<sup>169</sup> holdings. It is noteworthy that while large holdings account for only 2% of total holdings, these operate 21% of total agricultural area in the Philippines.

TABLE 3.9: Structure of Land Holdings in the Philippines, 2002<sup>170</sup>.

	0-2 hectares	10-50 hectares
Holdings	68%	2%
Agricultural Area	26%	21%

*Tables 3.10* and *3.11* show the structure of agricultural units in the Philippines based on the legal status of rights holders and the type of tenure. As with Cambodia, the number of agricultural holdings of legal entities is small. Moreover, less than half of the holdings are owned by the rights holders. A majority of holdings are under other forms of tenure, such as rentals or tenancy arrangements. This implies that while 99% of all holdings are operated by civil persons, such as agricultural households, these holdings are not necessarily owned by them.

166. General Statistics Office, *Results of the 2011 Rural, Agricultural and Fishery Census*, technical report (2012), 269, [www.fao.org/world-census-agriculture/wca2020/wca2010/countries2010/en/](http://www.fao.org/world-census-agriculture/wca2020/wca2010/countries2010/en/).

167. Data from *ibid.*

168. Measuring 2 hectares or less.

169. Measuring 10 to 50 hectares.

170. Data from Sarah K. Lowder, Jakob Skoet, and Terri Raney, "The Number, Size, and Distribution of Farms, Smallholder Farms, and Family Farms Worldwide," *World Development* 87 (2016): Appendix Table 3.

TABLE 3.10: Legal Status of Holdings in the Philippines, 2002<sup>171</sup>.

	Number of Holdings	Area(ha)
Civil persons	4,782,541	9,325,164
Corporation	7,590	214,316
Cooperative	13,629	68,133
Government	2,673	7,413
Others	16,306	55,767
Total	4,822,739	9,670,793

TABLE 3.11: Tenure of Holdings in the Philippines, 2002<sup>172</sup>.

	Number of Holdings	Area(ha)
Under 1 Form of Tenure	3,322,411	6,565,776
Owned	2,292,666	4,896,765
Rented	989,885	1,573,815
Under other single forms	27,267	72,650
Not reported	12,593	22,546
Under More Than 1 Form of Tenure	1,500,328	3,105,017
Total	4,822,739	9,670,793

The apparent trend is for agricultural households to operate small holdings, while legal entities operate large holdings, *i.e.*, plantations. It is reasonable to suppose that, given their similar interests, this small group of legal entities can organize and lobby for regulations in their benefit. As the agricultural sector has been declining in recent decades, no beneficial policies and regulations in favor of this sector will be sufficient to entice new entrants. Possible variations in the issued NTMs also make it possible to tailor regulations in order to limit any benefits to certain beneficiaries only, *i.e.*, large plantations and corporate entities.

The identity of the issuing authorities in these countries is also telling. *Table 3.12* below indicates the percent of total NTMs attributable to the main issuing

171. Data from Food and Agriculture Organization, “2000 World Census of Agriculture: Main Results and Metadata by Country (1996-2005),” accessed January 16, 2017, <http://www.fao.org/docrep/013/i1595e/i1595e.pdf>.

172. Data from *ibid*.

authorities in these Member States. Agriculture ministries are the most prolific, issuing a majority of the NTMs. Thailand stands out for having the most active health ministry in terms of NTM issuances. Industry ministries also figure prominently in Indonesia, Thailand, and Cambodia.

TABLE 3.12: % of NTMs, by Issuing Authority<sup>173</sup>.

	Agriculture	Industry	Health	Trade
Cambodia	30	14	12	
Indonesia	14.4	21.8		29.2
Philippines	36.8			
Thailand	29.1	14.5	42.6	
Vietnam	34.2		16.62	

Unlike NTMs issued by health ministries, those issued by trade, industry, and other government bodies do not have the underlying presumption of promoting public health. NTMs issued by agriculture ministries could support either the regulatory demand hypothesis<sup>174</sup> or the political economy hypothesis. However, bearing in mind that the agricultural sector has a lot to gain from lobbying for protection, agriculture ministries might be captured by lobby and interest groups. NTMs issued by trade and industry ministries are equally likely to have a protectionist intent. Considering that Cambodia, Thailand and Vietnam are buyers of imported intermediate inputs which are subsequently exported within the context of production networks,<sup>175</sup> these ministries might be aiming to protect domestic industries that feel threatened by the influx of imports.

Another factor to consider is that, unlike tariff legislation, measures issued by these regulatory agencies are not subject to review and revision by newly elected

173. Sotharith, Ruth Elisabeth L. Tobing, and Widian, "Classification of Non-tariff Measures in Cambodia," 54-55; Munadi, "Indonesia's Non-tariff Measures: An Overview," 67-69; Loreli C. de Dios, "An Inventory of Non-tariff Measures in the Philippines," in *Non-Tariff Measures in ASEAN*, ed. Lili Yan Ing, Santiago Fernandez de Cordoba, and Olivier Cadot (Economic Research Institute for ASEAN, 2016), 117, <http://asean.i-tip.org>; Intaravitak, "Non-tariff Measures in Thailand," 145; Vo Tri Thanh, Nguyen Anh Duong, and Tran Binh Minh, "Non-tariff Measures in Viet Nam," in *Non-Tariff Measures in ASEAN*, ed. Lili Yan Ing, Santiago Fernandez de Cordoba, and Olivier Cadot (Economic Research Institute for ASEAN, 2016), 161, <http://asean.i-tip.org>.

174. In particular, that these NTMs aim to enhance product quality.

175. World Trade Organization, "Trade in Value-Added and Global Value Chains: Statistical Profiles."

officials.<sup>176</sup> This imbues these NTMs with more permanence, making them more attractive for lobbyists as it becomes cheaper to lobby for protection. More importantly, much of the processes within these ministries are shielded from public scrutiny. Society relies on the expertise of specialized bodies, such as ministries for agriculture and trade, and the stated objectives of regulations, for due assurance that such regulations are in the interests of public welfare. At the same time, regulators can take advantage of their concurrent, overlapping jurisdictions, and of complex bureaucratic processes, to obscure the special interests underlying their actions. Given the nature of regulatory and political institutions, the information and monitoring costs needed to identify those protectionist objectives underlying NTMs outweigh any possible gains from such a process.

Specifically, the political institutions of Indonesia, the Philippines, and Thailand are known for their endemic rent-seeking and corruption. This makes the apparently legitimate justifications for the issuance of NTMs in these countries questionable. The political institutions of these countries are notably susceptible to pressures from economic forces to tilt policies and regulations in the latter's favor. Indonesia and Thailand are both characterized by some form of state capitalism, where state power and machineries are employed to further the interests of public and private elites.<sup>177</sup> The Philippines, on the other hand, is known for a form of booty or crony capitalism, which allows private elites to influence the bureaucracy.<sup>178</sup>

From the 1950s to the 1980s, Indonesia evolved to become a centralized state under an authoritarian government. Under the banner of economic nationalism, the Soeharto regime had a heavy hand in the management of the economy. A number of protectionist trade policies were enacted, such as the establishment of an approved traders program, the creation of both private and public

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176. World Trade Organization, *World Trade Report 2012*, 66.

177. Paul D. Hutchcroft, "Obstructive Corruption: The Politics of Privilege in the Philippines," in *Rents, Rent-Seeking and Economic Development: Theory and Evidence in Asia*, ed. Mushtaq H. Khan and Jomo Kwame Sundaram (New York: Cambridge University Press, 2000), 212; Richard Robison and Vedi R. Hadiz, "Indonesia: Crisis, Oligarchy, and Reform," in *The Political Economy of South-east Asia: Markets, Power and Contestation*, ed. Garry Rodan, Kevin Hewison, and Richard Robison (South Melbourne: Oxford University Press, 2006), 111.

