Economic Research Institute
for ASEAN and East Asia

Integrated and Connected Seamless ASEAN Economic Community

Edited by: Ponciano Intal Jr. and Mari Pangestu

**ASEAN Vision 2040:
Towards a Bolder and Stronger
ASEAN Community**

Volume IV

Integrated and Connected Seamless ASEAN Economic Community

ASEAN Vision 2040: Towards a Bolder and Stronger ASEAN Community
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I am proud of ERIA's senior researchers who coordinated the activities of the project and the preparation of the ASEAN Vision 2040 report: Senior Economist Dr Ponciano S. Intal, Jr. and Chief Economist Prof Fukunari Kimura. I am also gratified that nearly half of the contributors of this project are ERIA staff members, economists, and policy fellows, who have enriched the discussions with their wealth of knowledge.

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ERIA hopes that the recommendations in the report will help ASEAN Member States to step boldly forward and to strengthen ASEAN centrality and community, as the region will face ever greater challenges over the next 2 decades. As always, ERIA is ready to support ASEAN Member States to address the challenges and to realise the ASEAN Vision 2040.

Jakarta, March 2019

Hidetoshi Nishimura
President
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Vision: The Future Imagined Today

Seamless trade facilitation in the Association of Southeast Asian Nations (ASEAN) by 2040 can be visualised from the practices and plans currently used by front-running ASEAN Member States (AMS), as follows:

(i) Imagine a world in which each AMS has a single form, single interface, and virtually paperless single submission process for all trade-related agencies, with a processing time of 10 minutes at the most for permits instead of days for 90% of all applications. The service would be available 24 hours a day, instead of only during office hours, and the fee would be even lower than before (adjusted for inflation). This is already a reality in Singapore under TradeNet (Koh, 2017). Thus, our vision of seamless trade facilitation for ASEAN

in 2040 is that the reality of Singapore's TradeNet will be a reality for all AMS by 2040.

(ii) Imagine an integrated single risk management system, wherein risk profiles (of firms and traders) are shared amongst the various concerned trade-related permit-granting institutions, border agencies, and customs through the national single window (NSW). This is the next step in the planned improvement of Indonesia's NSW, and is also the essence of Singapore's TradeNet, which currently implements a single process for 35 agencies. This integrated single risk management system is central to achieve seamless trade facilitation in each AMS by 2040.

(iii) Imagine if the ASEAN Single Window (ASW) could facilitate the exchange of the e-ASEAN Trade in Goods Agreement (ATIGA) Form D in less than a minute, instead of an average of 1 day, plus a week of waiting for the hard copy of the ATIGA Form D, that appears typical before a fully operational ASW (Coordinating Ministry for Economic Affairs). Imagine further that AMS can exchange not only the e-ATIGA Form D through the ASW, but also other trade documents such as sanitary and phytosanitary permits. A well-performing ASW must be a central element of seamless trade facilitation in each AMS and ASEAN as a region by 2040.

(iv) Imagine a well-performing, fully operational ASEAN Customs Transit System (ACTS) covering the entire continental ASEAN region as well as the AMS sharing the island of Borneo. Per the ACTS brochure, the main features of this system include a single electronic goods declaration from departure through transit to destination, a single guarantee valid for the entire journey, free movement for permitted trucks and drivers, and full end-to-end computerisation of operations linking all customs offices, and traders to customs offices in the transit route. Authorised transit traders are also given certain privileges, like reduced or waived costs of guarantees and loading on their own premises. The ACTS has been piloted amongst Malaysia, Singapore, and Thailand with a limited quota of eligible trucks. This means that eligible trucks need not transfer their cargo to a different

truck in each country during the journey. Full operationalisation should include a much more generous quota of eligible trucks than today, if not full freedom in the movement of trucks along the designated transit routes.

(v) Imagine coordinated border management partnerships in ASEAN. This means that each AMS applies a whole-of-government approach to coordinated border management that facilitates trade while at the same time protecting the international supply chain from threats like smuggling and organised crime. It would also involve partnerships and deep cooperation amongst concerned AMS authorities along the supply and transit chains to combat illicit trade.

This discussion characterises the basic elements of seamless trade facilitation in each AMS and the ASEAN region by 2040. To a large extent, the bullets above describe the key elements of the best performing AMS on the global frontier today, as well as the ideal function of a well-performing ASW.

However, achieving well-performing seamless trade facilitation in ASEAN by 2040 will likely demand more than just the basic elements of seamless trade facilitation. Should ASEAN become truly economically integrated by 2040, the volume and frequency of to-and-fro intra-regional trade within ASEAN (and with the rest of the world) will be much larger, more intense, and more time-sensitive, and will involve more AMS per supply chain linkage than currently. It is also more likely that virtually every AMS's major ports would increasingly resemble Singapore's ports or Thailand's Laem Chaebang port today.

Hence, seamless trade facilitation in the region could include services such as those provided by Malaysia's uCustoms, Thailand's Customs 4.0, and Singapore's National Trade Platform (NTP). Singapore's NTP offers the clearest possible model for a Seamless Trade Facilitation Plus system in ASEAN by 2040. Singapore's NTP is the advanced version of Singapore's TradeNet, which is the country's NSW, and TradeXchange, which connects the trade and logistics community. NTP is a trade and logistics information technology business-to-government and business-

to-business ecosystem connecting importers and exporters, logistics service providers, trade financiers, insurers, and innovators with each other and with government service providers. Government services provided include not only standard declaration and permit management with tracking, tariff code searches, and Customs advice but also the management and tracking of inventories and quotas under various Customs-related schemes, trader registration and management, and online applications for the various risk-differentiated schemes managed by Singapore Customs. An important add-on in the NTP compared to TradeNet and TradeXchange is the inclusion of the innovators' community which can offer value-added services and new applications to support evolving business needs. This makes the NTP a complete one-stop trade portal for business-to-government and business-to-business services.

With deeper trade linkages within ASEAN and with the rest of the world by 2040, seamless trade facilitation will involve much more than innovative trade facilitation platforms like NTP or uCustoms or Customs 4.0. It will involve much greater partnerships with Customs and other concerned border and regulatory agencies of partner countries. The Singapore–Australia Mutual Recognition Arrangement (MRA) of Authorized Economic Operators (AEOs) is one example wherein companies in a country certified as being lower risk will enjoy faster customs clearance processes and fewer documentation requirements by customs authorities in the other country (Singapore Customs, 2018a). This will reduce the firms' trade transaction costs while ensuring greater supply chain security (Insync, April–June 2018: 9).

The Singapore–Thailand MRA on AEOs is the first such example within ASEAN. As the Director-General of Thailand's Customs Department, Kulit Sombatsini, said:

> *'By promoting customs-to-customs cooperation and mutual recognition of our AEOs, we can target high-risk shipments more effectively and expedite customs procedures for low-risk shipments, thus benefitting our traders and significantly contributing to trade facilitation'* (Singapore Customs, 2018b).

Towards 2040, AMS will need more trade-facilitation MRAs amongst themselves and with many other trade partners in the rest of the world to make ASEAN-based firms more competitive globally. Other partnerships now being explored could become common requirements of Seamless Trade Facilitation Plus by 2040. One of these links the NSWs of AMS with those in non-ASEAN countries. Thus, for example, Singapore Customs and China Customs have formed a Joint Working Group on Single Window to explore ways of linking both NSWs. Another such partnership with great relevance for the future is that which Singapore is exploring with the Bank of Tokyo and Mitsubishi UFJ to link two paperless systems (Singapore's NTP and another being developed by the Japanese consortium) to eliminate the international trading documents distributed amongst banks, insurers, and logistics companies, amongst others. Building a paperless cross-border or international trade platform is similar to the NTP as an information technology ecosystem.

Together with the expected marked usage of newer technologies like big data analytics and blockchain, the partnerships and initiatives mentioned above will help redefine the trade facilitation environment in the near future and into 2040. The future of trade facilitation is clearly no longer just pure trade facilitation per se, but instead involves the development of a trade-facilitating ecosystem, connecting trade, logistics, business and innovation communities, and government to better support the fast-evolving business landscape and needs.

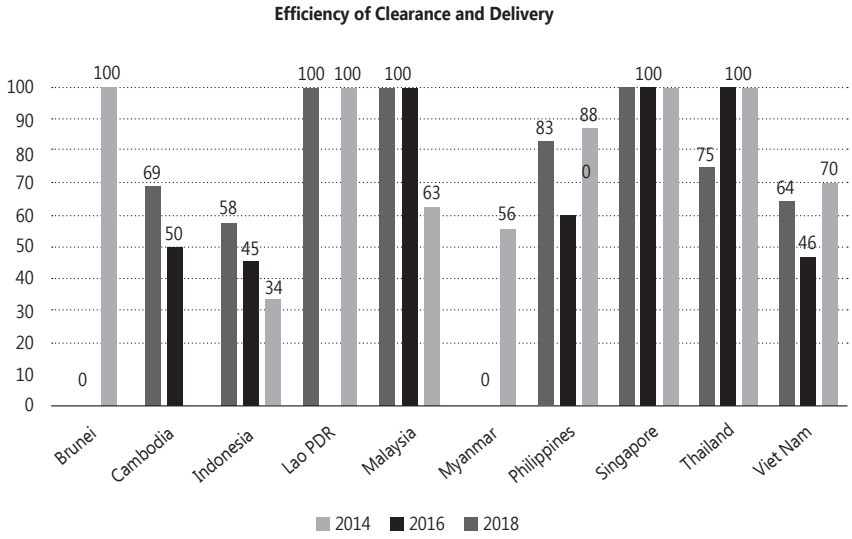
The Present Reality: State of Trade-Facilitation Services in the Association of Southeast Asian Nations[1]

Reviewing the state of trade-facilitation services in ASEAN–in terms of the efficiency, transparency, certainty, and integrity of the export, import, and customs processes, and as viewed by key private sector stakeholders (e.g. logistics professionals and executives)–reveals considerable achievements and significant challenges for AMS and the region.

[1] This section is taken from the Economic Research Institute of ASEAN and East Asia (2018).

Figure 1, from the Logistics Performance Index (LPI), outlines the efficiency of border processes (customs and other agencies) by logistics professionals based outside the country of interest (Figure 1a) and inside the country of interest (i.e. in-country logistics professionals) (Figure 1b). Figure 2 presents perceptions or evaluations of executives on the burden of customs procedures (Figure 2a) and the incidence of solicitation of informal payments in exports and imports (Figure 2b) in the country.

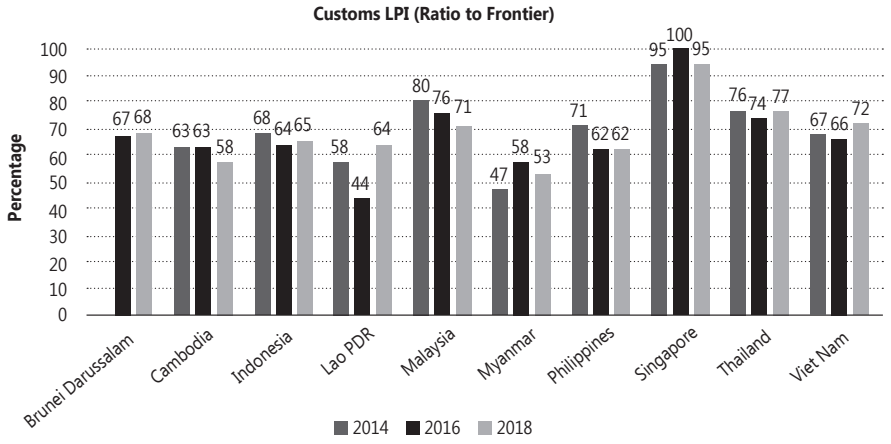
Figure 1a: Logistics Performance Indicators Outside the Country of Interest



Brunei = Brunei Darussalam, Lao PDR = Lao People's Democratic Republic.

Source: World Bank Logistic Performance Index https://lpi.worldbank.org/sites/default/files/International_LPI_from_2007_to_2018.xlsx (accessed 13 December 2018).

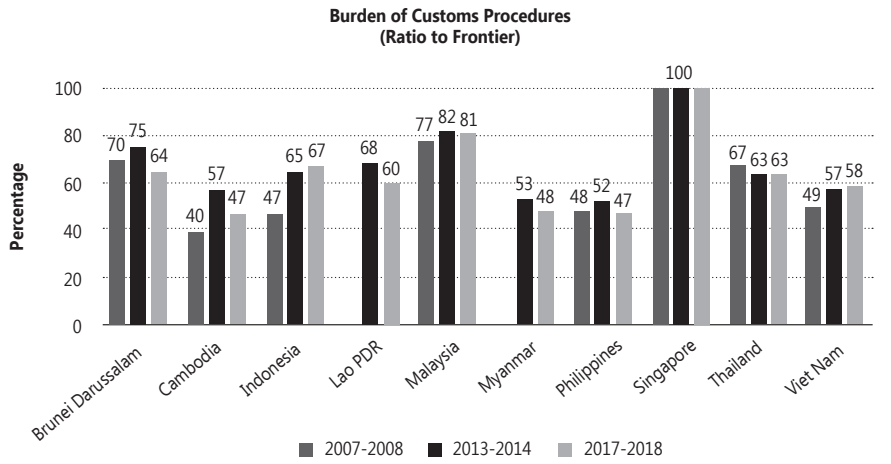
Figure 1b: Logistics Performance Indicators Outside the Country of Interest



Lao PDR = Lao People's Democratic Republic, LPI = logistics performance indicator.

Source: World Bank Logistic Performance Index, Domestic – Performance https://lpi.worldbank.org/domestic/performance (accessed 13 December 2018).

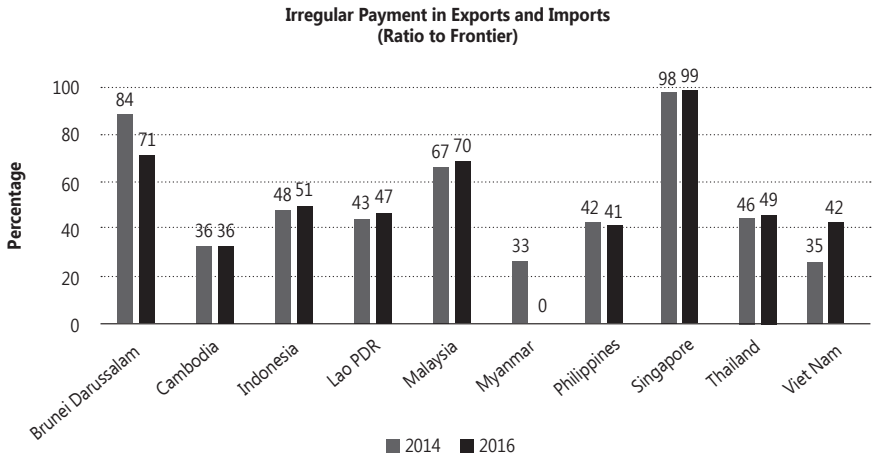
Figure 2a: Indicators of the Burden of Customs Procedures



Brunei = Brunei Darussalam, Lao PDR = Lao People's Democratic Republic.

Source: World Economic Forum. *Global Competitiveness Report; Global Enabling Trade Index.* http://www3.weforum.org/docs/GCR2017-2018/GCI_Dataset_2007-2017.xlsx (accessed 13 December 2018).

Figure 2b: Indicators of Irregular Payments



Lao PDR = Lao People's Democratic Republic.

Source: World Economic Forum. *Global Competitiveness Report; Global Enabling Trade Index.* http://www3.weforum.org/docs/GCR2017-2018/GCI_Dataset_2007-2017.xlsx (accessed 13 December 2018).

Based on the LPI and Global Competitiveness Report, some perceptions of private sector stakeholders on the state of trade facilitation in ASEAN include the following (see Figures 3 and 4):

(i) In-country logistics professionals consider that the clearance and delivery of imports and exports are often or almost always efficient and on schedule in Thailand, Singapore, and more recently, the Lao People's Democratic Republic (PDR) and Brunei Darussalam. There have been significant slippages in Cambodia, Indonesia, and Malaysia, while perceptions have improved in the Philippines, Viet Nam, and Myanmar.

(ii) In the view of in-country logistics professionals, there is almost always transparency in trade clearance and on regulatory changes in Malaysia, Thailand, Singapore (to a lesser extent), and, most recently, Brunei Darussalam and the Lao PDR. There are far fewer favourable views on transparency in the other AMS, with the Philippines and Indonesia registering some slippages.

(iii) Foreign-based logistics professionals consider Singapore a global pacesetter in the efficiency (speed, simplicity, and predictability of the clearance process) of customs and other border agencies. Malaysia, Thailand, and increasingly Viet Nam come next but have significantly lower ratings; perceptions of Malaysia have been secularly deteriorating, while those of Viet Nam have improved. Interestingly, the Lao PDR has the lowest rating, contrasting markedly with the perception of in-country logistics professionals, which report a far more favourable view. The LPI report contains no explanations as to this significant divergence in perceptions. One possible explanation is that in-country logistics professionals know more about, and are more updated on, the regulatory, institutional, and managerial landscape of the Lao PDR, and can thereby adjust much more smoothly than foreign-based logistics professionals, especially because the Lao PDR does not yet have an operational NSW.

(iv) Executives find customs and other border procedures in Singapore to be highly predictable and not burdensome at all, followed by Malaysia. The other AMS with some favourable view on the burden of border procedures are Brunei Darussalam, Indonesia, the Lao PDR, and Thailand.

(v) Executives consider that irregular payments in exports and imports virtually never occurs in Singapore, followed to a large extent by Brunei Darussalam and Malaysia. The executives are more equivocal for the rest of the AMS.

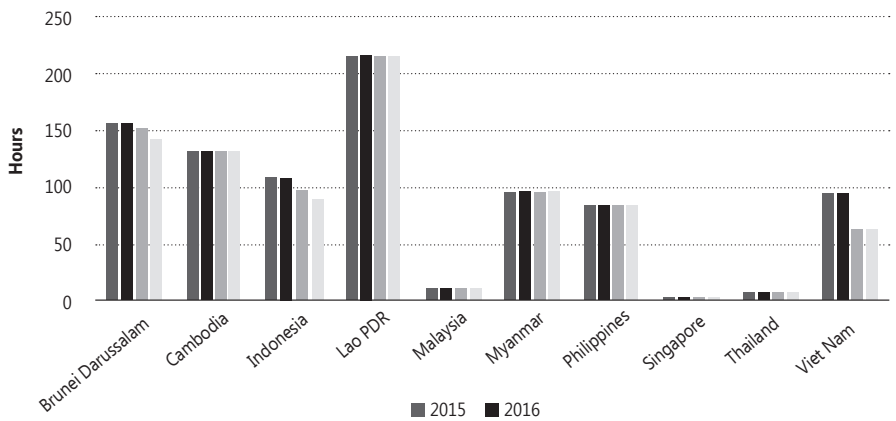
Although the above observations are essentially perceptions, and therefore must always include an element of bias, the results nonetheless suggest significant room for improvement in trade facilitation for many AMS.

Figures 3 and 4 present average compliance times for exports and imports as a ratio of global best practice in documentation and border clearance, respectively. In terms of documentary compliance time, Singapore, Thailand, and Malaysia have far more efficient processes than the rest of AMS. Although the Lao PDR and Cambodia have amongst the highest documentary compliance times of the AMS, the Lao PDR,

Cambodia, and Singapore have substantially shorter border compliance times than the rest of the AMS.

