Chapter 6

NTM in ASEAN: Ways Toward Regulatory Convergence

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CHAPTER 6

NTMs in ASEAN: Ways Toward Regulatory Convergence

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1. Introduction

The world economy has witnessed the fragmentation of production and its organisation into cross-border supply chains at all stages notably since the 1990s (Baldwin, 2014). Thanks to its relatively low trade barriers and overall attractiveness as a manufacturing platform, Southeast Asia has been a primary beneficiary of this trend (Ing and Kimura, 2017). Based on value added, in the last 3 decades, five of the seven gainers in the manufacturing sector globally were China, Republic of Korea, India, Indonesia, and Thailand (Baldwin, 2014). Manufacturing growth in Southeast Asia has been accompanied by income and market growth. Based on IMF forecasts of purchasing power parity (PPP)-based gross domestic product (GDP), China, India, and Indonesia could be amongst the top seven economies in the world by 2050, and other Association of Southeast Asian Nations (ASEAN) economies (the Philippines, Viet Nam, Malaysia and Thailand) amongst the top 25 (IMF, 2016).

The success of Asia's model of cross-border production networks, sometimes called 'factory Asia', has so far relied critically on the free flow of goods, capital, services, and skilled labor. However, the outlook for free and expanding international trade has turned dimmer in 2011—2016. At the global level, after over 60 years of almost uninterrupted growth in trade/GDP ratios worldwide, those ratios have stabilised or even declined, with world trade growing at a meagre 1.9 percent in 2016 against 2.3 percent for worldwide GDP (see Constantinescu et al., 2015, 2016, for more details and analysis). Even though, trade growth surged to 7.2 percent in 2017 (merchandise trade volume growth was 4.7 percent). The valuation of flexibility versus cost-saving is approached using real-options theory and highlights instances where cost savings generated by offshoring are more than offset by longer response times to randomly changing market conditions. When uncertainty is properly accounted for using real-options based valuation, the ranking between offshoring and re-shoring can be reversed (de Treville and Trigeorgis, 2010). In parallel, anti-globalisation sentiment has spread in Western countries, with conservative politicians, traditionally favourable to free trade, embracing a populist narrative, reminiscent of the 1930s, in which international trade and immigration are blamed for manufacturing job losses and all sorts of real or imaginary social evils.

Against this global backdrop, at the regional level, ASEAN risks remaining stuck in a 'shallow integration trap', of which there are already some signs, with intra-ASEAN's trade increasing merely from 22 percent in 2000 to 25 percent in 2015 (Ing and Cadot, 2016), and only to 26 percent in 2017. Indeed, regional integration in Asia remains very much an 'unfinished agenda'. A number of non-tariff barriers (NTBs) still linger on, in spite of the elimination of quantitative restrictions, tariff-rate quotas, and import bans by the ASEAN Trade in Goods Agreement (ATIGA). These barriers take various forms, in particular procedural obstacles (customs delays, unnecessary procedural and documentation requirements).

Even in the absence of NTBs, non-tariff measures (NTMs), a broader category that encompasses legitimate measures such as sanitary and phytosanitary (SPS) or technical (TBT) regulations, have not noticeably converged in the region, again in spite of ATIGA's provisions. We will focus on NTM regulatory convergence. We first discuss conceptually different forms of regulatory convergence, including harmonisation and mutual recognition. Then, we will review ASEAN's experience in the light of that of regions that have already progressed in this area, drawing in particular lessons from the EU's experience over the last half-century. Last, we look specifically at ASEAN's sector-specific approach to regulatory harmonisation and assess its achievements. Section 2 presents a factual overview of NTMs in ASEAN. Section 3 explains harmonisation efforts in NTM streamlining in ASEAN by sector (electronics, automotive, cosmetics, pharmaceutical and prepared food). Section 4 concludes.

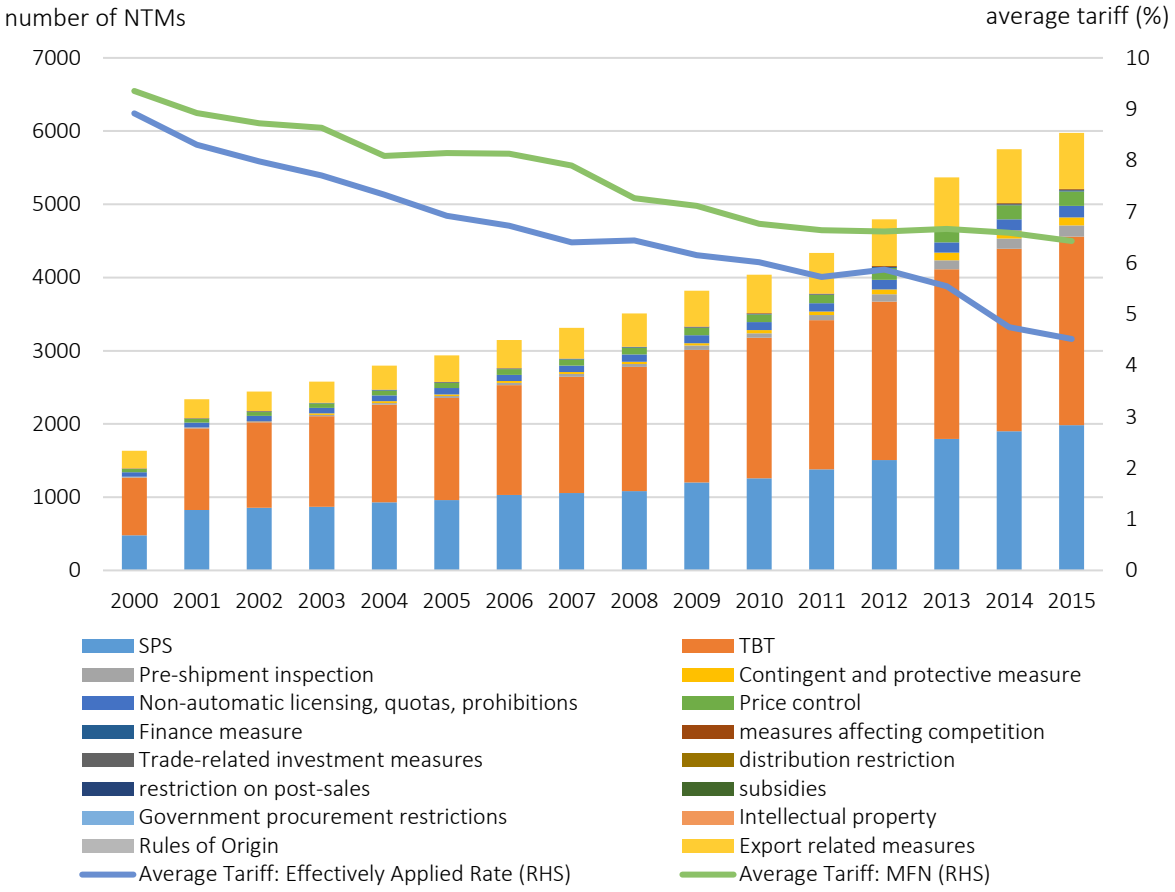
2. NTMs in ASEAN: An Overview

2.1 Evidence from NTM Inventories

The ASEAN Free Trade Area (AFTA) has successfully brought down tariffs from an average of 8.9 percent in 2000 to 4.5 percent in 2015. By 2010, 98 percent of all products at the HS–6 digit level were tariff-free for intra-ASEAN trade in the ASEAN-6 countries (Brunei Darussalam, Indonesia, Malaysia, the Philippines, Singapore and Thailand); by 2018, the same should be true of Cambodia, Lao PDR, Myanmar and Viet Nam, which had longer transition periods.

However, at the same time, numbers suggest that NTMs have proliferated, from 1,634 measures in 2000 to 5,975 measures in 2015 (Figure 6.1). While historical data on NTM counts must be taken cautiously, as reliable inventories have been collected only recently, such a trend should not come as a surprise. Rising incomes and consumer awareness typically come with rising demands for product safety, and Ing et al. (2016) have argued that the evidence so far is suggestive of such income effects rather than rising protectionism.

Figure 6.1: Trends in Tariffs and Non-tariff Measures in ASEAN, 2000–2015



ASEAN = Association of Southeast Asian Nations; NTMs = non-tariff measures; TBT = technical barriers to trade; SPS = sanitary and phyto-sanitary; RHS = right-hand side.
Source: ERIA-UNCTAD NTM Database, 2016, http://asean.i-tip.org

Indeed, the bulk of the rising stock of NTMs is accounted for by regulatory measures: Table 6.1 shows that, in 2015, 33 percent were SPS regulations, 43 percent were TBT, 13 percent were export-related measures, and all the rest, including quantitative restrictions (QRs), price-control measures, and all traditional NTBs accounted together for a meagre 11 percent.

Table 6.1: NTMs by Type in ASEAN, 2015

Code	NTM by Type	Number of NTMs	Percentage of total NTMs (%)
A	Sanitary and phytosanitary (SPS) measures	1,984	33.2%
B	Technical barriers to trade (TBT)	2,573	43.1%
C	Pre-shipment inspection and other formalities	153	2.6%
D	Contingent trade protective measures	112	1.9%
E	Non-automatic licensing, quotas, prohibitions and quantity control measures other than SPS or TBT reasons	159	2.7%
F	Price control measures including additional taxes and charges	195	3.3%
G	Finance measures	15	0.3%
H	Measures affecting competition	16	0.3%
I	Trade-related investment measures	0	0.0%
J	Distribution restrictions	2	0.0%
K	Restriction on post-sales services	0	0.0%
L	Subsidies (excluding export subsidies under P7)	0	0.0%
M	Government procurement restrictions	0	0.0%
N	Intellectual property	0	0.0%
O	Rules of origin	0	0.0%
P	Export-related measures	766	12.8%
Total coded NTMs		5,975	100%

NTMs = non-tariff measures; ASEAN = Association of Southeast Asian Nations.
Source: ERIA–UNCTAD NTM Database, 2016, http://asean.i-tip.org

Further evidence that the bulk of ASEAN's NTMs are regulatory measures is provided by Table 6.2, which classifies them by issuing agency. Most are issued by Health ministries (31.3 percent), Agriculture ministries (31.2 percent), while only 7.8 percent were issued by Trade ministries and 7.1 percent by Industry ministries.[1] Unless captured by lobbies, regulations issued by health ministries are typically of the SHEC type (Safety, Health, Environment and Consumer protection) and can be presumed to address market failures, i.e. to be welfare-enhancing, at least provided that they follow World Trade Organization (WTO) guidelines (non-discrimination, necessity and proportionality tests) and are matched by administrative capabilities.

[1] The Ministry of Agriculture includes forestry, plantation and fisheries agencies.

Table 6.2: NTMs by Issuing Agency, 2015

No	Ministry/agency	Number of NTMs	Percentage of total NTMs (%)
1	Ministry of Health	1,868	31.3%
2	Ministry of Agriculture (including forestry, plantation, fisheries)	1,865	31.2%
3	Ministry of Trade	468	7.8%
4	Ministry of Industry	425	7.1%
5	Ministry of Environment, environmental agencies	178	3.0%
6	Cabinet office, State Secretary	175	2.9%
7	World Trade Organization (provided by WTO)	87	1.5%
8	Ministry of Finance	86	1.4%
9	Ministry of Energy, and related agencies on energy	64	1.1%
10	Other institutions	759	12.7%
Total NTMs		5,975	100%

NTMs = non-tariff measures; WTO = World Trade Organization.
Note: Data on measures of Antidumping, countervailing duties and safeguards are provided by the WTO. The WTO does not issue any regulations.
Source: Authors' calculation, based on the ASEAN–ERIA–UNCTAD Database, http://asean.i-tip.org

Going to the product level, Table 6.3 shows half of ASEAN countries have 100 percent NTM coverage ratios[2], namely Cambodia, Lao PDR, the Philippines and Viet Nam, which means that these countries regulate all of its imported products. Interestingly, Thailand has a relatively low import coverage ratio (36 percent) but a 100 percent export coverage ratio. As for other ASEAN countries, coverage ratios vary between 36 percent and 89 percent of total imports. What is noteworthy in the coverage-ratio data is that low-income countries like Lao PDR or Cambodia aim at regulating all imports, in spite of very limited administrative capabilities. Such discrepancies between aims and capabilities are bound to create arbitrariness and confusion in the application of rules, especially when those are complex, like SPS or technical regulations.

