

Chapter 10

Non-Tariff Measures in Viet Nam

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NON-TARIFF MEASURES IN VIET NAM¹

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1. Introduction

Since the start of Doi Moi (Renovation) in 1986, Viet Nam has implemented comprehensive economic reforms, broadly categorised into (1) market-oriented institutional reforms, (2) macroeconomic stabilisation, and (3) proactive integration. The periods with meaningful efforts to liberalise trade and investment (1989–1996 and 2000–2007) were associated with comprehensive reforms of domestic economic institutions. Even the country's accession to the World Trade Organization (WTO) in 2007 did not end the country's regional and global economic integration process. Viet Nam negotiated, signed, and implemented more free trade agreements (FTAs) during 2008–2018 to (1) enhance access to foreign markets and foreign resources (capital, technology, know-how, amongst others); and (2) introduce domestic economic reforms closely aligned with international best practices.

As of January 2019, Viet Nam was amongst the countries most open to trade, with 16 FTAs, of which 11 has already taken effect. It has built a network of strategic partnerships with 15 countries and comprehensive partnerships with 10, including 5 permanent

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members of the UN Security Council. Trade openness, measured by trade as a percentage of gross domestic product (GDP), increased rapidly from 143.8% in 2007 to 196.1% in 2018.

As economic integration deepens, a question that arises is how much more policy space Viet Nam has to protect legitimate community objectives in trade. Viet Nam has significantly phased out tariff barriers to trade and eliminated many non-tariff barriers (NTBs), including quantitative restrictions on imports, quotas, bans, permit requirements, prior authorisation requirements, and licensing requirements. In line with the WTO Trade Facilitation Agreement (TFA), Viet Nam has gradually reformed the system of regulations, improved the transparency of non-tariff measures (NTMs), and simplified administrative procedures, especially in the specialised inspection of traded goods.

This chapter examines the NTMs in effect before 31 March 2018 with updates to the NTMs in effect before 31 March 2015 (first phase) and between 31 March 2015 and 31 March 2018 (second phase). The NTM update was based on the United Nations Conference on Trade and Development (UNCTAD) International Classification of NTMs, interim 2018 version. Section 2 of this paper gives an overview of trade performance. Section 3 describes NTM statistics. Section 4 discusses NTM incidence via the frequency index, coverage ratio, and prevalence score. Section 5 concludes the paper and recommends policies.

2. Trade Performance

2.1. Trade Structure

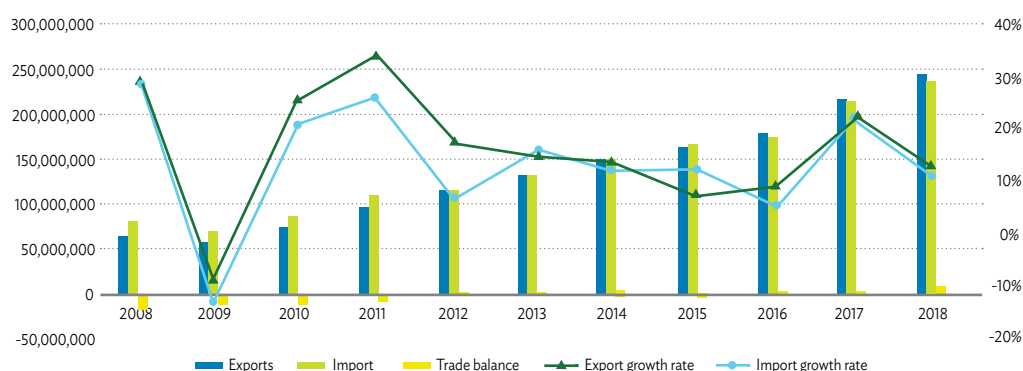
Viet Nam's exports and imports expanded almost continuously in 2008–2018 (Figure 10.1). The annual export growth rate averaged 15.78%. In 2008, exports grew at a high rate of 29.1%. The adverse effects of the global financial crisis and economic recession then caused Viet Nam's exports to drop by 8.9% in 2009. Yet, export growth bounced back in 2010 and mostly stayed at two-digit levels, except in 2016. In 2018, Viet Nam's exports amounted to almost US\$243.5 billion or 99.4% of GDP.

Similarly, Viet Nam's import value increased almost continuously, except for the one-off contraction in 2009 due to the global financial crisis and economic recession. Imports grew by 40.0% in 2007 and 28.6% in 2008 before decreasing by 13.3% in 2009. Since 2010, imports have surged but more slowly than exports. Remarkably, since 2013, import growth has been more closely associated with export growth, as exports depended more heavily on the foreign-invested sector, which sourced a large share of intermediate inputs

from imports (Vo et al., 2017). As of 2018, imports reached US\$236.7 billion or 96.6% of GDP.

The import growth rate has lagged behind the export growth rate since 2010 (Figure 10.1). The trade deficit narrowed from US\$18.03 billion in 2008 to US\$9.84 billion in 2011. Since 2012, Viet Nam has started to report trade surpluses more frequently as export growth has surpassed import growth. The trade surplus rose from US\$2.23 billion in 2016 to US\$6.79 billion in 2018, partly reflecting comprehensive efforts to (1) promote exports, including via improved compliance with international standards and best practices; and (2) restrain imports, including via changes in importation requirements.

Figure 10.1: Exports and Imports, Viet Nam, 2008–2018 (US\$ thousand, %)



Note: The growth rates for exports and imports are on the right-hand axis.

Source: Authors, calculated from GSO (2018) and Trade Map (2019).

Trade by Partner

The key markets – the Association of Southeast Asian Nations (ASEAN), the European Union (EU), China, Japan, the Republic of Korea (henceforth, Korea), and the United States (US) – bought the lion’s share of Viet Nam’s exports, averaging 76.83% in 2008–2012 and 77.26% in 2013–2018 (Table 10.1). The shares of ASEAN and Japan went down, whilst those of the EU, the US, China, and Korea increased. In 2013–2018, Viet Nam had lower growth rates of exports to most markets than in 2008–2012. The average growth rates of exports indicated that Viet Nam could exploit export opportunities in new destinations (Korea and China) instead of traditional ones (EU, US, ASEAN).

The total share of imports from the six major markets rose from 76.95% in 2008–2012 to 80.26% in 2013–2018. China has for years been the largest source of imports, with its share going up significantly to 28.42% in 2013–2018 from 23.41% in 2008–2012. However, the share of imports from Korea grew most rapidly, from an average of 11.56%

in 2008–2012 to 18.38% in 2013–2018. Imports from most markets grew more slowly in 2013–2018 than in 2008–2012 despite a high value in absolute terms. ASEAN’s share fell from 20.07% to 14.22% over the same period (Table 10.2).

Table 10.1: Export Structure and Export Average Growth Rates to Major Destinations, Viet Nam (%)

Export	Shares		Growth Rates	
	2008–2012	2013–2018	2008–2012	2013–2018
ASEAN	15.01	11.10	16.53	6.01
China	10.52	13.28	28.62	21.49
EU	17.01	18.29	17.39	12.84
Japan	11.57	8.59	16.49	6.30
Korea	4.32	6.23	35.03	21.78
US	18.40	19.79	14.25	15.83
Total	76.83	77.26		

ASEAN = Association of Southeast Asian Nations, EU = European Union, Korea = Republic of Korea, US = United States.

Source: Authors, calculated from GSO (2018) and Trade Map (2019).

Table 10.2: Import Structure and Import Average Growth Rates from Major Destinations, Viet Nam, 2008–2018 (%)

Import	Shares		Growth Rates	
	2008–2012	2013–2018	2008–2012	2013–2018
ASEAN	20.07	14.22	5.53	7.29
China	23.41	28.42	17.97	14.50
EU	7.54	6.16	11.31	7.91
Japan	10.25	8.38	13.39	8.58
Korea	11.56	18.38	23.81	20.47
US	4.13	4.69	23.28	17.52
World	76.95	80.26		

ASEAN = Association of Southeast Asian Nations, EU = European Union, Korea = Republic of Korea, US = United States.