Like Figures 1 and 2, Figures 3 and 4 show significant variation amongst AMS and, equally important, large gaps between many AMS' processes and global best practices. Indeed, compared to other major regional integration areas in the world, ASEAN has the largest gap between the front-running country and the lowest ranking member state. It is arguably more difficult to have a wholly integrated region in ASEAN due to the wide disparities that exist in the quality and efficiency of trade-facilitation services and systems in the region.

Figure 3: Average Documentary Compliance Time (Ratio to Best Practice)

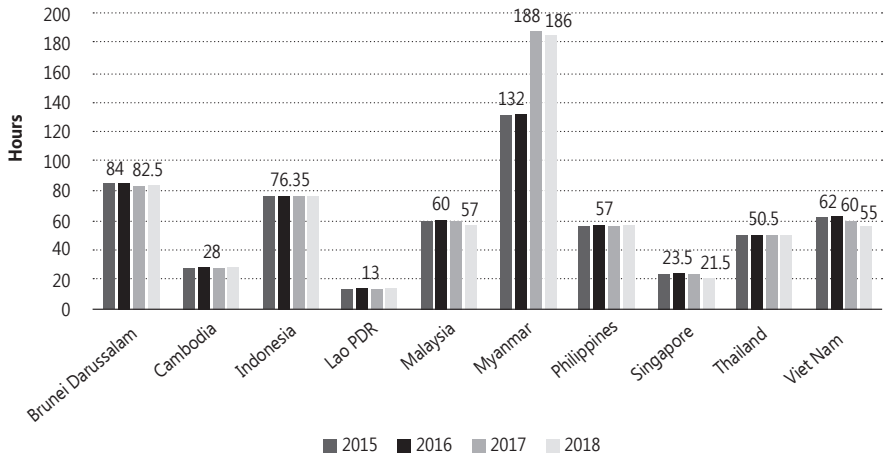


Brunei = Brunei Darussalam, Lao PDR = Lao People's Democratic Republic.

Note: This ratio is relative to the best practice for documentary compliance for both import and export, which is 1 hour.

Source: World Bank, Ease of Doing Business, Trading Across Borders. Retrieved from : http://www.doingbusiness.org/content/dam/doingBusiness/excel/Historical-data---complete-data-with-scores.xlsx.

Figure 4: Average Border Compliance Time (Ratio to Best Practice)



Brunei = Brunei Darussalam, Lao PDR = Lao People's Democratic Republic.

Note: This ratio is relative to the best practice for documentary compliance for both import and export, which is 1 hour.

Source: World Bank, Ease of Doing Business, Trading Across Borders. Retrieved from : http://www.doingbusiness.org/content/dam/doingBusiness/excel/Historical-data---complete-data-with-scores.xlsx.

Association of Southeast Asian Nations Seamless Trade Facilitation Indicators

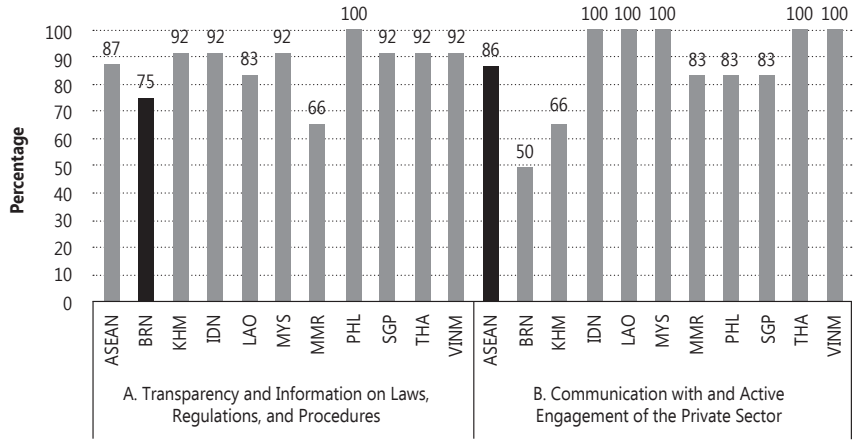
During the 23rd ASEAN Economic Ministers Retreat in March 2017, the Ministers set a target to reduce trade transaction costs by 10% by 2020. To achieve this target, the Philippines, as the 2017 ASEAN Chair, proposed measuring trade facilitation in ASEAN using an ASEAN-specific set of indicators. These indicators, designed to measure the extent to which trade is being facilitated in the region, are primarily intended to help AMS design and implement policy, regulations, and procedures that render the import and export of goods more seamless. To this end, the Economic Research Institute for ASEAN and East Asia (ERIA), together with the ASEAN Trade Facilitation Joint Consultative Committee (ATF JCC), developed the ASEAN Seamless Trade Facilitation Indicators (ASTFI). The ASTFI were adopted by the 49th ASEAN Economic Ministers-31st ASEAN Free Trade Area Council in September 2017.

The ASTFI comprise measures on transparency and engagement with the private sector; the core trade facilitation measures of clearance and release formalities, as well as export and import formalities and

coordination; and facilitation measures for transit, transport, and e-commerce. ERIA conducted a baseline survey for the ASTFI during the first half of 2018 with the strong support of the ATF JCC, AMS, and ASEAN Secretariat.

Of the seven components of the ASTFI results for AMS in 2018, Figures 5 and 6 present the scoring results for the first four. As these figures indicate, a large gap remains between many AMS and the ideal score (i.e. 100) in multiple components. The results for the three remaining components also show large (in many cases larger) gaps between the current actual score and the best practice of 100. Figures 5 and 6 show that much remains to be done before the AMS can achieve the global best practice.

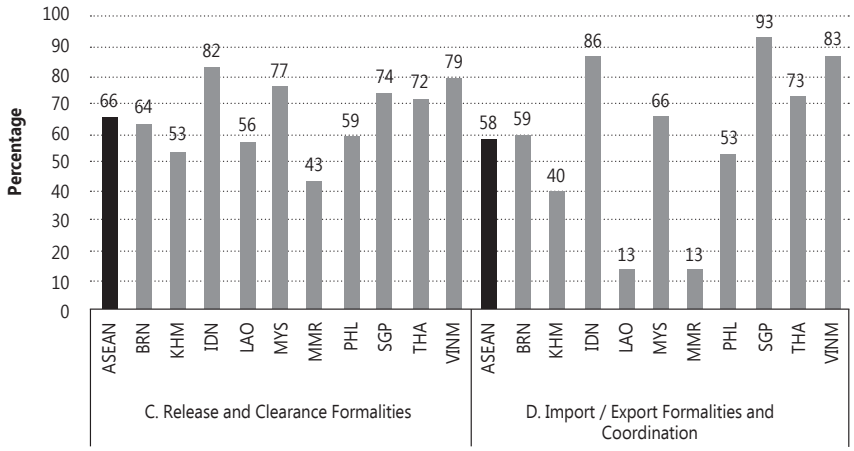
Figure 5: Association of Southeast Asian Nations Seamless Trade Facilitation Indicator (ASTFI) Scores – Components A and B



ASEAN = Association of Southeast Asian Nations; BRN = Brunei Darussalam, KHM = Cambodia, IDN = Indonesia, LAO = Lao People's Democratic Republic, MYS = Malaysia, MMR = Myanmar, PHL = Philippines, SGP = Singapore, THA = Thailand, VNM = Viet Nam.

Source: ERIA, 2018.

Figure 6: Association of Southeast Asian Nations Seamless Trade Facilitation Indicator (ASTFI) Scores – Components C and D



ASEAN = Association of Southeast Asian Nations, BRN = Brunei Darussalam, KHM = Cambodia, IDN = Indonesia, LAO = Lao People's Democratic Republic, MYS = Malaysia, MMR = Myanmar, PHL = Philippines, SGP = Singapore, THA = Thailand, VNM = Viet Nam.

Source: ERIA, 2018.

The discussion in the preceding section of the chapter indicates that the best practice trade facilitation regime by 2040 would likely be even more stringent and demanding. This means that gaps between current actual practice in many AMS and the possible future best practice will likely widen even more. This presents a considerable challenge for ASEAN in its trade facilitation agenda for ASEAN 2040.

Toward Seamless Trade Facilitation in ASEAN 2040

ASEAN and the AMS are pursuing seamless trade facilitation for two fundamental reasons: first, seamless trade facilitation is critical to create an ASEAN Economic Community (AEC) as a single market and production base; second, seamless trade facilitation contributes to AMS' and ASEAN's trade competitiveness, better governance, and improved development outcomes.

ASEAN is one of the most trade-reliant regions in the world; thus, it is not surprising that trade facilitation is a key focus of the AEC Blueprints 2015

and 2025. Trade facilitation is a major pathway towards attaining the AEC's main goal, that is, the creation of a '…deeply integrated and highly cohesive ASEAN economy that would support sustained high economic growth and resilience even in the face of global economic shocks and volatilities'. A deeply integrated and highly cohesive ASEAN economy is similar to a single market and production base, and involves very few barriers to the movement of goods and services across borders within ASEAN, amongst other things. Seamless trade facilitation contributes substantially to the almost free flow of goods and services within the region.

The implementation of trade facilitation measures aims to move '… towards convergence in trade facilitation regimes amongst ASEAN Member States and to move closer to the global best practice…' Key strategies to realise seamless trade facilitation in ASEAN are as follows:

(i) markedly reduce divergence or gaps in trade facilitation regimes amongst AMS; and
(ii) markedly reduce the gap or distance to the global best practice or, better still, be at the global best practice, for each AMS.

The discussion in the previous section shows that there is a large gap in trade facilitation between the front-running AMS and the tail-enders; not surprisingly, there is also a large gap from the global best practice for a number of AMS.

The second fundamental reason for investing in seamless trade facilitation is that doing so will lead to greater effectiveness and improved governance at the border and even behind the border, enhance trade competitiveness, and yield better development outcomes. The description of the best practice in the first section indicates what is meant by greater effectiveness and improved governance. Agencies can clearly offer a much better service if they can provide permits in less than 10 minutes instead of hours or even days. A fully digital import–export process that allows the issuance of permits in less than 10 minutes requires close coordination amongst relevant agencies, as well as data harmonisation and streamlined processes. A paperless regime creates far less corruption than a paper-based system, simply because, compared to using hard

copies, such a system provides greater and almost instant traceability, minimal face-to-face contact, and more accurate information and risk assessments when transactions are digitalised.

The examples above indicate that improved governance leads to greater effectiveness. Indeed, it is arguable that, since trade facilitation involves multiple agencies and is affected by the quality of trade and transport infrastructure (e.g. ports and laboratories) and people (e.g. technical staff in customs and conformance bodies), the quality of trade facilitation reflects the overall governance of a country. Thus, it is unsurprising that Singapore, whose customs procedures are perceived as leading globally, is also a global leader in governance indicators like regulatory quality and government effectiveness.

Beyond reflecting good and effective overall governance, seamless trade facilitation improves competitiveness, business climates, and development outcomes. International merchandise trade is increasingly dominated by time-sensitive back-and-forth trade of parts and components within global and regional supply chains and networks with just-in-time production and minimised inventories. Thus, heavy involvement in such production systems is only possible if there is efficient, seamless trade facilitation. Seamless trade facilitation is especially important for bringing more small and medium-sized enterprises (SMEs) into global and regional production networks and supply chains. This is because SMEs have far less time and capacity than large enterprises to navigate complicated export, import, and customs processes. Having more SMEs as part of global and regional production networks and supply chains will bring additional benefits to the economy in terms of more widespread diffusion of newer technologies, management techniques, and market intelligence. A more dynamic SME sector can result in more inclusive growth because SMEs are the backbone of, and biggest employers in, most ASEAN economies. In addition, the improved business and investment climate arising from seamless trade facilitation and improved governance in a country boosts its growth performance, leading to a larger and growing domestic market. This in turn leads to greater growth and dynamism for the domestic SMEs, which are usually oriented more towards domestic trade than towards exports.

As indicated in the first section on the vision of seamless trade facilitation for ASEAN in 2040, another important benefit of seamless trade facilitation that supports better governance and good development outcomes is that it presupposes effective risk management, enabling the efficient allocation of trade control resources to high-risk shipments and traders, and greater trade facilitation for low-risk shipments and traders. Well-performing border management consists of effective trade control without sacrificing trade facilitation: the ultimate goal of secure, seamless trade facilitation. This will virtually eliminate technical smuggling and illicit trade, and may lead to higher revenue intake arising from the virtual elimination of undervaluation. This higher revenue intake can then be used for equitable development and enhanced government expenditures, with better expected development outcomes.

This discussion shows that it is worth investing in seamless trade facilitation for ASEAN 2040; indeed, even much earlier towards 2025, at least for the basic seamless trade facilitation described at the start of this chapter.

Towards Seamless Trade Facilitation: Some Key Recommendations

Short- to medium-term recommendations toward seamless trade facilitation in ASEAN were presented in the Summary Report on ASTFI Baseline Study submitted by ERIA to the ATF JCC on 24 August 2018. Some key excerpts from the report are as follows:

(i) NSW, ASW, and export–import formalities

(a) The most important and impactful way to move forward is to operationalise the NSW (Cambodia, Lao PDR, and Myanmar); operationalise a reworked and improved version of it (the Philippines); make it fully operational in terms of the procedures and number of agencies embedded in it (e.g. Viet Nam) and exports (Brunei Darussalam); bring it closer to a truly single window (e.g. Indonesia, and Viet Nam), and truly single sign-on (most AMS); or finish upgrading it to a higher, integrated,

ubiquitous, and client-focused system facilitative of trade-logistics integration (Malaysia's uCustoms, Singapore's NTP, and Thailand's Customs 4.0).

(b) The full operationalisation of NSWs in all 10 AMS by 2020 makes it imperative to make the ASW fully operational, with the inclusion of additional documents in the ASW.

(c) To make the NSW fully operational and well-performing, digital copies should be used more extensively towards realising a truly paperless process.

(d) Similar to Singapore's NSW and Indonesia's plan described in the first section of the chapter, each AMS would move to an integrated risk management system embodied in each country's NSW.

(ii) National trade repositories (NTRs), ASEAN Trade Repository (ATR), and non-tariff measures (NTMs)

(a) The NTRs and ATR are ASEAN's most important trade transparency initiatives. Many of the AMS have made major progress in their NTRs; however, information on NTMs constitutes an important weakness of these systems. ASEAN is currently addressing this with the help of ERIA and the ASEAN Regional Integration Support through the European Union Plus project.

(b) Apart from completing the population of the ATR with the appropriate information linked to the NTRs, AMS must ensure that the NTRs and ATR provide up-to-date information in a widely accessible format that is easily understandable by small firms and traders.

(iii) ASEAN Agreements, ACTS, and stronger cross-border coordination

(a) The ratification and implementation of the ASEAN transport facilitation agreements and protocols would signal that the AMS are serious about regional integration even if the individual benefit may not be large. Ideally, this will be in progress by 2020.

(b) The ACTS offers the potential for seamless transit facilitation, at least in continental ASEAN. When ACTS is fully operational and rolls out to Cambodia, the Lao PDR, Myanmar, and Viet Nam, it will demonstrate the potential for deeper cross-border trade and economic relationships between and amongst AMS. More bilateral and institutionalised cross-border coordination should also be pursued.

(c) ASEAN is placing great importance on regional efforts concerning e-commerce, which are expected to be given a significant boost when the ASEAN E-Commerce Agreement is signed in 2018. Implementing key action points will help provide a robust and harmonised regulatory regime and common mechanisms in ASEAN by 2020 or so. Related to this is the issue of expedited clearance of customs (and other border agencies) for e-commerce transactions within ASEAN.

(d) Similarly, the implementation of regional trade facilitation initiatives like self-certification should be accelerated. Regarding certificates of origin, there may be merit in the proposal of the European Union-ASEAN Business Council to set up a working group involving the private sector to look at the pros and cons, as well as the appropriate risk management mechanisms and documentary requirements, of increasing the threshold value for a waiver of the certificate of origin.

(e) Additionally, more bilateral MRAs on AEOs (e.g. the Singapore–Thailand MRA on AEOs) or authorised transit traders between AMS would further strengthen the regional trade facilitation regime in ASEAN.

(iv) Joint learning and regional cooperation

Several cases of good practices in AMS worth emulating by other AMS could form the basis for joint learning amongst the AMS, perhaps facilitated by the ATF JCC or Coordinating Committee on Customs. Examples of such good practices include the following:

(a) transparency in rule-making in Malaysia (government circular), Singapore (ingrained practice), and Thailand (constitution);

(b) public consultations undertaken on new regulations;

(c) Malaysia's Pemudah public–private working groups, with technical support from the Malaysia Productivity Corporation, not just at the high policy level;

(d) Thailand's Customs Alliance under Customs 4.0 and Singapore's TradeFirst introduce an approach to be used by Customs account officers, similar to that used by bank's relationship managers in dealing with their clients;

(e) a Customs Academy (e.g. Malaysia) for continuous training and professionalisation of the customs bureaucracy;

(f) international and regional benchmarking to propel accelerated and clear-cut programs for improvement (e.g. Viet Nam and Malaysia); and

(g) integrated and automated risk management for permits and customs clearance of all key trade-related agencies, with all risk parameters and decision rules in one interconnected platform (e.g. Singapore).

(v) Towards Seamless Trade Facilitation Plus

(a) Beyond the basic seamless trade facilitation that the above recommendations aim to institutionalise and operationalise fully, due to the fast-changing trade and technological environment, each AMS should consider building trade, logistics, and even finance and innovation ecosystems in the trade portal similar to Singapore's current NTP towards 2040.

(b) In addition, MRAs by each AMS, along with the Customs of non-ASEAN countries for certified AEOs, would further help improve AMS' trade facilitation regimes, with respect to trade not only within ASEAN but also with the rest of the world.

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Managing Non-Tariff Measures in ASEAN[1]

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1. Introduction

While tariffs have declined following disciplines instituted by the World Trade Organization (WTO), the number of non-tariff measures (NTMs) is on the rise worldwide. This increase is mirrored in the Association of Southeast Asian Nations (ASEAN) as a result of tariff liberalisation through regional and bilateral trade agreements. The trend is also reflected in the updated NTMs database of the Economic Research Institute for ASEAN and East Asia (ERIA) and the United Nations Conference on Trade and Development (UNCTAD),[2] where the number of NTMs in ASEAN has followed an upward trend. Since NTMs have the potential to restrict trade, this increase has raised concerns about returning to protectionism, which could hamper ASEAN's regional economic integration efforts.

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1 This chapter draws heavily on Doan, Rosenow, and Buban (forthcoming). The analysis of NTMs in this chapter is based on raw 2018 data on ASEAN NTMs from the forthcoming ERIA–UNCTAD NTM database.

2 For information about the construction of this database, please refer to Ing, Cordoba, and Cadot (2015).

NTMs are neutrally defined as policy measures other than ordinary customs tariffs, which can have an economic effect on international trade (UNCTAD, 2013). As such, they include a wide array of policy instruments. Some NTMs are used as a commercial policy tool, such as quotas or price controls. These measures are often regarded as non-tariff barriers (NTBs), aimed at protecting domestic producers, and are against WTO rules. On the other hand, technical tools – such as sanitary and phytosanitary (SPS) measures and technical barriers to trade (TBTs) – are designed to protect consumers' health and safety and the environment. In principle, these measures serve legitimate public policy goals, and thus are legal.