[2] The import coverage ratio of a measure is the proportion of import value that it applies to. The import frequency ratio is the proportion of imported products (typically at the HS6 level of detail, at which the total number of products is around 5,000) that it applies to.

Table 6.3: NTMs Frequency Ratio and Coverage in ASEAN Countries, 2015

Country	NTM frequency ratio	NTM coverage ratio
Brunei Darussalam	46%	54%
Indonesia	57%	65%
Cambodia	100%	100%
Lao PDR	100%	100%
Myanmar	48%	57%
Malaysia	42%	56%
The Philippines	100%	100%
Singapore	99%	89%
Thailand	36%	36%
Viet Nam	100%	100%

ASEAN = Association of Southeast Asian Nations; NTM = non-tariff measure.

Notes: NTM Frequency ratio is the ratio of the number of products affected by at least one NTM (import measures, Code A–O) to the total number of product lines at the HS–6 digit level. NTM Coverage ratio is the ratio of the number of products affected by at least one NTM to the total number of products at the HS–6 digit level weighted by total value of imports of goods at the HS–6 digit level in 2015. The counting of NTMs excludes Export Measures (NTM Code P) for consistent comparability between frequency and coverage.

Source: Authors' calculation, based on the ASEAN–ERIA–UNCTAD Database, http://asean.i-tip.org. Trade data are retrieved from ITC for Lao PDR, Myanmar and the Philippines and World Bank WITS for the other countries.

Table 6.4 shows NTM frequency ratios by sector in all 10 ASEAN countries in 2015. SPS measures dominate in HS Code 01–24 (animal, vegetable, and food products), at over 90 percent. Some resource-based commodities (hide and skins, and wood products, and rubbers) are also covered by SPS which (between 23 percent and 36 percent). Technical (TBT) measures, which often relate to safety, quality and environmental considerations, are fairly distributed across sectors, with high incidence in foodstuffs (91 percent), animal products (88 percent) and vegetable products (77 percent). Export measures are frequent for animal (97 percent) and vegetable products (94 percent), foodstuffs (67 percent) and mineral products (59 percent). Export measures imposed on mineral products are often designed to maintain their domestic price artificially low, a form of industrial policy in favour of downstream sectors.

Table 6.4: NTM Frequency Ratio by Product, 2015

HS Code	Description	SPS	TBT	Export measures	Other measures
01--05	Animal and animal products	96%	88%	97%	92%
06--15	Vegetable products	94%	77%	94%	87%
16--24	Foodstuffs	92%	91%	67%	80%
25--27	Mineral products	1%	49%	59%	58%
28--38	Chemical and allied industries	8%	59%	48%	60%
39--40	Plastics/rubbers	23%	34%	36%	43%
41--43	Raw hide, skins, leather & furs	36%	50%	63%	67%
44--49	Wood & wood products	27%	47%	60%	48%
50--63	Textiles	8%	46%	46%	50%
64--67	Footwear/headgear	18%	46%	48%	54%
68--71	Stone/glass	4%	38%	40%	48%
72--83	Metals	2%	33%	35%	46%
84--85	Machinery/electrical	2%	60%	51%	52%
86--89	Transportation	4%	61%	51%	60%
90--97	Miscellaneous	5%	46%	47%	51%

HS = Harmonized System; SPS = sanitary and phyto-sanitary; TBT = technical barriers to trade.
Source: Authors' calculation, based on the ASEAN–ERIA–UNCTAD Database, 2016.

2.2 Business Perceptions

NTM data taken from inventories of official regulations are informative about the nominal incidence of measures, but not about their real impact on day-to-day business operations. Since 2013, the International Trade Centre (ITC) has conducted NTM business surveys in a number of countries. To date, four ASEAN countries have been covered: Cambodia (ITC, 2014), Indonesia (ITC, 2016), the Philippines (ITC, 2017) and Thailand (ITC, 2016a). Results are synthesised in Table 6.[3]

[3] Evidence from firm surveys must be interpreted essentially as anecdotal. In spite of the ITC's efforts to gather large, stratified samples (stratification being typically by sector and size), for a variety of reasons, the size distribution of the samples never replicates that of the entire population of firms. For instance, micro and small firms represent only 11 percent of the ITC sample in Indonesia, while they account for over 90 percent of the population of firms. Beyond such discrepancies, the construction of a relevant sampler raises deep conceptual issues ; for instance, while the overwhelming majority of firms are small ones, their distribution typically following a power law (Easterly et al., 2009), the top 1 percent of trading firms account for over half of aggregate trade (Freund and Pierola, 2015). Thus, averages from a representative sample may represent essentially the perceptions of firms that do not matter for aggregate performance. Finally, even if national firm populations are pretty much all Pareto-distributed, they differ across countries, with proportionately more micro firms in low-income countries.

Table 6.5: NTBs & Procedural Obstacles as Perceived by Business

Country		Cambodia	Indonesia	the Philippines	Thailand
Year of observation		2013	2013	2014-2015	2014
# of firms surveyed		502	953	1,149	1,067
Composition of sample					
Micro		31%	1%	19%	14%
Small business		41%	10%	50%	30%
Medium-sized business		6%	24%	10%	28%
Large business		13%	60%	15%	26%
Unspecified		9%	5%	6%	2%
% firms affected by NTMs		69%	37%	73%	38%
	Rank				
NTM type by importance	1	PSI (57%)	PSI (59%)	Customs (54%)	ROO (35%)
	2	Conf. Assess. (16%)	QRs (14%)	Cust val. (13%)	PSI (23%)
	3	QRs (11%)	Conf. Assess. (11%)	Tech. auth. (9%)	Price controls (13%)
	4	Other (16%)	Other (16%)	Other (24%)	Other (29%)
Procedural obstacles by importance	1	Delays (57%)	Delays (28%)	Delays (26%)	Arbitrarin ess (34%)
	2	Inf. Payments (19%)	Arbitrarines s (25%)	Excess. Proc. (20%)	Delays (22%)
	3	Admin burden (10%)	Excess. Charges (19%)	Excess. Doc. (18%)	Inf. Payments (15%)
	4	Other (14%)	Other (28%)	Other (36%)	Other (29%)

NTMs = non-tariff measures; NTB = non-tariff barriers; PSI = pre-shipment inspection; ROO = rules of origin; QRs = quantitative restriction; Val: customs valuation; Conf. Assess: conformity assessment; Tech. auth.: technical authorization; Excess. Proc.: Excessive procedures (too many windows); Excess. Doc: excessive documentation burden; Inf. payments: Informal payments.
Source: ITC (2014, 2016, 2016a, 2017).

One noteworthy finding from the surveys is that those NTMs most frequently flagged by respondents are not necessarily those with the highest frequency. For instance, while SPS and TBT measures have high frequency ratios in Indonesia, Thailand and Cambodia, it is pre-shipment inspection (PSI), which covers only 2.6 percent of imports, which is most frequently signaled by the private sector as a burdensome measure.

Survey evidence on procedural obstacles is also noteworthy as they are never caught in official NTM inventories, while being of clear importance for businesses. In three out of four ASEAN countries covered in ITC surveys (Cambodia, Indonesia and the Philippines) delays are mentioned as the main procedural obstacles related to NTMs (57 percent in Cambodia, 28 percent in Indonesia, and 26 percent in the Philippines). Arbitrary behaviour by officials is signaled as a concern by a third of Thailand's firms. Other procedural obstacles related to NTMs include informal payments, excessive documentary and procedural burdens (too many forms, too many windows), and unusually high fees and charges. Of course, these obstacles may be inter-related, as delays may result from refusal to pay bribes, and excessive documentary requirements may be imposed to induce firms to pay bribes to go around them.

All in all, the picture that emerges from the confrontation of inventory-based and survey-based data suggests that the convenient distinction between NTMs (largely legitimate regulatory instruments addressing market failures, such as SHEC regulations), and NTBs (deliberate obstacles to trade) may not be always so clear in practice. When administrations are weak or corrupt, seemingly legitimate regulations can be applied at the border in such a way that they generate substantial procedural obstacles, with the same result as NTBs. In such cases, the underlying rationale may or may not be the protection of national industries. It may simply be that customs are a convenient point to extort bribes through bureaucratic harassment. Thus, the prism through which trade economists and lawyers typically look at NTMs – are they discriminatory or not? – may also not be so useful in practice if they constitute trade-facilitation obstacles for all firms (see Asprilla et al., 2016).

3. Streamlining NTMs in ASEAN

3.1 Deepening Regional Integration: The Issues

As noted by Bourgeois et al. (2007) and Piermartini and Budetta (2009), inter alia, a number of regional agreements contain deep-integration provisions that go beyond the requirements of WTO Article XXIV or the Enabling clause. Such provisions are typically intended to go beyond free trade (understood as the elimination of intra-bloc tariffs and QRs) to the free movement of goods, understood as the elimination of all forms of NTBs, even when those stem from simple regulatory differences rather than trade policies. Whether regulatory differences between countries in a trading bloc should always be chased down is a difficult conceptual issue. While differences in national technical standards create business costs when they force costly adaptation of products, they may well reflect different societal choices expressed democratically through laws, regulations, or court decisions. Erasing such differences to

reduce business costs may be welfare-enhancing or welfare-reducing, depending on circumstances. For instance, the process through which regulations are harmonised in a trading bloc may not aggregate correctly individual preferences; on one hand, it may reflect the overwhelming influence of the bloc's hegemon through bargaining; on the other, it may give an unduly large influence to small countries if decisions are made at the simple majority of member states. When regulatory differences are welfare-reducing, several approaches exist to reduce or eliminate them.

The first approach is applying national treatment, i.e. to prevent member states from discriminating, de jure or de facto, between domestic and foreign (partner) products. This is essentially the regional translation of GATT Article III. The GATT allows exceptions through Article XX; likewise, regional agreements may admit exceptions from the national-treatment principle, typically in the case of SHEC regulations. Under national treatment, firms must obey the *destination principle*; that is, products must be adapted to the destination market's requirements. Thus, the issue of adaptation costs is not addressed under this approach.

The second approach is to impose a blanket prohibition of all non-tariff measures having the effect of restricting trade, whether justified by market failures or not. As this is obviously too intrusive to be realistic, such a prohibition must be accompanied, again, by derogations. The main problem with this approach – which is essentially that contained in Articles 34 and 36 of the EU's Lisbon Treaty – is how wide should be the range of situations where derogations can be granted (see Box 1).

The third approach is harmonisation of national regulations by some sort of supra-national body – like the European Commission – or through intergovernmental negotiations. There are several problems with this approach. First, it ignores the differences in national preferences that may have led to differences in national regulations. Second, it is overwhelmingly complex, as many countries have thousands of regulations on the books. Third, it requires that the body issuing new, harmonised regulations work with industry experts to deal with technical issues, opening the door to capture by large firms and industry associations (the ones most likely to have access to such a high-level process). Finally, even in the unlikely event where the process managed to reach completion, its sheer complexity would discourage attempts to adapt it to changing technology and market conditions, freezing the body of harmonised regulations and possibly stifling innovation.

The fourth approach, mutual recognition (MR), is meant to avoid the pitfalls of harmonisation. Under MR, a product that is cleared for sale in one member state is automatically cleared for sale in any other member state. Under MR, firms obey the *origin principle*: If their products are designed to satisfy the production country's regulations, they do not need further adaptation to be marketed in the bloc's other countries. Thus, MR cuts into the Gordian knot of harmonising large numbers of regulatory texts, since they can coexist without imposing adaptation costs. However, in practice, there are limitations to its applicability and benefits. First, MR can apply only when regulations are *equivalent*, i.e. pursue the same objectives, and when member countries agree that the proper way of reaching those objectives is to regulate performance rather than the detail of technical specifications. Second, member countries need to trust each other's enforcement capabilities, which is easier when they are at similar

levels of development and share broadly similar societal preferences, in particular in terms of proper balance between business costs and SHEC objectives. MR is also less powerful in practice than it looks on paper. In principle, it reverses a crucial burden of proof – under the origin principle, it is no longer up to firms to prove compliance with the destination country's regulations. Instead, it is up to the latter's authorities to prove that a product designed to satisfy the regulations of another member country violates a substantial provision of its own regulations.[4] However, in practice, firms (especially small ones) may not know about mutual recognition and to which products it applies; moreover, it may be hard to convince recalcitrant bureaucrats of the reversal of the burden of proof.