178. Hutchcroft, "Obstructive Corruption," 212.



import monopolies,<sup>179</sup> and the selective granting of licenses and government contracts.<sup>180</sup> Badan Urusan Logistik (BULOG), Indonesia's logistics agency, had sole rights over the trade in primary commodities such as sugar and rice.<sup>181</sup> This political climate created and nurtured "*powerful corporate conglomerates and politico-business families*"<sup>182</sup> which used state power to protect and develop their empires.

Despite deregulation during the 1980s, politically-backed cartels still dominated the economy. Some "*public monopolies simply became private monopolies still backed by the authority of an authoritarian state.*"<sup>183</sup> This period's policy reforms were limited to export-competitive sectors, while the status quo of state capitalism prevailed in the domestic markets. For example, Tommy Soeharto was awarded a monopoly in the clove trade. Cloves being the vital, distinctive ingredient in *kretek*, the local type of cigarettes, Soeharto thus had access to the lucrative cigarette industry.<sup>184</sup>

After the 1997 financial crisis, the International Monetary Fund (IMF) made Indonesia dismantle the machineries of state protection, *i.e.*, to abolish state trading monopolies in sugar, soy beans, and other commodities.<sup>185</sup> However, the rent-seeking relations between public and private actors still dominated the political scene. After the formal end of the Soeharto regime, the politico-business oligarchies simply adapted to the new political environment. The void left by the former centralized state machinery has since been filled by political brokers and fixers who mediate between political and economic actors.<sup>186</sup> Rent-seeking now occurs within the context of money politics, between the well-entrenched politico-business interests and politicians who need funding for their electoral campaigns.<sup>187</sup>

As with Indonesia, Thai state capitalism is rooted in a centralized authority. Modern Thailand emerged in 1855 after the signing of the Bowring Treaty.

179. Robison and Hadiz, "Indonesia: Crisis, Oligarchy, and Reform," 118-119.

180. Michael T. Rock, *Dictators, Democrats, and Development in Southeast Asia: Implications for the Rest* (Oxford University Press, 2017), 54.

181. Robison and Hadiz, "Indonesia: Crisis, Oligarchy, and Reform," 130.

182. *Ibid.*, 119.

183. *Ibid.*, 120.

184. *Ibid.*, 121.

185. *Ibid.*, 125.

186. *Ibid.*, 126.

187. *Ibid.*, 114.

Thereafter, the majority of the population was engaged in subsistence agriculture. Royalty and the nobility derived power from their control of land, labor and trade.<sup>188</sup> By the 1920s, Thai society was composed of 3 main elements: (i) a centralized bureaucracy; (ii) a peasantry which cultivated the land; and (iii) Chinese and European traders who mainly dealt in rice.<sup>189</sup> A bureaucratic polity<sup>190</sup> emerged when the military took control after World War II. Military and state officials began to use state enterprises and private capital for their own interests.<sup>191</sup> For example, bureaucrats required a share of the Chinese traders' profits in exchange for licenses, government contracts, and other concessions.<sup>192</sup> Factionalism, favoritism, and nepotism pervaded the bureaucracy. Bureaucrats used opaque, complex processes in order to abuse their office and engage in rent-seeking activities.<sup>193</sup> Additionally, a number of agencies had overlapping jurisdictions on economic matters.<sup>194</sup> This fragmentation enabled powerful bureaucrats to "use sectoral policies to satisfy the demands of their supporters".<sup>195</sup> Policies, such as tariff protection and subsidized credit, benefited only a select group of large firms with ties to the right "big men" in the bureaucracy.<sup>196</sup>

By the 1980s, this bureaucratic polity had weakened and was replaced by "liberal corporatism".<sup>197</sup> Business interests organized themselves into associations in order to lobby, and cooperate with, the State. The business community gained their own power and influence, separate from that of the bureaucracy. With this newfound independence, business was able to direct and influence policies in ways designed to protect its own interests.<sup>198</sup> This system transformed the bureaucratic polity into a "broker polity", where the prime minister acted as a

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188. Kevin Hewison, "Thailand: Boom, Bust, and Recovery," in *The Political Economy of South-east Asia: Markets, Power and Contestation*, ed. Garry Rodan, Kevin Hewison, and Richard Robison (South Melbourne: Oxford University Press, 2006), 81-82.

189. Michael T. Rock, "Thailand's Old Bureaucratic Polity and Its New Semi-democracy," in *Rents, Rent-Seeking and Economic Development: Theory and Evidence in Asia*, ed. Mushtaq H. Khan and Jomo Kwame Sundaram (New York: Cambridge University Press, 2000), 183.

190. In this political system, power was located within the bureaucracy.

191. Hewison, "Thailand: Boom, Bust, and Recovery," 84.

192. Harold Crouch, *Economic Change, Social Structure and the Political System in South-east Asia: Philippine Development Compared with the Other ASEAN Countries* (Institute of Southeast Asian Studies, 1985), 20.

193. Rock, "Thailand's Old Bureaucratic Polity and Its New Semi-democracy," 184.

194. Ibid., 185.

195. Ibid., 186.

196. Rock, *Dictators, Democrats, and Development in Southeast Asia*, 56.

197. Rock, "Thailand's Old Bureaucratic Polity and Its New Semi-democracy," 191.

198. Rock, *Dictators, Democrats, and Development in Southeast Asia*, 152.

broker for business interests.<sup>199</sup>

After the 1997 economic crisis, the IMF granted Thailand a support package in exchange for wide-ranging reforms.<sup>200</sup> As the recession worsened, public opposition against the seemingly ineffective reforms grew.<sup>201</sup> The common sentiment was that the reforms came at the expense of Thai sovereignty and public welfare, for the benefit of foreign investors only. The threat against their established dominance prompted domestic business interests, as represented by Thaksin Shinawatra's Thai Rak Thai Party (TRT), to enter the political realm. Campaigning on nationalist sentiments and making promises to the rural poor, TRT won a decisive victory in 2001.<sup>202</sup> Shinawatra's administration did deliver on their promises to the rural poor. Nevertheless, this administration was notably composed of representatives from the most powerful business interests and families. Not unexpectedly, the administration disregarded the country's commitments to the IMF and hindered liberalization and privatization efforts, all under the guise of economic nationalism.<sup>203</sup>

Unlike Indonesia and Thailand, private vested interests have historically controlled policy in their favor in the Philippines.<sup>204</sup> The rise to power of a small, land-owning elite began with the commercialization of, and trade in, agriculture in the late 1800s.<sup>205</sup> Unlike in Indonesia and Thailand, where the State itself was the source of power for the elites, the landed Philippine elite derived its economic power from outside the public machinery.<sup>206</sup> The most influential member of that elite were the sugar growers. They were able to exploit loopholes in the 1902 Public Land Act not only to amass large tracts of land, but also to gain protection against the entry of foreign landowners.<sup>207</sup> They also benefited from the preferential access to the United States market during the American colonial era. By the 1920s, due to their economic successes, these

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199. Rock, "Thailand's Old Bureaucratic Polity and Its New Semi-democracy," 193.