Given their legitimacy, the prevalence of NTMs is not necessarily a bad sign for the economy. As the economy grows and consumer wealth rises around the world, the demands on governments for health, safety, and environmental protection also increase. However, even good NTMs can incur significant costs because of poor design and implementation. Therefore, addressing NTMs is fundamental for ASEAN to further promote regional integration towards the realisation of the ASEAN Economic Community. As NTMs constitute the grey area where protectionism meets public policy goals, effective NTM management must take into account not only their trade-distorting effects, but also the potential benefits of these measures.

This chapter outlines the prevalence of NTM application in ASEAN countries based on the ERIA–UNCTAD database. We then discuss ASEAN's ongoing efforts in addressing NTMs and the way forward.

2. The Incidence of NTMs in ASEAN

This section presents a brief overview of the prevalence of NTMs in ASEAN Member States (AMS). Figure 1 compares the number and composition of NTMs in ASEAN in 2015 versus 2018. Two features stand out.

First, the total number of NTMs has increased by approximately 15% in the last 3 years. On the one hand, this upward trend reflects the dynamics of AMS in regulatory reform to respond to various policy needs – including consumer protection and competitiveness enhancement through the improvement of product standards. In addition, as a country becomes more integrated into the global economy, the need for appropriate trade regulations increases. From this perspective, low NTM count statistics could reflect national gaps in countries' consumer and environmental protection and thus potential under-regulation. On the other hand, the rise of NTMs in the context of tariff reduction suggests the possibility that NTMs could be used as a substitute for tariffs in certain cases. Regardless of the objectives, however, this increase could result in higher trade costs, thus inhibiting trade expansion in the region.

Second, the composition of NTMs remains relatively stable across the years. TBTs are the most prominent category of NTMs, followed by SPS measures. These two subgroups form the technical measures, accounting for about 70% of total NTMs. This pattern is largely in line with that of more developed countries, where technical measures are widely used to protect consumers, the environment, and animal welfare. However, it is worth noting that amongst nontechnical measures, export-related measures also constitute a non-negligible portion of NTMs in ASEAN. While, compared with NTMs on imports, it is less likely that these measures are used with protectionist intent, the prevalence of NTMs on exports could impose a substantial burden on exporters and, as a consequence, impede the competitiveness of an economy.

Table 1: NTMs by Type, 2015 and 2018

NTM Type	NTM Description	2015		2018	
		Number of NTMs	%	Number of NTMs	%
A	Sanitary and phytosanitary measures	2,577	31.3	2,795	29.4
B	Technical barriers to trade	2,924	35.5	3,443	36.2
C	Pre-shipment inspection and other formalities	266	3.2	325	3.4
E	Non-automatic import licensing, quotas, prohibitions, quantity-control measures, and other restrictions other than SPS measures or TBT measures	708	8.6	819	8.6
F	Price control measures including additional taxes and charges	389	4.7	438	4.6
G	Finance measures	13	0.2	18	0.2
H	Measures affecting competition	18	0.2	27	0.3
I	Trade-related investment measures	2	0	7	0.1
J	Distribution restrictions	5	0.1	8	0.1
L	Subsidies and other forms of support	0	0	1	0
M	Government procurement restrictions	1	0	1	0
N	Intellectual property	1	0	1	0
P	Export related measures	1,333	16.2	1,619	17
Total		**8,237**	**100**	**9,502**	**100**

NTM = non-tariff measure, SPS = sanitary and phytosanitary, TBT = technical barriers to trade.

Note: Sector as defined by HS 2017 at 2-digit levels. Rules of origin and anti-dumping measures are not included.

Source: ERIA–UNCTAD Raw NTMs in ASEAN Database, version 2018.

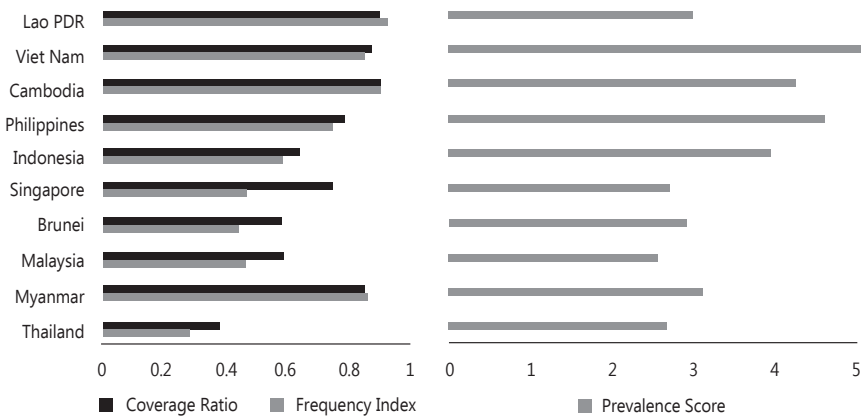
Figures 1 and 2 demonstrate the incidence of import and export NTMs, respectively. Three indices are presented: (i) the coverage ratio (CR), (ii) the frequency index (FI), and (iii) the prevalence score (PS). CR measures the share of trade value affected by NTMs. FI measures the ratio of traded products subject to at least one NTM. PS represents the average number of NTMs imposed on a product.

Figure 1 shows the pattern of import NTMs by country. The 10 AMS have significant differences in NTM prevalence. Imports tend to be more heavily regulated in the less developed economies. NTMs regulate more than 80% of imports – measured by both the number of products and import value – in Cambodia, the Lao People's Democratic Republic, Myanmar, and Viet Nam. The Philippines also follows this pattern closely. In addition, there is little discrepancy in the CR and FI indicators for these countries.

For Singapore, Brunei Darussalam, Malaysia, and Thailand, on the contrary, NTMs are more concentrated. The FI in these countries is about 50% (30% for Thailand), while the CR is noticeably larger. The gap between the CR and FI suggests that NTMs focus on more trade-intensive products in these countries.

The regulatory distance can also be observed through the PS, where the average number of NTMs applied on one imported product ranges from 2.5 to 5.0.

Figure 1: Incidence and Prevalence of Import NTMs, by ASEAN country, 2018



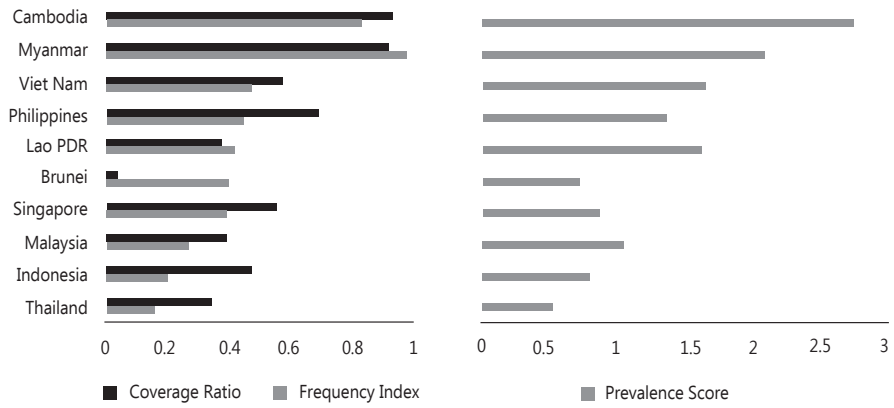
ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic, NTM = non-tariff measure.

Note: The trade year used is based on the latest available import data at HS 6-digit. United Nations, International Trade Statistics Database (UN-COMTRADE). https://comtrade.un.org/ (accessed 27 February 2019).

Source: Doan, Rosenow, and Buban (forthcoming).

Turning to exports, the pattern is quite different. While Cambodia, the Lao People's Democratic Republic, Myanmar, the Philippines, and Viet Nam are still amongst the most rigorous users of NTMs, the extent of NTM application on exports across countries is more diverse than that of import NTMs. In addition, the CR is remarkably larger than the FI for most countries, suggesting that NTMs concentrate on export-intensive products. Brunei Darussalam shows a clear deviation, however, as about 40% of its export products are subject to NTMs but less than 5% of its export value is affected. This different pattern may be due to the structure of exports in Brunei Darussalam, where oil and gas are the largest exports, contributing to more than 90% of total export revenue. Since NTMs in this sector are small, the CR of export NTMs in Brunei Darussalam is relatively minor.

Figure 2: Incidence and Prevalence of Export NTMs, by ASEAN country, 2018



ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic, NTM = non-tariff measure.

Note: The trade year used is based on the latest available export data at HS 6-digit. United Nations, International Trade Statistics Database (UN–COMTRADE). https://comtrade.un.org/ (accessed 27 February 2019).

Source: Doan, Rosenow, and Buban (forthcoming).

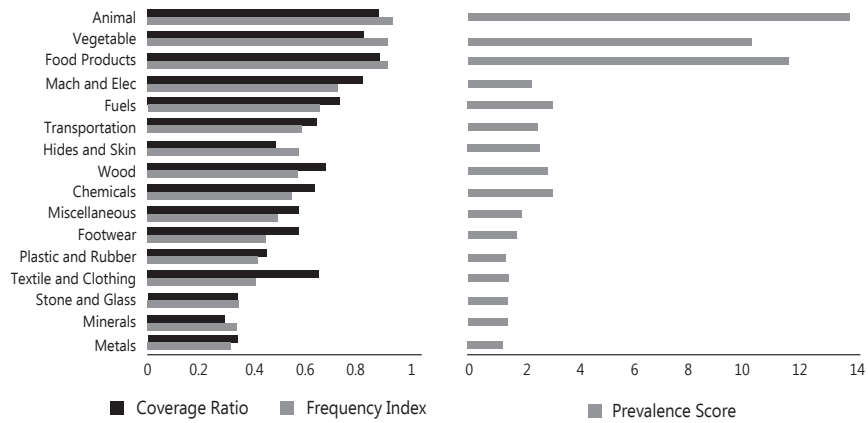
Figure 3 provides a snapshot of import NTMs by product group, producing three notable observations. First, animal, vegetable, and food products are the most regulated sectors, with NTMs affecting more than 80% of their imports. The average number of NTMs per product in these sectors is substantially higher than average – exceeding 10 measures each. The prevalence of NTMs in agriculture is probably due to the application of SPS measures for health and safety. Since the majority of

the AMS have a comparative advantage in agricultural products, it is not surprising that this category is leading in NTM utilisation.

Manufacturing sectors with deeper participation in global value chains, such as machinery and electronics and transportation, are also subject to heavy regulation. As the impact of NTMs is compounded when a semi-finished product moves back and forth across borders, the high incidence of NTMs in this sector implies larger trade costs for both exporters and importers at different stages along the supply chain.

Finally, NTMs are less prevalent in resource-based sectors such as stone and glass, minerals, and metals. One reason could be that minerals and metals are amongst the key inputs in important downstream manufacturing sectors, so regulations can be more relaxed.

Figure 3: Incidence and Prevalence of Import NTMs in ASEAN, by sector, 2018



ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic, NTM = non-tariff measure.

Notes:

1. The trade year used is based on the latest available import data at HS 6-digit. United Nations, International Trade Statistics Database (UN-COMTRADE). https://comtrade.un.org/ (accessed 27 February 2019).
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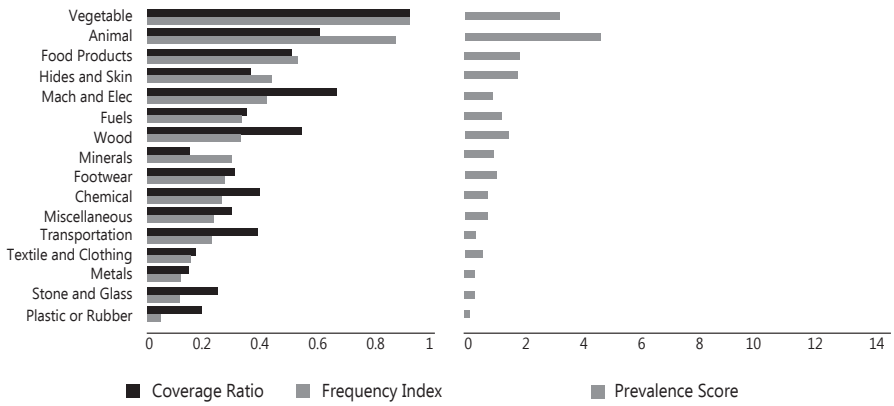
Source: Doan, Rosenow, and Buban (forthcoming).

Figure 4 illustrates the incidence of NTMs by export sector. Similar to imports, agricultural products are also subject to a large incidence of NTMs. In manufacturing, NTMs are prominent in machinery and electronics. However, the number of NTMs per export product and the ratio of exports affected by NTMs are, in general, smaller than those of imports. In addition, resource-based products such as fuels and woods also exhibit a large incidence of NTMs. This observation may reflect the need for the preservation of natural resources.

Figure 4: Incidence and Prevalence of Export NTMs in ASEAN, by sector, 2018



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

Notes:

1. The trade year used is based on the latest available import data at HS 6-digit. United Nations, International Trade Statistics Database (UN–COMTRADE). https://comtrade.un.org/ (accessed 27 February 2019).
2. Sector follows the definition of HS (2017) 2-digit sections. United Nations, International Trade Statistics, Knowledgebase, Harmonized Commodity Description and Coding Systems (HS). https://unstats.un.org/unsd/tradekb/Knowledgebase/50018/Harmonized-Commodity-Description-and-Coding-Systems-HS (accessed 18 January 2019).

Source: Doan, Rosenow, and Buban (forthcoming).

Overall, the pattern of NTM application in ASEAN countries is largely in line with international practice, where the majority of NTMs fall into the SPS or TBT category. Agricultural products and manufacturing sectors with deep participation in global value chains – such as machinery, electronics, and transportation – are amongst the most heavily regulated sectors. On the one hand, the application of NTMs can be justified as previously discussed. On the other hand, given the large trade volume of the region in these sectors, it is suggested that managing NTMs to reduce the potential trade-restricting impact could contribute to trade expansion in the region.

3. Addressing NTMs in ASEAN – The Way Forward

Tariff reduction and the removal of NTBs are amongst key components of ASEAN's efforts to enhance intra-regional trade. In principle, commitments on NTMs have been explicitly stated in the ASEAN Trade in Goods Agreement (ATIGA), which came into force in 2010 (ASEAN Secretariat, 2010). In practice, however, the integration agenda so far has focused primarily on tariffs, which have been eliminated for 86% of national tariff lines.

As limited room has been left for further tariff liberalisation, ASEAN has recently taken bolder steps to address and manage NTMs. The ASEAN Economic Community 2025 Trade Facilitation Strategic Action Plan (SAP),[3] in particular item 3, provides a strategic objective which 'Put in place an effective and responsive regional approach to efficiently address the trade distorting effect of NTMs with a view to pursuing legitimate policy objectives while reducing cost and time of doing business in ASEAN'.[4]

This strategic objective outlines several key measures that will help ensure the transparency and accessibility of information on the NTMs, support their streamlining and management, strengthen institutional capacity, and enhance private sector engagement.

First, updating of the ASEAN NTM database where AMS will verify NTMs in the ERIA–UNCTAD NTM database. This is in line with a key measure to make available export and import laws, regulations, and administrative procedures to the public – especially micro, small, and medium-sized enterprises. ERIA and UNCTAD are updating the ERIA–UNCTAD database to incorporate NTMs issued by AMS from 2015 to March 2018. ERIA will also share the updated data on NTMs to assist AMS in populating the NTM section of their respective national trade repositories. However, the

[3] Adopted at the 31st ASEAN Economic Ministers–ASEAN Free Trade Area Council Meeting in 2017.

[4] https://asean.org/storage/2012/05/AEC-2025-Trade-Facilitation-SAP-FINAL-rev.pdf.

willingness and capacity of AMS to validate or verify NTMs from various agencies, including the absence of a dedicated national institution to undertake the validation process, could delay public access to information and pose a challenge to updating the NTM section of national trade repositories. An efficient mechanism will have to be in place to sustain the continued updating of NTMs, so capacity building at the national level is necessary.

Second, ASEAN has adopted the Guidelines for the Implementation of ASEAN Commitments on Non-Tariff Measures on Goods, which provide a general framework to improve the transparency and management of NTMs in ASEAN. The recently adopted document, i.e. NTM guidelines, is a good step that will provide for the operationalisation of key elements and provisions of the ATIGA related to NTMs, such as Article 11 (Notification Procedures), Article 12 (Publication and Administration of Trade Regulations), Article 13 (ASEAN Trade Repository) Article 40 (Application of Non-Tariff Measures), and Article 42 (Elimination of Other Non-Tariff Barriers). However, the non-binding nature of the NTM guidelines may pose a challenge to their effectiveness for AMS adhering to their principles when implementing those commitments in ATIGA.

The current guidelines endorsed by AFTA Council pertain to new NTMs but may not sufficiently address the need to review the barrier effect of current NTMs. ATF JCC has requested ASEAN Secretariat to work with ERIA to develop the methodology or approach for determining the barrier effect of existing NTMs. Strengthening or complementing the current NTM Guidelines would minimise the trade-distortive effects of the NTMs while achieving legitimate policy objectives.

Third, enhancing private sector engagement through the establishment of the ASEAN Solutions for Investments, Services and Trade (ASSIST) mechanism – an internet-based platform and non-binding mechanism that allows the private sector to submit complaints regarding operational problems faced by ASEAN-based companies on cross-border issues related to the implementation of ASEAN economic agreements. Little information has been released on the utilisation and/or lodgement of complaints and the success rate of ASSIST in finding solutions to

complaints raised, as the information has been confined to the parties involved. Although complaints in ASSIST can be filed anonymously, companies may still fear reprisals from government agencies, which could prevent private companies from using this facility. Governments' failure to respond to such complaints does not help either, while public lack of awareness of the mechanism contributes to its low usage. Thus, the extent of the effectiveness of the ASSIST mechanism remains to be seen.

Aside from the key activities mentioned above, over the next 2 years (2019–2020) as indicated in the SAP, AMS will also work on strengthening their respective national trade facilitation coordinating committees to provide a regulatory oversight function for undertaking a review of existing NTMs. For this to work effectively, the national trade facilitation coordinating committees should be given a clear legal mandate to manage and coordinate different regulatory agencies, with these agencies asserting their respective authorities and mandates. Another initiative that AMS will undertake as part of the SAP is to establish a mechanism that will provide the opportunity for AMS to comment, to a certain extent, on proposed new or revisions of laws and regulations on border measures before their adoption. The enhancement of this consultation process is consistent with WTO and ATIGA commitments, and in line with good regulatory practice.

4. Conclusion

Over the past years, NTMs have been growing globally, including in ASEAN, as manifested in the key findings drawn from the raw updated data in the ERIA–UNCTAD NTMs in ASEAN database. The increase has been attributed to legitimate objectives, such as concerns for the safety and protection of consumers as well as natural resources and the environment. However, given their complexity, the global experience indicates that, in certain circumstances, NTMs have also served as a disguised barrier to international trade. As such, NTMs have become a convenient tool to provide undue protection to certain products or industries. As a result, the compliance cost on the private sector for these NTMs has increased and become burdensome – affecting trade.