Box 1: Europe's Experience with Integration

While the Common Market was essentially a customs union in its first 10 years (1958–1968), the Treaty of Rome defined, from the start, its objective as the free movement of goods, services, capital, and people, something that was much more ambitious than just a customs union. In the early days, the European Community tried to foster deep integration through harmonisation, i.e. the creation of new European Community (EC)-wide regulations in replacement of national ones. Later dubbed the 'old approach', harmonisation was progressively recognised as going nowhere, as lack of trust between member states led to detailed and cumbersome technical regulations – all the more since regulatory impact assessment, now mandatory, was not used. The general prohibition of NTBs (re)stated in Article 34 of the Lisbon Treaty was not working either, as too many derogations were granted to member states under Article 36. To discipline them, the European Court of Justice (ECJ), which played a key role in the EC's deepening integration, elaborated through its case law a concept of *equivalence* between national regulations (essentially the notion that national regulations pursue the same objective) under which derogations could not be granted.

The year 1978 marked a turning point with the ECJ's landmark *Cassis de Dijon* decision, which established the principle of mutual recognition, grounded in the twin principles of equivalence and origin: If the regulations of member states A and B were equivalent (i.e. pursuing the same objectives, presumably of the SHEC type), compliance with the origin country's regulations automatically granted the right to sell in the destination country. This was what Pelkmans (2012) called 'judicial MR'.

In parallel, a 'new approach' to harmonisation emerged that would overcome the pitfalls of the old one. Instead of crafting detailed technical regulations through inter-government bargaining, the European Commission would issue 'light' directives stating broad regulatory objectives, in terms of performance rather than technical specification, and issue mandates to market players (independent non-profit organisations such as CEN or CENELEC) to develop performance standards consistent with the directives' objectives. As long as products were certified (by notified bodies) as compliant with the relevant standard, they would enjoy MR; this was what Pelkmans (2012) called 'regulatory MR'. The Commission would also encourage the adoption of world standards whenever possible to extend MR treatment to imports from third countries as well.

[4] The legal term for this is 'presumption of compliance'; see Pelkmans (2012) for details.

The combined evolution of ECJ case law and regulatory philosophy at the level of the Commission successfully pushed forward deep integration in the EC while avoiding (to some extent) regulatory proliferation. Indeed, the Commission also pushed a vigorous *deregulation* agenda in services, in particular energy and transport, unseating long-established monopolies and raising economic efficiency.

In spite of the key roles and tacit cooperation of the ECJ and European Commission, progress could not be entirely top-down. There was also a good dose of political support at the national level, even in the presence of substantially different political sensitivities in, say, Margaret Thatcher's Britain or François Mitterrand's France. This relative consensus on the need to forge ahead led to the adoption of the 1986 Single European Act, which tore apart many of the remaining obstacles to market integration. The 2000s, however, witnessed a severe erosion of this consensus, with fateful consequences. As Britain's conservatives radicalised, their agenda shifted to dismantling what was left of the regulatory State after the already brutal deregulation of the Thatcher years, which meant breaking away from the EU's carefully-balanced regulatory and social-protection agenda.[5] Thus, Brexit's sovereignist and anti-immigrant rhetoric was essentially a marketing pitch; the real agenda was un-harmonisation to make the UK a 'deregulation haven'.[6]

Source: Pelkmans, 2012.

Europe's 60-year experience with building a single regional market (see Box 1) highlights a number of lessons of interest for ASEAN countries as they look forward to deepening regional integration. First, hard harmonisation (Europe's 'old approach') appears as neither feasible nor desirable across the board, as it would lead, if successful (an unlikely event in the presence of bargaining tactics by member states) to excessive regulatory centralisation and a rigid body of detailed regulations that could end up stifling innovation. Second, a blanket prohibition of all trade-reducing NTMs, leaving no room at all for regulatory sovereignty, would not be politically viable without a derogation mechanism; but the management of derogations could prove difficult, especially in the absence of a supra-national judicial body such as the ECJ. Third, 'judicial MR' (the combination of the origin principle and regulatory equivalence between member states) may appear as an appealing option on account of its lightness and flexibility; however, it requires that (i) member states share the same overall regulatory philosophy, and that (ii) information about business rights (the reversal of the burden of proof) is effectively communicated to businesses through business associations, chambers of commerce and the like, and to national officials at all levels. Fourth, 'regulatory MR' (the combination of broad directives with performance standards) also appears appealing, especially if solidly anchored

[5] For instance, Nigel Lawson, Chancellor of the Exchequer under Margaret Thatcher, was quoted in the 7 September 2017 edition of *The Telegraph* as saying that the Thatcher government's deregulation 'transformed the performance of the British economy', adding that 'once out of the EU, we have the opportunity to do this on an even larger scale with the massive corpus of EU regulation. We must lose no time in seizing that opportunity.' Duncan Smith, conservative MP and former Labour Secretary, is quoted in the same edition as declaring '[l]et us leave and then the Conservative Party at the next election needs to say, 'we can reduce the cost on business and on individuals by reducing regulations which will improve our competitiveness, our productivity and therefore ultimately our economy.

[6] *The Guardian* of 20 July 2017, reported that 'Michel Barnier, the EU's chief Brexit negotiator, […] said EU states could refuse to approve a trade deal with the UK unless the government gives assurances that it will not use Brexit to deregulate and lower standards.'

on world standards. However, and this is the fifth and last lesson, Brexit shows that adherence to deep integration requires a shared vision. If governments place the cursor at widely different positions in the trade-off between consumer safety and lower business costs (for instance, if some governments pursue a drive for blanket deregulation driven by ideology rather than cost-benefit analysis) it may prove difficult to move forward and reversals are possible.[7]

3.2 ATIGA's Approach to Deep Integration in ASEAN

ASEAN's general approach to NTMs is defined in Chapter 4 of ATIGA. The basic principle, spelled out in Article 40, relies on national treatment, the first of the four approaches identified in Section 3.1 of this chapter, and a specific prohibition of QRs mirroring Article XI of the GATT (ATIGA Article 41). This minimalist approach is complemented by a number of additional provisions contained in ATIGA's Chapters 5 (trade facilitation), 7 (technical standards) and 8 (SPS measures).

For NTMs other than QRs, ATIGA relies on inter-governmental bodies to identify those constituting NTBs: The Coordinating Committee for the Implementation of the ATIGA (CCA), the ASEAN Consultative Committee on Standards and Quality (ACCSQ), the ASEAN Committee on Sanitary and Phytosanitary (AC-SPS), the working bodies under ASEAN Directors-General of Customs, and 'other relevant ASEAN bodies, as appropriate, in accordance with the provisions of this Agreement, which shall submit their recommendations on the identified non-tariff barriers to the AFTA Council through SEOM.'[8] NTBs identified through this procedure were initially set to be eliminated in three tranches according to fixed schedules, with deadlines allowing for some flexibility to accommodate particular circumstances: 2010 for Brunei Darussalam, Indonesia, Malaysia, Singapore and Thailand, 2012 for the Philippines, and 2015 (with flexibility up to 2018) for Cambodia, Lao PDR, Myanmar, and Viet Nam. However, progress was, at the time of writing, hard to assess, with no data available on the ASEAN Secretariat's website for years beyond 2009, the year ATIGA was signed.

In addition to elimination schedules for NTBs identified by inter-governmental bodies, ATIGA set up an identification mechanism akin to reverse notification in Article 42, Sections 4–6:

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[7] As a minor but telling illustration of the recent drive for all-out deregulation in the UK, *The Independent* reported on 30 July 2017 that the '[t]he Government ignored expert advice and made changes in 2015 that made it easier to buy dangerous acids that have been used in a spate of attacks in recent weeks. […] The changes made in 2015 were against the recommendations of the Poisons Board, a panel of experts established to advise ministers on regulating the trade in dangerous substances, who favoured tightening, rather than weakening, regulations so that high concentrations of acid could be sold only by licensed pharmacists. However, ministers ignored the advice and used the Deregulation Act to completely abolish the Poisons Board. […] At the time, Conservative ministers boasted about 'cutting red tape for business' and claimed the change would save retailers £20,000 a year.' (Ben Kentish, 'Government ignored expert advice and relaxed laws on sale of acids used in recent attacks'; *The Independent*, 30 July 2017). In this case, the EU merely imposes classification and labelling requirements for hazardous chemicals under Regulation 1272/2008, which was not a constraint for the UK government.

[8] ATIGA Article 42, p.42.

> 'Notwithstanding Paragraphs 1 to 3 of this Article, the CCA, in consultation with the relevant ASEAN bodies, shall review any non-tariff measure notified or reported by any other Member State or by the private sector with a view to determining whether the measure constitutes as a NTB. If such review results in an identification of a NTB, the NTB shall be eliminated by the Member State applying such NTB in accordance with this Agreement. The CCA shall serve as a focal point for the notification and review referred to in Paragraph 4 of this Article. Exceptions to this Article shall be allowed for the reasons provided in Article 8.'[9]

Chapter 5, on trade facilitation, provides more detailed guidance on the reduction of procedural obstacles to regional trade through the ASEAN Trade Facilitation Framework (ATFF). Under the coordination of the ASEAN Trade Facilitation Joint Consultative Committee (ATF–JCC), the ATFF sets road maps for work in several areas: the ASEAN Single Window (ASW), the ASEAN Customs and Transit System (ACTS), the ASEAN Trade Repository (ATR) with inter-operative network with National Trade Repositories (NTRs), the ASEAN-wide system of Self-Certification, and the system of ASEAN Solution for Investments, Services and Trade (ASSIST).

In the area of technical regulations, given the heterogeneity of its members' development levels and the lack of strong supranational bodies, ATIGA refrains from an all-encompassing, top-down approach, but instead offers in Chapter 7 a menu of options that member states are encouraged to take, depending on circumstances. Article 75 spells out good practices for technical regulations that essentially mirror WTO provisions. As for standards, whenever international ones are available, member states shall adopt them (Article 73, Section 2(a) and Article 74, Section 2); when no international standards exist, member states shall 'align' national standards amongst themselves (Article 74, Section 2). However, as noted, there is in ASEAN no body like the EU Commission to set broad directives to guide the alignment of national standards in terms of overall regulatory objectives; thus, the approach contained in Article 74 is not as powerful as the EU's 'new approach' (see supra) in driving regulatory coherence. Article 73, Section 2(b) requires member states to promote the mutual recognition of conformity-assessment results, and Article 73, Section 2(c) to 'develop and implement ASEAN Sectoral Mutual Recognition Arrangements and develop ASEAN Harmonized Regulatory Regimes in the regulated areas where applicable'. However, the agreement's wording does not make it entirely clear how compelling these prescriptions are, as its opening sentence states that '[m]ember States shall take *any* of the following *possible* measures' and does not specify any compliance mechanism.

In the area of SPS regulations, Chapter 8 spells out basic disciplines, which, again, largely mirror those of the WTO's SPS agreement. Article 82 mandates the creation of an ASEAN Committee on SPS measures (AC–SPS) with a facilitator/information-sharing role, with wording that could allow the AC–SPS to grow into a regional dispute-resolution body (albeit based on negotiation rather than enforcement) if the political drive was there. Article 84 develops in broad terms an equivalence principle, anchored in international food standards

[9] ATIGA Article 42, page 43.

(e.g. the Codex, OIE or IPPC)[10], that could facilitate mutual recognition amongst member states.