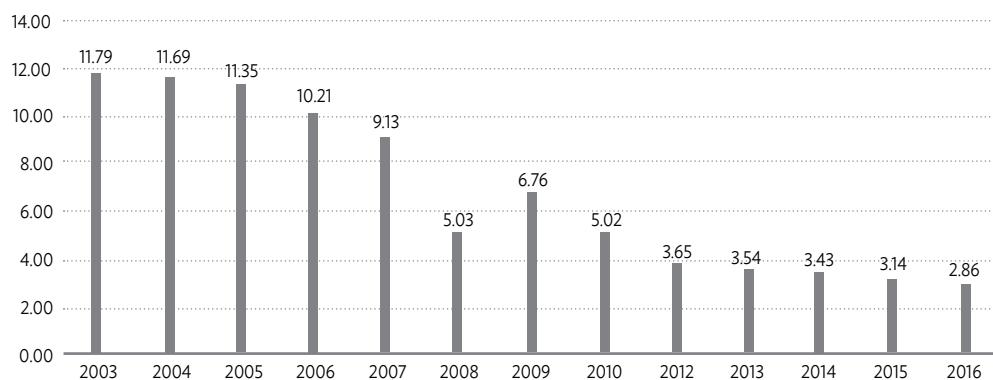
Source: Authors, calculated from GSO (2018) and Trade Map (2019)

Weighted Average Tariff

Tariff rates have been phased out gradually in accordance with Viet Nam’s commitments under FTAs and the WTO. There are three sets of tariff rates: (1) most favoured nation (MFN) under rates the WTO, (2) preferential rates under FTAs, and (3) general rates for the few countries and territories without MFN status. The weighted average of the

effectively applied tariff rate of Viet Nam dropped sharply from 11.79% in 2003 to 2.86% in 2016 (Figure 10.2). The industries producing intermediate goods (chemicals, fertiliser, metal products, and construction materials, for example) have low rates of nominal protection. In contrast, final goods (particularly food and drinks, pharmaceuticals, and garments) remain subject to higher tariffs.

Figure 10.2: Effectively Applied Tariffs (AHS), Weighted Average Over Time, Viet Nam, 2003–2016 (%)



Source: World Integrated Trade Solution (2019).

2.2 Legal Comprehensiveness

2.2.1 Hierarchy of Laws and Regulations

In 2015, to improve legislation, the National Assembly passed Law No. 80/2015/QH13 on the promulgation of legal normative documents, which came into effect in July 2016. Legal documents include the following categories in order of decreasing validity: (1) the Constitution; (2) codes, laws, and resolutions of the National Assembly; (3) ordinances and resolutions of the Standing Committee of the National Assembly; (4) orders and decisions of the President; (5) decrees of the government; (6) decisions of the Prime Minister; and (7) circulars of ministers and heads of ministerial agencies (Table 10.3).

Table 10.3: Hierarchy of Legal Documents, Viet Nam

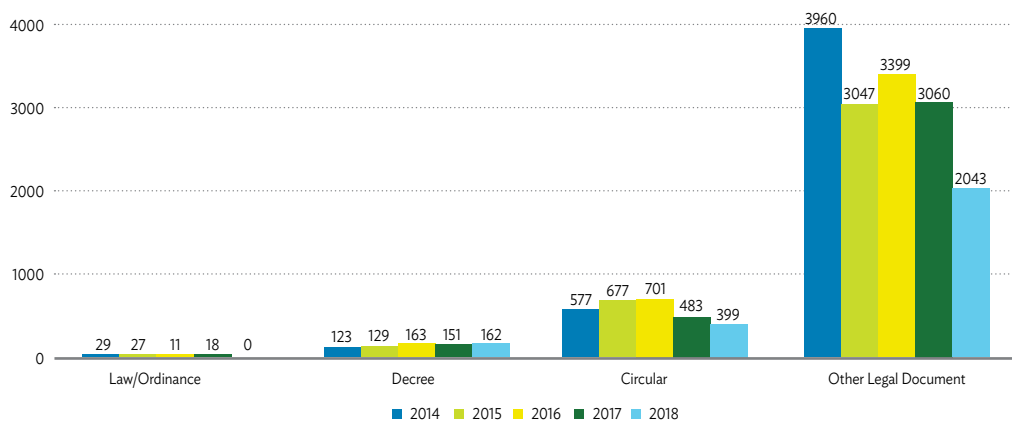
Priority	English title	Vietnamese title	Description	Issued by
1	Constitution	Hiến pháp	Supreme law of the land	National Assembly
2	Law	Luật	Rules established in line with the Constitution	National Assembly
	Ordinance	Pháp lệnh	Implemented under the National Assembly's assignment	National Assembly Standing Committee

Priority	English title	Vietnamese title	Description	Issued by
3	Resolution	Nghị quyết	Issued by the National Assembly to set out activities to implement laws and policies	National Assembly, National Assembly Standing Committee
4	Order	Lệnh	Issued to fulfil a certain task	President
5	Decision	Quyết định	Sets out objectives, tasks, activities, and implementation mechanism for certain activities	President, Prime Minister
6	Decree	Nghị định	Detailed instructions to implement certain laws, and resolutions of the National Assembly and its Standing Committee	Government
7	Circular	Thông tư	Detailed instructions to implement certain laws, decrees	Minister

Source: Authors.

All laws are under the authority of the National Assembly, whilst ordinances are issued by the Standing Committee of the National Assembly. However, the implementation and guidance of laws rely heavily on government agencies. Decisions, decrees, and circulars are largely issued by the government or members of government. The enforcement of laws and policies depends heavily on the circulars and guiding policy documents issued by ministries and other authorities. However, the number of circulars and other policy documents is large (Figure 10.3).

Figure 10.3: Number of Issued Legal Documents, Viet Nam, 2014–2018



Source: Authors, compiled from Government of Viet Nam (2019)

2.2.2 Regulatory Reform Until 2013

Since 1986, market-oriented reforms have covered a wide range of institutional changes to enhance the freedom to do business, level the playing field for all economic actors, and

strengthen market competition, amongst others. Regulatory reforms have been crucial. The functions of the government and public administration agencies at all levels have shifted progressively from direct intervention to indirect management, using legal and economic instruments.

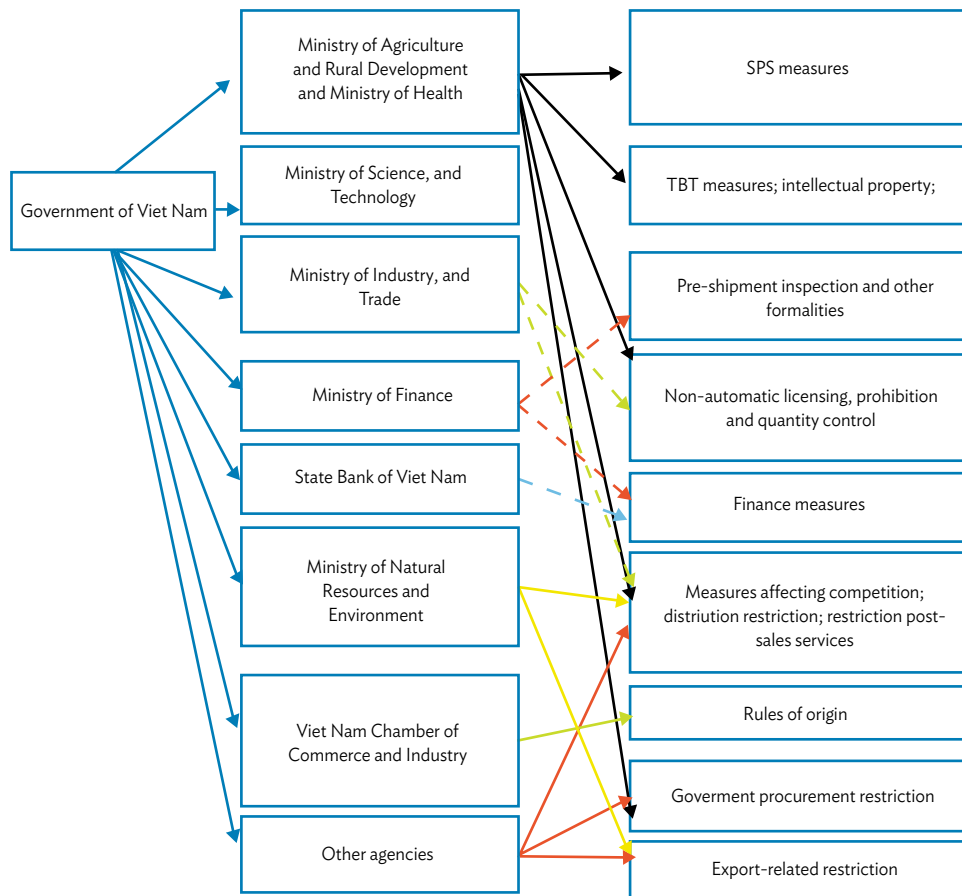
Table 10.4: Major Contextual Changes in Regulatory Reform Since 1986, Viet Nam