Managing NTMs has been an ongoing and continuing pursuit all over the world, including ASEAN, which endorsed guidelines on how to manage NTMs in August 2018. These guidelines may not sufficiently address the current NTMs, however, as they prioritise managing and addressing future NTMs, where they are subject to certain guiding principles, such as necessity and proportionality, transparency, non-discrimination, and impartiality. Tools such as ex-ante regulatory impact assessments to determine the barrier effects, regulatory and non-regulatory options, and implementation arrangements will also be used. In short, the NTM guidelines focus on addressing future NTMs rather than current ones, which may require a different approach.

Solutions to manage NTMs have been elusive, as there are related issues that needed to be addressed as well. Addressing NTMs requires first and foremost knowing the true and updated extent of NTMs in place. In ASEAN, it has been quite difficult to ascertain the extent of NTMs available as most AMS do not have an updated official NTMs database. Although AMS are in the best position to populate their national NTM databases – and have an obligation under the ATIGA to build such databases through the NTM section of their national trade repositories – this process has been difficult for them. Populating the NTMs in the AMS national trade repositories is a tedious and cumbersome process, and governments may need support and assistance to do so. To provide such support, as well as ensure the transparency and sustainability of NTM database maintenance in ASEAN, an in-country capacity building programme has been identified by AMS as a crucial activity to be pursued.

Addressing and managing NTMs will require more than one solution, approach, strategy, or measure, as shown in the ASEAN Economic Community 2025 SAP on NTMs. Although identifying an appropriate solution or approach may be difficult, starting with a reliable NTM database would be the appropriate way forward. To have a sustained and updated NTM database in the AMS will require capable regulators who will undertake the collection, validation, and analysis of the NTMs that are being issued. Another related area which would support, address, and manage NTMs is the implementation of good regulatory practice

core principles, which would help ensure a good regulatory management system to make better regulations.

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Non-Tariff Measures in ASEAN 2040

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1. Introduction

The Association of Southeast Asian Nations (ASEAN) has come a long way since its inception in 1967. This can be seen, for instance, in the region's increasing economic integration in terms of trade and investment. It is also playing a greater role in East Asian production networks and value chains. Nonetheless, although trade integration in ASEAN continues to increase, the region still faces various challenges, including the ambivalence of some of its member countries towards globalisation. The future of trade integration in ASEAN 2040 depends on whether it will follow the tendency towards protectionism that has risen around the world since mid-2016, or will further exploit the benefits of economic interlinkages in the region. To achieve the latter end, ASEAN will need to address various barriers to trade integration.

This chapter focuses on the future of NTMs in ASEAN 2040. This is an important issue because NTMs have come to play a major role in

ASEAN trade integration since tariffs have been reduced under various agreements and commitments (including the ASEAN Free Trade Area agreement and ASEAN Economic Community 2015 commitment). Many have suggested that NTMs are spreading globally as a substitute for declining tariffs (Moore and Zanardi, 2011; Aisbett and Pearson, 2012; Orefice, 2015). This is also the case for ASEAN, which has seen divergence between tariffs and NTMs since the early 2000s (Ing et al., 2016). Furthermore, as concerns over product safety and environmental issues receive more public attention, the number of NTMs is also expected to increase. However, despite their significance, NTMs are often misunderstood.

A small number of NTMs is not necessarily good because NTMs are needed to protect the health and safety of consumers, as well as the environment. However, a greater number of NTMs is not necessarily better because many regulations are poorly designed and fail to protect consumers while increasing the cost of doing business (Cadot and Ing, 2015a). NTMs generally affect business due to their stringency and fragmenting effects (Cadot and Ing, 2015b). With respect to stringency, NTMs drive companies to source raw materials at higher costs (sourcing cost) and increase administrative costs (enforcement cost). Meanwhile, the application of different NTMs by various countries affects the market structure and degree of competition, thus fragmenting the market. NTMs are also often criticised as lacking transparency, being prone to lobbying interests, and being sometimes motivated by hidden protectionism intentions. Therefore, managing NTMs is an important part of ASEAN's trade integration agenda.

This chapter argues that efforts should be made to improve the effectiveness and efficiency of NTMs to achieve a more integrated ASEAN 2040. First, the compliance cost of NTMs in ASEAN is estimated, particularly the sanitary and phytosanitary (SPS) measures and technical barriers to trade (TBTs). This is followed by a strategy to improve NTMs, including greater transparency, harmonisation, streamlining, and institutional improvement. The final section concludes with a broader focus on the NTM agenda in the future.

2. Ad Valorem Equivalents of Non-Tariff Measures

Various efforts have been made to estimate the compliance cost of NTMs through their ad valorem equivalents (AVEs) (Cadot and Gourdon, 2015, 2016; Grübler, Ghodsi, and Stehrer, 2016; Kee and Nicita, 2016). Nonetheless, these previous attempts encountered difficulties with both the data and estimation methods used. Since no comprehensive cross-country NTM database existed until recently, researchers have relied on a partial database created by the World Trade Organisation (WTO), including notifications and 'special trade concerns'. With respect to estimation, the previous literature used variations in dollar trade values or trade volume from the price elasticity of import demand to infer the AVEs of NTMs. These estimations encountered problems in retrieving the AVEs (for example, when the elasticity is unity), and may have led to incorrect identifications, as in the case of trade volume. Furthermore, the traditional approach yielded an average effect across countries (i.e., not individual country effects), or simulated the value of country-specific AVEs, instead of the real estimate.

Ing and Cadot (2017) proposed a new estimate of country-specific AVEs of NTMs, based on a recent NTM database and on trade unit value. A new, consistent NTM database covering 85 countries is now available. Meanwhile, using a trade unit value will separate the compliance cost effect (i.e., higher prices) from the demand-enhancing effect of NTMs (i.e., higher demand due to better quality products). This would be impossible when using variations in trade volume as this approach assumes unchanged demand. Interacting the NTM variables with a full vector of importer dummies also makes it possible to obtain a country-specific effect. Ing and Cadot (2017) then estimated importer-specific AVEs as the sum of the direct effects of certain NTMs on the unit values of certain products and the interaction effects of certain NTMs imposed by certain importing countries (see Ing and Cadot [2017] for a detailed regression equation).

Ing and Cadot (2017) found that the AVEs of NTMs in the ASEAN region are broadly in line with world averages. For food and agriculture products (Table 1), they found that the median AVEs of SPS measures at the

country-section level is 6.24%, and the simple average across all non-ASEAN importers and sections is 6.58%. Meanwhile, for ASEAN countries, the median is 6.51% and the average is 6.69%. This shows that SPS measures for food and agriculture products in ASEAN appear not to have a different compliance cost compared to those in other countries. Within food and agriculture products, the highest AVEs are found in animal products and fats and oils products (around 15% on average), while vegetable products and processed food have the lowest AVEs (around 5% on average). For animal products, the highest AVEs are found in the Lao People's Democratic Republic (PDR) (26%) and Cambodia (23%), and the lowest is in Singapore (8%), where consumers are sensitive to safety and quality. This suggests that the technical capabilities of the SPS enforcement and monitoring infrastructure in the Lao PDR and Cambodia are limited, resulting in bureaucratic friction. A similar pattern is also found in fats and oils products. Across all sections, the highest averages are observed in Viet Nam (16.7%) and Myanmar (12.1%), and the lowest are in the Philippines (3.7%). In general, for food and agriculture products, SPS measures still impose significant compliance costs amongst ASEAN countries. The AVE is still lower than 10% for large economies like Indonesia, Malaysia, and the Philippines, but more than 10% for Singapore, Thailand, and all newer members of ASEAN (Cambodia, Lao PDR, Myanmar, and Viet Nam).

Table 1: Average Ad Valorem Equivalents, Sanitary and Phytosanitary Measures, by Section and Importer (%)

HS section	BRN	IDN	KHM	LAO	MMR	MYS	PHL	SGP	THA	VNM	avg.
Animal products	12.4	16.1	23.4	26.0	8.9	6.2	9.2	8.0	21.2	17.2	14.9
Vegetable products	6.0	4.4	2.8	4.4	8.9	5.7	0.5	7.4	5.8	5.1	5.1
Fats and Oils	14.0	6.0	0.1	18.5	26.3	18.4	0.0	16.1	11.5	38.8	15.0
Food, bev, and tobacco	3.1	3.8	4.0	-1.3	4.3	4.9	4.9	13.8	8.1	5.5	5.1
Simple average	8.9	7.6	7.6	11.9	12.1	3.7	3.7	11.3	11.7	16.7	10.0

avg. = average, bev. = beverages, BRN = Brunei Darussalam, equip. = equipment, HS = harmonised system, IDN = Indonesia, KHM = Cambodia, LAO = Lao People's Democratic Republic, MMR = Myanmar, MYS = Malaysia, PHL = Philippines, prod. = product, SGP = Singapore, THA = Thailand, VNM = Viet Nam.

Source: Ing, L.Y. and O. Cadot (2017), 'Ad Valorem Equivalents on Non-Tariff Measures in ASEAN', *Economic Research Institute for ASEAN and East Asia Discussion Paper Series*, No. 2017-09. Jakarta: Economic Research Institute for ASEAN and East Asia.

For manufactured products (Table 2), the compliance cost resulting from TBTs in ASEAN countries are only slightly higher if not broadly in line with other countries. The median AVE at the country-section level is 4.0%, and the simple average is 4.5% for non-ASEAN countries. Meanwhile, for ASEAN countries the median is 5.06% and the simple average is 5.00%. Between products, the highest AVEs are found in textiles and apparel (7.6%), transport equipment (7.3%), and metal products (6.2%); while the lowest are in leather (1.1%) and chemicals (2.2%). For textiles and apparel, the highest AVEs are in Singapore (9.9%) and Malaysia (9.4%). For transport equipment, the highest are in Viet Nam (12.9%) and Thailand (8.7%). In metal products, the highest are in Indonesia (10.3%) and the Philippines (93%). Across all sections, average AVEs are relatively higher in the big economies, such as Indonesia (5.7%), Viet Nam (5.4%), Malaysia (5.2%), and Singapore (5.0%), while the lowest are found in Cambodia (2.8%) and Myanmar (3.1%). Ing and Cadot (2017) also found a positive correlation between the number of import documents required and cost to import with the average AVEs of TBT measures amongst all countries. This suggests that exporters tend to pass on the cost of NTMs to buyers. All in all, in general, for ASEAN and other countries, the cost of complying with TBT measures in manufactured products is relatively limited at around 5% of trade unit value. This is lower than the cost of complying with SPS measures in food and agriculture products.

Table 1: Average Ad Valorem Equivalents, Technical Barriers to Trade Measures, by Section and Importer (%)

HS section	BRN	IDN	KHM	LAO	MMR	MYS	PHL	SGP	THA	VNM	avg.
Chemicals	3.3	7.3	0.8	4.4	-0.9	5.6	-0.4	0.6	0.3	0.7	2.2
Plastics and rubber	3.1	5.1	3.1	-2.5	-4.2	3.1	2.4	3.1	7.7	10.5	3.1
Leather	4.9	5.7	-1.4	-1.4	-1.4	4.8	-1.9	4.9	-1.4	-1.4	1.1
Textile and apparel	4.8	6.9	7.2	7.8	7.8	9.4	6.9	9.9	7.1	7.8	7.6
Footwear	2.5	5.1	2.1	2.1	2.1	2.1	1.8	2.5	2.1	2.0	2.4
Cement etc.	7.1	5.0	3.9	3.9	3.9	3.9	4.3	9.4	7.8	6.0	5.5
Metals and metal prod.	3.6	10.3	4.7	6.6	6.6	5.1	9.3	5.2	4.7	8.6	6.2
Machinery	8.1	4.1	-2.8	4.5	4.5	7.0	2.7	3.3	3.3	1.8	3.5
Transport equip.	4.8	1.5	7.5	6.9	6.9	6.1	5.5	6.3	8.7	12.9	7.3
Simple average	4.7	5.7	2.8	3.6	3.6	5.2	3.4	5.0	4.5	5.4	4.3

avg. = average, BRN = Brunei Darussalam, equip. = equipment, HS = harmonised system, IDN = Indonesia, KHM = Cambodia, LAO = Lao People's Democratic Republic, MMR = Myanmar, MYS = Malaysia, PHL = Philippines, prod. = products, SGP = Singapore, THA = Thailand, VNM = Viet Nam.

Source: Ing, L.Y. and O. Cadot (2017), 'Ad Valorem Equivalents on Non-Tariff Measures in ASEAN', *Economic Research Institute of ASEAN and East Asia Discussion Paper Series*, No. 2017-09. Jakarta: Economic Research Institute of ASEAN and East Asia.

However, this result, which generally shows that NTM compliance costs in ASEAN are broadly in line with the world average, should be treated with caution for several reasons. The first of these reasons is a technical issue; the reported figures are section-level averages of panel estimates obtained at the chapter level, and these estimates are relatively more erratic than those averaged at the section level. Second, although AVEs reflect compliance costs, this could indicate either measures to correct market failures or simply bureaucratic friction. For instance, a low AVE does not necessarily reflect a smooth and efficient import process, but could also reflect unenforced regulation. As such, a detailed case study is needed to confirm the results of the estimation. Overall, due to the ambiguity of the AVE interpretations, it would be more prudent for ASEAN countries to continue the drive towards a more effective and efficient NTM regime in the region. This is the focus of the next section.

3. Strategies for Improving Non-Tariff Measures

Improving NTMs is different from reducing trade tariffs because NTMs differ in nature. First, although some NTMs have legitimate reasons to exist, they are often not designed with appropriate incentives and might be too stringent. As such, extra efforts are required to identify which NTMs ought to be eliminated or could be simplified. Second, unlike tariff reductions, reducing NTMs for certain products does not necessarily guarantee that no new NTM on the same product will resurface in the future. In fact, as there are at least 170 categories and forms of NTMs, NTMs on the same product could reappear in another form. Third, NTMs often fall into the domain or under the authority of many government agencies, thus complicating the challenge of managing them. Furthermore, there are also unfortunate similarities between managing tariffs and NTMs; for example, NTMs are often used as bargaining tools in trade negotiations, meaning that they are only reduced as part of a negotiated *quid pro quo*. This adds to the challenge of improving NTMs. Nonetheless, despite significant challenges, since an improved NTM regime is critical for ASEAN trade integration, efforts should continue.

To begin with, a general change in mindset is necessary. Disguised-protectionism NTMs usually aim to protect certain sectors from

competition. A better approach would be to improve the competitiveness of the concerned sectors. This could be done by correcting the policy and bottlenecks that prohibit industrial development, technological development, and employment in the sectors (Stone, Messent, and Flaig, 2015). Efforts should be taken to improve the overall environment of doing business (including regulatory systems, innovation policy, and infrastructure development) so that comparative advantages and new growth areas can be developed. This change in mindset would have a lasting positive impact, in contrast to a 'picking winners' tendency in some NTM applications. Going further, some specific strategies for improving NTMs in ASEAN are listed below.

The first strategy is to improve transparency. Since NTMs are complex by nature, the first step demands transparency on existing NTMs. According to the NTM Transparency Index created by Ing, Cadot, and Walz (2017), ASEAN's transparency on NTMs is good relative to other developing countries, such as those in Latin America, South Asia, and the Middle East. This might reflect ASEAN's efforts to achieve NTM transparency in recent years, for instance by creating national single windows, the ASEAN Single Window, and national trade repositories. However, this improvement needs to be communicated more effectively, as ASEAN countries typically rank unfavourably in various surveys of government transparency. Furthermore, there is still much room for improvement, such as greater regulatory transparency and simplification through broadening the mandate of institutions like NTM committees (Ing, Cadot, and Walz, 2017). Improvement in data management is also needed. NTM information in ASEAN was incomplete until recently, and it follows a different classification system than that used by other regions around the world (Cadot, Munadi, and Ing, 2015). The creation of an NTM database in ASEAN under the United Nations Conference on Trade and Development and Economic Research Institute for ASEAN and East Asia work programme (see Ing et al., 2016) incentivises greater transparency in NTMs going forward. The application of national single windows and national trade repositories in ASEAN member countries should also be continuously improved, especially in newer members of ASEAN.

The second strategy is harmonising standards and cooperating in conformity assessment procedures (CAPs). These harmonisation

efforts will make NTMs more efficient as they reduce the regulatory differences or distances between countries. Nonetheless, despite high expectations as to the benefit of harmonising standards, Cadot and Ing (2015b) found that this is not necessarily the best way to improve NTMs. They argue that, in the case of poorer countries, engaging in standard harmonisation with richer countries in the region might result in too-stringent standards that impose an overly heavy burden on producers, rendering them uncompetitive in other developing countries' markets. On the contrary, they found that the mutual recognition of CAPs appears to deliver a bigger reduction in compliance costs, compared to standard harmonisation. More specifically, they found that standard harmonisation reduces compliance costs by around 10%, while CAPs reduce these by around 27% (almost three times more). Yet, they also found that harmonising standards remains important in enhancing trade (especially in adopting international standards), but less so in adopting regional standards. This could be because regional standards might be ad hoc and influenced by special interests. Cadot and Ing (2015b) also argue for harmonisation in terms of regulatory management system convergence within the region. This soft regulatory convergence would result in lasting NTM improvement. This is discussed further below.

The third strategy is streamlining and institutional improvement. Streamlining NTMs involves removing redundancy and red tape to achieve more simplified NTMs. In general, given their complex nature and to make them more effective, improving NTMs should be viewed as a governance issue. This is how the government can protect public interests through effective regulation without necessarily complicating business. Without this country-based (bottom-up) approach, NTM reform will proceed slowly due to the government approach of trading concessions at the regional level (Cadot, Munadi, and Ing, 2015). Thus, NTMs should be improved by enhancing the regulatory management system of the country. For instance, before a new regulation is imposed, a quality control process should take place inside the government whereby the cost and benefits of such a regulation are examined (through a regulatory impact analysis). Any legitimate complaint from the private sector regarding a certain regulation should also trigger a review process. To this end, the creation of an independent body or task force with the mandate and power to review business and trade regulation is crucial. This institution should be given a legal mandate and staffed

with competent personnel. In the long run, this could be merged with the competition oversight body as these require similar skills (Cadot, Munadi, and Ing, 2015). This institutional change will put an end to the traditional approach of using NTMs as bargaining tools, which has had only limited success in improving NTMs. As demonstrated by other countries, regulatory reform ought to comprise four key ingredients: (i) a consistent and mutually reinforcing reform agenda and permanent political anchor (for example, NTM improvement should be placed within the bigger picture of improving the investment and business climate); (ii) international support in terms of technical assistance; (iii) a credible institutional setup in the form of a strong oversight body; and (iv) the engagement of national administrations in a regulatory impact assessment process for new regulation.

The three strategies outlined above are essential components of an integrated ASEAN 2040. These far-reaching strategies (especially the third one) are better carried out as part of a broader effort to improve ease of doing business. Thus, it is necessary to obtain strong political support and involve the private sector. These strategies constitute a transformative approach for ASEAN to adapt and respond to new types of NTMs and broader challenges that they may present in the future.