All in all, it is fair to say that, cognisant of the bloc's heterogeneity in terms of development levels and administrative capabilities, ATIGA's negotiators stopped well short of a mandatory, top-down harmonisation agenda. Instead, they manifestly relied on a pragmatic, flexible 'open regionalism' approach whereby regional arrangements were solidly anchored in international trade rules and regulatory disciplines, encouraging member states to converge to those rules. Even mutual recognition is mentioned in passing, without a strong push. While the absence of a supra-national body would have made Pelkman's 'regulatory MR' (regional directives complemented by national performance standards pursuing consistent regulatory objectives) difficult, even 'judicial MR' (the combination of the equivalence and origin principles) was not strongly suggested by ATIGA, except in the important area of conformity assessment.

In spite of ATIGA's light-foot approach to regulatory convergence, mechanisms have been put in place in ASEAN to achieve harmonisation in a number of priority sectors, under the aegis of the ASEAN Consultative Committee on Standard and Quality (ACCSQ), established in 1992. We now turn to a detailed discussion of sector-level harmonisation.

4. ASEAN Standard Harmonisation Efforts by Sector

Standard harmonisation efforts have been led by the ASEAN Consultative Committee on Standard and Quality (ACCSQ). Established in 1992 to support AFTA integration, the ACCSQ initially consisted of three working groups. It has since evolved, into a coordinating body consisting of nine working groups (three general-purpose and six sectoral) and two sectoral committees.

ASEAN listed Priority Integration Sectors (PIS) agreed in 2004.[11] Sectors were designated as PIS based on four criteria: (i) the volume of intra–ASEAN trade, (ii) the existence and extent of TBT, (iii) the readiness of technical infrastructure in the majority of ASEAN member states, and (iv) the interest of the majority of ASEAN member states.[12] A number of PIS are divided into sub-sectors subjected to harmonisation managed by the ACCSQ. For instance, health care is divided into medical devices, cosmetics, pharmaceuticals, and traditional medicines and health supplements. Likewise, the natural-resource based sector is divided into prepared foodstuff, rubber-based products and wood-based products, and other sectors. The working groups and committees are detailed in Table 6.6.

[10] Codex Alimentarius Commission, the World Organization for Animal Health (OIE), International Plant Protection Convention (IPPC)
[11] PIS include agro-based products, air travel, automotive, e-ASEAN, electronics, fisheries, health care, rubber-based product, textiles & apparel, tourism, and wood derivative products.
[12] Based on ASEAN Framework Agreement on Mutual Recognition Arrangements signed in 1998.

Table 6.6: Working Groups and Committees in ACCSQ

Working Group or Committee	Objective	Observed recent development
WG 1– Working Group on Standards and Mutual Recognition Arrangements WG 2 – Working Group on Accreditation and Conformity Assessment WG 3 – Working Group on Legal Metrology	Supporting sectoral MRA by developing the guide and monitoring the implementation Supporting the capacity of member states in accreditation and conformity assessment Supporting legal metrology in ASEAN by harmonisation and cooperation.	Task Force on Building and Construction (TFBC) Task Force on Wood-Based Products (TFWBP)
JSC EEE MRA – Joint Sectoral Committee for ASEAN Sectoral MRA for Electrical and Electronic Equipment	Managing the harmonisation of standard and conformity procedure of Testing Laboratories and/or Certification Body in EE sectors	- ASEAN EEE MRA - ASEAN Harmonised Electrical and Electronic Equipment Regulatory Regime (AHEEERR) - agreed 119 standards - recognition of listed testing laboratories and certification bodies
ACC – ASEAN Cosmetic Committee	Managing the harmonisation of technical regulation for cosmetic sector	Agreement on the ASEAN Harmonised Cosmetic Regulatory Scheme MRA for Cosmetics ASEAN Cosmetics Directive
PPWG – Pharmaceutical Product Working Group	Managing the harmonisation of pharmaceutical requirement and regulations for AMS	- MRA in pharmaceutical products - ASEAN Common Technical Dossier - ASEAN Common Technical Requirements - finalisation of MRA for Bio-equivalence (BE)
PFPWG - Prepared Foodstuff Product Working Group	Managing the harmonisation in prepared foodstuff and preparing the MRA	- developing the MRA
APWG – Automotive Product Working Group	Managing the harmonisation in automotive sector by developing MRA	- Agreed 19 standards referring UNECE - developing MRA
TMHSPWG – Traditional Medicines and Health Supplements Product Working Group	Managing the harmonisation in traditional medicines and health supplements product by developing the MRA	- developing the Agreement on Traditional Medicines and the Agreement on Health Supplements
MDPWG – Medical Device Product Working Group	Managing the harmonisation in medical device product by developing a common dossier template for ASEAN and post-market alert system	- ASEAN Medical Device Directive (AMDD) - harmonisation of standard and technical regulation
RBPWG – Rubber-Based Product Working Group	Managing the harmonisation in rubber-based product by developing standard, technical regulations and conformity assessment for AMS	- developing the MRA

ACCSQ = ASEAN Consultative Committee on Standards and Quality; ASEAN = Association of Southeast Asian Nations; MRA = mutual recognition arrangement.

Source: Authors' compilation from ASEAN Secretariat (2015), Prassetya and Intal (2015), and Scoles (2016).

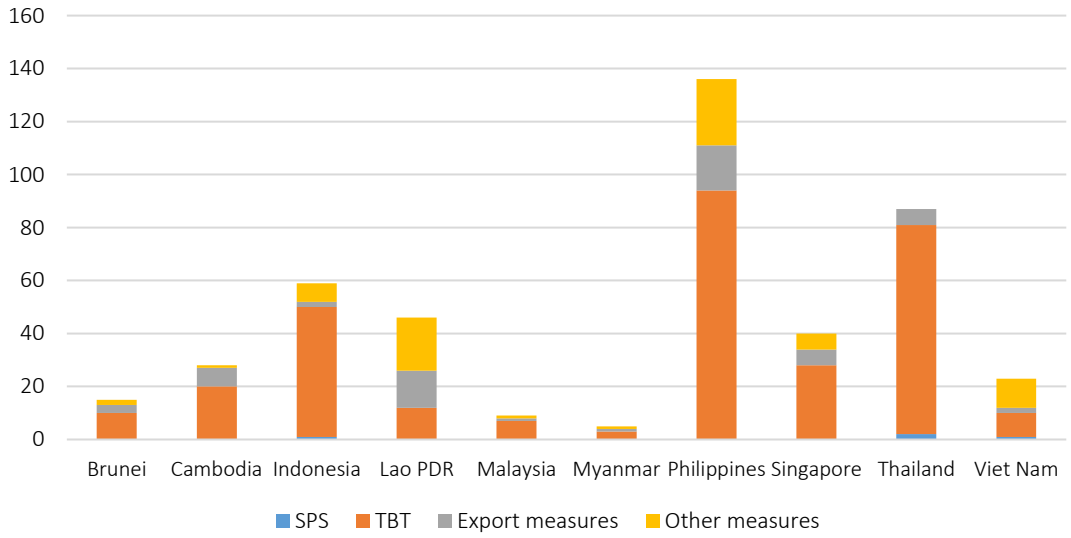
How far harmonisation and MR have progressed varies across sectors. As of December 2018, electronics, cosmetics and pharmaceuticals have integrated ASEAN standards and technical regulations. The electronics and electrical equipment (EEE) sector relies on the worldwide International Electrotechnical Commission (IEC) standard. Electronics and cosmetics are two sectors largely dominated by multinational companies, making the alignment of regional standards on international ones crucial. By contrast, prepared foodstuffs and traditional medicine products largely produced by local small and medium-sized enterprises, cannot or do not bother to comply with international standards, especially when selling in their domestic market.

While recognising that efforts to streamline and discipline NTMs and to improve their transparency have not progressed at the same pace in all ASEAN countries, in the following sections we take stock of achievements so far at the regional level, focusing on the four PISs: EEE, automotive, health (cosmetics and pharmaceutical) and prepared foodstuffs.

4.1. Electronics and Electrical Equipment (EEE)

Figure 6.2 shows the number of NTMs applied to EEE products (defined as HS-85), by country and type of measure.[13] Unsurprisingly, most NTMs in the EEE sector are technical regulations, although their incidence varies across countries.[14] The Philippines are the heaviest user by number of measures, followed by Thailand and Indonesia. Being a manufacturing hub in electronics, Malaysia has only nine measures, a light-footed approach probably intended to minimise interference with the functioning of cross-border supply chains.

Figure 6.2: Number of NTMs in the EEE sector, 2015

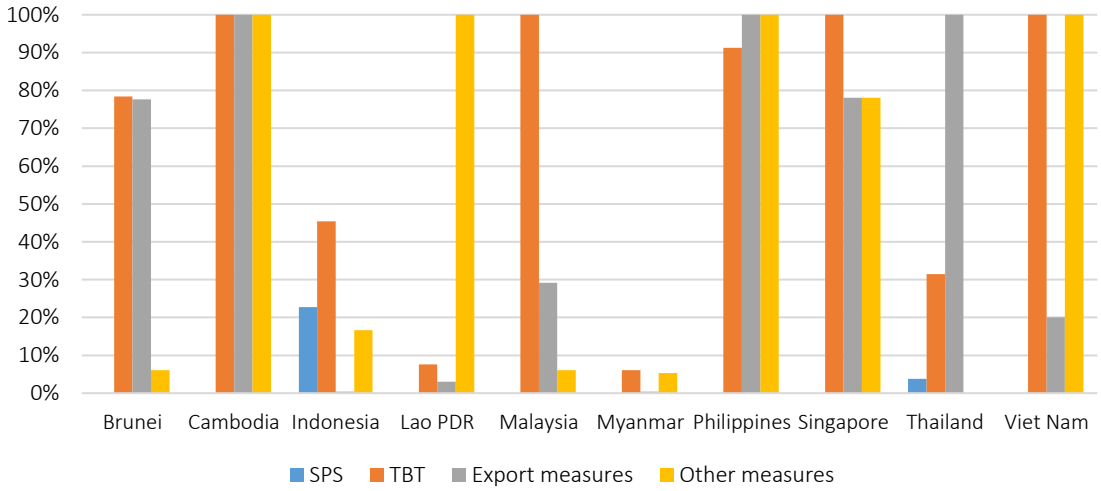


NTMs = non-tariff measures; EEE = electronics and electrical equipment; SPS = sanitary and phyto-sanitary; TBT = technical barriers to trade.
Note: EEE products in this chart is defined as all products in HS-85.
Source: Authors' calculation, based on the ERIA–UNCTAD NTM database, 2016, http://asean.i-tip.org

[13] For simplification of each sectoral measure accounting, i.e. EEE, automotive, cosmetics, pharmaceuticals and prepared foodstuff products, this paper uses the HS Code at two-digit level.

Figure 6.3 shows NTM frequency ratios for EEE products across ASEAN countries, by type of measure. Brunei Darussalam, Cambodia, Malaysia, the Philippines, Singapore, and Viet Nam have TBT coverage ratios between 78 percent and 100 percent, whereas Indonesia and Thailand have 45 percent and 31 percent, respectively. TBT coverage ratios for Lao PDR and Myanmar are around 8 percent and 6 percent respectively, reflecting limited consumer awareness and administrative capabilities.

Figure 6.3: NTM Frequency Ratio in the EEE sector, 2015



EEE = electronics and electrical equipment; SPS = sanitary and phyto-sanitary; TBT = technical barriers to trade.
Note: EEE products in this chart is defined as all products in HS-85.
Source: Authors' calculation, based on ERIA–UNCTAD NTM database, 2016.

Harmonisation in the EEE sector started in 2002 with the ASEAN Electrical and Electronic Equipment Mutual Recognition Agreement (ASEAN EEE MRA), followed in 2005 by the ASEAN Harmonised Electrical and Electronic Equipment Regulatory Regime (AHEEERR). As of December 2018, the AHEEERR today comprises a set of 119 international (IEC) standards, together with a conformity-assessment procedure. Regulatory objectives include health, safety, environment preservation, and electromagnetic compatibility. However, by 2015, only six countries had totally revised their national legislation to meet the requirements outlined in the AHEEERR: Brunei Darussalam, Indonesia, Myanmar, Singapore, Thailand and Viet Nam. Cambodia, Malaysia, and the Philippines had partially revised their legislation, whilst Lao PDR has yet to revise its own (Prassetya and Intal, 2015).