Period	Major Events and Changes
1986–1988	<ul style="list-style-type: none"> - Abolition of central economic planning - Reforms towards a multi-sector economy, with more participation of private and foreign enterprises - Setting up of legal frameworks for foreign trade, foreign direct investment
1989–1996	<ul style="list-style-type: none"> - Amendment of the Constitution in 1992 - Reforms in agriculture, trade, exchange rate, financial system, state-owned enterprises (SOEs), amongst others - Expansion of trade relations with other countries and territories - Joined ASEAN in 1995
1997–1999	<ul style="list-style-type: none"> - Asian financial monetary crisis - Slowdown of reforms and international economic integration
2000–2008	<ul style="list-style-type: none"> - Comprehensive reforms of SOEs, state budget, competition, and markets for production factors, amongst others - Regulatory changes for more equal treatment of domestic and foreign entities - Accession to the World Trade Organization in 2007 - Public administrative reforms
2009–2014	<ul style="list-style-type: none"> - Slower growth due to the impacts of global financial crisis and macroeconomic stabilisation policies - Amendment of the Constitution in 2013 - Modest regulatory changes for further trade and investment liberalisation, reforms of business environment (including public administrative procedures), amongst others
2014–2018	<ul style="list-style-type: none"> - Strengthening of the macro- and micro-economic foundations to improve the business investment environment and competitiveness - Removal of unnecessary business investment conditions to create a more favourable environment for all types of enterprises and level the playing field for foreign investors - Amendment and supplementing of existing regulations and issuance of new laws and regulations towards a market economy and international standards (e.g., amended Enterprise Law, amended Investment Law, Competition Law, Cyber-security Law, amongst others, and guiding documents)

Source: Authors, adapted from Vo and Nguyen (2016).

Regulatory reforms also covered trade-related regulations and associated institutional arrangements. NTBs became less prevalent by the 2000s as some were replaced by tariffs ('tariffication'). Since 2011, however, NTMs have become more popular. They are under the authority of various agencies, ministries, and line ministries, given the division of state management competency over trade-related regulations and policies. The ASEAN Division under the Multilateral Trade Policy Department, Ministry of Industry and Trade (MOIT) serves as the focal point for NTM-related issues in ASEAN (Figure 10.4). To make NTMs more transparent while Viet Nam deepens its regional and international economic integration and further liberalises trade, a focal point for sanitary and phytosanitary (SPS) matters was established in the Ministry of Agriculture and Rural Development (MARD), and one for technical barriers to trade (TBT) in the Directorate for Standards, Metrology and Quality, Ministry of Science and Technology (MOST).

Figure 10.4: Responsibility for Non-tariff Measures–related Regulations, Viet Nam



SPS = sanitary and phytosanitary, TBT = technical barriers to trade.

Source: Artuso and Nguyen (2017).

2.2.3 Streamlining Non-tariff Measures, 2014–2018

By the end of 2018, Viet Nam had no official programme for streamlining or classifying NTMs. Efforts until 2018 focused on the transparency of NTM-related regulations under the ASEAN framework. Viet Nam adopted the WTO TFA,⁶ of which NTM streamlining and transparency are integral components. However, TFA implementation remains nascent, and streamlining NTMs has to rely on a more indirect approach – simplification of administrative procedures, and reduction of unnecessary regulatory burdens on businesses, such as sectoral inspection and business conditions, amongst others. Such

⁶ The TFA was officially adopted on 22 February 2017, with the approval of 110 out of 164 WTO member countries. Viet Nam issued Decision No. 1969/QĐ-TTg, 13 October 2016, on approving the plan to prepare and implement the TFA.

an indirect approach can cover only a portion of NTM-related regulations, as NTMs are not just administrative procedures or inspections. Such an indirect approach may overly focus on NTMs' costs to firms, which may along the process be weighed inappropriately vis-à-vis other public policy objectives of regulations.

Since 2011, a wide range of legal documents on simplifying and improving administrative documents and business investment procedures have been promulgated and implemented. The most important ones include the series of Resolution No. 19 (2014–2018) and Resolution No. 02 (1 January 2019), amongst many others. As part of the Asia-Pacific Economic Cooperation (APEC) Ease of Doing Business (EoDB) Initiative, Viet Nam also committed to cut administrative requirements and procedures to meet APEC targets: make it 25% cheaper, faster, and easier to do business within APEC economies by 2015 under the 2010–2015 EoDB Action Plan; and make it 10% easier to start a business, get credit, enforce contracts, trade across borders, and deal with permits under the 2016–2018 EoDB Action Plan.

In the series of Resolution No. 19 of 2014–2018 and Resolution No. 02/NQ-CP of 2019, key measures aim to simplify or abolish unnecessary regulatory burdens on business activities, including import and export. Regulations affecting trade across borders were targeted for simplification. In August 2017, the Ministry of Planning and Investment proposed removing or simplifying about 2,000 business-related conditions (nearly half), many of which were, effectively, NTMs. Amongst them were 302 conditions related to financial aspects, 85 to business premises, 1,336 to production capacity, 127 to business modality, and 80 to master planning, amongst others (Artuso and Nguyen, 2017). By November 2018, 25 decrees on reducing business conditions had been issued, amending and supplementing 80 decrees in 15 state management areas of 15 ministries and line ministries (except the Ministry of Police) (VCCI, 2018). Resolution No. 19's target of reducing at least 50% of all business conditions was achieved. In 2015–2018, the number of imported and exported goods subject to state management and sectoral inspection was reduced by about 4,400 (General Department of Customs, 2018).

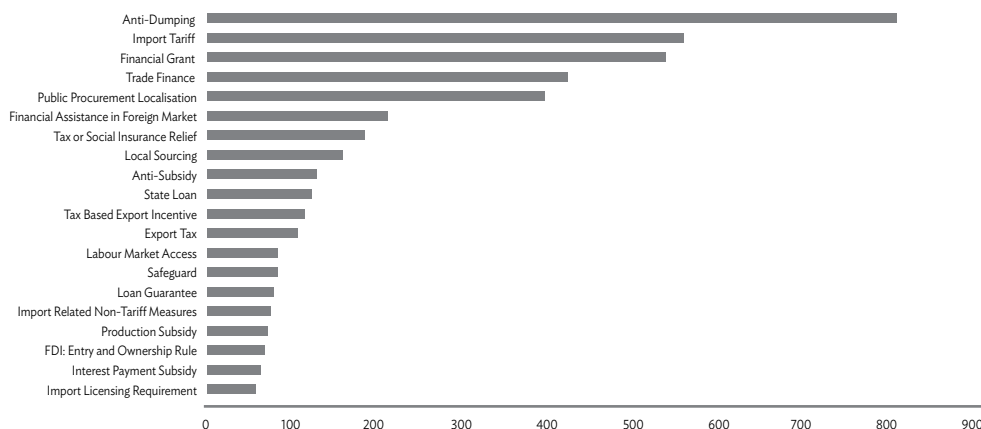
Viet Nam has made tremendous efforts to harmonise domestic laws with international norms and practices. Legal documents such as the Enterprise Law, Investment Law and guiding documents, amongst others, were issued, amended, and supplemented to level the playing field for all enterprises. The 2015 Enterprise Law and Investment Law simplify registration, making it much easier to trade from and to Viet Nam. The key changes include the following: (1) enterprises may freely conduct business not prohibited by law; (2) enterprises no longer have to list their line of business in their business license registration; (3) foreign investors and foreign-invested enterprises may establish domestic affiliates, providing they hold under 51% equity; (4) the number of prohibited sectors for foreign

investors was reduced from 51 to 6,⁷ thus opening Viet Nam’s industries to investment; amongst many others. In early 2015, the Central Institute for Economic Management reviewed business conditions stipulated in various regulations issued by ministries. Of the 5,850 business conditions, more than 3,000 had been introduced in circular-level documents. All these conditions were to be abolished from 1 July 2016 according to the amended Investment Law, and the 3,000 conditions would no longer apply from 1 July 2015.