4. New Issues on Non-Tariff Measures for ASEAN

The previous section focused mostly on SPS and TBT measures. As trade integration continues, it is important to look at other types of NTMs that might not currently feature prominently in the policy discussion but will do so in the future. These include NTMs related to government procurement and state-owned enterprises (SOEs), intellectual property rights (IPRs), and environmental issues.

First, NTMs on government procurement usually take the form of preference given to national providers (often SOEs), despite, for instance, their higher cost compared to foreign suppliers. Known as home bias, this is usually amplified in procurement under fiscal stimulus package programmes. There are several forms of NTMs in government

procurement, including (i) market access restriction (e.g., limiting access to only national, local, and joint-venture suppliers); (ii) domestic price preferences (e.g., price preferences for national, local, and joint-venture suppliers); (iii) local content requirements (e.g., using local inputs, services, staff, and subcontractors); (iv) collateral restrictions (e.g., taxes on foreign suppliers and ineligibility for subsidies); (v) conduct of procurement that discriminates against foreign supply (e.g., pre-selected lists of tenderers, direct or limited tendering, registration mechanisms, and limited timing); (vi) restrictive qualification criteria (e.g., requirements for extra certifications or licenses, set-asides for small and medium-sized enterprises or local minorities); (vii) restrictive evaluation criteria (e.g., technical contractual conditions favouring domestic firms); (viii) lack of access to a review and complaint system; (ix) a lack of transparency or clarity of information; and (x) inadequate anti-corruption laws or their enforcement (Gourdon, Bastien, and Folliot-Lalliot, 2017). Overall, these measures raise the cost of government procurement, thus undermining the 'value for money' objective in procurement.

NTMs in government procurement are closely linked with SOEs, which are sometimes are granted advantages that hinder market access or affect competition, such as being prioritised or given exclusive rights to participate in government procurements. SOEs are also typically given direct subsidies, concessional financing, state-backed guarantees, preferential regulatory treatment, and exemptions from antitrust enforcement or bankruptcy rules, amongst other things. This results in an uneven playing field (Kowalski et al., 2017). Another dimension of the issue is the industrial policies (e.g., subsidies) used by some countries to make their SOEs more competitive when participating in foreign governments' procurements.

Data on the size of procurement markets, flows of trade in procurement, and the types of discriminatory measures applied are still lacking. Existing information on advantages obtained by SOEs are also mostly anecdotal or individual cases. Gourdon and Messent (2017) estimated the size of government procurement markets at around 11–12% of GDP. They also estimated that home bias in government procurement has increased in recent years, especially in developed countries, and in developing countries since 2000. Gourdon and Messent (2017) also

found that the WTO Agreement on Government Procurement (concluded in 1994 and revised in 2012) has somewhat reduced discrimination in the procurement market and increased trade in procurement amongst signatories. This reduction is higher if the signatory countries also have an international investment agreement that permits a domestic presence. This demonstrates the positive role played by international agreements in reducing NTMs.

The second type of NTMs is those related to a lack of protection and enforcement for IPRs. These could be measures where importing countries require or pressure technology transfer on imported goods from other countries, such as in the form of joint-venture requirements, foreign equity limitations, and administrative review and licensing processes, amongst many others. While a stronger IPRs regime is expected to increase trade, inbound investment, and domestic innovation processes (Cavazos Cepeda, Lippoldt, and Senft, 2008), some countries appear to prefer a shortcut approach to gain capability in technology-intensive goods through forced technology transfer. Another form of NTMs in this area is the lack of enforcement of IPRs, leading to widespread copyright piracy and trademark counterfeiting.

In recent years, NTMs on IPRs issues have become increasingly important and received more public attention. In fact, a main source of trade conflict escalation between the United States (US) and China in 2018 is China's alleged forced technology transfer policy. In June 2018, the US imposed a 25% tariff on $50 billion worth of imports from China on the grounds of concerns regarding forced technology transfer. Earlier, in May, trade ministers from the US, Japan, and the European Union (EU) affirmed their intention to deepen cooperation and the exchange of information to find effective means to address forced technology transfer policies and practices. They also plan to prevent the acquisition of domestic companies by foreign companies suspected to be driven by motives to obtain technologies and intellectual property. This demonstrates how unresolved NTM issues can slow trade and investment.

The third type of NTMs is those related to the environment. This covers trade measures on the grounds of environmental protection.

The measures could take the form of environmental regulations and standards on product and production process, environmental labelling, and taxes and subsidies (Khatun, 2009). Developing countries are often affected by environment-related trade measures applied by developed countries. A broad lack of access to environment-friendly production technology, access to timely information, and representation in international standards bodies often adversely affects the competitiveness of developing countries' products. Furthermore, while environmental protection is an important goal, some of its measures are influenced by local players' trade interests, thus undermining the objectivity of the measures (disguised protectionism).

Environment-related disputes constitute a small fraction of the cases addressed to the WTO dispute settlement mechanism (Falker and Jaspers, 2012). However, environment-related NTMs are expected to increase due to increasing public awareness of environmental issues, which might lead to more trade friction and disputes. One example is the EU renewable energy directive, which aims to promote the production of energy from renewable sources in the EU. However, the policy discriminates against the use of palm oil as a biofuel as it argues that the production of palm oil fails to guarantee real carbon savings and protect biodiversity. This claim has been contested by palm oil-exporting countries, which are mainly ASEAN countries. Another example is trade measures targeting illegal, unreported, and unregulated fishing. In an effort to combat this, some countries require stringent import documentation, certification, and traceability of the whole supply chain, amongst other measures. This has put fishery imports (mainly those from developing countries) at a disadvantage compared to local production. Many small and medium-sized vessel operators from developing countries are burdened with significant administrative and budgetary costs. As such, developed countries should consider some flexibility on these measures. On the other hand, environmental issues such as land degradation, climate change, water shortage, and loss of biodiversity caused by animal husbandry industries (mainly in developed countries), have largely been ignored so far (Food and Agriculture Organization of the United Nations, 2006). Animal husbandry activities are responsible for around 18% of greenhouse gas emissions, more than the combined exhaust from all transportation sectors, which account for 13%. The industry emits methane gas, which is significantly more destructive and has higher

global warming potential than carbon dioxide. It also consumes a large amount of water. In the US, for instance, feed crops for livestock account for around 56% of all water consumed annually.[1] However, despite significant negative impacts on the environment, developed countries remain silent on this issue, possibly due to the value of their large share of livestock, meat, and dairy industry exports (around 80% of such exports worldwide).[2] The practice by which developed countries pick and choose which industries they will target with stringent NTMs on the grounds of environmental protection would undermine the credibility of other measures and could lead to trade friction with developing countries.

The NTMs outlined above are tough issues to address, partly due to their political sensitivity, as in the case of government procurement and SOEs, and tension between multiple objectives, as in the case of IPRs and environmental NTMs. Nonetheless, as achieving the benefits of trade integration is paramount, efforts to improve the effectiveness and efficiency of these types of NTMs should be firm on the agenda. A lack of effort would slow trade and investment unnecessarily. An economic analysis is needed to ascertain the current prevalence of these types of NTMs within ASEAN, as well as between ASEAN and its trading partners. For instance, it should be explored whether firms face significant barriers to joining public procurement within ASEAN, and whether ASEAN countries are subject to environment-related non-tariff barriers in other countries.

Finally, as ASEAN continues to pursue trade integration, regional bodies play a significant role. The ASEAN Secretariat should continue its efforts to compile and maintain a uniform NTM database. It should also continue to support the adoption and harmonisation of international standards, as well as mutual recognition of CAPs. Furthermore, it could provide technical support in establishing a supervisory body or task force for business and trade regulation. Sharing best practice and technical assistance in conducting economic analyses on the effects of NTMs would

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1 For a more detailed discussion, see Cowspiracy: The Sustainable Secret. http://www.cowspiracy.com/facts/ (accessed 3 September 2018).

2 The value of the share of livestock, meat, and dairy products (HS codes 01, 02, and 04) exports of the US, EU, Canada, Australia, and New Zealand to the world in 2017. United Nations Comtrade Database. https://comtrade.un.org/data/ (accessed 3 September 2018).

also be useful, especially for the CLMV countries. Equally important, the ASEAN Secretariat and think tanks in the region could champion policy discussion on the frontier of the NTM agendas mentioned earlier. ASEAN has been on a remarkable journey of economic integration. Despite a growing trend toward protectionism in many countries, this initiative should be continued to achieve a more dynamic, competitive, and prosperous region.

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ASEAN Vision 2040 and Key Strategies on Standards and Conformance

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As the Association of Southeast Asian Nations (ASEAN) continues its journey towards realising its vision of an ASEAN Community, standards and conformance remain a key component in the production of tangible outcomes to characterise the region as a deeply integrated and highly cohesive economy capable of sustaining high economic growth. ASEAN standards and conformance efforts, which fall under trade facilitation efforts to support the ASEAN Economic Community (AEC) pillar, are aimed at establishing a sound regional quality infrastructure framework to address technical barriers to trade (TBTs) that arise from overly stringent or trade-restrictive measures at the national or regional level. To achieve this, ASEAN needs to ensure that the soft and hard infrastructure fundamental for a regional quality infrastructure is supported by a corresponding national quality infrastructure that is put in place to achieve the desired goals of a common system of standards and conformance, and to meet the trade facilitation objectives for a single market and production base. The business community is a key contributor to the success of efforts in the area of standards and conformance, and continues to advocate for good regulatory practice

based on sound scientific rationale and justification to ensure product safety and quality. Thus, it is essential that ASEAN leaves no one behind in these efforts, but ensures the balanced representation of all key stakeholders. The development gap between Cambodia, the Lao People's Democratic Republic (PDR), Myanmar, and Viet Nam (CLMV) and the rest of ASEAN is also something that the region needs to consider seriously to attain its desired goals collectively and along common timelines. The use of an inclusive approach with key players to close these gaps in a complementary manner is an important consideration for ASEAN over the next few years as it works to achieve its desired regional goals towards 2040.

ASEAN standards and conformance efforts, which fall under the trade facilitation agenda to realise the single market and production base goal that characterises the AEC, began in 1992 when ASEAN was focusing on realising the ASEAN Free Trade Area (AFTA) through the general approach of harmonising standards, technical regulations, and conformity assessment procedures with international benchmarks. As ASEAN progresses from Vision 2020 to Vision 2040, these endeavours need to be farsighted to ensure that the policies and principles continue to support regional goals and do not create an inward-looking trade bloc. Although this approach was agreed upon to realise internal goals, the approach also supported open regionalism, including policies and principles for the harmonisation of standards, technical regulations, and conformity assessment procedures in alignment with the World Trade Organization (WTO) TBT agreement. Therefore, the initiatives being put in place are geared not only towards realising the single market and production base, but also the goal of plugging into the global landscape. The crucial step and indicator of success will be the effective implementation of these policies and principles while ensuring that the required technical infrastructure is put in place via an approach that is inclusive of all stakeholders.

The following sections will analyse current ASEAN efforts to achieve standards and conformance, and will identify the gaps that need to be addressed to ensure that the regional policies, strategies, and approaches remain relevant and will yield the desired outcome as ASEAN progresses towards 2040.

Regional Quality Infrastructure – Setting the Right Foundations

The ASEAN Consultative Committee for Standards and Quality (ACCSQ) is the focal point for activities related to standards and conformance in the region. It is responsible for implementing the AEC Blueprint measures for standards and conformance, laying down the foundations (such as policies and strategies) for addressing TBTs, and subsequently implementing these policies and strategies to help realise the single market and production base. In laying these building blocks, it is important to ensure that the foundation for regional infrastructure is based on the fundamentals of a quality infrastructure, mapped to the national quality infrastructure of the ASEAN Member States (AMS). This is necessary to ensure that regional implementation will not contradict national goals. A review of these foundational efforts indicates that all of the components of the quality infrastructure have been put in place to support the development of policies and strategies to address ASEAN TBTs in ASEAN.

The ASEAN initiated standards and conformance activities as early as 1992, although at that point of time these were aimed at supporting the realisation of the AFTA. The AMS initiated efforts to address TBTs by putting in place relevant structures through working groups. These groups were established to address regional policies for the development and implementation of standards, conformity assessments (including accreditation, inspection, testing, certification, and calibration), and legal metrology (which plays a role in calibration and standards for weights and measures). These functions are fundamental to establishing a quality infrastructure and necessary to ensure the effective implementation of technical regulations and standards and conformance, the tools used to demonstrate compliance with mandatory product safety technical regulations.

A robust quality infrastructure mechanism is fundamental for addressing TBTs. Quality infrastructure is the institutional framework that puts in place a complementary system for the management of standards and conformity assessment procedures to ensure product safety and quality and consumer protection. Standards and conformity assessment

procedures are tools used to demonstrate compliance with product safety and quality requirements, or technical regulations to ensure that the products comply with safe use requirements. Their alignment with international benchmarks ensures that these measures are not trade-restrictive, hence not TBTs. Legal metrology is another important part of the quality infrastructure as it contributes to trade through its role in ensuring the consistency of measurements and compliance in conformity assessment. A robust regional quality infrastructure framework incorporates the roles of the National Standards Body, National Accreditation Body, and National Metrology Institute (in alignment with international benchmarks) to contribute to economic growth by boosting competitiveness and creating a level playing field for local business operators to plug into the global landscape.

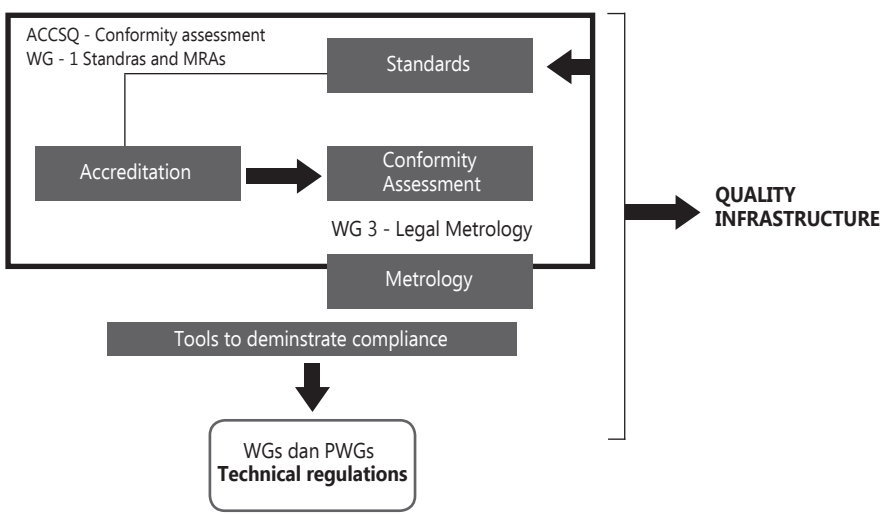
Figure 1 shows the current ASEAN bodies under the ACCSQ that have the components of a quality infrastructure. The mapping shows that ASEAN has established a good foundation to address TBTs at the regional level. Most of the AMS are already participating in relevant international organisations that set the stage for the development of a national quality infrastructure. These organisations include the International Organization for Standardization (ISO), International Electrotechnical Commission (IEC), Asia-Pacific Laboratory Accreditation Cooperation, International Laboratory Accreditation Cooperation, International Bureau for Weights and Measures, and International Legal Metrology Organisation. AMS should consider participating in the activities of these organisations as they contribute to the development of national quality infrastructure.

A strong and capable national quality infrastructure is key to achieve an effective regional quality infrastructure. However, a robust quality infrastructure framework cannot address all TBTs in the region without the support of soft and hard infrastructure. The following section reviews the soft and hard infrastructure needed to address TBTs in the region.

Regional Rules and Policies for Addressing Technical Barriers to Trade in the Association of Southeast Asian Nations

After laying the right foundations for a quality infrastructure, the next step is to ensure that the appropriate soft infrastructure, that is, the legal basis for addressing TBTs, is in place. The legal basis for addressing TBTs in ASEAN is the ASEAN Trade in Goods Agreement (ATIGA), which stipulates the provisions for standards, technical regulations, and conformity assessment procedures. These were also specified in the Common Enhanced Preferential Tariff Scheme, which targeted the realisation of the AFTA. When the scheme was updated, the provisions were also enhanced to align with international benchmarks, notably those of the WTO. It is worth noting that the provisions in the ATIGA mirror those in the WTO TBT Agreement. These principles are aligned with those of the WTO for non-restrictive approaches, unless they are intended to meet legitimate objectives, such as national security requirements, the prevention of deceptive practices, and the protection of human health or safety, animal or plant life or health, or the environment.

Figure 1: Mapping of the Regional Set-Up for Quality Infrastructure



ACCSQ = ASEAN Consultative Committee for Standards and Quality, MRA = mutual recognition agreement, PWG =, WG = working group.

Source: Authors.

The AMS are all signatories to the WTO and abide by the WTO TBT principles for non-discriminatory trade rules, in theory. Although it ensures that the WTO non-discriminatory principle is not violated, this approach should be reviewed to determine whether it adds any additional value to the realisation of deeper integration amongst the 10 AMS. The ideal situation would be to have rules and policies that apply an approach beyond the existing WTO requirements, to yield the desired outcome for deeper integration amongst a specific group of members, such as ASEAN. Moreover, the WTO recognises and supports the development of regional trade agreements amongst its members.

The ACCSQ began its work by harmonising national standards for 20 priority products (identified under the AFTA intra-ASEAN trade objectives) and, subsequently, the priority integration sectors (PISs) (identified to support the realisation of the ASEAN Community) with the corresponding international benchmarks for these sectors. These approaches were outlined in the ASEAN Policy Guidelines on Standards and Conformance (APGSC) adopted in 2005. Although not legally binding, the APGSC provided guiding principles for the development and implementation of standards, technical regulations, and conformity assessment procedures at the national level in ASEAN to fast-track the integration of the PISs and support the realisation of a single market and production base by 2015. These principles, which are aligned with the provisions of the WTO TBT Agreement, can be summarised in terms of the following goals:

i. the alignment of national standards with corresponding international standards identified for regional adoption;
ii. the adoption of technical regulations in adherence to the principles of the WTO TBT Agreement;
iii. adherence to the provisions of the ASEAN Framework Agreement for mutual recognition arrangements (MRAs) to ensure the acceptance of conformity assessment results, participation in relevant international activities, and transparency; and
iv. policies for technical regulations based on the principles for good regulatory practices prescribed by the ASEAN Good Regulatory Practice (AGRP) guidelines, which are based on the principles advocated by the Asia Pacific Economic Cooperation (APEC) to its members to help them meet their obligations under the WTO.

The current provisions were adopted from the inception stage of TBT efforts in the region. It is important to review these legal provisions to ensure that they remain relevant and contribute to the goals of deeper integration to realise the ASEAN single market and production base.

Sectoral Approach versus Severity of Technical Barriers to Trade

The initial phase of the ASEAN endeavour to address TBTs to meet the trade facilitation objectives under the regional integration goals comprised the 20 priority products and, subsequently, the PISs. The effort to harmonise the 20 priority products aimed to achieve intra-ASEAN trade facilitation under the AFTA goals. As such, the selection of products or sectors in which TBTs needed to be addressed was based on regulated products traded within the region that were creating internal barriers to trade, thus impeding intra-ASEAN trade. As the regional vision progressed towards deeper economic integration to achieve the AEC, the ACCSQ embarked on the second phase of its standards and conformance efforts for the PISs, based on the identification of TBTs through the ASEAN Framework Agreement on PIS. These two phases indicate that ASEAN has taken a reactive approach to address TBTs.