Box 2: Survey on Conformity Assessment Performance in the EEE sector in ASEAN

Between November and December 2016, ERIA conducted interviews with government and private-sector representatives on the operation of the AHEEERR's conformity-assessment procedures (CAP), including one testing laboratory and one certification body in each of three ASEAN countries: Indonesia, Singapore, and Thailand.

Four main issues surfaced in the interviews: First, the listing process for testing labs is perceived to be long by the private sector, taking up to 6 months from application to final approval. Second, MR as envisaged in the ASEAN Framework Agreement on Mutual Recognition Arrangements and ASEAN Sectoral Arrangement for Mutual Recognition in Electrical and Electronic Equipment does not appear to work smoothly in practice. On paper, a laboratory listed by a National Accreditation Body (NAB) should be recognised in all 10 ASEAN countries and its results accepted automatically. In reality, in many cases the lab still needs to apply for accreditation in the destination country, a process that can be, again, long and cumbersome. Third, member states sometimes change national standards without the prior notification and transition period mandated by good regulatory practices and WTO and ATIGA prescriptions. Fourth, there is no clear agenda on the timeline of AHEEERR implementation.

The main issue on CAP is how effectively ASEAN countries are implementing the system. As national standards vary, whether they are modified versions of IEC standards or outright different, problems still arise. For instance, it happens that the destination country rejects products tested in an origin country using an older version of the IEC (international standard).

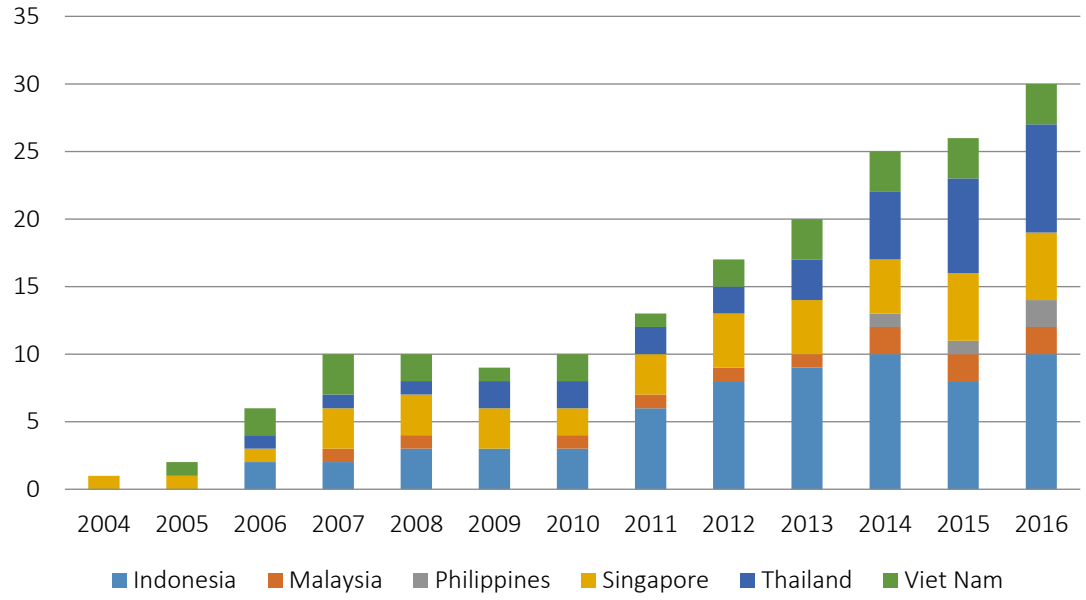
While a number of firms in Thailand claimed that the AHEEERR Scheme had helped them diversify their portfolio of exports by reducing the cost and uncertainty of exporting, Singapore's testing labs did not see much benefit from AHEEERR, as most of Singapore's trade makes use of the CB Scheme to export to both ASEAN and non–ASEAN countries, reflecting its worldwide reach. At the other extreme of the spectrum, Indonesia's firms were often more focused on their domestic market and showed only marginal interest for the AHEEERR scheme.

Respondents suggested that ASEAN governments should work to improve the compatibility of the AHEEERR and CB schemes and improve the reach of certification schemes to small and medium-sized enterprises to help them get up to speed in terms of certification, which would help them join regional or worldwide supply chains led by multinationals as third- or n^{th}-layer suppliers, or even directly reaching foreign customers themselves. For that, a first step would be for national certification infrastructures to be transparent and managed by professionals.

Source: Authors' Interviews

Figure 6.4 shows progress achieved in setting up a certification and testing infrastructure in member states to support harmonised standards in the EEE sector. Efforts started in 2004, and the number of participating laboratories grew steadily over the years. By December 2016, nine certification bodies and 21 testing laboratories were operational for conformity assessment across ASEAN countries.

Figure 6.4: Number of AHEEERR-listed Operating Certification Bodies and Testing Labs



AHEEERR = ASEAN Harmonised Electrical and Electronic Equipment Regulatory Regime.
Note: The number does not represent the utilisation rate of testing labs and certification bodies.
Source: Data are compiled from ASEAN Secretariat Website, January 2017.

As a vehicle for the recognition of testing labs, AHEEERR listing competes with the privately-funded IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components (IECEE), called the Certification Bodies (CB) Scheme for short. Under the CB Scheme, participating labs can be accredited by any participating national accreditation body under the supervision of Participating Member Bodies. The CB Scheme has five participating members in ASEAN: Indonesia, Malaysia, Singapore, Thailand and Viet Nam, although the latter has listed neither its National Accreditation Bodies nor CB Testing Laboratory. Table 6.7 compares the number of participating laboratories and certification bodies in AHEEERR and CB Scheme, by country.

Table 6.7: Number of listed CBs and TLs, ASEAN EEE MRA and IECEE CB Scheme

Country	ASEAN EEE MRA*		IECEE CB Scheme**		
	# listed CBs	# listed TLs	Member Body	# CBs	# TLs
Indonesia	5	5	Badan Standarisasi Nasional (BSN)	3	4
Malaysia	1	1	Department of Standard Malaysia	1	1
Singapore	1	4	SPRING Singapore	3	25 (all outside Singapore)
Thailand	1	7	Thai Industrial Standard Institute (TISI)	1	1
Viet Nam	1	2	IEC National Committee of Viet Nam, STAMEQ	0	0

CBs = Conformity Bodies; TLs = Testing Laboratories; ASEAN = Association of Southeast Asian Nations; EEE = electrical and electronic equipment; MRA = mutual recognition arrangement; IECEE = IEC System of Conformity Assessment Schemes for Electrotechnical Equipment and Components; SPRING = Standards, Productivity and Innovation Board; STAMEQ = The Directorate for Standards, Metrology and Quality of Viet Nam.
Note: *as June 2016 and **as November 2016
Source: ASEAN Secretariat and IECEE, accessed in November 2016.

Although participation in the CB Scheme entails costly annual membership fees for laboratories compared with free-of-charge AHEEERR listing, the CB Scheme confers recognition in a wider network of labs spanning the world's largest importers of electronics such as China, the United States, Hong Kong and Germany.

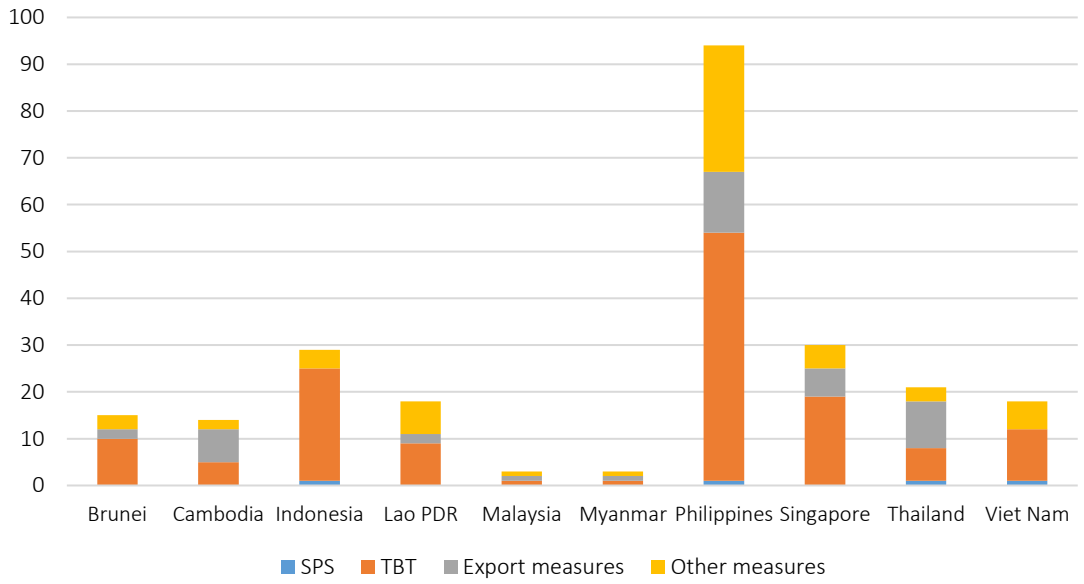
However, the rising number of listed certification bodies and laboratories under the AHEEERR and CB Scheme has not translated into more intense intra-regional trade in the EEE sector, as the share of trade in electronics products (HS 85) relative to total intra-ASEAN trade *decreased* from 28.2 percent in 2004 to 21.4 percent in 2016. However, this may be due to economic forces such as in automotive and unrelated to the effect of harmonisation (like more rapid growth in other sectors), and does not imply that harmonisation failed to deepen regional market integration in the EEE sector compared to a no-harmonisation benchmark.

In spite of substantial progress, several challenges need to be addressed. First, as noted, progress varies across ASEAN member states, and a number of national standards are still not in line with IEC standards. As a minimal (and transitional) form of MR in the region, countries with non-harmonised national standards should recognise products that are designed to IEC standards. This could be implemented on the ground through a system of self-declaration by importers subject to national liability laws, with strict enforcement (such as revocation of import licenses). Second, even when national standards have been adapted to IEC ones, different versions of IEC standards have been used. Again, products designed and manufactured under IEC standards, irrespective of which version, should be automatically cleared. The JSC–EEE could facilitate countries willing to pilot such an approach, in addition to providing capacity building for countries with underdeveloped certification bodies and testing laboratories. In the longer run, pushing harmonisation beyond safety requirements into areas such as labelling, product quality and performance requirements (e.g. energy performance certification) would confer additional benefits on ASEAN consumers.

4.2. Automotive

Figure 6.5 shows the number of NTMs applied on automotive products, by country and type of measure. Again, technical regulations dominate. The Philippines has the highest number of NTMs. Somewhat surprisingly, Malaysia has virtually no NTMs of any sort in the data, although it has long had an active industrial policy to promote a domestic automobile industry. Whether the data genuinely reflects the elimination of NTMs in Malaysia's automobile sector or, rather, under-reporting, remains, at this stage, an open question.

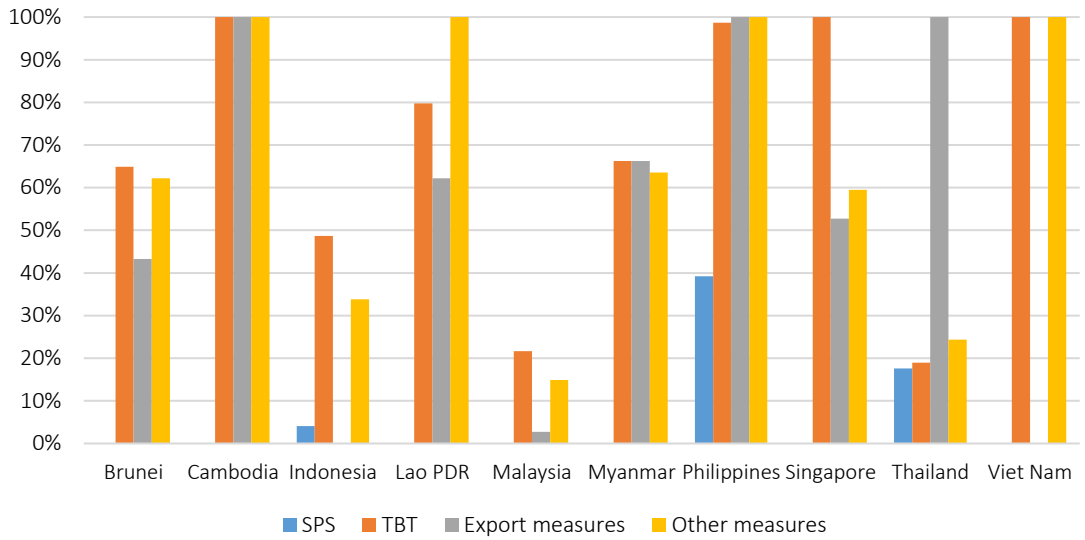
Figure 6.5: Number of NTMs in the Automotive Sector, 2015



NTMs = non-tariff measures; SPS = sanitary and phyto-sanitary; TBT = technical barriers to trade.
Note: Automotive products include all products in the HS-87.
Source: Authors' calculation, based on ERIA–UNCTAD NTM database, 2016.