Efforts to further reduce NTMs may encounter challenges. First, Viet Nam has not yet reached consensus on the rationale for and scope of NTMs. Whilst some regulations serve non-economic purposes, others are considered necessary to target imports without violating international agreements. This issue is further complicated by the absence of regulatory objectives in the regulations themselves.

Second, concerns over protectionism have been on the rise over the past few years. The trend may go well beyond tariffs, i.e., the use of NTMs to restrict trade has spread widely across economies. A study by the Pacific Economic Cooperation Council (PECC) (2018) indicated that anti-dumping is deployed most frequently, followed by import tariffs, financial grants, trade finance, and public procurement localisation, amongst others (Figure 10.5). Efforts to review NTMs in existing regulations must be continuous since some NTMs may have already been incorporated into new draft regulations.

Figure 10.5: Top-20 Trade-restricting Measures Adopted by Asia-Pacific Economies since 2008



Source: Global Trade Alert, cited in PECC (2018).

⁷ Foreign investors are still prohibited from investing in activities related to certain chemicals, drugs, animals and wild plants, prostitution, human tissue and body parts, and human reproductive cloning. The law also specifies a consolidated and unified list of 267 conditional sectors, which may be amended from time to time only by the National Assembly.

Finally, in July 2017, Viet Nam could barely get the trade portal up and running. Despite greater convenience and level of detail, it is different from the National Trade Repository (NTR) required of Viet Nam when it participates in the ASEAN Economic Community.⁸ Although this could be explained by the delay in reaching consensus on the technical design of the ASEAN Trade Repository with which the NTR would integrate, the failure to promptly improve the NTR has hampered trade activities, especially those related to identifying requirements vis-à-vis specific HS codes.

3. Description of Non-tariff Statistics

3.1 Comprehensiveness of Non-tariff Measures

This chapter builds on efforts to update the coded regulations and NTMs. The first phase (2014–2015) covered all regulations taking effect by 31 March 2015. The activities under the second phase included (1) reviewing, correcting, and updating all coded regulations and measures under the first phase; and (2) coding new regulations and NTMs that took effect from 31 March 2015 to 31 March 2018. NTMs were then coded in line with the updated NTM classification by UNCTAD (interim version, February 2018).

Table 10.5 summarises the legal comprehensiveness under both phases of NTM database collection under the updated NTM classification. Starting from original laws and ordinances (such as the 2017 Law on Foreign Trade Management,⁹ the law on amendment and supplement to Article 6 and Annex 4 on the list of conditional business lines stipulated in the Law on Investment,¹⁰ the Law on Pharmacy,¹¹ amongst others), guiding regulations were reviewed, corrected, updated, or added to the database. During the process, if any NTM was mentioned in several levels of legal hierarchy (laws and decrees), only the NTM at the lowest level of legal hierarchy was recorded to (1) avoid duplication; and (2) ensure relevance, as the lowest regulations often provide the most details for traders' compliance. Coded regulations in the second phase numbered 108, almost the same as in the first phase. Twenty agencies issued NTM-related regulations during both phases, including the National Assembly, the government, the Prime Minister, the Standing Committee of the National Assembly, and ministries and line ministries (including the inter-ministerial

⁸ In July 2017, the World Bank and the General Department of Customs of Viet Nam launched the Trade Information Portal so Viet Nam could comply with the WTO TFA. The portal aims to help traders comply with regulatory import and export requirements, but it is not sufficiently interactive, as certain topics, such as business opportunities, and lists of partners, amongst others, will still require traders to directly consult MOIT, and the Ministry of Planning and Investment, amongst others.

⁹ Law No. 05/2017/QH14, 12 June 2017.

¹⁰ Law No. 03/2016/QH14, 22 November 2016.

¹¹ Law No. 105/2016/QH13, 6 April 2016.

mechanism). Coded NTMs in effect for at least a portion of 2018 numbered 764, or 1.4 times higher than for 2015 (527). Coded NTMs were significantly more numerous than those reported to the WTO (127 in 2015, 48 in 2018).¹² Some NTMs applied to all products, such as registration of exporters and importers, and certificates of free sale, amongst others. Therefore, the share of NTM-affected products is effectively 100%.

Table 10.5: Legal Comprehensiveness, Viet Nam, 2015 and 2018

	Category	2015	2018
1	Total number of coded regulations	110	108
2	Total number of NTMs reported to the World Trade Organization (measures in force)	127	148
3	Total number of coded NTMs (measures in force)	527	764
4	Total affected products (HS lines, national tariff lines)		
	a. Total number of affected products at HS 6-digit level	5,387	5,387
	b. Affected products as a share of total products	100%	100%
5	Total number of regulatory agencies	19	19

HS = Harmonised System, NTM = non-tariff measure.

Note: The number of NTMs in force each year covers all NTMs that are effective for at least a portion of the year.

Source: Viet Nam's NTM database (2018); WTO I-TIP (2019).

Several caveats, however, should be considered in interpreting the number of coded NTMs. First, the number of NTMs does not reflect the prevalence or level of protection for domestic products or trade restriction on imported ones. In practice, some NTMs may be applied only to selected product codes in the HS 8-digit category and/or to some partners, which may not have a trade effect comparable to one NTM applied horizontally to all products and to all partners. Second, the review and coding of NTM-related regulations does not take into account the trade effect of those regulations. NTMs are collected directly from the regulations, whilst the cost-effectiveness of regulations cannot be assessed. Fourth, the coded NTMs for 2018 were restricted to those taking effect before 31 March 2018. Finally, the development and issuance of more NTM-related regulations may merely mean that more attention is being given to fulfilling various regulatory and/or specific objectives. Yet, this is an area where rule-making needs improvement, as not all regulations explicitly mention the objectives.

¹² WTO I-TIP database (accessed 25 February 2019).

3.2 Classification of Non-tariff Measures by Issuing Institution

In the NTM database, 20 agencies are responsible for NTM-related regulations. In 2015, 19 agencies were responsible for NTMs in effect, and in 2018, 18 were. The regulatory agencies included inter-ministerial mechanisms. Table 10.6 shows the number and share of coded NTMs by issuing institution for both phases of NTM data collection.

Table 10.6: Legal Comprehensiveness, Viet Nam, 2015 and 2018

Issuing Institution	2015		2018	
	No. of NTMs	Share of NTMs (%)	Number of NTMs	Share of NTMs (%)
Ministry of Industry	3	0.6	1	0.1
Ministry of Industry and Trade	60	11.4	64	8.4
Ministry of Industry and Trade – Ministry of Science and Technology	2	0.4	0	0.0
Ministry of Industry and Trade – Ministry of Finance	8	1.5	8	1.0
Ministry of Transport	8	1.5	21	2.7
Ministry of Science and Technology	3	0.6	14	1.8
Ministry of Agriculture and Rural Development	174	33.0	188	24.6
Ministry of Finance	9	1.7	21	2.7
Ministry of Natural Resources and Environment	11	2.1	11	1.4
Ministry of Information and Communication	18	3.4	20	2.6
Ministry of Construction	6	1.1	8	1.0
Ministry of Health	78	14.8	83	10.9
Ministry of Health – Ministry of Agriculture and Rural Development – Ministry of Industry and Trade	2	0.4	2	0.3
Government	109	20.7	252	33.0
National Assembly	19	3.6	53	6.9
General Department of Customs	1	0.2	1	0.1
Directorate of Standard, Metrology and Quality	2	0.4	2	0.3
Prime Minister	1	0.2	2	0.3
Standing Committee of National Assembly	13	2.5	13	1.7
Total	527	100.0	764	100.0

Source: Viet Nam's NTM database (2018).

As of 2018, the government accounted for the largest share of NTMs in effect (252 or 33% of the total). MARD followed with 188 or 24.6%. One explanation for the swap in ranking in 2018 (MARD ranked first in 2015 and the government ranked second) was the amended Law on Investment, July 2015, which requires that all conditions related to business and production not be issued in the regulations below the decree.