200. Hewison, "Thailand: Boom, Bust, and Recovery," 95-96.

201. Ibid., 98.

202. Ibid., 99.

203. Ibid., 100.

204. Jane Hutchison, "Poverty of Politics in the Philippines," in *The Political Economy of South-east Asia: Markets, Power and Contestation*, ed. Garry Rodan, Kevin Hewison, and Richard Robison (South Melbourne: Oxford University Press, 2006), 39.

205. Ibid., 42.

206. Hutchcroft, "Obstructive Corruption," 218; Crouch, *Economic Change, Social Structure and the Political System in Southeast Asia*, 10.

207. Crouch, *Economic Change, Social Structure and the Political System in Southeast Asia*, 13.

sugar barons became a formidable and influential lobby group.<sup>208</sup> Their wealth allowed landowners to send their children to universities in Manila and Europe. The major political players in the pre- and post-independence years emerged from this educated generation.<sup>209</sup>

Subsequent industrialization merely reinforced the oligarchy, as industrialists came from this land-owning class as well. In fact, these elites used their political connections to invest in finance, real estate, and other sectors, thus creating “*diversified family conglomerates*”.<sup>210</sup> The agricultural sector also underwent structural changes, and became characterized by “*high levels of corporate involvement and contract farming, often through vertically integrated, transnational agribusinesses*.”<sup>211</sup>

The Marcos regime, which lasted from 1965 to 1985, was known for its crony capitalism. The cronies, who mostly came from outside the traditional land-owning class, were adept at using their access to, and connections with, the presidential family to amass their own fortunes and expand their businesses.<sup>212</sup> The Marcos family financially benefited from its dealings with these cronies as well. While this period saw the rise of new elites, the traditional oligarchy “*had already created a relatively strong economic base of its own and could not be simply pushed aside by the government*.”<sup>213</sup> The traditional oligarchy returned to power after the fall of the Marcos regime. The winners of the 1987 elections mostly hailed from traditional political and land-owning families.<sup>214</sup>

The landowning elites, using their financial resources, have been able to dominate the legislative and executive branches of the State in the Philippines since the 1950s. It is this group, and not the bureaucracy, that controls legislative and policy-making processes from outside the political system.<sup>215</sup> The bureaucracy itself is relatively weak. For example, Congress exercises significant influence on

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208. Booth, *Colonial Legacies*, 55.

209. Crouch, *Economic Change, Social Structure and the Political System in Southeast Asia*, 14.

210. Hutchison, “Poverty of Politics in the Philippines,” 49.

211. *Ibid.*, 51-52.

212. *Ibid.*, 49-50.

213. Crouch, *Economic Change, Social Structure and the Political System in Southeast Asia*, 27.

214. Hutchison, “Poverty of Politics in the Philippines,” 57.

215. *Ibid.*, 54-55.

appointments and promotions within the bureaucracy.<sup>216</sup> Regulatory agencies also remain tied to departments and offices under the Office of the President.<sup>217</sup>

Rent-seeking is thus historically and socially entrenched in the political and economic institutions of these Member States. This kind of environment makes regulators easily susceptible to pressures from interest groups. This political context, coupled with the opaque nature of NTMs and the complex regulatory processes, makes NTMs the ideal instrument for protection. Industries which have been adversely affected by structural changes are the most likely beneficiaries: with rice, the region's staple food, and other agricultural products being the products most likely to benefit from the use of NTMs.

For example, a 2014 issuance<sup>218</sup> by the Indonesian Ministry of Trade concerning the rice trade has been flagged as a potentially discriminatory measure.<sup>219</sup> This regulation revoked the eligibility of private importers, who held a general import license, to import rice. Such importers are only allowed to import rice subject to the following conditions:<sup>220</sup>

1. as a Producer Importer of Rice, for rice which cannot be produced domestically and which shall be used as raw material for industry; and
2. as a Registered Importer of Rice, for special rice varieties, *i.e.*, glutinous and japonica rice.

This regulation likewise granted BULOG the right to import medium quality rice in order to stabilize rice prices, meet emergency demands, and maintain food security. However, BULOG is prohibited from importing rice for a period stretching from 1 month before to 2 months after the rice harvest period.<sup>221</sup>

216. Hutchcroft, "Obstructive Corruption," 219.

217. Hutchison, "Poverty of Politics in the Philippines," 62.

218. Ministry of Trade Regulation No. 19/M-DAG/PER/3/2014

219. Global Trade Alert, *Indonesia: Import and Export Provisions for rice*, March 2014, <http://www.globaltradealert.org/state-act/7556>.

220. Public Relations Center, *Ministry of Trade Issues Ministry of Trade Regulation Number 19/M-DAG/PER/3/2014 Concerning Provisions of Rice Export and Import*, 2014, <http://www.kemendag.go.id/files/pdf/2014/04/30/kemendag-terbitkan-permendag-nomor-19m-dagper32014-tentang-ketentuan-ekspor-dan-impor-beras-en0-1398846442.pdf>.

221. USDA Foreign Agricultural Service, *GOI New Regulation on Rice Exports and Imports*, 2014, [http://gain.fas.usda.gov/Recent%20GAIN%20Publications/GOI%20New%20Regulation%20on%20Rice%20Exports%20and%20Imports\\_Jakarta\\_Indonesia\\_5-6-2014.pdf](http://gain.fas.usda.gov/Recent%20GAIN%20Publications/GOI%20New%20Regulation%20on%20Rice%20Exports%20and%20Imports_Jakarta_Indonesia_5-6-2014.pdf).

In the case of the Philippines, the imports of rice, maize, certain meats, and cane or beet sugar are subject to its minimum access volume (MAV) rules.<sup>222</sup> The MAV is essentially a tariff-rate quota. Imports of goods within the MAV enjoy lower in-quota tariff rates, while quantities over and above the MAV are subject to higher out-quota rates. This system is jointly implemented by the heads of the departments of agriculture, agrarian reform, finance, science and technology, and trade and industry. Their duties include the issuance of import licenses. As of 2017, the MFN in-quota and out-quota tariff rates for rice are 35% and 50%, respectively. For cane sugar, however, the rates are 50% and 65%.<sup>223</sup>

In 1998, Thailand's Ministry of Commerce imposed a price control measure on imports of maize, fish meal, and soybean meal.<sup>224</sup> Imports of these items were subject to a special fee, the amount of which depended on World Trade Organization membership, for the stated purpose of protecting the domestic industry.<sup>225</sup> Maize imports from AFTA members can be through the Public Warehouse Organization, a state-trading enterprise, or through private entities. However, private entities can only import maize in the period from 1 February to 31 August of each year. The Public Warehouse Organization is not subject to any similar limitation.<sup>226</sup>

These regulations have the potential to limit the inflow of agricultural imports. It is undeniable that these Member States have an interest in protecting their domestic producers. The Thai regulations are ostensibly motivated by these nationalistic preferences, perhaps as a way to mollify the hard-hit smallholders and rural poor in the aftermath of the economic crisis. Nevertheless, the underlying intent is admittedly protectionist. In Indonesia's case, BULOG's right to import rice is a potential source of rents. And considering how this agency has been used by politically well-connected interests to capture rents in the past, this scenario does not seem unlikely. For the Philippines, the in-quota and out-quota tariff rates for cane sugar, which are higher than those for rice, are also notable. Considering how well-connected the sugar industry is with the

222. Department of Agriculture Administrative Order No. 08, series of 1997, as amended by Administrative Order No. 01, series of 1998.

223. Tariff Commission, *Philippine Tariff Finder*, July 2017, <http://finder.tariffcommission.gov.ph>.

224. Issue 19, series of 1997.

225. "Non-Tariff Measures Based on Official Regulations, ASEAN."