Figure 6.6 shows NTM frequency ratios in the automotive sector, by country and type of measure. Again, technical regulations dominate, applying to over half of all automotive products, except in Indonesia (slightly below 50 percent), Malaysia (less than 30 percent), and Thailand (less than 20 percent). Lower frequency ratios in Indonesia, Malaysia and Thailand may reflect less stringent regulations on car parts to enhance their attractiveness as platforms for automobile assembly, all three countries being major automobile assemblers. For instance, Thailand accounted for 42 percent of ASEAN's USD 81.6 million worldwide exports of HS-87 products in 2015, Indonesia for 13 percent, and Malaysia for 10 percent.

Figure 6.6: NTM Frequency Ratio in the Automotive Sector (HS Chapter 87) in ASEAN, 2015



ASEAN = Association of Southeast Asian Nations; SPS = sanitary and phyto-sanitary; TBT = technical barriers to trade.
Note: Automotive products include all products in the HS-87.
Source: Authors' calculation, based on ERIA–UNCTAD NTM database, 2016.

MR in the automotive sector emerged under the impulse of the Automotive Product Working Group (APWG). The APWG uses as United Nations Economic Commission for Europe (UNECE) standards (Ramesh, 2012). As of the latest APWG Meeting held in 2016 in Brunei Darussalam, 19 UNECE standards had been adopted out of 32 proposed. Prassetya and Intal (2015) noted that only Indonesia, Lao PDR and Malaysia have fully implemented the regionally agreed international standards, while other member states have implemented them only partially. MR in conformity-assessment procedures (in particular for ISO/EIC 17025, ISO/EIC 17021 and ISO/EIC 17020 requirements) is still under development (Scoles, 2016). When it is achieved, member states will accept test and inspection results from listed technical services in partner countries.

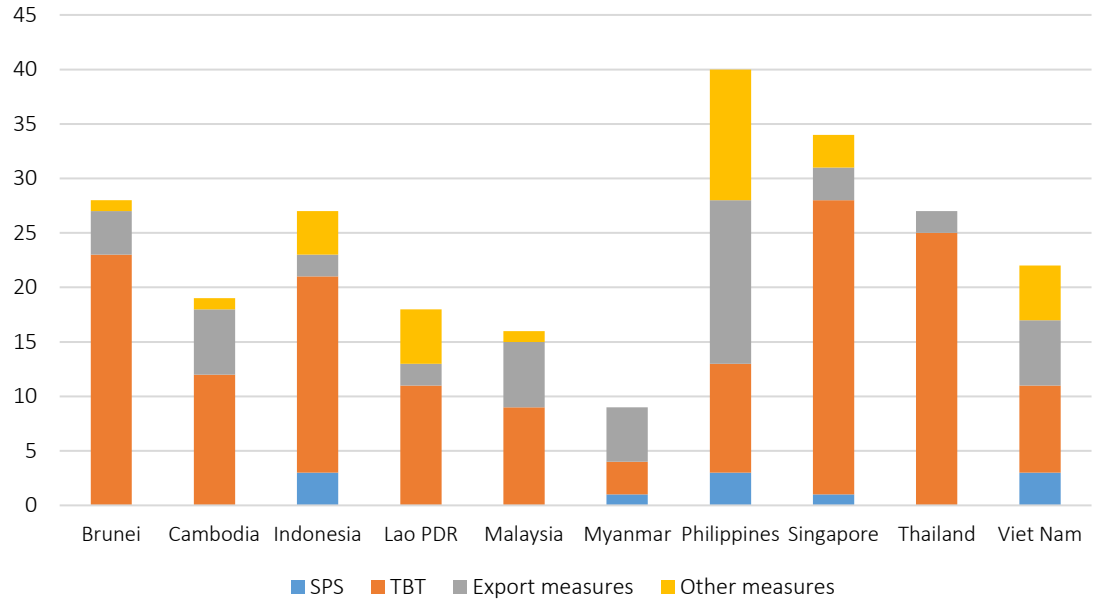
Four key issues in the automotive sectors have been identified in the EU–ASEAN Business Council (2014). First, ASEAN's automotive standards should be fully aligned with UNECE, an area where there has already been substantial progress. Next steps include the elaboration of identical testing procedures using equal metrology methods, standards, and application regulations. Second, approval and homologation processes should be aligned with international standards. APWG-led bodies should use the World Forum for Harmonization of Vehicle Registration (WP29), accept test reports from listed bodies, and refer to UNECE standards consistently. Third, rules of origin and local-content rules vary across ASEAN, with some promoting local content as high as 40 percent. Harmonising them (preferably downward) would cut production costs for local Original Equipment Manufacturer (OEM), thus enhancing the competitiveness of local manufacturers and domestic employment. Fourth, ASEAN countries should seek to better control parallel imports in the grey market. This practice results in low prices and quick marketing by skipping mandatory testing, which

may entail consumer hazards, reduce the credibility of law-abiding manufacturers and traders, and undermine MR. Better and more coordinated law enforcement would enhance market transparency.

4.3. Cosmetics

The cosmetics sector includes all products in HS Chapter 33. Figure 6.7 shows that technical regulations again dominate that sector, in ASEAN like elsewhere, with particularly high numbers of measures in Singapore, Thailand, Brunei Darussalam, and Indonesia. Large numbers of export measures are found in the Philippines, followed by Cambodia, Malaysia, and Viet Nam. In Cambodia, Lao PDR, Myanmar and Viet Nam, the number of measures has risen substantially between 2000 and 2015, reflecting increasing concern about health effects. The increasing number of NTMs for cosmetics products is consistent with rising consumer awareness and willingness to pay for safety as incomes rise.

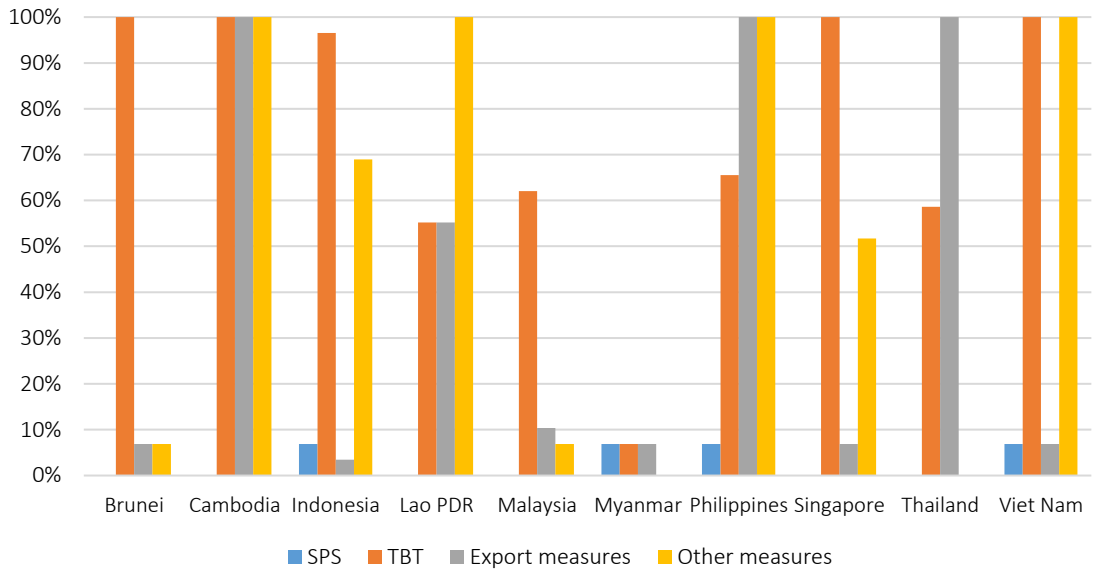
Figure 6.7: Number of NTMs in the Cosmetics Sector in ASEAN, 2015



NTMs = non-tariff measures; ASEAN = Association of Southeast Asian Nations; SPS = sanitary and phyto-sanitary; TBT = technical barriers to trade.
Note: The cosmetics sector includes all products in HS Chapter 33
Source: Authors' calculation, based on ERIA–UNCTAD NTM Database, 2016.

Figure 6.8 shows NTM frequency ratios in cosmetics, with a very high incidence in Brunei Darussalam, Cambodia, Indonesia, Singapore, and Viet Nam. Surprisingly, Malaysia and Thailand have relatively low TBT frequency ratios, again raising the issue of accurate reporting. Less surprisingly, Lao PDR and Myanmar have also low frequency ratios.

Figure 6.8: NTM Frequency Ratio in the Cosmetics Sector, 2015



NTM = non-tariff measure; SPS = sanitary and phyto-sanitary; TBT = technical barriers to trade.
Note: The cosmetics sector includes all products in HS-33.
Source: Authors' calculation, based ERIA–UNCTAD NTM database, 2016.

The cosmetics sector is the furthest ahead in terms of NTM harmonisation, with efforts that date back to the 2003 ASEAN Harmonized Cosmetic Regulatory Scheme (AHCRS). The AHCRS envisaged convergence in two phases. The first (2003–2007) involved simple MR, albeit on a voluntary basis; the second corresponded more to Pelkmans' 'regulatory MR' as MR was accompanied by the 2008 ASEAN Cosmetics Directive (ACD) whose technical content was adapted from EC Directive 76/768. By 2015, the ACD had been fully translated into national legislation and implemented in six ASEAN member states: Indonesia, Malaysia, the Philippines, Thailand, Singapore and Viet Nam, while Brunei Darussalam, Cambodia, Lao PDR and Myanmar had only partially translated it into national legislation (Prassetya and Intal, 2015).

One of the ACD's key features was its Post Market Surveillance (PMS), which unfortunately still suffers implementation gaps to this day. Under the PMS scheme, every supplier in ASEAN must notify its cosmetics products to national regulatory authorities for filing into the national Product Information File (PIF). However, as the ACD does not provide specific guidance on the format and updating of PIFs, member states vary in the format, accuracy and frequency of their PIFs, making them difficult to reconcile and compare. Moreover, the notification process is online only in some member states, it entails fees and delays, and validity periods vary between member states. Thus, even though the AHCRS started out with an approach similar to the EU's (with MR under the umbrella of a general directive), it lacked the technical cooperation downstream to harmonise the system's practical functioning on the ground.