In 2018, the Ministry of Health (MOH) was responsible for 83 NTMs (10.9%), MOIT for 64 (8.4%), and the National Assembly for 53 (6.9%). MOH's share in 2018 was significantly smaller than in 2015 (14.8%). MOIT saw only a marginal increase in NTMs in 2018 compared with 2015 (64 vs. 60). In some cases, certain products were exposed to NTM-related regulations by more than one regulatory agency. For instance, imported vegetable oil and fat for consumer use (HS 15) are subject to regulations of MOH (safety and hygiene requirements); MOIT (import licence); and MOST (national quality and standards of TCVN 7597:2007, Codex Stan 210-2005, amended in 2003 and 2005, which relates to requirement of announcement of conformity); amongst others.

3.3 Classification of Non-tariff Measures by Chapter

The rankings of major NTM chapters do not vary in 2015–2018 (Table 10.7). In 2018, technical barriers to trade (TBT) accounted for most NTMs, including 310 measures or 40.6% of all NTMs. Chapter P (export measures) follows with 219 measures or 28.7% of all NTMs. Chapter A (SPS) ranks third with 114 measures or 14.9% of all NTMs. Another major category is chapter E (non-automatic licensing, quotas, prohibition, and quality-control measures other than for SPS and TBT reasons) with 78 measures or 10.2% of all NTMs. The share of TBT measures rose by almost 12.7 percentage points in 2018 compared with 2015, whilst that of price control measures, including additional taxes and charges, increased by only 0.4 percentage points. Conversely, the shares of SPS measures decreased by 7.5 percentage points and export measures by 3.0 percentage points. The proportion of other measures, such as C, D, F, G, H, J, and N, is relatively modest, although a slight variation was witnessed during the studied period.

Table 10.7: Non-tariff Measures by Chapter, Viet Nam, 2015 and 2018 (number, %)

Chapter		2015		2018	
		No. of NTMs	Share of NTMs (%)	Number of NTMs	Share of NTMs (%)
A	Sanitary and phytosanitary (SPS)	118	22.39	114	14.92
B	Technical barriers to trade (TBT)	147	27.89	310	40.58
C	Pre-shipment inspection and other formalities	4	0.76	7	0.92
D	Contingent trade-protective measures	0	0.00	0	0.00
E	Non-automatic licensing, quotas, prohibition, and quality-control measures other than for SPS and TBT reasons	65	12.33	78	10.21
F	Price control measures, including additional taxes and charges	11	2.09	19	2.49
G	Finance measures	2	0.38	2	0.26
H	Measures affecting competition	10	1.90	10	1.31

Chapter		2015		2018	
		No. of NTMs	Share of NTMs (%)	Number of NTMs	Share of NTMs (%)
I	Trade-related investment measures	0	0.00	0	0.00
J	Distribution restrictions	2	0.38	4	0.52
N	Intellectual property	1	0.19	1	0.13
P	Export-related measures	167	31.69	219	28.66
Total		527	100	764	100

NTM = non-tariff measure.

Source: Viet Nam's NTM database (2018).

The large share of export-related measures – mostly TBT and SPS measures – is partly explained by efforts to ensure the quality of exports, contributing to the enhanced quality and competitiveness of Vietnamese products. Imposing SPS and TBT measures on imports mainly serves the purpose of protecting human and animal health and safety and the environment. Nonetheless, several NTM regulations received complaints about (1) frequent changes and/or inadequate public consultation, which incurred adjustment costs for firms; and (2) the immediate effect of the regulations (i.e., the issuing date and date of effect were the same), which constrained firms' adaptation of business strategies.

The collection of NTM data excludes J (distribution restrictions), K (restrictions on post-sales services), L (subsidies [excluding export subsidies under P7]), M (government procurement restrictions), and O (rules of origin). That is, the numbers for J (distribution restrictions) and N (intellectual property) in Table 10.7 failed to fully reflect the possible NTMs under these chapters in Viet Nam's regulations. Viet Nam has no trade-related investment measures (chapter I).

3.4 Top-10 Non-tariff Measures

The shares of the top-10 coded NTMs rose from 46.5% in 2015 to 51.1% in 2018; 9 out of the 10 most frequently utilised NTMs in 2018 were either TBT (B) or export-related measures (P) (Table 8). Most TBT requirements deal with labelling (B31), certification (B83), conformity assessment related to TBT, not elsewhere specified (n.e.s) (B89), quality and safety and performance requirement (B7), and inspection requirement (B84). The use of detailed NTM measures changed significantly. In 2015, for instance, export-related measures were most frequently implemented, mainly dealing with registration requirements (P14) and testing requirements for exports (P161). TBT measures such as B83 (certification requirement), B89 (conformity assessment related to TBT), B31 (labelling requirement), and B82 (testing requirement) accounted for significant shares in

2015 but decreased in importance in 2018. Still, TBT measures on certification, testing, and labelling (B82, B83, B31) and non-automatic licensing, quotas, prohibition, and quality control measures other than for SPS and TBT reasons (E1) were used frequently in 2015 and 2018.

Table 10.8: Legal Comprehensiveness, Viet Nam, 2015 and 2018

	2015			2018		
	NTM	No.	Share Of Total (%)	NTM	No.	Share Of Total (%)
1	P14 (Product quality, safety, or performance requirement)	42	7.97	B31 (Labelling requirement)	91	11.91
2	E1 (Non-automatic import-licensing procedures other than authorisations covered under SPS and TBT chapters)	39	7.40	E1 (Non-automatic import-licensing procedures other than authorisations covered under SPS and TBT chapters)	45	5.89
3	P161 (Testing requirement)	35	6.64	P14 (Product quality, safety, or performance requirement)	44	5.76
4	B83 (Certification requirement)	27	5.12	B83 (Certification requirement)	38	4.97
5	B89 (Conformity assessment related to TBT, n.e.s.)	24	4.55	P161 (Testing requirement)	38	4.97
6	B31 (Labelling requirement)	20	3.80	B89 (Conformity assessment related to TBT, n.e.s.)	36	4.71
7	B82 (Testing requirement)	17	3.23	B7 (Product-quality, -safety, or -performance requirement)	33	4.32
8	P11 (Authorisation or permit requirements to export, for technical reasons)	15	2.85	P11 (Authorisation or permit requirements to export, for technical reasons)	22	2.88
9	A83 (Certification requirement)	13	2.47	P169 (Conformity assessment measures, n.e.s.)	22	2.88
10	B7 (Product-quality, -safety, or -performance requirement)	13	2.47	B84 (Inspection requirement)	21	2.75
	Top 10	245	46.49	Top 10	390	51.05
	Others	282	53.51	Others	374	48.95
	Total	527	100.0	Total	764	100.0

n.e.s. = not elsewhere specified, SPS = sanitary and phytosanitary, TBT = technical barriers to trade.

Source: Viet Nam's NTM database (2018).

4. Non-tariff Measure Indicators

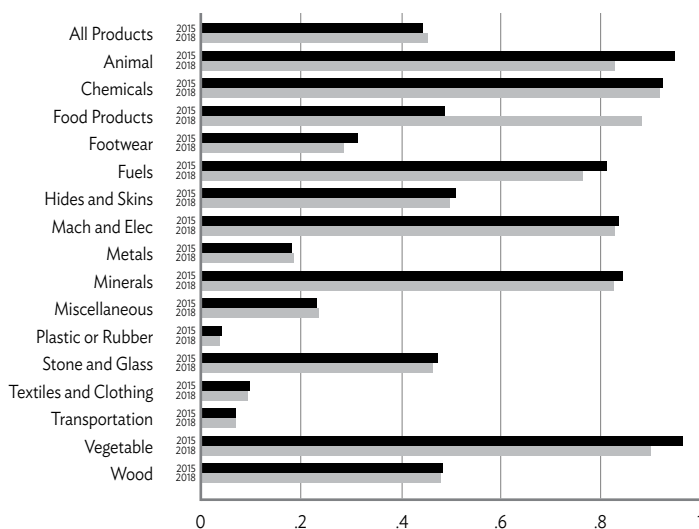
This section discusses the three standard NTM indicators: frequency index, coverage ratio, and prevalence score. The calculations were made at the HS 6-digit level as trade

data are only available at this level. Therefore, all affected products had to be converted into HS 6-digit codes. For comparative analysis, the applicable NTMs include only those in effect – at least partially – in 2015 and 2018. Trade data for 2017 is used as proxy to calculate the indicators for 2018. The calculations exclude NTMs that are applied across all products.