226. Ibid.

country's political forces, it is not unlikely that these rates resulted from the industry's political machinations.

### 3.4 Summary

The increased participation of ASEAN Member States in production networks coincided with the region's efforts at trade liberalization, which began in the 1990s. This shift in trade is one of the main factors which drove the structural changes, specifically the shift from agriculture to manufacturing, in the Member States. The current primacy of production network trade is one of the motivations for deeper integration in the region. The premise is that deeper integration, through the harmonization of regulations and the removal of trade barriers, will promote and strengthen production network links in the region.

While this premise seems clear and irrefutable, the reality may be more complex. For one, the structural changes in the Member States also coincided with an increased incidence of NTMs. For some, these NTMs do not adversely affect production network trade. In fact, they may even stimulate it by serving as signals of quality and safety. For others, NTM use seems to be driven by political economy considerations, such as support for certain declining industries. However, a more focused analysis is needed in order to achieve a fuller analysis of the incidence and persistence of NTMs in ASEAN.

Nevertheless, the idea that NTMs need to be harmonized, or even eliminated in order to promote trade, needs to be reexamined. It is possible that these instruments, which are nothing but governmental issuances, may be motivated by private interests and considerations. However, it is also possible that they are motivated by legitimate goals which actually promote the public interest. For example, quality-promoting measures may increase demand and stimulate trade in both intermediate and final goods. Thus, a broad and general rule, such as a blanket prohibition of these measures, might be ineffective and unnecessary.





## 5 Conclusion

This thesis has focused on the incidence of non-tariff measures (NTMs) in the Association of Southeast Asian Nations (ASEAN). The persistence of NTMs in the Member States, despite their legal<sup>1</sup> commitments to reduce NTMs and eliminate non-tariff barriers (NTBs), has been analyzed within a law and economics framework. The aim of the thesis is to contribute to the literature on both NTMs and ASEAN policy making.

This concluding chapter summarizes the findings and insights of this thesis (*Section 5.1*), and discusses the possible implications for ASEAN policy making (*Section 5.2*). As this research has merely scratched the surface of this complex issue, possible directions for future research are also discussed (*Section 5.3*).

### 5.1 Observations and Findings

This thesis mainly focuses on the persistence and rising incidence of NTMs in ASEAN in spite of the presence of various international law instruments mandating their reduction. As such, *Chapter 2* begins with an analysis of the issues on compliance with, and effectiveness of, these legal instruments.

International trading systems can be seen as multilateral prisoners' dilemmas. While the highest payoffs can be achieved through free trade, States retain an incentive to defect. Defection, which may come in the form of tariffs and protectionist measures, allows States to gain at the expense of their trading partners. This dilemma is further complicated by the nature of NTMs. The broad scope of NTMs makes it difficult to identify and classify these instruments. The fact that NTMs may have legitimate underlying purposes<sup>2</sup> may also obscure their

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1. Both treaty and soft law.

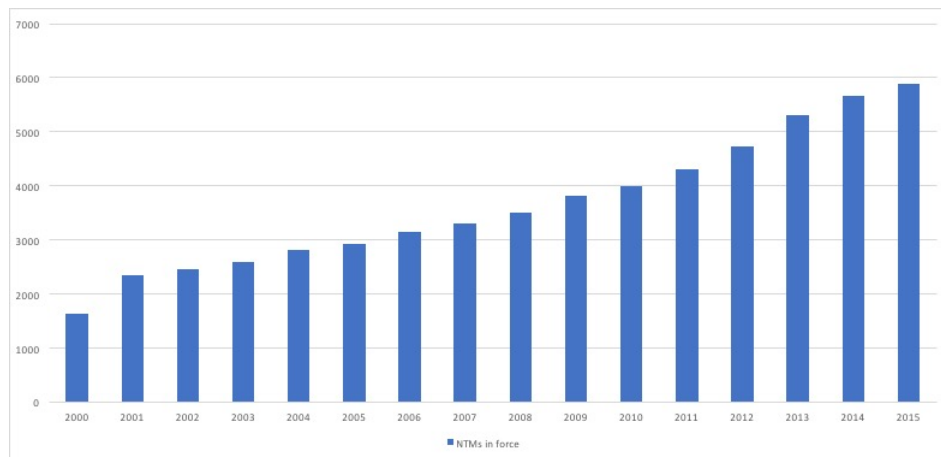
2. For example, NTMs may come in the form of health and environmental regulations.

adverse trade effects. These qualities may facilitate both willful and inadvertent acts of defection.

The compliance literature suggests that international law can alleviate this dilemma by encouraging cooperation. Instruments such as treaties and soft law commitments can clarify any ambiguities by clearly distinguishing acts of cooperation from acts of defection. Enforcement regimes can also render continued cooperation more profitable than defection, thus offering States an incentive to comply. For example, costly sanctions and penalties may dissipate any short term gains from defection.

However, the data suggests that ASEAN's trade-related soft law and treaty commitments are largely ineffective at reducing the number of NTMs. In fact, the number of NTMs has steadily increased during recent years, as shown in *Figure 5.1*.

FIGURE 5.1: NTMs in Force in ASEAN, 2000-2015<sup>3</sup>.



*Chapter 2* shows that the ASEAN trade regime has provided insufficient incentives for compliance. Firstly, the instruments in question have failed to distinguish acts of cooperation from acts of defection. The ASEAN Trade in Goods Agreement (ATIGA), ASEAN Economic Community (AEC) Blueprint, and AEC Blueprint 2025 were written in general and vague language, leaving the exact nature and details of the Member States' obligations unclear. For example, NTMs are permitted only insofar as these do not create "*unnecessary obstacles in trade*"<sup>4</sup>. The specific measures needed to identify and address these

3. Adapted from Ing et al., "Non-Tariff Measures in ASEAN: A Simple Proposal," 22.

4. Article 40(2), *ASEAN Trade in Goods Agreement*.

unnecessary obstacles have been left undefined. Secondly, the Member States have been granted a wide scope of discretion on how and when they are to comply with these obligations. In both ATIGA and the AEC Blueprint 2025, ASEAN merely recognizes the different approaches that can be used to address NTMs, such as standards harmonization and mutual recognition agreements. There are, however, no guidelines or schedules for the enforcement of these approaches.

These weaknesses of the ASEAN trade regime has further undermined the effectiveness of other compliance mechanisms, namely reputation, retaliation and reciprocity. While the breach of clearly defined obligations can result in reputational costs,<sup>5</sup> these costs are lessened when there is doubt as to what States are bound to do. In the ASEAN context, the ambiguous, vague language of said trade instruments has created uncertainty over the nature and content of the Member States' obligations. It is inherently difficult to pinpoint clear and intentional instances of breach. As a result, the effectiveness of reputation as an incentive for compliance is impaired.

Retaliation is also ineffective due to the region's weak enforcement systems. They do not even provide for penalties or sanctions in the event of Member States' noncompliance with their obligations. The region's preference for diplomatic, rather than rules-based, processes also casts doubt over the persuasiveness of enforcement and settlement systems. Thus, these systems lack sufficient coercive power.

The threat of reciprocal defections is likewise not credible. This undermines the region's economic integration agenda. The "ASEAN Way" of resolution through flexibility and consensus further allows dissenting Member States to dilute the obligatory pull of commitments. This renders any basis for reciprocal defections futile. It is also doubtful whether reciprocity is a viable option for the Member States. Due to the primacy of sovereignty in ASEAN, Member States take great pains not to interfere in each others' domestic affairs. Any threat of reciprocal action may be construed as an infringement of sovereignty. As such, any resort to reciprocity becomes unlikely.