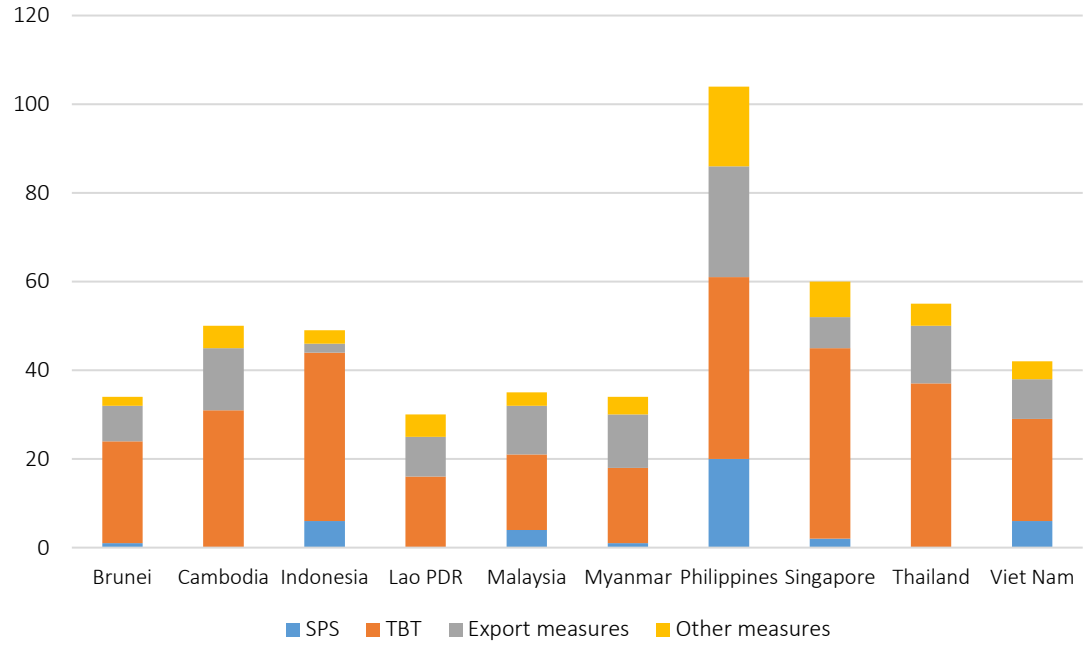
While the cosmetics sector is quite advanced in terms of harmonisation, gaps still need to be addressed by complementing the ACD with detailed guidance on how to run Post Market Surveillance systems, one of its key features. To address this, harmonisation, including through the ACD, could be expanded to include detailed and mandatory guidelines for national PMS and PIF systems. Capacity building for small and medium-sized enterprises, laboratory testing capabilities and technical guidelines for Good Manufacturing Practice (GMP) and PMS-related issues could be addressed by developing ACD commitments (ASEAN Integration Report, 2015).

Labeling harmonisation would also benefit ASEAN traders. ACD could facilitate and accommodate the inclusion of these measures. This could include the posting of notification numbers on product labels, which would be an important step to improve consumer information and safety, e.g. through monitoring by independent consumer organisations.

4.4. Pharmaceuticals

Policy interest in the safety of pharmaceuticals (HS 30) goes back to before 2000, i.e. earlier than for cosmetics. Figure 6.9 shows that, like for other PISs covered in this chapter, the bulk of the NTMs applied to pharmaceuticals are technical regulations. Export measures are also relatively widespread, except in Indonesia.

Figure 6.9: Number of NTMs in the Pharmaceutical Sector, 2015



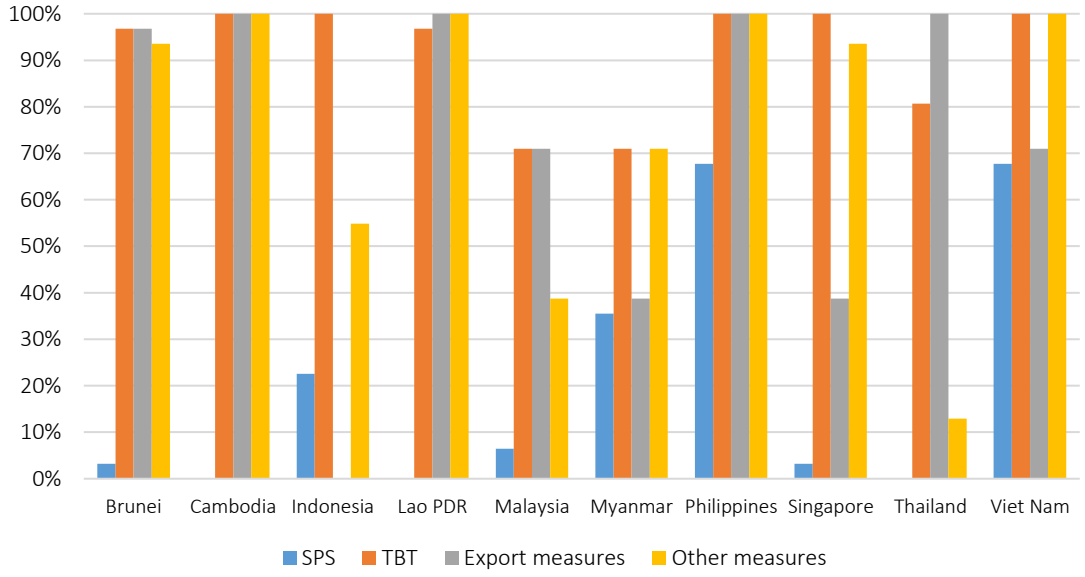
NTMs = non-tariff measures; SPS = sanitary and phyto-sanitary; TBT = technical barriers to trade.
Note: The Pharmaceutical sector covers all products in HS-30.
Source: Authors' calculation, based on ERIA–UNCTAD NTM database.

Heavy regulation is to be expected in a sector that is both sensitive for public health, involving large externalities, that is also very important as a public procurement item, as hospitals are large buyers, with important budget implications, and that is at the same time affected by widespread trade in counterfeits. Indeed, Figure 6.10 shows TBT frequency ratios above 80 percent for all ASEAN countries except Malaysia and Myanmar (with the usual caveat about reporting), with five out of 10 ASEAN countries imposing, in addition, export measures covering more than 90 percent of pharmaceutical products.

Harmonisation efforts in pharmaceutical products date back to the creation of the Pharmaceutical Product Working Group (PPWG) in 1999. They continued with the creation in 2009 of the ASEAN Common Technical Dossier (ACTD) and ASEAN Common Technical Requirements (ACTR), both meant to ensure the quality, safety and efficacy of products and to harmonise administrative data and glossaries across ASEAN countries.

Mutual recognition of Good Manufacturing Practice Inspection of manufacturers of medicinal products (GMP MRA) was adopted in 2011 with the aim of preventing the duplication of GMP inspections in ASEAN (Rahman, 2016). The latest step in the finalisation of MR is the Bio-Equivalence Study Report of Generic Medicinal Products (BE MRA), which is meant to assist the distribution of intra-ASEAN generic medicinal products with guaranteed quality, safety and efficacy of products (ASEAN Secretariat, 2016).

Figure 6.10: Frequency Ratio of NTMs in the Pharmaceutical Sector, 2015



NTMs = non-tariff measures; SPS = sanitary and phyto-sanitary; TBT = technical barriers to trade.
Note: The Pharmaceutical sector covers all products in HS-30
Source: Authors' calculation, based on ERIA–UNCTAD NTM database.

As for conformity assessment, by 2015, Brunei Darussalam, Indonesia, Malaysia, Singapore, and Viet Nam had identified designated bodies to conduct conformity tests. At the same time, four ASEAN countries (Indonesia, Malaysia, Singapore and Thailand) also gained accreditation from the high-standard Pharmaceutical Inspection Convention/ Scheme (PIC/S).[15]

In general, pharmaceutical products NTM harmonisation is on track. The implementation of ACTD, ACTR, Good Manufacturing Practice Inspection of Manufacturers of Medicinal Products and ASEAN MRA for Bio-Equivalence Study Report of Generic Medicinal Products was expected to cut unnecessary measures and harmonise the necessary ones. Accelerating the ASEAN WHO project on Supporting the Implementation of ASEAN Harmonized Requirements for Drug Registration (SIAHR) and the WHO collaborative registration procedure (Pre-Qualification), as well as further MRA could be implemented for authorisation, labeling, transport, and storage procedure and product registration.

However, substantial gaps remain in the effectiveness of market surveillance in the face of trade in counterfeit products, whether domestic or cross-border, in ASEAN's less developed member states. For MR to be viable in the face of highly unequal administrative capabilities, technical assistance from more advanced member states and development partners is urgently needed in view of the sector's sensitivity.

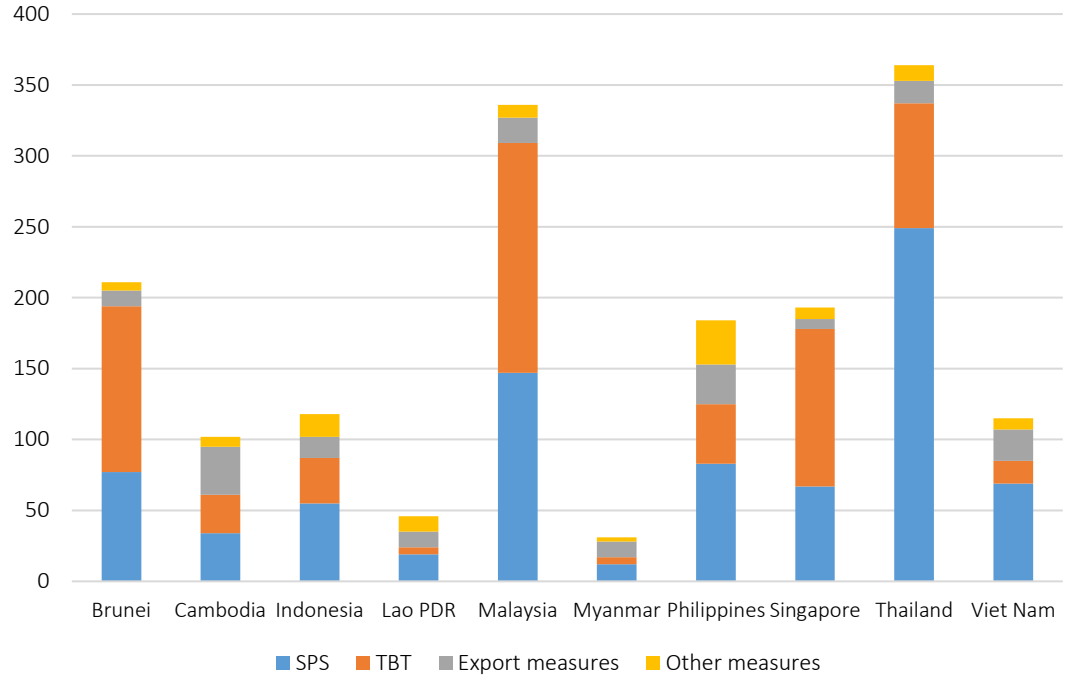
4.5 Prepared Foodstuffs

Although the prepared foodstuff sector (HS Chapters 16 to 22) is one of ASEAN's most important export sectors, it has received little policy attention in terms of NTM harmonisation.[16] Figure 6.11 shows that SPS measures dominate in terms of measure count in most ASEAN countries while technical measures dominate more in Brunei Darussalam, Malaysia, and Singapore. Malaysia and Thailand are amongst countries that apply the largest number of NTMs in prepared food, which is not surprising since they are leading food products exporters in region and therefore pay greater attention to ensuring the quality of foods.

[15] As listed in https://www.picscheme.org/en/members, PIC/S is a non-binding, informal cooperative arrangement between Regulatory Authorities aiming to streamline the GMP procedure for pharmaceutical products.

[16] There is still no clear definition for the coverage of prepared foodstuff products. The closest PIS sector with prepared foodstuff products is agro-based product under the nature-based product sector. The PIS list the agro-based products for 106 AHTN tariff lines, covering numerous, but not all, tariff lines from HS 07, 08, 10, 11, 12, 15, 20 and 23. This implies that raw unprocessed food products are counted in the classification. Based on the ASEAN Integrative Report (2015) the prepared food sector includes all products in HS 16-22, including prepared meat and fish, sugar, cocoa, prepared cereal and dairy, prepared vegetables and fruits, and beverages.