4.1 Exports

The frequency index varies significantly across product groups (Figure 10.6). It changed modestly in 2018 from 2015. Overall, 45.6% of exported product lines were subject to NTMs in 2018, a slightly higher share than in 2015 (44.4%). The most notable change was in food products (HS 16-24), with the frequency index jumped to 88.1% in 2018 from 49.0% in 2015. Meanwhile, the index for animal products (HS 01-05) dropped by 12.4 percentage points to 82.7% in 2018.. Significant shares in product lines of chemicals (HS 28-38), vegetable (HS 06-15), food products (HS 16-24), mechanical appliances and electrical machinery and equipment (HS 84-85), minerals (HS 25-26), animals (HS 01-05) were also subject to at least one NTM with the frequency index ranging between 76% and 92%. NTMs were applied to only 9.4% of textile and clothes (HS 50-63), 7% of transportation products (HS 86-89) and only 3.9% of plastic and rubber products (HS 39-40).

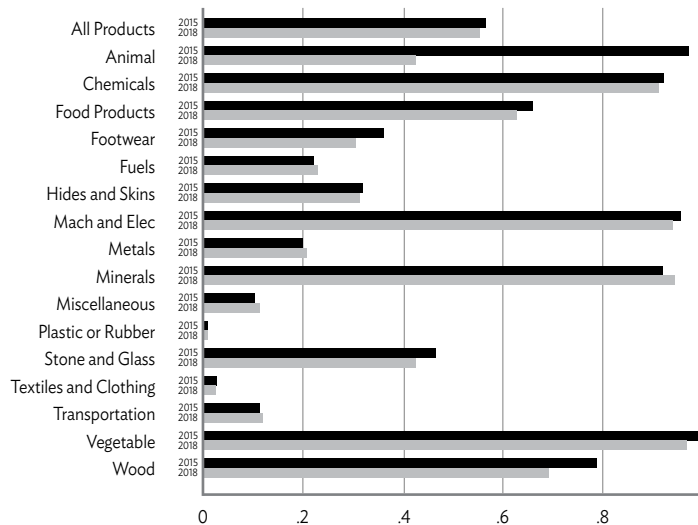
Figure 10.6: Frequency Index of Exports, Viet Nam, 2015 and 2018



Source: Viet Nam's NTM database (2018).

Coverage ratios of exports decreased slightly in 2018 (Figure 10.7): 55.6% of export value was subject to NTMs in 2018, smaller than in 2015 (56.8%). The coverage ratios classified by HS 2-digit group generally changed modestly over the studied period, except for animal products (HS 01-05) as coverage ratio of the group was drastically reduced from 97.5% in 2015 to 42.8% in 2018. Unsurprisingly, the products with a high frequency index also had a high coverage ratio, such as vegetable products (HS 06-15), minerals (HS 25-26), and chemicals (HS 28-38). Of the export value of textiles and clothes, only 2.6% was subject to NTMs, and the figure for plastics and rubber (HS 39-40) was just 1.0%.

Figure 10.7: Coverage Ratio of Exports, Viet Nam, 2015 and 2018



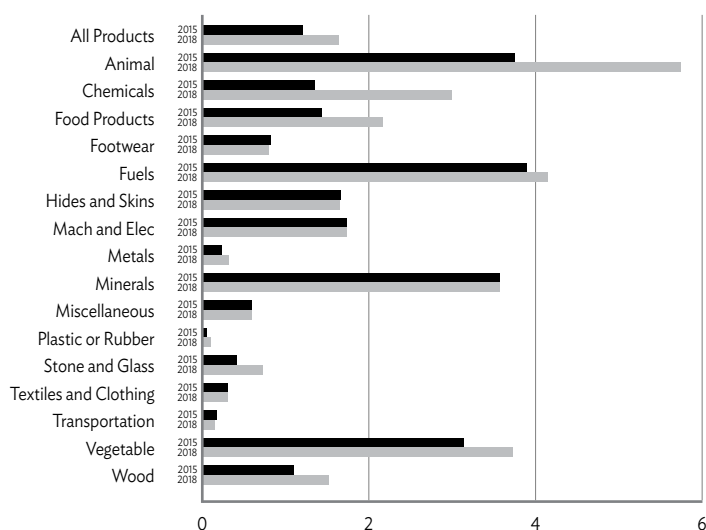
Source: Viet Nam's NTM database (2018).

Some products had a high frequency index but a small coverage ratio, indicating less restrictive effects of NTMs on exports of such products. For instance, 76.3% of product lines of exported fuels (HS 27) were subject to NTMs, but such NTMs affected only 23.2% of export value under this category in 2018. In contrast, trade effects of NTMs on mechanical appliances and electrical machinery and equipment may potentially have been larger, as 94.4% of the export value of this group was subject to NTMs whilst NTMs are relevant to only 82.9% of product lines of this group.

The frequency indices and coverage ratios above do not take into account whether more than one NTM was applied to the same product. In the database, a large number of products were subject to more than one regulatory measure. For example, a product could be subject to a sanitary standard as well as a technical measure on quality, and finally to licensing. The more NTMs applied to the same product, the greater the potential trade effect on that product. Thus, we use the prevalence score to document the average number of NTMs affecting a certain traded product.

On average, all exports were subject to 1.6 NTMs in 2018, which is modestly higher than for 2015 (1.2) (Figure 10.8). Animal products (HS 01-05) were subject to the largest number of NTMs (5.7 in 2018 and 3.7 in 2015). Other product categories with a large number of NTMs were fuels (4.2), vegetable (3.7), minerals (3.6), and chemicals (3.0). The average number of NTMs imposed on most other product groups varied only slightly in 2015–2018, except for animal products and chemicals (increased by 2 and 1.6 NTMs on the average over the 2015-2018 period).

Figure 10.8: Prevalence Score of Exports, Viet Nam, 2015 and 2018



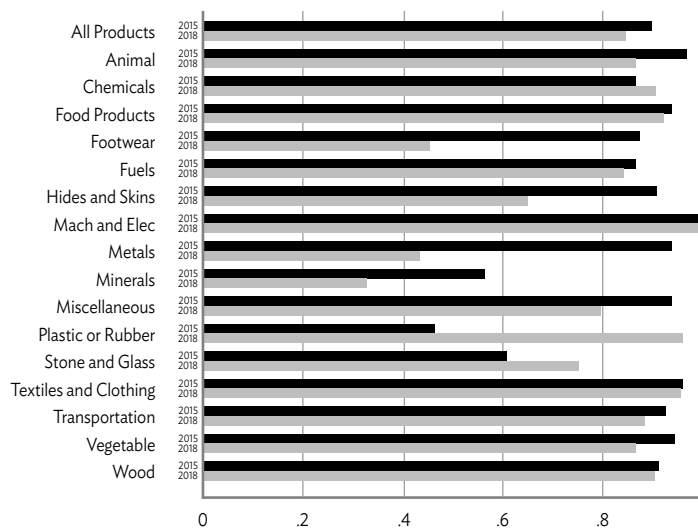
Source: Viet Nam's NTM database (2018).

4.2 Imports

The frequency index of imports showed a more noticeable change across HS groups than that of exports (Figure 10.9). The frequency indices of various product groups decreased in 2018 from 2015, indicating that fewer product lines under those groups were subject to NTMs. Notably smaller frequency indices applied to metals (HS 72-83, from 94.2% to 43.5%), footwear (HS 64-67, from 87.8% to 45.8%), minerals (HS 25-26, from 56.4% to 32.9%), hides and skin (HS 41-43, from 91.1% to 64.8%). In contrast, the number of product lines subjected to at least one NTM of plastic and rubber group (HS 39-40) witnessed the big jump (from 46.6% to 96.6% in 2018), followed by stone and glass products (from 61.0% to 75.3% in 2018). In overall, 84.8% of all imported product lines were subject to at least one NTM in 2018, slightly lower than in 2015 (90.0%). The result can be partly explained by government efforts to simplify administrative requirements for business investment activities and to reduce sectoral inspection requirements fostered since 2014. For instance, the series of Resolution No. 19 and Resolution No. 02 in

2019 set targets to remove 50% of business conditions and 50% of products subject to specialised inspection. By 2018, many ministries and line ministries issued decrees to remove business conditions. In 2018, MOIT reduced conditions for trading gas and rice. Decree No. 15/2018/ND-CP, 2 February 2018, on regulating food safety, replaced Decree No. 38/2012/ND-CP, resulting in the significant reduction of shipments subject to food safety inspection. The inspection requirement for formaldehyde content or the requirement to declare chemical content was revised.