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5. For instance, a defecting State becoming less credible in the eyes of other States. Thus, the latter are less inclined to enter into future agreements with the former.

In light of these considerations, *Chapter 2* concludes that the language used in drafting the legal instruments has not only created considerable uncertainty and ambiguity, which has facilitated noncompliance with the NTM-related obligations, but it has also impaired the effectiveness of other compliance mechanisms.

Notably, the persistence of NTMs has coincided with the rise of industry, particularly production networks, together with efforts at deeper integration. While the region's economic transformation has created a demand for more liberal trade policies, such as the endeavor to establish the AEC, it has also been accompanied by a rise in NTMs among Member States. Based on this observation, *Chapter 3* examines the persistence of NTMs within the context of the region's structural changes.

Since the 1980s, the emergence of production networks and the growth of intra-regional trade in manufactures and intermediate goods has been facilitated by the Member States' and ASEAN's outward-oriented policies. For example, the ASEAN Free Trade Area (AFTA) and its related initiatives has provided for preferential tariffs in favor of ASEAN goods, and encouraged the establishment of regionally integrated production networks. Currently, ASEAN's share of trade in parts and components is among the highest in the world.<sup>6</sup> The Member States' trade in manufactures has also intensified together with their increased participation in production networks. However, as industry's economic importance in the region has grown, that of agriculture has declined in terms of both value added and employment. These structural changes have also coincided with the rising incidence of NTMs.

The increased adoption of NTMs may be due to an increased regulatory demand, as "*trade liberalization leads to import-quality heterogeneity which itself causes regulatory controls.*"<sup>7</sup> For example, quality measures<sup>8</sup> may address information asymmetries by ensuring that imports comply with generally accepted international standards. Otherwise, these products would not have been allowed to enter the importing State's domestic market. Consequently, quality measures potentially (i) ensure that intermediate and final goods meet the preferences of the ultimate consumers, and (ii) enable producers to signal the quality of their products to their buyers.

6. Asian Development Bank, *Emerging Asian Regionalism*, 64.

7. Ing et al., "Non-Tariff Measures in ASEAN: A Simple Proposal," 23.

8. These are NTMs which impose standards and requirements on either the production process or product features.

This seems to be the case of Brunei Darussalam, Malaysia and Singapore. There is a high incidence of quality measures<sup>9</sup> regarding agricultural and food products. A majority of the NTMs in Brunei Darussalam and Malaysia have also been issued by health ministries. It can be assumed that health ministries issued these NTMs in accordance with their mandate, *i.e.*, to promote the public health. As such, it is not unlikely that these NTMs ensure that imports meet certain minimum quality standards. Furthermore, some of the most regulated goods in Singapore<sup>10</sup> and Malaysia<sup>11</sup> are used in production network trade. NTMs in this case could be operating as a signal of product quality. Production network-related trade in these goods in these Member States has remained strong, despite the high incidence of NTMs.

Alternatively, rising NTM incidence may also be accounted for on protectionist grounds. On the one hand, structural changes may have created a preference for trade liberalization in certain sectors, such as those involved in intra-regional production networks. On the other hand, structural changes may have incentivized the declining agricultural sector to lobby for beneficial regulation. Indeed, as a result of the region's structural changes, agriculture became a declining industry and thus a "*natural candidate*"<sup>12</sup> for protection.

A number of factors indicate that political economy motives may be at play in the cases of Cambodia, Indonesia, the Philippines, Thailand, and Vietnam. Agricultural products, including these Member States' main crops, are among the most highly-regulated goods. In addition to quality measures, these goods are also subject to export-related,<sup>13</sup> price control and quantity measures. There are also a great number of NTMs affecting goods involved in production networks, such as machineries<sup>14</sup>, chemicals, and light manufactures<sup>15</sup>. As in the cases of Singapore and Malaysia, production network-related trade in these goods has remained strong despite the considerable number of NTMs.

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9. Specifically, technical barriers to trade (TBTs) and sanitary and phytosanitary (SPS) measures. SPS measures aim to protect against the spread of harmful contaminants and diseases. TBTs refer to any measure which imposes technical and quality requirements.

10. Machineries and electrical products.

11. Foodstuffs and chemical products.

12. Hillman, *The Political Economy of Protection*, 26.

13. This includes, but is not limited to, measures such as quotas, export prohibitions, licensing requirements, and quantitative restrictions.

14. This includes transport products, computers, and electronics.

15. Such as clothing and textiles.

Unlike in the case of production network-related goods, NTMs do not appear to promote trade in regulated agricultural goods. Agricultural imports constitute but a small fraction of these Member States' total imports. Additionally, most of the NTMs in these Member States were issued by agriculture, industry, and trade ministries. Unlike health ministry NTMs, these issuances do not have the underlying presumption of promoting public health. Studies have also noted the presence of endemic rent-seeking and corruption in Indonesia, the Philippines, and Thailand. This political context, which makes regulators susceptible to pressures from interest groups, casts doubt on the supposedly legitimate justifications for these NTMs on agricultural goods.

The demand for NTMs may have originated from the small group of landowning entities that operate large tracts of land. Given their similar interests, this group can easily overcome their collective action problems and lobby for beneficial regulations. The wide range of NTMs also allows regulators to tailor NTMs in order to favor only a limited selection of beneficiaries. And as agriculture's share of the labor force has declined, real incomes are now less dependent on food prices. Correspondingly, consumers will offer less opposition to the imposition of NTMs on agricultural goods.

In sum, *Chapter 3* shows how structural changes may have influenced the interests of political and economic actors in each of the Member States. Ultimately, these interests are now reflected in the trade policies of these Member States.

Building upon these insights, *Chapter 4* extends the analysis to an examination of the underlying determinants of trade policy in ASEAN. In particular, it asks whether there is a link between economic trends and political factors on the one hand, and NTM incidence on the other. According to the political economy of trade protection literature, both economic and political factors matter in the policy-making process. Economic trends may generate demands for certain types of policy, while political institutions affect how these demands are translated into such policy. Relationships between NTM incidence on the one hand, and economic and political factors on the other, have been analyzed in order to ascertain (i) the existence of possible links between them, and (ii) the strength and direction of any such association.

The results indicate that sectoral trends do matter. There was a positive correlation between NTM incidence and the services sector<sup>16</sup>. Indeed, the growth of the services sector has coincided with the rise in NTM incidence, specifically in food and agricultural products. Both the agricultural and industrial sectors<sup>17</sup>, however, are negatively correlated with NTM incidence. The unemployment rate is also negatively correlated with NTM incidence. *Chapter 4* discusses how these results are not unexpected, given the importance of production network trade in ASEAN.

Industrial sectors, such as mining and manufacturing, are highly involved in production networks. These sectors are among the top importers of intermediate goods. In this context, the assumption that large sectors use their political power to secure protectionist policies is inapplicable. Policies which may hinder the flow of goods, such as NTMs, can increase the costs of trade and, ultimately, this sector's production costs. It is more rational for industrial sectors to use their influence in order to lobby for free trade, as this results in lower prices of imported inputs. Hence, the importance of trans-boundary production network trade explains the negative correlation between industry value added and NTM incidence.

Regarding the agricultural sector, its decline has been accompanied by a rise in the incidence of NTMs on agricultural goods. As a declining industry, agriculture retains a preference for protection. The low demand for agricultural imports means that there are fewer social and deadweight costs arising from potentially distortionary policies. As a majority of the population are now employed in the services sector, their incomes are no longer affected by agricultural prices. Consequently, they are less likely to oppose any NTMs on agricultural products. In this way, the structural changes in the region may have facilitated the issuance of NTMs in favor of agriculture.