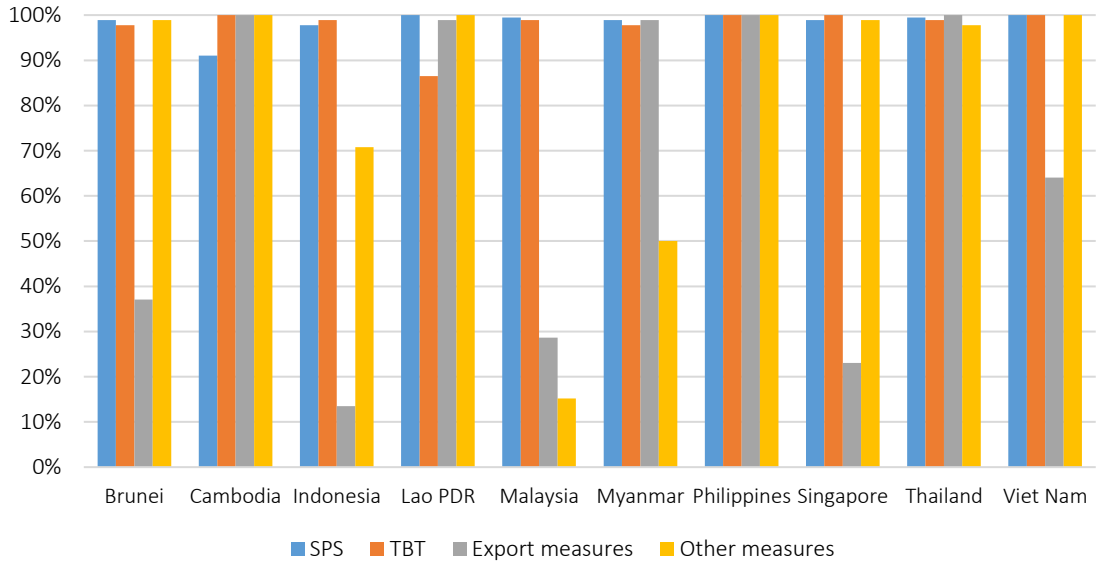
Figure 6.11: Number of NTMs affecting Prepared Foodstuff Products, 2015



NTMs = non-tariff measures; SPS = sanitary and phyto-sanitary; TBT = technical barriers to trade.
Note: The Prepared foodstuff sector covers all products in HS-16 to HS-22.
Source: Authors' calculation, based on ERIA–UNCTAD NTM database.

Indeed, SPS measures cover more than 90 percent of foodstuff products in all ASEAN countries (Figure 6.12), although technical measures also have equally high frequency ratios. Export measures also have a high incidence in Cambodia, Lao PDR, Myanmar, the Philippines and Thailand.

Figure 6.12: NTM Frequency Ratios in the Prepared Foodstuff Sector, 2015



NTM = non-tariff measure; SPS = sanitary and phyto-sanitary; TBT = technical barriers to trade.
Note: The Prepared food sector covers all products in HS-16 to HS-22.
Source: Authors' calculation, based on the 2015 ERIA–UNCTAD NTM database.

Harmonisation efforts for prepared foodstuffs can be traced back to the creation of the Prepared Foodstuff Products Working Group (PFPWG) in 2003, although a number of piecemeal integration initiatives had already been launched for food sectors with their own supervisory bodies. Like other ACCSQ bodies, the PFPWG is under the supervision of the Senior Economic Officials Meeting (SEOM). Other initiatives are under the supervision not only of the SEOM, but also of the Senior Officials Meeting–Health Development (SOMHD) and the Committee on Science and Technology (COST).

Three task forces or committees are currently being developed to promote under the PFPWG. The first is the Task Force on Harmonization of Prepared Foodstuff Standards (TF HPFS), in charge of developing food control systems, labeling requirements for prepackaged food and principles and requirements for food hygiene.[17]

The second is the Task Force on Development of MRA for Prepared Foodstuff (TF MRA)[18], in charge of developing food safety standards, conformity assessment, good-manufacturing practices, HACCP audit and certification, labeling and registration of food products and food establishments (AFBA, 2012). The ASEAN Regional Integration Support from the EU (ARISE) Workshop noted that, by 2014 the task force on MRA had adopted common principles and guidelines for food-control systems and food-hygiene and labeling requirements, with two additional documents under development, one on import–export inspection and certification

[17] https://foodindustry.asia/documentdownload.axd?documentresourceid=659
[18] http://www.aseanfoodsafetynetwork.net/consultative/food_standards.php

systems, and one on audit and certification of Food Hygiene and Hazard Analysis and Critical Control Points (HCCP). Other non-binding, Codex-modified guidelines created by PFPWG are likely to be adopted as the principles and guidelines for the MRA of PFPWG.

Adopted in 2015 by ASEAN Ministerial Bodies responsible for health, trade, and agriculture, the ASEAN Food Safety Policy pursues the twin objectives of promoting food safety in all member countries while facilitating the free movement of food products in the region (ASEAN Secretariat, 2016a). The policy is to be based on a common regulatory framework elaborated by an ASEAN task force, the ASEAN Food Safety Regulatory Framework (AFSRF), to serve as an umbrella under which MR can be adopted, an approach akin to 'regulatory MR'. Based on the initial schedule, the PFPWG was expected to start work by the end of 2016 (ASEAN Secretariat, 2015a), but there was no observable development at the time of writing.

The third task force is the ASEAN Food Testing Laboratory Committee (AFTLC), intended to facilitate the ASEAN Food Reference Laboratories (AFRLs) initiative (see Table 6.8) through the development of terms of reference, procedures, guidelines, and other documents. AFRLs would provide support to national food reference laboratories (ASEAN Food Safety Network, 2015).

Table 6.8: ASEAN Food Reference Laboratories and their Competence Areas

Country	AFRL competence areas
Indonesia	Food additives
Malaysia	Genetically modified organism
Singapore	Mycotoxins; pesticide residues; environmental contaminants
Thailand	Veterinary drug residues; heavy metals and trace elements; food contact materials
Viet Nam	Microbiology

ASEAN = Association of Southeast Asian Nations; AFRL = ASEAN Food Reference Laboratories.
Source: ASEAN Food Safety Network, 2016.
http://www.aseanfoodsafetynetwork.net/CurrentIssueDetail.php?CIId=121

As of now, harmonisation initiatives in the food sector have been fragmented into a large number of task forces and committees, resulting in a structure that may be too complex to foster the emergence of a global vision. Consolidation under the aegis of a single body, say the PFPWG, would improve visibility. This could be done through the strengthening of the existing committee, which consists of senior officials from agriculture, health, trade, and treasury/finance ministries – an already large array. This committee should have a regional mandate translated into national mandates to streamline all measures and initiatives, with technical work supported by the PFPWG.

Another area for improvement is the broadening of the scope of MR into areas such as authorisation, labeling, packaging, product registration, transport and storage requirement, certification and inspection.

Last, the elaboration of a sufficiently precise regulatory framework by the PFPWG should be a first-order priority to ensure equivalence of national regulatory frameworks, a precondition for smoothly working 'regulatory MR'.

5. Conclusions and Policy Recommendations

All in all, this brief overview suggests that ASEAN's approach to regulatory convergence, while flexible and based on voluntary adherence rather than coercion, has delivered some progress, particularly in priority sectors. However, even in those sectors, it remains a largely unfinished job. In this concluding section, we outline a broad roadmap aimed at helping to improve the visibility of ongoing efforts as well as a number of areas in which relatively quick gains could be made in priority sectors, building on existing achievements.

5.1 Combining Top-down and Bottom-up Approaches

Top-down: 'Regulatory MR'

A number of lessons have emerged from Europe's 60-year experience with regulatory convergence that are of potential interest for ASEAN. Prescriptive harmonisation based on the replacement of national regulations by detailed regulations at the regional level (Europe's 'old approach') seems unfeasible both technically and politically, and is arguably not even desirable when societal preferences vary between member states on how to balance consumer-safety and environmental considerations against business costs. At the same time, MR alone is not a silver bullet. For it to be workable, at least two conditions must be met:

First, convergence of national regulatory philosophies can be accelerated through the use of Europe's 'new approach', i.e. the combination of MR with broad directives outlining regulatory objectives that must be shared by all member states. Such directives should be expressed in terms of product performance rather than technical specifications to avoid intrusiveness and to leave space for future technical change. As ASEAN has, so far, successfully relied on an 'open-regionalism' model whereby regional standards mirror international ones or borrow from existing ones like the EU's, the design of such directives should be a manageable challenge.[19] ASEAN has already experimented with this approach, albeit on a limited scale, in the cosmetics sector. There is clear potential for expanding it.

Second, MR must be sufficiently visible to be implemented by officials on the ground and claimed by businesses (and possibly defended in court when resistance is encountered). Piecemeal approaches based on a myriad of technical working groups (as in the food sector) may not be the best way to gain visibility, and some consolidation/simplification may be advisable. A big push at a high political level accompanied by effective communication, like Europe's 1986 Single-Market Act, may be, at some point, a necessary step.

[19] The design of EU-wide technical regulations proved to be particularly challenging when regulatory objectives were mixed up with ill-advised industrial-policy ones, leading some member states to push for idiosyncratic standards to penalise competitive Asian producers, like for high-definition TV in the 1980s. These attempts typically led nowhere and proved a waste of time.

Bottom-up: Strengthening national regulatory capabilities

ASEAN's experience with regulatory convergence in priority sectors also highlights a number of important lessons for future harmonisation efforts. In a number of cases, it seems that the most important brake on the effective translation of ASEAN initiatives into national regulations seems to be a lack of capabilities. In the cosmetics sector, for instance, the ACD, while officially translated in national legislation in six member countries, lacks precise guidance on how to set up effective market surveillance systems, a key element of the regulation of cosmetics products. Likewise, in the pharmaceuticals sectors, there is, in particular in the least advanced member countries, a gap between official regulations and the administrative capabilities needed to curb trade in counterfeit products. Technical assistance to less advanced member countries by more advanced ones and by development partners will be a key building block for a more integrated ASEAN market where MR is feasible.

In ASEAN as elsewhere, national regulations are self-igniting engines that need to be put in check to prevent them from constantly undermining regional integration efforts. In another paper (Ing et al., 2016), we argued in favour of the creation in all member states of regulatory supervision bodies (we proposed the term 'National Economic Council') placed under the direct authority of the Presidency or Prime Minister's Office, depending on local particulars, in charge of reviewing existing and new regulations. Such bodies would provide Regulatory Impact Analysis (RIA) based on cost–benefit analysis (partially or fully quantified) as a service to line ministries, seeking outside expertise when needed. They would ensure the adoption of good regulatory practices and possibly enable ASEAN to avoid the cycles of regulatory proliferation followed by abrupt, blanket deregulation observed recently in some Western countries, in particular the United Kingdom and the United States. However, in countries with weak administrative capabilities, prescribing the creation of such bodies in a way assumes the problem solved, as RIA requires, to be useful, sufficient administrative capabilities. Again, technical assistance from more advanced member countries and from regional and multilateral development partners will be a key element in building up national regulatory capabilities.

5.2 Linking up Harmonisation and Trade-facilitation Initiatives

Regulatory convergence is a complex endeavour, technically and politically, that is bound to progress slowly and to deliver benefits even more slowly. To gain momentum through quick wins, it might usefully be linked to a trade-facilitation agenda that sometimes has more traction with governments and development partners and is more readable to the business community.

Following the 2015 ASEAN Blueprint, in August 2016 the 48th ASEAN Economic Ministers' Meeting in Vientiane adopted the ASEAN Trade Facilitation Framework (ATFF) together with a work programme intended to define measurable deliverables in the areas of Customs and transport facilitation, transparency of trade regulations and procedures, standards and conformity assessment, private-sector engagement, and business facilitation. A joint consultative committee composed of senior representatives from governments and the

private sector was established to lead the ATFF's work programme, with initiatives on the ASEAN Single Window, Customs and transit systems, trade repositories (ASEAN and national), an ASEAN-wide system of self-certification, a system of ASEAN Solution for Investments, Services and Trade (ASSIST), as well as various initiatives, all this under a 2017–2015 strategic action plan. While promising, trade-facilitation initiatives in ASEAN involve a vast array of administrative and political bodies, like some of the harmonisation initiatives reviewed in this chapter. There is a need for both streamlining and stronger articulation with existing harmonisation efforts, in particular at the level of priority sectors.

In sum, a useful short-term objective would be to make the state of play more readable in terms of both NTMs themselves—through the updating and refining of the NTM database developed by ERIA and UNCTAD in 2015 and updated in 2018 —and harmonisation/trade facilitation initiatives. Once a clear picture emerges (to which the present chapter will hopefully contribute), streamlining strategies should be considered, again, for both NTMs themselves and ASEAN's policy initiatives in the area.

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