Figure 10.9: Frequency Index of Imports, Viet Nam, 2015 and 2018



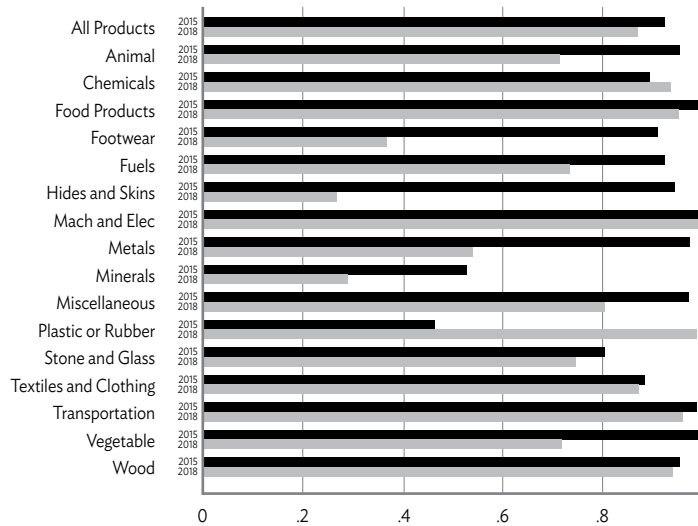
Source: Viet Nam's NTM database (2018).

In some groups, almost all imported product lines were subject to NTMs, including mechanical appliances and electrical machinery and equipment (99.4%), plastic and rubber (96.6%), textile and clothing (95.9%), food (92.5%), chemicals (90.6%), animal and vegetable products (nearly 87%). This might be attributed to efforts to protect animal and human health or to ensure the quality of consumer imports and/or inputs for domestic production and for export. But the large amount of imports subject to NTMs in 2018, including business conditions and specialised inspection requirements, indicated slower-than-expected progress in improving the business investment environment. The list of products subject to specialised inspection was expanded, whilst the regulations on specialised inspection and management of trading activities were numerous and overlapping.

Of import value, 87.0% was subject to NTMs in 2018, and 92.5% in 2015 (Figure 10.10). Hides and skin, footwear, and metals had a much smaller NTM coverage ratio in 2018 than in 2015. Although 64.8% of imported hides and skin (HS 41-43) were subject to NTMs,

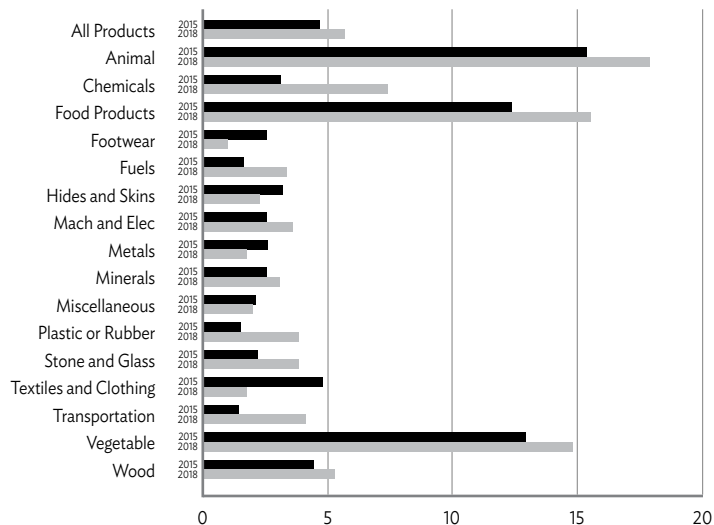
only 26.7% of import value was affected, indicating the modest trade effect of NTMs. Some other products groups had higher trade effects of NTMs, such as transportation products (HS 86-89), metals (HS 72-83), of which coverage ratio was exceeded the frequency index. In contrast, the coverage ratio of plastic and rubber (HS 39-40) increased from 46.3% to 99%. For product groups with high frequency indices (animal products, food, chemicals, plastic and rubber, amongst others), a significant share of import value was also subject to NTMs.

Figure 10.10: Coverage Ratio of Imports, Viet Nam, 2015 and 2018



Source: Viet Nam's NTM database (2018).

Figure 10.11: Prevalence Score of Imports, Viet Nam, 2015 and 2018



Source: Viet Nam's NTM database (2018).

The average number of NTMs imposed on imports was higher than for exports (Figure 10.11). On average, each import was subject to 5.8 NTMs in 2018, more than in 2015 (4.8). Animal products, vegetables, and food had the largest number of NTMs in 2018. NTMs on imported textile and clothing were significantly reduced, from 4.8 in 2015 to 1.8 in 2018. A range of product categories saw their prevalence scores increased in 2015–2018: animal products, from 15.4 to 18.0; food products, from 12.4 to 15.6; chemicals, from 3.2 to 7.4; transportation, from 1.5 to 4.1; amongst others.

Calculations of the frequency index, coverage ratio, and prevalence score have several limitations. First, partial coverage at HS 6-digit level is not considered. In the calculations for Viet Nam, 5,485 NTM-affected products were specified at the HS 8-digit level and represented some partial coverage of HS 6-digit products. Exclusions of NTMs with such partial indication then imply some underestimation of the coverage ratio and prevalence score for various product groups. Second, 9.33% of the coded NTM measures until 31 March 2018 affected only a subset of the world, whilst the trade data referred to Viet Nam's transactions with the world. Again, this led to an overestimation of the coverage ratio and prevalence score. Finally, some NTMs took effect only in a portion of 2015 and 2018 but were treated as applicable for the whole year. This also caused NTM indicators to be higher than actual incidence. While the above limitations work in opposite directions, identifying the net effects is no easy task.

5. Conclusions and Policy Recommendations

Over the past three decades, Viet Nam has made continuous and comprehensive efforts to reform its trade policy in line with market-oriented institutional reforms and economic integration. Tariffs have generally been reduced sharply, especially since 2003, but the use of NTMs has exhibited major swings. Whilst NTBs were popular and even restrictive until the early 1990s, they were gradually replaced by tariffs in the late 1990s. Whilst NTMs were more subtle in the 2000s, they have received more attention and been issued more frequently since 2011. It was only with efforts to improve the business environment and reduce unnecessary regulatory burdens on business since 2014 that NTM regulations were streamlined in 2014–2018.

The update of NTMs until 2018 yielded several findings. First, the number of NTMs taking effect from 31 March 2015 to 31 March 2018 was a bit higher than that before 31 March 2015. SPS, TBT, and export-related measures, and non-automatic licensing, quotas, prohibition, and quality-control measures other than for SPS and TBT reasons accounted for most NTMs. From 31 March 2015 to 31 March 2018, the government accounted for the largest share of NTMs. The frequency, coverage, and prevalence of NTMs differed

across product categories, with animal products, vegetables, food products and chemical products generally having higher incidences.

From a business perspective, NTMs need to be streamlined. The high incidence of NTMs imposed on imports – indicated by the NTM indicators – suggests that there remains immense room for simplification, at least to avoid duplication and improve coordination of ministries to achieve public policy objectives. Lessons should be drawn from the replacement of Circular 37/2015/TT-BCT on controlling content of formaldehyde aromatic amines by MOIT, following months of complaints by textile and garment firms, which incurred repeated testing costs (with almost no evidence of non-compliance).

The increasing application of NTMs to exports may in various circumstances lead to controversy. Whilst Decree 36/2014/ND-CP could be justified on the grounds of ensuring quality standards of exported pangasius, it imposed an unnecessary regulatory burden on firms. For instance, the registration of export contracts does not help exporters, because pangasius export contracts are so numerous and the Viet Nam Pangasius Association is unable to handle registration. The fee for appraising commercial capacity is a cost to a firm. For instance, after the first six months of implementation, 200 enterprises had registered 15,000 contracts with a total volume of 500,000 tonnes (Nguyen, 2018).