The ASEAN Non-Tariff Measures (NTM) Database is in place in accordance with the provisions in the ATIGA. Under this initiative, the AMS are expected to 'establish a database on NTMs applied in its territory' and 'notify amendments to existing measures or the adoption of new measures' (ATIGA, 2009). The ATIGA also requires that information on NTMs be included in the ASEAN Trade Repository. The ACCSQ should review the NTMs regularly, identify the severity of TBTs for both intra- and extra-ASEAN trade, and prioritise critical sectors for addressing TBTs in the region. This would make ASEAN more attractive to foreign investors and include local operators in the supply chain of larger corporations, thus contributing to technology transfer and job creation. Next, it is necessary is to identify the role and inclusiveness of the various actors addressing TBTs in ASEAN.

‘Leave No One Behind’ – Supply Chain Management

To address TBTs, the AMS must adopt and implement the relevant policies, strategies, and measures, which must also be defined. This will require much study and research in the form of a regulatory impact analysis, which is a ‘systemic approach to critically assessing the positive and negative effects of proposed and existing regulations and non-regulatory alternatives and is an important element of an evidence-based approach to policy making’ (Organisation for Economic Co-operation and Development). In this regard, the ACCSQ could add more value to the regional integration process by adopting a regional approach to regulatory impact analysis to ensure that the negotiated regional commitments support the attainment of the regional goals of a single market and production base. The ACCSQ’s current approach consists of reaching a consensus on regional technical regulations, while taking into consideration existing national technical regulations for each sector. This has often resulted in regional commitments with country-specific requirements, which do not support the attainment of a single market and production base.

The success of these regional measures depends on their effective implementation by business operators. Thus, it is critical for business operators to be involved in defining these technical regulations at some stage to ensure that the measures are practical and conducive for businesses while ensuring product safety and quality. Technical regulations should be built upon sound scientific data and justifications. Most business operators have a significant amount of scientific data from research carried out for product development. Much of the scientific research done on raw materials, ingredients, and processes is widely available to users, whether regulatory agencies, academics, research bodies, or business operators. An inclusive approach would ensure that the technical regulations put in place do not compromise product safety and quality and create a favourable environment for business operators by increasing product innovation and competitiveness, resulting in healthy business competition and wider product choices for the consumer at competitive prices.

Business models have changed with the rise of globalisation, which has led to the development of supply chain networks, an increase in business partnerships, and sourcing from lower cost production bases. This in turn has enhanced organisational efficiency, productivity, and profitability. Small and medium-sized enterprises (SMEs) represent 89%–99% of the firms in ASEAN, accounting for 52%–97% of employment, 23%–58% of gross domestic product, and 10%–30% of total exports (Economic Research Institute for ASEAN and East Asia, 2014). The AMS have often used this as a reason to apply rules that protect these businesses, giving rise to a protectionist approach.

Although multinational corporations (MNCs) have been perceived as a threat to SMEs, MNCs actually contribute significantly to the shaping of regulatory frameworks based on international benchmarks. The MNCs' business model is such that progressive SMEs form part of their supply chain network, enhancing the SMEs' overall capability through technology transfer, as well as their capability to meet international benchmarks. Thus, ASEAN stands to benefit if large corporations are included, in a structured manner, in the regional efforts outlined above.

Strengthening the National Quality Infrastructure of each Association of Southeast Asian Nations Member State

A robust regional quality infrastructure framework is a key component of ASEAN's standards and conformance efforts to facilitate deeper trade linkages amongst the AMS. This is because a major group of NTMs in the region consists of TBTs, which the regional quality infrastructure is meant to address. The number of NTMs in the region has been rising, making it increasingly important to strengthen standards and conformance efforts to address these barriers to regional trade.

Investing in a robust quality infrastructure is even more compelling and strategic at the national level than at the regional level. Such infrastructure is necessary to balance increased societal concerns over product quality and safety, health, and the environment with the need to minimise the burden on business that may ensue from TBTs. It is also

a significant foundation of the competitiveness of any country. This is especially the case in ASEAN as the region becomes preponderantly middle class and the technological landscape becomes even more dynamic in the decades leading up to 2040 and beyond.

Investing in a robust quality infrastructure is an important competitiveness strategy because access to export markets and participation in global value chains increasingly depend on local firms being able to meet international standards or private standards set by the leaders or end buyers in the global value chains. It is also cheaper and better for local firms to have internationally accepted certifications awarded locally rather than having their firms or products certified by a foreign-based body.

A study of standards and conformance infrastructure in selected APEC countries yielded a number of interesting insights from the experience of these countries that are highly relevant to the issue of investing in and building quality infrastructure in ASEAN towards 2040 (Shepherd, et al., 2018). As most AMS are APEC members, there is already a high degree of adoption of the APEC policies for harmonising standards and conformity assessment procedures. Adapting the knowledge and experiences in some countries' success stories to the regional level would be greatly conducive to attaining the regional goals.

The following insights are worth highlighting:

(i) The adoption of or alignment to international standards is important to facilitate trade with the rest of the world and overcome artificial barriers. This would make it easier for domestic firms to link up with other firms in the world, join global value chains, encourage higher productivity and product quality, and be competitive. Adopting international standards is a 'quality signal' that increases consumer confidence in the export market for brands that are not yet internationally known.

(a) Both Australia and Singapore have a policy of adopting international standards wherever possible (Singapore's small size and extreme reliance on trade necessitates this). In the case of Australia, the implication of this policy is that the onus is on the stakeholder or proponent of a separate Australian standard to prove the necessity of that standard if there is an available international standard. For Singapore, this means that the country only applies a few national standards, and it effectively uses international standards directly, as its main approach. Australia and Singapore are both heavily involved in the development of international standards at the global level.

(b) Viet Nam has a policy of increasingly aligning old and new national standards to international standards. While only about 47% of Viet Nam's national standards are currently aligned with international standards, a 2011 decision by the Prime Minister aims to align 90% of all important new national standards with international standards. The policy assumes that alignment with international standards is a means of improving the productivity and product quality of domestic firms, even if the standards are voluntary in nature. To further the alignment of standards as a strategy to enhance productivity and product quality, the decision also targets a large number of domestic enterprises that will be guided and supported in applying new national standards that are largely drawn from international standards.

(ii) Higher standards as a product differentiation strategy

(a) In China, voluntary national standards are largely guidelines for industry and not strictly enforced. Private standards set by companies are more stringent than national standards. Similarly, in Japan, innovative domestic firms deem national standards to be the minimum acceptable standards, and they actively develop higher standards as a strategy for product differentiation. The Government of Japan has a mechanism to help Japanese firms, especially SMEs, develop such product-differentiating higher standards. Although these approaches may help individual countries meet their national trade policies, such an approach can lead to discriminatory trade practices and, in the case of

ASEAN, may impede the attainment of a single market and production base.

(iii) Private sector involvement is important

(a) The development of standards in selected APEC countries involves consultation with the private sector (in China the 'private sector' includes state-owned enterprises) and the solicitation of feedback from the public through websites or direct consultation. In the case of Standards Australia, the usual single round of public comments on proposals for new standards may be followed by more rounds for contentious issues. Standards Australia also organises regular meetings, forums, and workshops between technical committees and key stakeholders to ensure a high level of consultation. Another model of institutionalised consultation with the private sector is the Singapore Standards Council, a body that approves the establishment and withdrawal of Singapore standards, and is comprised of representatives from the public and private sectors. Similarly, Viet Nam's Directorate for Standards, Metrology and Quality holds an annual standards planning meeting where representatives from the government, private sector, and concerned industries review proposed standards and set out a 2-month period for public comments. Although this is attainable at the national level, the absence of regional mechanisms to support such initiatives can only urge AMS to engage the private sector and other key stakeholders in regional discussions directly at the regional level through either accredited industry associations or transparent national engagement on regional negotiations.

(iv) Regular review of standards

(a) Australian standards published for more than 10 years in their current form are subject to a review process known as the Aged Standards Review for reconfirmation, revision, or even removal. This ensures that Australian standards are up to date and fit for purpose in the face of changing economic and technological developments.

(b) All AMS are signatories to the ISO, IEC, and other sectoral standards development bodies. The ISO prescribes good standardisation practices, including the periodic review of standards, to ensure their relevance with innovation and technological advances. In this regard, ASEAN could enforce a regional monitoring mechanism to ensure the relevance of regionally adopted standards applied at the national level.

(v) 'World class' conformity assessment, certification, and accreditation bodies

(a) A critical complement to the drive to align with or adopt international standards and have a well-structured and participatory standards development process is the establishment of 'world class' certification bodies that meet international requirements, are accredited, and award certifications that are accepted in export markets. Large countries like China have hundreds of certification bodies and tens of thousands of testing laboratories. Even Singapore, despite its small size, has more than 300 accredited conformity assessment bodies, including calibration and testing laboratories, inspection bodies, quality and environment management systems, product certification bodies, and hazard analysis critical control points food safety management system certification bodies. Similarly, Viet Nam's strategy is to expand its network of conformity assessment bodies that meet international standards and are globally accredited, and raise its laboratories that test the quality of key products to world class status.

(b) A corollary to the development of world class testing laboratories and other conformance assessment bodies is training in standards, technical regulations, and product quality control in universities, technical and vocational institutions, and other science and technology institutions.

(c) All AMS have an accreditation body that is signatory to the Asia-Pacific Laboratory Accreditation Cooperation–International Laboratory Accreditation Cooperation MRA. ASEAN must continue to engage national accreditation bodies at the regional

level to create a regional grouping of accreditation bodies with the ASEAN agenda at the forefront.

(vi) Extensive MRAs and involvement in international standards-setting bodies

(a) Investment in a robust standards and conformance system, including the establishment of world class conformity assessment bodies and accreditation bodies, will benefit local firms if the country has MRAs with other countries concerning the acceptance of conformity assessment results and certifications. Thus, the more MRAs a country has with other countries and/or certification bodies, the more progress it will make. Perhaps the most impressive example is that of China, which has bilateral MRAs with around 20 countries and multilateral MRAs covering 13 fields (such as food products and medical testing) involving 93 countries and covering 95% of the total global trade volume. In the case of ASEAN, it is imperative to ensure that bilateral MRAs are consistent with regional policies and aspirations.

(b) Japan is very extensively and deeply engaged in international forums related to standards and conformance, participating in 755 ISO committees and 190 IEC committees (the ISO and IEC being arguably the premier standards setting bodies in the world). This reflects the fact that Japan is very much at the forefront of research and technology worldwide. Japan's standards and conformance system is also well resourced.

(c) Nonetheless, this does not mean that less advanced countries do not need to engage in global standards setting. Viet Nam is a participant member in 16 ISO technical committees and sub-committees, and an observer member in 70 ISO technical committees and sub-committees. Viet Nam's standards development infrastructure comprises 120 technical committees, 70 of which are equivalent to ISO technical committees. This makes it easier for the committees to interact with ISO bodies (Shepherd, et al., 2018).

The above observations are practical, national-level approaches for business operators to achieve a high and competitive level of technological capability. However, it is imperative that the AMS ensure that these national approaches converge with regional aspirations and goals.

Capacity Building for Cambodia, Myanmar, and the Lao People's Democratic Republic

ASEAN has been making efforts to harmonise standards in the PISs and bring about regulatory convergence, taking into account the diversity that exists amongst the AMS, especially between CLMV and the rest of ASEAN. However, as Viet Nam has progressed significantly the emphasis is more on Cambodia, the Lao PDR, and Myanmar (CLM). The standardisation measures and efforts that CLM countries undertake in implementing ASEAN priority sectors have been established and implemented in varying degrees with respect to technical regulations, conformity assessment, and standards harmonisation. However, there are some outstanding challenges, which can be divided into three categories: (i) technical capacity, (ii) physical infrastructure, and (iii) other challenges.

Technical capacity is the main challenge for conformity assessment and harmonised technical regulations. The CLM countries reported an overall lack of qualified testing laboratories, competence in the accreditation body, and manpower to implement the post-market surveillance. On the industry side, the countries lack supporting industries and SME capability to meet the required standards, and are hindered by outdated technological equipment.

The second challenge is inadequate physical infrastructure. For example, the unavailability of testing facilities, transport infrastructure, and information technology infrastructure has hindered conformity assessment and the implementation of the post-market alert system. The third challenge is that of governance. This mainly affects the harmonisation of standards and technical regulations. For example, there are many necessary steps to revise or adopt a standard, and there is an overall lack of amendments for related laws or regulations, clear and

direct regulatory frameworks in some sectors, and communication in stakeholder consultation.

As with any reform, building capacity in standards and improving technical regulations in CLM will take time, and upgrading will require multiple and persistent efforts. However, CLM can learn and accelerate their capacity building by learning from more developed AMS such as Malaysia and Singapore. Certain policy measures have proven to be quite effective in these countries' experience. CLM's financial and technical resources are very inadequate for the improvement of standards through the proper allocation of these resources. However, effective policy measures can alleviate these embedded structural problems, which are generally associated with developing economies. For example, to improve technical capacity, more capacity building programmes should be directed towards and and prioritised for SMEs and public administrators. In the same manner, to improve physical infrastructure, governments should allocate more financial resources to establish qualified testing centres, as these are public goods with positive multiplier effects on improving standards and quality. To improve governance, as shown by the experience of Malaysia, some sectors should have technical working groups and a safety experts committee to harmonise national standards with regional and international standards to ensure that the adoption of standards is made more coherent. To reduce miscommunication and lack of consultation, it is important to schedule regular meetings between regulators and the private sector. For example, the Malaysia Productivity Corporation has established national task forces on productivity enhancement, and Malaysia also has a special task force to facilitate business, Pemudah, that works to streamline regulations. CLM can learn from Singapore's early experience in standards and quality improvement through its strong policy focus on technical education, training programmes, the active involvement of the private sector (MNCs), international organisations, and dialogue partners. Instead of establishing more universities, Singapore placed a high priority on setting up polytechnics to meet the growing need for middle-level skilled technicians. In collaboration with MNCs, Singapore set up joint training centres with its major foreign investors. For example, to support the operation of global aerospace maintenance repair and overhaul services, a sector that Singapore is currently leading, the Government of Singapore has attracted 100 international companies through various incentive

schemes to set up training and operations to carry out a comprehensive range of related activities in Singapore. The presence of accredited conformity assessment bodies has been vital to support firms such as Rolls-Royce, which required calibration services to set up a base in Singapore. Leveraging the private sector and international organisations is an effective way to overcome shortages of financial resources and a lack of competent public administrators. Capacity building is viewed as a multi-stakeholder effort by the government, the private sector, and research institutes. A key early challenge was that a large majority of firms were unaware of the benefits and costs of adopting standards. Therefore, it is difficult for developing economies to encourage firms to be more involved in the development and adoption of standards, as well as to attract foreign conformity assessment bodies to collaborate with the government and private sector. To raise awareness, it is important to engage interactively with the media on the benefits of standardisation. A political leadership strongly committed to economic reform is critically required to implement, monitor, and sustain the learning process to improve standards and quality in CLM over time.

The Economic Research Institute for ASEAN and East Asia carried out a detailed study on country-specific recommendations for ASEAN standards and conformance initiatives in CLM (Prassetya and Intal, 2015). The priorities required for building capacity on standards and conformance for the three countries differ because the countries are in different stages of development and have different human and physical endowments. For example, the Lao PDR, being the least developed of the three, needs more resources across the board to build the technical capacity of its staff and conformity assessment bodies. On the other hand, Cambodia and Myanmar more urgently require the allocation of resources to priority areas to improve the competitiveness of the private sector and SMEs, streamline the rules and regulations, and boost coordination amongst regulators and inspectors. The role of and engagement with the private sector, international organisations, and dialogue partners can be further enhanced and accelerated to improve standards and the quality of products and service in CLM. These countries could learn from Singapore's experience of attracting foreign companies by improving and upgrading standards and conformance. The important role of the ASEAN Cosmetics Association in this context is a key driver towards the signing of the framework agreement on MRAs. Similarly,

experts and professional assistance from the World Health Organization, International Conference on Harmonization, and other international organisations and dialogue partners have played an important part in conforming and converging standardisation in CLM.

Narrowing the development gap is one of the pillars of the AEC Blueprint. To improve standards and quality for CLM, more developed AMS such as Malaysia and Thailand should allocate more resources to set up training centres in CLM. To this end, Singapore has established training centres in Yangon, Phnom Penh, Vientiane, and Ha Noi to provide training and capacity building programmes. Through the Singapore International Cooperation Programme and under the management of the Civil Service Institute (International), experts and professionals from Singapore are sent to CLMV to teach intensive 1–2 week courses on a wide range of technical, public administration, and management skills as requested and approved by Singapore and the recipient country. Similarly, Malaysia and Thailand can provide specialised trainers with good expertise and experience. For example, Thailand has established expertise in agriculture, transport, and tourism; while Malaysia has expertise in electronics, global value chains, and the digital economy. Such enhanced skill transfer and capacity building programmes would go a long way to help CLM upgrade their skills, including in the area of standards and quality conformance.

Standardisation is an important part of quality infrastructure. It consists of three layers: (i) a body of technical experts who write the standards, (ii) a conformity assessment ensuring that goods and services conform to relevant standards, and (iii) an audit system ensuring the effectiveness of the conformity assessment. To overcome the fact that CLM are lacking all three of these layers, the APEC Policy Support Unit recently introduced a dashboard monitoring system, comprising a list of six indicators that can be tracked over time, to assess the strength and quality of standards and conformance infrastructure. Having timely, broad, and accurate indicators of standards and quality would certainly help CLM administrators plan and manage the upgrade process as well as solicit external assistance from the private sector and international organisations.

Success Indicators—Implementation of Regional Policies

In terms of recommended best practices to strengthen national and regional quality infrastructure, a review of the sectors in which a significant degree of harmonisation has been attained would indicate the ability of current ASEAN policies and strategies to address TBTs, and provide insight into possible gaps to be addressed in other sectors. The electrical and electronic equipment (EEE) and cosmetic sectors were some of the first to declare that they had successfully harmonised standards, technical regulations, and conformity assessment procedures in the region to support the single market and production base initiative. The EEE sector appears to have focused on putting in place soft and hard infrastructure concurrently to create an integrated EEE market that is inward-looking, as well as increasing domestic capability to meet global standards in the production base. On the other hand, the cosmetics sector is more industry-driven, indicating the business community's shared vision of an integrated market based on international benchmarks.