The negative correlation between NTM incidence and unemployment seems counter-intuitive. However, the predicted positive correlation is based on the assumed negative impact of imports on the domestic market, *i.e.*, on the assumption that imports and domestic products are direct competitors. This assumption no longer holds given the role of transboundary production networks.

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16. As measured by services value added.

17. Measured as agricultural value added and industrial value added.

In this context, imports are now a vital part of production processes. As such, there is less danger of displacement of domestic labor because of imports.

*Chapter 4* also notes that the degree of political insulation and accountability may affect how governments react to preferences for certain types of policies. Plurality States have smaller electoral districts, and electoral success depends on district, rather than national, level. Consequently, politicians are less insulated from their constituencies' demands and preferences, making them more susceptible to demands for protection. Indeed, Member States under plurality electoral rules have a higher NTM incidence than Member States under proportional representation.

Parliamentary governments are subject to less electoral accountability than presidential governments. Furthermore, parliamentary legislatures are characterized by a greater concentration of power, and are more capable of entering into collusive agreements. These features enable parliamentary legislatures to pursue policies which benefit specific interests only. Moreover, as expected, parliamentary Member States do have a higher incidence of NTM than presidential States.

In other words, *Chapter 4* shows that (i) the socio-economic context of the Member States has created preferences and demands for certain policies, and (ii) their political institutions has determined how these preferences are reflected in laws, policies, and regulations.

In light of these insights, the following questions raised in *Chapter 1* can be answered thus:

1. *Does the ASEAN trade regime provide sufficient incentives for compliance with the commitments pertaining to NTMs?* The ASEAN trade regime has not only failed to sufficiently incentivize the Member States to comply with their commitments pertaining to NTMs, but it has also impaired the effectiveness of other compliance mechanisms.
2. *Can the region's structural changes, such as the increased prominence of industry and production networks, explain the demand for NTMs?* The region's structural changes may explain the demand for NTMs. Specifically, sectoral and structural changes may stimulate and create preferences



for different kinds of NTMs. While not all of these preferences are protectionist in nature, declining sectors not unexpectedly retain an interest for protectionist policies.

3. *Are political and economic factors linked with NTM incidence? Can the former explain the rising incidence of NTMs in ASEAN?* The Member States' economic and political contexts are linked with NTM incidence. While economic factors may explain why societies prefer certain types of policies, political institutions determine how well these preferences are catered to by the policymakers.

Taken together, the aforesaid may shed light on the incidence of NTMs in ASEAN. That is, NTMs persist because the region's trade regime has failed to overcome policymakers' interests in catering to the societal preferences for different kinds of NTMs resulting from the structural changes witnessed in recent decades.

## 5.2 Policy Implications

Using a law and economics framework, *Chapters 2 to 4* each delved into different aspects of the persistence of NTMs in ASEAN. However, the aim was not to definitively provide the reasons for this persistence, but to offer insights which may aid ASEAN policymaking.

*Chapters 3 and 4* illustrated the value of analyzing NTMs vis-à-vis the socio-economic and political contexts of the Member States. The general implication is that efforts aimed at addressing NTMs should, first and foremost, be executed on a national level. NTMs are essentially domestic issuances, and can best be addressed by the relevant issuing authorities. While current ASEAN efforts are indeed implemented at the Member State level, the general and broad delegation of authority is insufficient. The possibility of regulatory capture cannot be discounted. Ideally, efforts to harmonize NTMs and eliminate NTBs should be conducted under the supervision of an independent review body. At the very least, "independence" means that such a body has to be sufficiently insulated from both economic and political interests. This way, the danger of efforts to review NTMs being influenced by vested interests would be minimized.

In this vein, the underlying rationale and justifications of the existing NTMs also need to be examined. While some NTMs may be motivated by protectionist interests, others may be prompted by legitimate concerns, such as the protection of public health or the addressing of market failures. A narrow focus on NTM incidence disregards the possible role played by these instruments in the promotion of trade, *i.e.*, in addressing information asymmetries by acting as a signal of product and process quality. While there is no doubt that protectionist NTBs needs to be eliminated, legitimate NTMs are a different matter.

Efforts to address NTMs thus need to be more nuanced than mere simple commitments to harmonize and improve the transparency of these measures, and to reduce their number. For example, where NTMs which affect the same product groups have been issued by different government bodies, the review needs to go beyond a determination that the NTMs were warranted. There is also a need to check for obsolete, redundant, inconsistent, and overlapping NTMs. Where NTMs have legitimate rationales, whether these measures are the most effective, *i.e.*, whether they do not entail unnecessary costs and burdens in order to achieve their aims, should also be verified. The effects of NTMs need to be examined as even legitimate NTMs can become NTBs when they are applied in a discriminatory or improper manner. As such, the participation of the private sector in the Member States' efforts becomes indispensable. Citizens, businesses and other non-governmental actors require more knowledge and experience about the manner of application and effects of NTMs. This information would prove invaluable to Governments' efforts to identify NTBs. Consequently, the Member States need to work more closely with the private sector in the review of NTMs and identification of NTBs.

While much work needs to be done at the national level, ASEAN itself still has a significant role to play in this matter. As discussed in *Chapter 2*, the region's current legal framework has failed to provide the necessary focal points for cooperation. ASEAN can remedy this by providing *(i)* specific guidelines for the review of both existing and proposed NTMs, together with *(ii)* concrete definitions of, and methods of identify NTBs. ASEAN can also take advantage of its regional centrality by aiding in the flow of information. It is well-placed to secure data, not only regarding Member States' trade regimes, but also regarding their experiences in dealing with NTMs and NTBs. This information could supplement the NTM database in the ASEAN Trade Repository, for the

benefit of both the public and private sectors.

*Chapter 2's* insights into the ASEAN enforcement systems also need to be addressed. These insights point to a need to strengthen the enforcement and dispute settlement mechanisms in the region. One way of doing this is by shifting away from the “ASEAN Way” of diplomatic and voluntary processes, towards legally binding rules and enforcement mechanisms. Indeed, the region needs a clearly defined and mandatory enforcement system which provides for binding sanctions and penalties in case of non-compliance or insufficient compliance. This way, the Member States would have a forum where they could discuss both existing and proposed NTMs, and identify any problematic measures. A legally binding enforcement system would also ensure that, after due process, Member States remove or modify problematic NTMs. ASEAN should also consider allowing private individuals and entities to initiate enforcement proceedings. As previously mentioned, the private sector has first-hand knowledge of the effects of NTMs, and can thus facilitate the identification of problematic NTMs.

Ultimately, given the nature of NTMs and the region's goal to establish a unified market, policy changes at both regional and national levels are needed.

## 5.3 Final Words

It is hoped that the insights offered by this thesis are enlightening and useful. Nevertheless, in view of the broad and complex nature of NTMs, this thesis can only really be considered to have scratched the surface of such a research agenda.

This thesis has employed insights from compliance theories and the political economy of protection, as well as correlation analyses, in order to address the research questions. In order to gain a better understanding of the NTM incidence in ASEAN, however, more empirical analyses would be required. In particular, causation analysis would provide additional insights into the relationship between economic trends and political institutions on the one hand, and NTM incidence on the other. Ideally, future empirical research would use more finely-tuned political data, *i.e.*, on electoral district sizes and lobbying activities within the Member States, to glean a more thorough understanding of the underlying mechanisms of trade policy. A deeper look into industry-specific

trends, such as market shares and geographic concentration of firms, may also generate nuanced insights into the link between structural changes and NTM incidence. Future research could thus not only broaden the understanding of NTMs and NTBs, but also provide policymakers with the information they need to deal effectively with these measures.