To further streamline NTMs, Viet Nam should consider the following:

First, the trade effects of NTMs should be well documented and preferably disaggregated to the sectoral level. This will give more insights into the types of NTMs that are relevant or can be phased out. Given the complexity of regulations that might have NTM implications, analysing the trade effects can help avoid unnecessary burdens on trade. The need to document such trade efforts will induce further development of the statistical system, which is an ongoing need for developing countries, including Viet Nam, Cambodia, the Lao People's Democratic Republic, and Myanmar.

Second, the stock and flow of NTMs should be examined. A process of review and impact evaluation should be put in place for NTMs proposed for adoption, to ensure that their objectives are justified and that they will not overly restrict trade.

The National Assembly and the government will need to introduce regulatory impact assessment principles when designing rules and regulations. For example, the ministry or agency issuing a regulation, especially if it is projected to restrict trade, should communicate the rationale for the regulation; its objectives; the justification; WTO compliance; alternative measures considered and reasons they were dropped; affected groups, products, and industries; and the end date.

Efforts since 2014 to reduce the stock of regulations that affect production and business activities (including trade) may not have fully streamlined NTMs, because the focus was exclusively on reducing the number of regulations whilst leaving each ministerial authority to decide which ones to eliminate. Without justification of impacts and targeting of NTMs, the approach runs the risk of preserving regulations with significant NTM impacts whilst abolishing those with negligible impacts.

Third, Viet Nam needs to leverage efforts to upgrade its NTR, which would provide more consistent, transparent, and easily accessible information on NTMs. It may also help prepare the country to implement commitments under various international frameworks and the WTO TFA.

Fourth, Viet Nam should continue to apply NTMs equally to all partners and avoid imposing NTMs on imports from only certain countries and territories, except under special circumstances or for a short period. Using NTMs to discriminate against certain partners is likely to unfairly divert trade away from them and increase the administrative costs of managing NTMs.

Finally, Viet Nam should aim for better and more transparent justification of NTMs so they do not unnecessarily burden traders and businesses. In some cases, ex ante consultation might help collect insights from traders and businesses, which might improve the quality of regulations. If the business community considers NTMs to be legitimate, they will be more effective.

References

Artuso, F. and A.D. Nguyen (2017), *Good Practices in Dealing with NTMs in the CLMV: How Can They Be Leveraged?* ERIA Research Project. Jakarta: Economic Research Institute for ASEAN and East Asia.

Central Institute for Economic Management (2015), *Impacts of FTAs and BITs on Viet Nam's Long-term Development Goals: Case Study of Food Processing and Electronics Sectors*. Funded by ActionAID International Viet Nam. In Vietnamese and English. Hanoi: CIEM and ActionAID International Viet Nam.

Central Institute for Economic Management (2019), *Macroeconomic Report – Fourth Quarter and 2018*. In Vietnamese and English. Hanoi: Financial Publishing House.

General Department of Customs of Viet Nam (2018), *Đánh giá văn bản quy phạm pháp luật quy định kiểm tra chuyên ngành xuất nhập khẩu* [Review of legal documents on sectoral inspection of import and export]. <https://vietnambiz.vn/coden-350-van-ban-quy-pham-luat-quy-dinh-kiem-tra-chuyen-nganh-109864.htm> (accessed 25 January 2019).

General Statistics Office of Vietnam (GSO) (2018), *Số liệu thống kê Thương mại – giá cả* [Statistical Data on Trade and Price]. In Vietnamese. Hanoi: GSO. <https://www.gso.gov.vn/default.aspx?tabid=720> (accessed 15 January 2019).

Government of Viet Nam (2019), *Hệ thống văn bản quy phạm pháp luật* [Database of Legal Normative Documents]. In Vietnamese. <http://vanban.chinhphu.vn/portal/page/portal/chinhphu/hethongvanban> (accessed 21 January 2019).

Ministry of Planning and Investment (Viet Nam) (2019), ‘Báo cáo tổng kết 5 năm thực hiện Nghị quyết 19/NQ-CP’ [Report on the 5-year Implementation of Resolution 19/NQ-CP]. Report to the Government of Viet Nam. In Vietnamese.

Nguyen, A.D. (2018), ‘Case Study of Viet Nam on Traffic Light Score Methodology’. Paper for Mexico’s APEC-funded project on Traffic Light Score Methodology No. EC 03 2017A.

Nguyen, A.T. and T.P. Dang (2014), *Studies on Sanitary and Phyto-Sanitary Measures (SPS) and Technical Barriers to Trade (TBT) Faced by Vietnamese Exporters in Major Export Markets*. Hanoi: Multilateral Trade Assistance Project.

Pacific Economic Cooperation Council (PECC) (2018), *State of the Region 2018–2019*. <https://www.pecc.org/resources/regional-cooperation/2584-state-of-the-region-2018-2019> (accessed 19 February 2019).

Trade Map (2019), http://www.trademap.org/Bilateral_TS.aspx (accessed 15 January 2019).

Truong D.T., T.T. Vo, T.G. Bui, V.C. Phan, T.D. Le, A.D. Nguyen, and S.A. Pham (2011), *Tác động của các cam kết mở cửa thị trường trong WTO và các hiệp định khu vực thương mại tự do đến hoạt động sản xuất, thương mại của Việt Nam và các biện pháp hoàn thiện cơ chế điều hành xuất nhập khẩu của Bộ Công Thương giai đoạn 2011–2015* [Impacts of Market Access Commitments under WTO and FTAs on Production and Business in Viet Nam and Measures on Managing Export and Import Activity of Ministry of Trade and Industry in 2011-2015 Period]. In Vietnamese. Hanoi: Multilateral Trade Assistance Project No. FTA-HOR FOLLOW-UP.

United Nations Commodity Trade Statistics Database (UN Comtrade) (2017), 'Metadata and Reference – Commodity list'. <https://comtrade.un.org/db/mr/rfCommoditiesList.aspx> (accessed 18 January 2019).

United Nations Conference on Trade and Development (UNCTAD) (2018), *NTM Classification*. Geneva: United Nation Conference on Trade and Development.

Viet Nam Chamber of Commerce and Industry (VCCI) (2018), *Báo cáo Dòng chảy pháp luật kinh doanh* [Report on Flows of Business Legal Regulations 2018]. In Vietnamese. <http://vibonline.com.vn/bao-cao-dong-chay-phap-luat-kinh-doanh-2018.html> (accessed on 22 January 2019)

Viet Nam Customs (2018), *Thống kê Hải quan* [Customs Statistical Data]. In Vietnamese. <https://www.customs.gov.vn/Lists/ThongKeHaiQuan/Default.aspx> (accessed 18 January 2019).

Vo, T.T. et. al. (2017), 'Trade in Value Added', in L. Y. Ying and F. Kimura (eds.), *Production Networks in Southeast Asia*. London: Routledge. <https://doi.org/10.4324/9781315406787>

Vo, T.T. and V.C. Nguyen (2016), 'Towards responsive regulation and regulatory coherence in ASEAN and East Asia: Deconstructing Effective and Efficient Regulatory Management Systems: Country Report for Vietnam', *ERIA Discussion Paper* ERIA-DP-2016-22. Jakarta: Economic Research Institute for ASEAN and East Asia.

Vo, T.T., A.D. Nguyen, and T.H. Dinh (2013), *Enhancing Supply Chain Connectivity and Competitiveness of ASEAN Agricultural Products: Identifying Chokepoints and Opportunities for Improvement – Vietnam Country Report*. ERIA Research Project on Enhancing Supply Chain Connectivity and Competitiveness of ASEAN Agricultural Products: Identifying Chokepoints and Opportunities for Improvement, led by P. S. Intal, Jr. Jakarta: Economic Research Institute for ASEAN and East Asia.

Vo T.T., A.D. Nguyen, and B.M. Tran (2016), 'Non-tariff Measures in Vietnam', in L.Y. Ing, S.F. Cordoba, and O. Cadot (eds.), *Non-tariff Measures in ASEAN*, ERIA Research Project 2015 No. 01. Jakarta: Economic Research Institute for ASEAN and East Asia.

World Integrated Trade Solution (WITS) (2019), 'TRAINS database'. <http://wits.worldbank.org/WITS/WITS/Default-A.aspx?Page=Default> (accessed 20 January 2019).

World Trade Organization I-TIP (WTO I-TIP) (2019), 'NTM Database'. <http://i-tip.wto.org/goods/default.aspx?language=en> (accessed 25 February 2019).