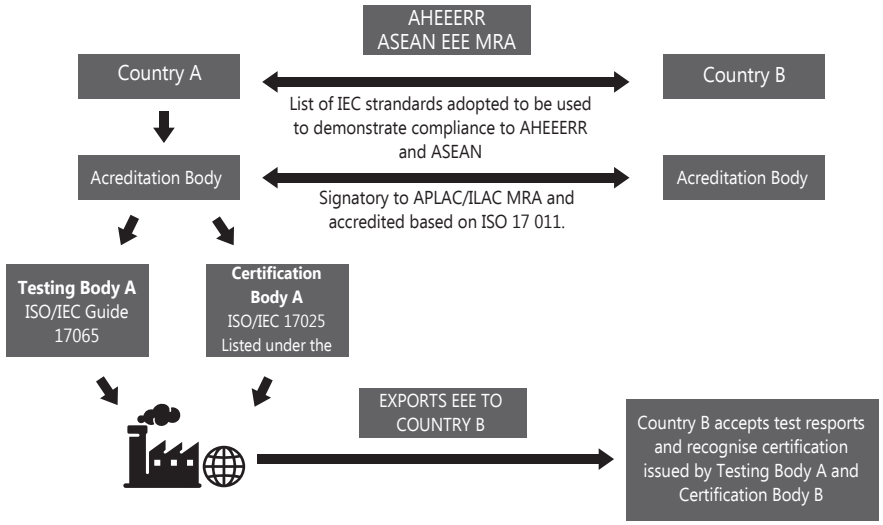
Case Study 1: The Electrical and Electronic Equipment Sector

Efforts to integrate the EEE sector were initiated with the harmonisation of regulated products, defined in the AFTA as the 20 priority products. Subsequently, the ASEAN Harmonised Electrical and Electronic Equipment Regulatory Regime (AHEEERR) was signed on 9 December 2005 with the aim of achieving deeper integration in line with the AEC goals. The agreement itself was a reiteration as well as an evolution of trade policies for TBTs carried out in parallel to support evolving political commitments. Under this agreement, the AMS committed to address regional TBTs for the EEE sector by adopting a single regulatory regime that recognises the obligation to protect consumers while meeting broader obligations to preserve the environment and establish and/or develop necessary technical infrastructure, effective market surveillance systems, and/or relevant product liability requirements (Article 4, AHEEERR, 2005).

A harmonised list of standards was adopted as a common tool to demonstrate compliance with the agreement to be used in the region, and to support the effective implementation of the AHEEERR. The agreement is further supported by the ASEAN Sectoral Mutual Recognition Arrangement for Electrical and Electronic Equipment, under which the AMS mutually recognise testing and certification bodies that meet the agreed criteria. As such, the AMS are committed to recognise and accept test reports and certifications issued by these bodies within the scope for which they have been accredited. The harmonised standards (listed on both the ASEAN and the AMS website) adopted at the regional level will be used to implement the MRA.

In comparison to the other sectors, the EEE sector has achieved a significant level of achievement in terms of harmonising technical regulations and standards, and achieving mutual recognition of conformity assessment procedures, partly due to the fact that it was one of early sectors identified for harmonisation. The implementation of regional technical regulations through the AHEEERR is fully supported by regionally adopted standards based on international benchmarks (e.g., the IEC) and accredited conformity assessment bodies with the capability to certify and test inspection and testing bodies. Figure 2 illustrates the regional quality infrastructure for the EEE sector, demonstrating the level of harmonisation achieved to support economic integration efforts.

Figure 2: Association of Southeast Asian Nations Model for Technical Barriers to Trade in the Electrical and Electronic Equipment Sector



AHEEERR = ASEAN Harmonised Electrical and Electronic Equipment Regulatory Regime, APLAC = Asia Pacific Laboratory Accreditation Cooperation, ASEAN = Association of Southeast Asian Nations, EEE = electrical and electronic equipment, IEC = International Electrotechnical Commission, ILAC = International Laboratory Accreditation Cooperation, ISO = International Organization for Standardization, MRA = mutual recognition agreement.

Source: Authors.

This model reflects the principle of 'One Test, One Certificate, Accepted Everywhere', which fulfils trade facilitation principles to reduce cross-border transaction costs and increase speed to market. In this model, all three key components of the quality infrastructure (standards, technical regulations, and conformity assessment procedures) are harmonised, and testing and inspection capacities are raised. The latter focuses on the technical infrastructure required to implement regional regulation. In summary, the success of the EEE sector was due to the pragmatic approach of laying out the necessary foundations step by step, as follows:

(i) Adopt a regional agreement for the uniform application and treatment of barriers to trade that arise for regulated products at the national level.
(ii) Adopt international standards and conformity assessment procedures to demonstrate compliance with the regional agreement.
(iii) List conformity assessment bodies for recognition to provide test reports and certifications.

Case Study 2: Cosmetics Sector

With the entry into force of the ASEAN Cosmetics Directive (ACD), the AMS agreed to support the process by which local regulators of cosmetics are notified before the products are placed in the market (versus pre-market approval), noting that cosmetics have a low-risk safety profile. This supports easing trade in this sector, aligned with trade facilitation principles. The ACD supports the use of common requirements for various regulatory elements such as labelling, good manufacturing practice, product claims, and safety evaluations across the region. Setting a common benchmark in the region enables local businesses to compete within the region and beyond.

These efforts in the cosmetics sector were driven strongly by the private sector, which recognised the benefits from such regional harmonisation in terms of business and investment, with full support from the authorities. The approach taken here appears to be a horizontal, region-wide, regulatory mechanism supported by a progressive effort to harmonise standards and other technical tools to demonstrate compliance with regional regulations. The ACD was essentially based on the EU Cosmetics Directive. A major challenge facing the region is the increase in the number of country-specific requirements introduced by some countries immediately after the entry into force of the ACD. As the cosmetics sector was amongst the first to negotiate regional technical regulation, this called into question the credibility of the ACD and the regional aspiration for harmonisation. Some of the AMS reverted to using the old approach of obtaining pre-market approval, while others imposed country-specific measurers, mainly due to a lack of support mechanisms and technical and institutional structures needed to support the full implementation of the ACD. As such, it would have been best if this sector had first evaluated national capabilities to implement regional technical regulations, identified any gaps, and defined action plans to close these.

Despite these early hurdles, the cosmetics sector continues to make progress by applying an approach inclusive of both the industry and scientific community through the establishment of a scientific body to ensure that the technical requirements put in place are based on sound scientific rationale and justifications.

Lessons learned

Further studies of successful sectors are needed to understand the impact of these approaches, their gaps, and their contribution to intra-ASEAN trade, as well as the growth of SMEs. However, based on the progress made in the EEE and cosmetics sectors, it appears that the following general approaches should be applied to all sectors:

(i) the adoption of harmonised, mandatory regional technical regulation and its transposition at the national level;
(ii) technical infrastructure to support the implementation of the regional technical regulations, including the adoption of standards and conformance procedures based on international benchmarks;
(iii) market placement requirements that take into consideration products' risk level to avoid unnecessary over-regulation that can impede trade; and
(iv) the adoption of a multi-stakeholder approach to support the effective implementation of the regional technical regulations.

Conclusion

The ASEAN Blueprint 2025 asserts that the overall vision articulated in the AEC Blueprint 2015 as well as the measures it proposed for addressing TBTs remain relevant. In general, it reiterates the need for 'accelerated implementation of harmonisation of standards and technical regulations, improvement of quality and capability of conformity assessment, enhanced information exchange on laws, rules, and regulatory regimes on standards and conformity assessment procedures. This also involves regional cooperation and agreement on measures to facilitate MSME upgrading towards regionally and/or internationally agreed standards to facilitate exports' (AEC Blueprint 2025). Therefore, as ASEAN progresses from towards 2040, the measures for standards and conformance remain relevant, along with recommendations to strengthen current efforts on the existing measures further.

Based on observations of the current policies, strategies, mechanisms, and approaches for standards and conformance in ASEAN, it is highly

recommended that ASEAN focus on the following to accelerate current efforts to address TBTs:

(i) Ensure good governance and greater transparency.

(a) The soft infrastructure that has been put in place is aligned with the WTO rules for non-restriction on trade through TBTs. As such, there is no concern with regard to creating a trade bloc within the region through this process. It is necessary to expand and develop further technical guidelines to supplement the current broader regional regulatory provisions to address TBTs for all sectors, and to meet general product safety and quality requirements. The ACCSQ should also use the NTM database (regional and international) effectively to address and assess the severity of TBTs.

(b) The AMS have committed to harmonising standards and conformity assessment procedures based on international benchmarks as stipulated in the ATIGA, APGSC, and AGRP. Although the ATIGA is legally binding, the ACCSQ uses the APGSC and AGRP as guidelines to address TBTs in the region. It is also worth considering a detailed binding commitment to strengthen the regional quality infrastructure.

(c) The drafting of technical regulations for product safety and quality must be based on an evidence-based scientific approach and justification to ensure that products placed in the ASEAN market are fit and safe for use, and to permit innovation to create a competitive marketplace that will eventually boost business growth and competition. Each sector should include the scientific component of the process as much as possible at the regional level to guide the process and ensure that regional commitments are based on sound scientific rationale, thus making room for technological advances and innovation and making the region a highly competitive market.

(d) Transparency is key for a non-trade-restrictive business environment. In this regard, rules or a monitoring mechanism should be put in place to ensure transparency in the regional

regulatory process. In this regard, the AMS should first discuss revisions and new standards, technical regulations, and conformity assessment procedures at the regional level. This would ensure that national regulations align with the regional commitments, thus reducing eventual country-specific requirements as well as creating an integrated market in the region.

(e) The Initiative for ASEAN Integration (IAI) was put in place to narrow the development gap between CLMV and the rest of ASEAN. CLMV should utilise the IAI to accelerate their standards and conformance efforts by identifying any gaps and addressing them through the IAI.

(ii) Leave no one behind.

(a) The development and implementation of technical regulations, standards, and conformity assessment procedures is a collective effort on the part of the authorities, businesses, consumers, and scientific community, amongst others. Thus, ASEAN should develop a structured approach inclusive of the various actors in the development and implementation of the technical regulations. This will not only accelerate the process through a balanced representation of the key contributors, but also ensure that the rules put in place are implemented efficiently.

(b) A harmonised approach to standards and conformance will result in business growth and product competitiveness for new innovations, thus benefiting consumers. This can be achieved if the industry and scientific community participate more strongly in the development of technical regulations.

(c) The larger corporations contribute to the shaping of the regional regulatory framework via their outsourcing business models that include smaller industries in the supply chain, enhancing the capabilities of these industries as well. Thus, industry participation in regional harmonisation efforts should be inclusive of all levels of industry, which would avoid the use of a double standard approach.

(d) Closing the gap between CLMV and the rest of ASEAN is key to achieve concerted regional growth and development. Specific programmes aligned with the goals of the standards and conformance activities should be well-defined under the IAI to help CLMV 'catch-up' to the rest of ASEAN.

(iii) Strengthen ASEAN institutions.

(a) Observations of current policies, strategies, and approaches indicate that, while ASEAN is going in the right direction, the perceived lack of (or slow) progress could be overcome through a regional mechanism to monitor the implementation of regional policies for addressing TBTs in ASEAN. An independent and/or neutral body or mechanism is critical to drive this process with a focus on the attainment of the regional goals within the agreed timelines. The mandate given to such a neutral body will ensure that all agreed commitments are implemented and identify implementation gaps.

(b) With the necessary soft infrastructure in place, the effective implementation of regional policies to address TBTs can only be achieved if the relevant and much needed technical infrastructure are put in place (this refers mainly to national and regional quality infrastructure). Gaps in national and regional technical infrastructure must be evaluated parallel to the development of regional technical regulations to avoid implementation gaps.

(iv) Strengthen national standards and conformance infrastructure in AMS. A robust national quality infrastructure is the foundation of a robust regional quality infrastructure. Most AMS should consider scaling up investment in building their national quality infrastructure and human capital to make these effective tools for competition, seamless trade facilitation, and deeper economic integration within ASEAN and with the rest of the world.

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Skills Mobility and Development in ASEAN

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I. Introduction: ASEAN Vision 2040 and the Role of Skills Mobility and Development

The North American Free Trade Agreement (NAFTA) break-up, Brexit in the European Union (EU), and the anti-globalisation wave are in part due to insufficient attention by policymakers and analysts for the distributional aspects of globalisation and regional economic integration. The angst felt by the middle class as they face income and wage stagnation and job and social disruptions have fallen mainly on the role of foreign competition and foreign labour and public perceptions have not given due recognition to the disruptive effects of technological change and the inadequate catch-up in skills development of the labour force.

The Association of Southeast Asian Nations (ASEAN) aspires and should continue to aspire in the foreseeable future towards a freer rather than free regional market for skilled labour or a free regional market for all labour. This is in recognition of the political and social sensitivities

associated with cross-border movement of people and labour amongst independent nation states (notwithstanding the rapid rise of cross-border tourism and student exchanges), and the particular huge diversities amongst the ten ASEAN member countries in geographic and demographic sizes, levels of economic development and wage incomes, and in socio-cultural-linguistic-religious characteristics of the population and labour force. While not recommending the free or freer movement of the less-skilled and unskilled-labour across the region, it is necessary to have an ASEAN framework to regularise and facilitate such movements to minimise the large numbers of irregular migrant workers found in many ASEAN countries and a code to protect the wellbeing of all regular and irregular, skilled, and unskilled foreign workers.

By 2040, ASEAN should strive for an integrated skilled-labour market characterised by an enhanced circulation of skills within the region, and enabled by a mutual recognition of educational qualifications, professional licenses, and work experience; a minimal list of restricted or prohibited occupations for ASEAN foreign workers; preferential recruitment of ASEAN nationals where labour market tests are deemed necessary; and use of digital technology to disseminate labour market information in every ASEAN country. In an integrated ASEAN labour market for skills, the private sector should be able to hire skilled workers from any other ASEAN country with minimal regulatory barriers, and skilled workers in ASEAN should be able to choose to work in any ASEAN country.

Also by 2040, the ASEAN region would have further embraced the service and knowledge economy and the digital age. ASEAN would require accelerated skill development in every ASEAN country so as to be internationally competitive, and economically and socially inclusive and cohesive. Countries can achieve the skills objective, not by working alone, but by cooperation and integration within the ASEAN Framework and the ASEAN Plus Frameworks.

Skills mobility cum development is a positive sum game for both receiving and sending countries in the ASEAN integration project. It

results in an expanded pool of human resources with multi-national and deeper skill sets for every ASEAN country.

II. Why Skills Mobility and Skills Development are Important

Current demographic, economic, and technological trends mean that the economies of ASEAN Member States (AMS) by 2040 will reach high- and upper middle-income status, and have a growing labour force that is increasingly skilled (with declining working-age population in ageing societies offset by the youthful populations in other ASEAN countries). They will have achieved technological advances, particularly the digital revolution, e-commerce and industry 4.0, and demand an increasingly skilled labour force, including skills that are currently scarce across ASEAN (or even non-existent).

1. Skills mobility is essential to the ASEAN region's continuing rapid economic growth and industrial upgrading. It will require tapping skills and talent from everywhere in the ASEAN region and beyond. Fostering a freer intra-regional flow of skills will provide a competitive edge to the ASEAN region.

2. A freer movement of skilled workers is also necessary for deepening ASEAN services integration. As the region becomes richer, its consumers will demand a variety of cross-border services. Each AMS has unique services that can be demanded elsewhere in ASEAN. For example, ASEAN consumers may want to eat in restaurants run by Thai chefs, and access online education provided by Malaysian education sites and fintech services by Singapore financial institutions. With skills mobility, supplying these services becomes realisable and cost-effective.

3. Skills mobility is also crucial for achieving the ASEAN objective of inclusiveness and having a cohesive ASEAN community. Abilities and talents can be found throughout the ASEAN region. At the same time, opportunities to utilise these skills to their maximum potential are unevenly distributed across countries and geographic locations due to differences in level and rate of development and in economic

structure. Skills mobility can make ASEAN a region where a person's place of birth does not constrain his/her economic opportunities.

4. Skills mobility is closely associated with production of skills for the regional, global, and future labour market. It is well known that employees of multinational corporations (MNCs), with work experience and socio-cultural-linguistic and management skills sets honed by international and regional postings are widely sought after by corporations (both big and small) seeking to venture or expand into new regional and international markets. A growing ASEAN labour force needs to be better educated and trained for the ongoing technological revolution and globalisation. No single ASEAN economy can efficiently rely on domestic production of all the required skills. As in the case of goods production, in the production of human capital there also exist comparative advantages and scale economies. There are large benefits to be gained by cooperating in the production of human capital and expanding the talent pool beyond national borders.

5. Looking towards 2040, ASEAN must consider the implications of the digital age for labour employment and mobility. E-commerce and other e-services can be provided across borders without physical movement of providers, resulting in 'virtual migration'. This would include telemedicine, business process outsourcing and call centres, online education and fintech services. These service providers can work in their home base without migrating. The increasing demand for virtual migrants would help to offset some of the concerns of receiving and sending countries and migrant workers themselves regarding physical labour mobility. However, ASEAN would need a framework governing the virtual employment of foreign workers.

III. Skills Mobility in ASEAN – Existing Measures and Challenges

The importance of skills mobility is articulated in numerous ASEAN agreements and vision documents. The ASEAN Framework Agreement on Services (AFAS) and the ASEAN Economic Community (AEC) Blueprint indicate that labour mobility is considered an important part of the ASEAN integration project. In the Declaration of ASEAN Concord II in 2003, AMS are committed to 'facilitate movement of business persons,

skilled labour, and talents' for deeper economic integration. The AEC Blueprint in 2007 reflected this commitment by specifying key areas of collaboration amongst AMS, including the facilitation of working visas and the harmonisation and standardisation of qualifications, including Mutual Recognition Arrangements for professionals (MRAs). The ASEAN Agreement on the Movement of Natural Persons (AMNP) was signed in 2012 to enhance the flow of natural persons engaging in trade in goods, services, and investment. In 2014, ASEAN Economic Ministers endorsed the ASEAN Qualification Reference Framework (AQRF) to complement the MRAs by providing guidelines for comparing qualifications across member states, with voluntary referencing. The AEC Blueprint 2025 reaffirms that facilitating the movement of skilled labour and business visitors is a key element of a 'highly integrated and cohesive ASEAN economy' (AEC Blueprint, 2025).

Current practices in ASEAN contain obstacles on the hiring of foreign skilled professionals by the private sector and their ban in the public sector (with the notable exception of Singapore)

These include both formal and informal restrictions, including constitutional and legal restrictions and labour market tests, onerous and time-consuming procedures and various upfront payments. It would be helpful for employers and foreign workers if these restrictions are liberalised and made transparent and the procedures simplified.

While the AEC Blueprint focuses on enhancing the flow of skilled and professionals, they account for less than 10% of intra-regional labour flows, with Singapore the leading destination. The majority of intra-regional migrants are middle- and low-skilled and irregular, and are commonly found in construction, agriculture, and domestic work. There is no AEC coverage on them. ASEAN's major receiving countries are Malaysia, Thailand, and Singapore. Malaysia and Thailand host millions of irregular workers from neighbouring ASEAN countries. The ASEAN Declaration on the Protection and Promotion of the Rights of Migrant Workers, known as the Cebu declaration, makes commitments to protect migrant workers, but this is non-binding. ASEAN has reaffirmed this by signing the ASEAN Consensus on the Protection and Promotion of

the Rights of Migrant Workers, but the commitments remain voluntary (ASEAN Secretariat 2017).

An assessment of the progress made by ASEAN in regional skilled labour mobility (Testaverde et al., 2017) concluded that, notwithstanding the commitments and framework agreements that regional leaders place on this issue, the slowness of actual implementation highlights the difficult political and regulatory landscape. The ASEAN agreements cover skilled workers and professionals, but there are several gaps in its provisions. They facilitate the issuance of visas and employment passes, and work to harmonise and standardise qualifications. However, most foreign skilled professionals are intra-corporate transferees, AFAS and AMNP do not cover individual professionals and skilled workers, and MRAs cover only a small segment of ASEAN professionals.