Another issue that requires further study is whether the Member States' regulatory regimes are indeed significantly different. A high incidence of NTMs may not adversely affect intra-regional trade if the Member States are imposing the same kinds of NTM on the same goods. This inquiry would entail a thorough examination of the NTM regimes of the Member States. This, in turn, would call for an analysis not only of the specific types of NTMs imposed on different kinds of goods, but also of their substantive contents and requirements. If the Member States' NTM regimes are sufficiently similar, then the region's focus on reducing NTMs might need to be reexamined. A clear picture of the current state of the ASEAN NTM regime would also be needed in deliberations on appropriate approaches to NTMs. For example, harmonization efforts may be appropriate if the Member States' regulatory regimes are dissimilar; otherwise, mutual recognition agreements may suffice to achieve the region's goals.

Due to this thesis' limited scope, the region's integration endeavours were taken at face value. For example, the delegation of trade-related responsibilities, such as the identification and removal of NTBs, from ASEAN to its Member States was not examined. The efficiency of the region's adapted methods, *i.e.*, standards harmonization and the use of mutual recognition agreements, was also beyond the scope of this research. The wisdom of including the region's less developed Member States in the integration efforts, albeit at staggered schedules, was also not examined. Issues such as these can be addressed within the framework of the economics of federalism. This research agenda has the potential to shed light on the effectiveness of the region's current institutional structure, as well as to yield useful insights into both the design and implementation of integration measures.

On a related note, future research could involve an in-depth look at how various regional integration initiatives have tackled the issue of NTMs. The problem of how to effectively address NTMs is not an experience that is unique to ASEAN. A comparative analysis of the efficiency of various regional attempts to deal with NTMs, including those made by the European Union (EU) and the Southern

Common Market (MERCOSUR), could yield some useful insights for the purposes of future policy-making.

Finally, this thesis only considers the incidence of NTMs in ASEAN. Both the stringency and the actual effects of such NTMs are beyond the scope of this study. Nevertheless, these are important issues. Future research could examine how stringent and restrictive the Member States' NTM regimes actually are, by examining the substantive provisions vis-à-vis their underlying goals and objectives. For example, quality measures would need to be compared against a benchmark<sup>18</sup> to determine whether the measures in place are unduly harsh. A study of trade effects requires the use of quantitative analyses such as price comparisons, quantity impact assessments, gravity models, and general equilibrium models. The results of such analyses would illustrate the effectiveness of NTMs, either in addressing market failures or providing protection to certain industries. These results may also shed light on whether the rising NTM incidence is affected by, or a response to, intra- or extra-ASEAN trade flows. These insights can likewise supplement analyses of the political economy of trade protection, *i.e.*, of policymakers' use of NTMs as a source of rents. Lastly, this type of data would provide guidance on whether the harmonization of NTMs would indeed be beneficial for ASEAN, or whether it could prove costly for ASEAN's Member States.

This research agenda is timely and relevant, not just for ASEAN but for any economy aiming at integration and the liberation of trade. As trade continues to be a politically contentious topic, studies on the underlying mechanisms of trade policy are undeniably valuable. This thesis aims to show whether policy-making processes, at both regional and national levels, can benefit from an interdisciplinary analysis of issues, such as that provided by the law and economics framework. It is hoped that this thesis offers useful insights into both ASEAN's integration efforts and the research agenda concerning NTMs.

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18. Such as international standards or global best practices.



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## Summary

While various treaties and agreements have substantially reduced tariff rates on most traded goods, international trade is still burdened by restrictive laws and regulations. As a result, policymakers have shifted their focus to these non-tariff measures which have the potential to adversely affect trade flows. One such example is the Association of Southeast Asian Nations' (ASEAN) efforts to harmonize and reduce non-tariff measures, as well as eliminate non-tariff barriers, all of which are embodied in both treaty and soft law commitments. Nevertheless, these measures have persisted, and even increased, in ASEAN during the past decades.

This thesis aims to shed light on the persistence of non-tariff measures in ASEAN. It begins with an analysis of the issues on compliance with, and effectiveness of, the region's international law instruments relating to non-tariff measures. The persistence of non-tariff measures may be due to the trade regime's inability to provide the Member States with sufficient incentives to comply with their obligations. Not only did the vaguely worded instruments fail to identify the focal points for cooperative behavior, but they also granted the Member States a wide scope of discretion with respect to the fulfillment of their commitments. In addition, the weaknesses in the region's trade regime and enforcement mechanisms undermined the effectiveness of other compliance mechanisms.

As this persistence issue concerns the actions of States, it is also necessary to consider their underlying motivations. It is noteworthy that the persistence of non-tariff measures coincided with significant structural changes in the region's economies. This begs the question of whether structural changes may explain the Member States' demand and preferences for non-tariff measures. This thesis shows how these structural changes may have influenced the preferences of different actors in the Member States for non-tariff measures. For some Member States, their rising use of non-tariff measures may be due to an increased regulatory demand. As trade liberalization and globalization permitted the influx of imports, the resulting product heterogeneity created a demand for increased regulatory controls. In this context, non-tariff measures address

market failures and externalities, such as by signaling and ensuring product quality. For others, however, the structural changes may have prompted declining sectors, particularly agriculture, to lobby for protection which came in the form of non-tariff measures.

The last part of this thesis builds upon these insights and extends the analysis to an examination of the underlying determinants of trade policy in the region. Relationships between non-tariff measure incidence and various political and economic factors were examined to determine possible links between them, and the strength and direction of association, if any. The results indicate that economic factors, particularly sectoral trends, do matter. Sectoral economic trends influence societal preferences for trade policies. Additionally, the degree of political insulation and accountability may affect how governments respond to these societal preferences, as reflected in laws, policies, and regulations.

In other words, non-tariff measures persist in ASEAN because its trade regime failed to overcome the policymakers' interests in catering to the societal preferences for different kinds of trade measures, which preferences resulted from the structural changes of the past decades.

## Samenvatting

Hoewel tarieven over de meeste verhandelde goederen dankzij diverse verdragen en overeenkomsten aanzienlijk zijn verlaagd, wordt de internationale handel nog altijd geplaagd door beperkende wet- en regelgeving. Als gevolg daarvan zijn beleidsmakers zich gaan richten op deze non-tarifaire maatregelen, die een negatief effect kunnen hebben op handelsstromen. Een voorbeeld daarvan zijn de pogingen van de Associatie van Zuidoost-Aziatische Naties (ASEAN) om non-tarifaire maatregelen te harmoniseren en te verminderen en non-tarifaire belemmeringen te elimineren, die alle zijn vervat in zowel verdrags- als soft law-verplichtingen. Ondanks die pogingen zijn die non-tarifaire maatregelen in ASEAN in de afgelopen decennia blijven bestaan. Ze zijn zelfs toegenomen.

Het doel van dit proefschrift is het belichten van de aanhoudende non-tarifaire maatregelen in ASEAN. Het begint met een analyse van de problemen inzake conformiteit met, en effectiviteit van, de internationale instrumenten op het gebied van non-tarifaire maatregelen. Het voortduren van non-tarifaire maatregelen zou het gevolg kunnen zijn van het onvermogen van het handelsregime om de lidstaten voldoende prikkels te bieden om te voldoen aan hun verplichtingen. Niet alleen lieten de vaag verwoorde instrumenten na de focuspunten voor coöperatief gedrag te benoemen, ze boden de lidstaten ook een ruime beoordelingsvrijheid betreffende het nakomen van hun verplichtingen. Daarnaast ondermijnden de tekortkomingen van het handelsregime en de handhavingsmechanismen in het gebied de doeltreffendheid van andere nalevingsmechanismen.

Aangezien dit aanhoudende probleem van invloed is op het gedrag van staten, moeten ook hun onderliggende beweegredenen worden bekeken. Het is opmerkelijk dat het aanhouden van non-tarifaire maatregelen samenliep met significante structurele veranderingen aangaande de economie in het gebied. Dat roept de vraag op of de lidstaten vanwege die structurele veranderingen behoefte aan en voorkeur voor non-tarifaire maatregelen hebben. Dit proefschrift toont hoe die structurele veranderingen er wellicht voor hebben gezorgd dat verschillende betrokkenen in de lidstaten de voorkeur geven aan

non-tarifaire maatregelen. In sommige lidstaten is het toenemend gebruik van non-tarifaire maatregelen mogelijk toe te schrijven aan een grotere vraag naar regelgeving. Terwijl handelsliberalisatie en globalisering de instroom van import mogelijk maakte, creëerde de daaruit voortvloeiende productheterogeniteit de behoefte aan meer wettelijke controle. In dit opzicht pakken non-tarifaire maatregelen marktfalen en externaliteiten aan, bijvoorbeeld door productkwaliteit te signaleren en waarborgen. Aan de andere kant echter hebben de structurele veranderingen afnemende sectoren, met name de landbouw, er mogelijk toe aangezet te pleiten voor bescherming, wat leidde tot de non-tarifaire maatregelen.

In het laatste deel van dit proefschrift wordt voortgebouwd op deze inzichten en wordt de analyse doorgetrokken naar een onderzoek van de onderliggende factoren van het handelsbeleid in het gebied. De verhouding tussen de incidentie van non-tarifaire maatregelen en diverse politieke en economische factoren is onderzocht om vast te stellen of er een verband tussen bestaat; en zo ja, wat de kracht en richting van dat verband is. Het resultaat duidt erop dat economische factoren, met name sectorale trends, zeker van belang zijn. Sectorale economische trends zijn van invloed op de maatschappelijke voorkeur voor een specifiek handelsbeleid. Daarnaast kan de mate van politieke isolatie en verantwoordelijkheid bepalen hoe overheden reageren op deze maatschappelijke voorkeur, zoals wordt weerspiegeld in wetten, beleid en regelgeving.

Met andere woorden: non-tarifaire maatregelen blijven voortduren in ASEAN, omdat het handelsregime aldaar niet in staat is geweest het belang van de beleidsmakers om tegemoet te komen aan de maatschappelijke voorkeur (het resultaat van de structurele veranderingen in de afgelopen decennia) voor verschillende vormen van handelsmaatregelen, te ondervangen.



## Curriculum vitae

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Short bio	
<p>Gemelee has a European Master in Law and Economics (LL.M) from the University of Hamburg and Erasmus University Rotterdam. She is also a lawyer, and she has practiced in both the private and public sectors. She formerly served as Securities Counsel with the Philippine Securities and Exchange Commission, where she was tasked with both regulatory and policy-making functions. She has also worked as a Junior Associate with the Commercial and Tax Law Departments of top law firms in the Philippines. She is currently writing her doctoral research in law and economics at the University of Bologna, under the European Doctorate in Law and Economics programme. She is fluent in both English and Filipino, and is currently learning German.</p>	
Education	
European Doctorate in Law and Economics (PhD) – University of Bologna, Erasmus University Rotterdam, and University of Hamburg	2015 -
European Master in Law and Economics (LL.M) – University of Hamburg, and Erasmus University Rotterdam	2014 - 2015
Juris Doctor – University of the Philippines	2005 - 2009
Bachelor's Degree (AB), Economics – Ateneo de Manila University	2001 - 2005
Work experience	
Securities Counsel III – Securities and Exchange Commission, Philippines	2012 - 2014
Junior Associate – Esguerra & Blanco Law Offices, Philippines	2011 - 2012
Junior Associate – Villaraza Cruz Marcelo & Angangco (CVC Law), Philippines	2010 - 2011
Legal Assistant – Jimeno Cope & David Law Offices, Philippines	2010
Law Intern – Office of Legal Aid, University of the Philippines	2008 - 2009
Prizes and awards	
Graduated with honours (Honourable Mention), Ateneo de Manila University	2005
Second place for best thesis, "Income and Environmental Degradation: the Application of the Environmental Kuznets Curve on the Philippines"	2005
Dean's List, Ateneo de Manila University	2002 - 2004
Others	
Member, Integrated Bar of the Philippines	
Well-versed in both common and civil law	
Good command of LaTeX	

## EDLE PhD Portfolio

Name PhD student : Gemelee G. Hirang  
 PhD-period : 2015 -  
 Promoters : Prof. Dr. Emanuela Carbonara, Prof. Dr. Michael Faure

Co-promoter :

## PhD training

### ***Bologna courses***

***year***

Experimental Economics, Methods	2015
Introduction to European Competition Law	2015
Modelling Private Law	2015
Experimental Economics, Topics	2016
Behavioural Law and Economics and Enforcement Mechanisms	2016
Game Theory and the Law	2016
Econometrics I	2016
Technology, Geography and Trade	2016
International Trade and Institutions	2016

### ***Specific courses***

***year***

International Trade Theory (Johns Hopkins University, Bologna)	2015
Academic Writing in English for PhD Students (Rotterdam)	2016
Seminar Series – Empirical Legal Studies (Rotterdam)	2017

### ***Seminars and workshops***

***year***

EDLE Bologna November seminar (attendance)	2015
Reading group on international trade, University of Bologna (attendance)	2015 - 2016
Hamburg Institute of Law and Economics Summer Workshops (attendance)	2016
Rotterdam Fall EDLE Seminar Series (peer feedback)	2016
Rotterdam Winter EDLE Seminar Series (peer feedback)	2017
Seminar Series – Empirical Legal Studies, Rotterdam (attendance)	2017
Workshop on Scientific Misconduct, Rotterdam (attendance)	2017
The Common Law of Contracts and the Default Rule Project, Rotterdam (attendance)	2017
Joint Seminar - “The Future of Law and Economics”, Maastricht (attendance)	2017
The Global Evolution of Corporate Prosecutions, University of Bologna (attendance)	2017

EDLE Bologna November seminar (presenter)	2017
Joint Seminar – “The Future of Law and Economics”, Paris (presenter)	2018
<b><i>Presentations</i></b>	<b><i>year</i></b>
Bologna March EDLE Seminar	2016
Hamburg June EDLE Seminar	2016
Rotterdam Fall EDLE Seminar Series	2016
Rotterdam Winter EDLE Seminar Series	2017
EDLE Bologna November Seminar	2017
European Master in Law and Economics Midterm Meeting, Rotterdam	2018
Joint Seminar – “The Future of Law and Economics”, Paris	2018
<b><i>Attendance (international) conferences</i></b>	<b><i>year</i></b>
European Master in Law and Economics Midterm Meeting, Hamburg (attendance)	2016
World Economics Association Online Conference: Public Law and Economics (paper presenter)	2017
European Master in Law and Economics Midterm Meeting, Rotterdam (speaker)	2018