AMS have signed MRAs in six areas: engineering, nursing, architecture, medicine, dentistry, and tourism and framework agreements in surveying and accountancy. Conclusion and implementation of MRAs for professionals have been a long and arduous process, in part due to 'occupational protectionism'. There are genuine cross-country differences in what a professional must know to practice, and automatic recognition of foreign qualifications and work experience is rare. Partial recognition is usually possible with compensatory measures to bridge differences in training and quality standards and work experience, but this can be difficult and highly sensitive. The implementation of MRAs is time-consuming, technically demanding, and sometimes politically difficult as a wide range of stakeholders are responsible for different aspects of the recognition process. It requires support from the public and professional associations, which in turn rests on perceptions of benefits and threats pose by foreign professionals. More importantly, MRAs do not guarantee labour market access, which is still subject to national laws, regulations, and measures.

The challenges to ASEAN skills mobility have been categorised by Papademetriou et al. (2015) as follows:

(i) Issues related to the recognition of credentials.
(ii) Restrictions on hiring foreign workers in certain occupations and industries, and on employment visas.
(iii) Perceived costly barriers due to cultural, language, and socioeconomic differences.

It is necessary to overcome each of these challenges to achieve full skills mobility. The second challenge and part of the first challenge can be achieved by reforming the laws and regulations and following through on commitments such as expanding MRAs on skills. However, a continuing challenge will require a positive change in perceptions and behaviours of individuals and businesses surrounding labour mobility within ASEAN, which would in turn influence people's economic decisions to move.

Without a serious effort to enhance ASEAN skills mobility, the region may lose its talent to other parts of the world. ASEAN's major sending countries are Indonesia, Myanmar, the Philippines, and Viet Nam, with major destinations in the Middle East, Europe, North America, and Australia–New Zealand rather than in ASEAN. It is important to note the reasons behind the extra-ASEAN preference and strategise to make ASEAN an attractive destination region of choice for skilled migrants. Rising job opportunities and wage levels, an increasingly open society that accepts foreigners, and an increasingly better living environment can make the ASEAN region an increasingly attractive destination.

IV. Benefits and Costs to Sending and Receiving Countries and Migrant Workers

Since labour market liberalisation is a politically sensitive issue, it is necessary to evaluate the benefits and costs to ASEAN countries and workers.

A. For Receiving Countries and Citizen Workers Affected

Benefits include

(i) relaxing domestic shortages of general and specific skills;
(ii) upgrading and developing specific sectors of the economy (e.g., educational, medical, and information technology services);
(iii) attracting foreign direct investment (FDI) and foreign MNCs by relaxing rules on intra-corporate transferees and business visitors;
(iv) relaxing skill shortages faced particularly by small and medium-sized enterprises (SMEs) as compared to large and foreign enterprises;
(iv) encouraging the development of private enterprise and entrepreneurship.

Concerns include

(i) at the national level, countries and communities may be concerned about overcrowding and upward price pressures from increased demand for public spaces, housing, education, health and recreational facilities, and the displacement of local SMEs and professionals by FDI and foreign professionals;
(ii) at the individual level, citizen workers may be concerned about job displacement and retrenchment, competitive pressure from foreign workers and dimmer prospects of job promotion.
(iii) communities and individuals often cannot make the distinction between job displacement due to technological change and due to the entry of foreign firms and foreign workers.

Receiving countries could provide educational and training opportunities for foreign students to work after graduation; minimise discrimination against the foreign workforce in various areas of public policy; ensure the fair treatment of workers by employers; and provide better labour market information on areas with skills shortages. Ultimately, ASEAN should aspire to be a region characterised by the circulation of skills, with each country both receiving and sending skilled professionals in line with its economic structure.

B. For Sending Countries and Workers Seeking Foreign Employment

Benefits include

(i) reduced socio-political pressures from a large pool of educated unemployed and underemployed persons;
(ii) inward remittances contribute to improved household incomes, and the balance of payments;
(iii) mobility of labour (as well as tourism) improves knowledge, understanding, and appreciation of ASEAN neighbours and is an excellent way of building an ASEAN Community.

Concerns include:

(i) brain drain, although this can be offset by eventual returnees (and their skills, experience, and financial assets) and growing role of virtual migration;
(ii) concern over lack of protection of their rights and welfare of nationals working abroad;
(iii) for individuals, migration for work is largely an economic decision made by balancing the costs and benefits of seeking work abroad. Benefits include opportunities for a better income and career advancement, to travel and gain work experience in a different environment, and in some cases the opportunity to migrate permanently. Costs include financial, social, and psychological costs such as adapting to a foreign environment, family disruptions, and the difficulty of re-integrating upon return.

Sending countries could improve educational standards, curricula, and the linguistic skills of potential migrant workers; seek recognition and accreditation of their degrees and diplomas; improve knowledge and understanding of the cultures and social norms of other ASEAN countries; improve the provision of information about the labour market in destination countries; facilitate exit procedures and minimise exit costs of obtaining passport, visas, transportation, and accreditation; and troubleshoot problems and attend to the needs of its nationals abroad through its embassies and labour attaches

V. Lessons from the North American Free Trade Agreement and the European Union

NAFTA and the EU have very different models of managing labour mobility and its interplay with trade liberalisation, corresponding to each bloc's economic and policy objectives. Their provisions offer useful lessons for the ASEAN labour mobility objective.

A. NAFTA now defunct and replaced by the US, Canada, Mexico Agreement (USCMA)

NAFTA focused on trade integration, with relatively narrow provisions for skilled labour mobility. The NAFTA Treaty established a new migration category in the US available exclusively to workers from Mexico and Canada pursuing jobs in 70 highly skilled occupations (e.g. accountants, architects, computer systems analysts, economists, engineers, hotel managers, etc.). The lack of a quota and an easier application process made the NAFTA Treaty visa more attractive than the US global H1-1B visa. However, NAFTA did not include specific provisions to facilitate the movement of low-skilled labour. The US and Canada offered limited avenues for the legal temporary employment of foreign low-skilled workers.

Applicants from Canada and Mexico with college degrees and job offers in the US were eligible to apply and there was no numerical quota. Employment was for 3 years, and the visa was renewable indefinitely. Migrants could bring their dependents. Canadian applicants could apply on entry to the US with only proof of a job offer and proof of education; there was no requirement for a labour market test in which employers certify that US workers were unavailable to fill positions. On the other hand, Mexican applicants must apply for the visa in Mexico and the employer must go undergo a labour market test.

B. The EU

The EU has broader integration objectives and guarantees the four fundamental freedoms on movement of goods, services, capital, and

workers. Citizens of any EU country and their families have the right to live in any other EU country for up to 3 months; after which they must be working, enrolled in full-time education, or able to demonstrate financial independence. After 5 years of residence, they earn the right to permanent residence. Citizens of any EU country are also generally permitted to work freely in the job and country of their choosing.

The EU has also implemented various policies to facilitate the movement of workers of any skill level. These include mutual recognition of common forms of documentation and relative streamlining of entry processes; and the portability across the EU of various social rights and entitlements, including access to health care, social welfare, and pensions. In actuality, migration flows have generally been rather subdued despite the accession of Central and Eastern Europe countries, possibly due to various other barriers. Also, EU member countries may restrict access to their labour markets for public sector jobs and 'in an emergency' with approval from the European Commission; and may impose temporary mobility restrictions on citizens of new EU members.

Besides direct policy, many supportive programmes facilitate movement within the EU. The Erasmus Programme began in 1987 as a student exchange programme for Europeans, while the parallel Erasmus Mundus Programme is oriented towards non-Europeans. Erasmus Plus (2014–2020), which succeeded Erasmus, incorporates all EU schemes for education, training youth, and sport. It provides grants to give students and teachers or trainers a unique opportunity to participate in different European countries. Previously, these opportunities were restricted to applicants who had completed at least 1 year of study at the tertiary level, but are now also available to secondary school students. Participants study at least 3 months or do an internship for a period of at least 2 months and up to 1 academic year in another European country. The period spent abroad is recognised by their university when they return. Students do not pay extra tuition fees to the host institution and can apply for an Erasmus grant through the home institution to help cover the additional expenses of living abroad. Millions of European students in thousands of higher education institutions participate in Erasmus across 37 European countries. The main benefit of the programme is that it fosters learning and understanding of the host country, as both a time

for learning and a chance to socialise and bond with other European students.

Similarly, the Bologna Process is based on an intergovernmental agreement with membership extended beyond the EU. The 1999 Bologna Declaration committed 29 European governments to pursue complementary higher education reforms and establish a European Higher Education Area of compatible national systems. Participation and cooperation are voluntary. Bilateral agreements between countries and institutions oblige signatories to recognise each other's degrees, moving from strict convergence in time spent on qualifications towards a competency-based system. National reforms have made university qualifications more easily comparable across Europe. Country scorecards (reports, conferences, communiqués, and policy declarations) are closely monitored at the European-level and structured around a series of biennial ministerial meetings.

The European Commission has played an active role in this process. The EU Credit Transfer and Accumulation System (ECTS), first piloted within the Erasmus networks, has become the European standard. The European Commission also provides financial incentives for higher education cooperation and reform projects in line with the Bologna objectives, as well as funding national Bologna Promoters, and informational activities. It also promoted joint degrees and the bachelor/master structure through its Erasmus Mundus programme and other pilot studies.

Likewise, the European Qualifications Framework (EQF) aims to relate different national qualifications systems to a common European reference framework. Individuals and employers use the EQF to understand and compare more easily the qualification levels of different countries and education and training systems. This means that there is no need for individuals to repeat this learning when migrating. The core of the EQF comprises eight reference levels (1–8) describing what a learner knows, understands, and is able to do ('learning outcomes'). Levels of national qualifications are placed at one of the central reference levels. This makes it much easier to compare national qualifications.

ECTS credits are a standard means of comparing the 'volume of learning based on the defined learning outcomes and their associated workload' for higher education across the EU and collaborating European countries (European Commission, 2017: 10). ECTS credits are used to facilitate transfer and progression throughout the EU.

VI. The Role of ASEAN in Regional Skills Mobility and Development

1. Emphasise the welfare gains from ASEAN skilled labour mobility

The economic benefits of cross-border labour mobility are numerous. For destination countries, positive impacts include better employment opportunities and higher wages for workers; however, low-skilled workers could have negative impacts in rigid labour markets. For sending countries, out-migration boost wages for those remaining behind, migrant workers benefit from higher wages received, and their households benefit from remittances. Overall, there are economic benefits from improved economic growth and from remittances. The negative effects of 'brain drain' in sending countries are offset by 'brain circulation' and eventual returnees.

The EU and NAFTA experiences indicate that intra-regional skills mobility remains limited even in the absence of legal and policy barriers. The same may hold true in the ASEAN region. Additionally, when skills migration takes place, a preference for non-ASEAN destinations may emerge, linked to permanent migration to North America, Western Europe, Australia, and New Zealand.

There is a need to emphasise the benefits of working in another ASEAN country, which include closeness to home and cultural similarities; diversity of work, linguistic, and cultural experiences, which can enhance soft skills; and the facilitation of ASEAN-community building. Familiarity with other ASEAN countries can be enhanced by intra-ASEAN student and staff exchanges and tourism. For employers, businesses, and professional groups, more exchanges and cooperation promote business

activities and intra-ASEAN FDI and services, leading to the employment and re-deployment of staff who are ASEAN nationals.

2. Incentives to attract ASEAN foreign professionals and skills as well as safeguarding the interests of citizen workers

The key advantages of ASEAN destinations include closeness to home and less pronounced sociocultural diversities relative to destinations in North America, Europe, Australia, and New Zealand. It is necessary to minimise visa procedures and labour market access restrictions so that ASEAN professionals can access better employment and income opportunities in the region. ASEAN migration should also entail less financial and time costs of labour mobility and family disruptions. ASEAN can also provide a centralised database of job market information.
To attract foreign skills and talents, policy and practice should provide a welcoming environment, including availability and competitive cost of housing, transport and education, competitive taxation rates, portable social security plans, ease of sending remittances overseas, and a safe and unpolluted living and working environment. For skills and talent seeking eventual migration and permanent settlement, availability of permanent residence schemes is an important attraction.

Governments are elected by citizens, hence concerns over foreign competition should be addressed in parallel to the welcome mat for foreigners, and that the foreign presence should not undermine social cohesion. In all countries, employment of nationals has priority over employment of foreigners but such 'protectionism' should not lead to shortages of skilled personnel that ultimately prevent the country from achieving its economic growth and upgrading potential and fail to enhance the wellbeing of its citizenry. Policy and practice would have to ensure that citizen workers have developed technical, social and linguistic skill sets that enable them to compete effectively with foreigners within their country or abroad. Policy and practice would also have to ensure that citizen workers are not discriminated in the recruitment, employment and promotion processes of private sector employers.

3. Accelerate the ASEAN-wide accreditation system for universities and training institutions

The process of comparing and recognising academic and training credentials within a country is complex enough but the issue becomes even more problematic and sensitive across the 10 diverse ASEAN countries. To hire a foreign skilled worker or professional from another ASEAN country, the prospective employer must assess the merits of the paper qualification and work experience. For top-end jobs, employers can resort to expensive head-hunting recruitment agencies. But for lower-level jobs, an ASEAN-wide accreditation of education and training institutions would be a tremendous help to employers in their assessment of suitable candidates for employment and promotion.

4. Providing an equal opportunity for developing relevant skill-sets

An individual born anywhere in ASEAN needs to be given equal opportunity to develop skill sets that are in demand in the region.

At the national level, this means a comprehensive education and training system available to all.

Financing and finding the teachers put tremendous strain on low-income countries and policymakers will need to prioritise and seek foreign assistance (in ASEAN, amongst ASEAN dialogue partners, international and regional institutions). It is essential that the education and training process results in the production of marketable skill-sets, embodying some quality-standard and relevance to the present economic structure of the country as well as its future evolution. While expanding the enrolment and scope of tertiary institutions, all ASEAN countries would need to improve the quality dimension of its institutions so that they can eventually compete with the best in the world.

In this respect, the Singapore experience may offer some useful lessons for some ASEAN countries. Singapore's school system has been

producing students that achieve high Programme for International Student Assessment (PISA) test scores run by the Organisation for Economic Co-operation and Development (OECD) and Singapore's leading universities are ranked by various international ranking agencies as amongst the best in Asia. Also, Singapore's education and training system is being revamped to prepare students for the technological requirements of future jobs. Singapore has achieved this level of educational excellence through continuous effort in developing Singapore's human resources, learning from the best institutions and examples the world has to offer, entering into partnerships with world-renowned institutions, and recruiting from the world's best from the advanced industrial countries, China and India to teach and research in its universities, research institutes, and training centres. The Singapore education and training system is currently being revamped to meet the future job requirements brought on by technological changes.

At the ASEAN regional level, this offers tremendous opportunity for cooperation and integration in a win-win framework. ASEAN countries that are more educationally advanced, with educational and training institutions of international standing and repute, could build physical campuses in other ASEAN countries and also offer online education (currently undertaken in the ASEAN region mainly by non-ASEAN universities and colleges).

5. Develop strong regional consciousness through travel and study experiences

Migration and interest in migration often begin when individuals are studying abroad, and many ASEAN students who study overseas remain abroad for work experience and opportunities. There is more limited student movement amongst ASEAN countries, in part due to a dearth of scholarships and financial assistance schemes, and a lower profile of ASEAN tertiary educational institutions. Therefore, ASEAN should encourage student exchange through the ASEAN University Network (AUN), and Singapore's ASEAN scholarships, amongst others. This can be achieved by improving the global rankings of ASEAN universities and training institutes.

6. Manage a gradual approach towards ASEAN labour mobility and integration

Given the diversity of the AMS, ASEAN should adopt a more gradual approach towards an integrated ASEAN skilled labour market.

Ideally, a regional framework based on binding bilateral agreements would be preferable, perhaps within a subset of AMS. Such an 'ASEAN minus X' approach would provide some flexibility. However, a voluntary regional approach may be appropriate to accommodate the diverse sensitivities in ASEAN.

A more inclusive and equitable ASEAN and AEC could emphasise regional and bilateral cooperation instead of binding integration agreements. AMS have different priorities and face different socioeconomic realities. However, when political leaders and policymakers formulate and implement national visions, plans, and policies, they should also consider impacts on other ASEAN countries and, whenever and wherever possible, adopt positive-sum, not zero-sum, strategies.

The ASEAN body need to take a leadership role in driving the discussion around mobility. However, countries at the top end of economic development (Malaysia, Singapore, and Thailand) could also play a more pro-active role in driving skills mobility and development.

VII. Concluding Summary

Due to demographic, economic, social, and technological changes in the ASEAN region and globally, ASEAN needs to move forward with skills mobility to build competitive and knowledge-driven economies. This will help maintain a united ASEAN and will contribute towards ASEAN centrality.

A single ASEAN market for skills and talent will require free movement for various occupations and non-discriminatory treatment for foreign

workers in national legislations and policies, employment practices, employment remuneration and benefits, and common quality assurance and qualifications recognition.

A single ASEAN market for skills and talents by 2040 pre-supposes the establishment of a single market for goods and services in ASEAN. A single market for goods appears more likely than a single market for services as services delivery requires Mode 3 (right of establishment) and Mode 4 (temporary movement of natural persons). Mode 4 covers contractual service suppliers (self-employed independent service suppliers and employees of foreign service suppliers), intra-corporate transferees and persons directly recruited by the foreign affiliate, and service sellers or persons responsible for setting up a commercial presence. While intra-corporate transferees are well taken care of with the liberalisation of FDI, liberalising Mode 4 would take care of other service suppliers as well. Service-market integration will complement the skilled labour-market integration.

The digital age makes possible virtual migration with an important impact on ASEAN skilled labour mobility. Many more services are being delivered online with short visits by service suppliers, and do not require the physical movement of service suppliers. This would remove some of the concerns over overcrowding or sociocultural disruptions by an influx of in-migrants (although the same is felt about large influxes of tourists) and concerns over brain drain caused by large outflows of the skilled.

The economic importance of labour market integration cannot be overstated. Yet, it is necessary not to integrate hastily and acknowledge political and social concerns. First, a liberalised skills market, coupled with a strong push towards upskilling of the domestic labour force, can be an effective strategy for achieving rapid growth without leaving anyone behind. Second, given the vast differences amongst ASEAN countries in geographic and population sizes and in levels of economic development and wage incomes, free movement of all labour is politically unrealistic. Third, many ASEAN countries are still engaged in post-independence nation building and are struggling with managing plural societies and may not welcome more cultural, religious, and linguistic diversity. Some

are looking outward beyond ASEAN. Some are internally divided and prioritise national cohesion over regional cohesion. There are also growing concerns related to security and terrorism prompting stricter immigration controls. A concerted effort is needed to instil a sense of common destiny amongst ASEAN countries.

Moving forward, AMS could agree on an ASEAN-wide framework for governing the movement of skilled workers, with provisions for bilateral (preferably binding) agreements between AMS to operationalise the framework. Such bilateral agreements could be gradually expanded to cover ASEAN as a whole so that the region can achieve meaningful skills mobility.

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Towards An Open Services and Open Investment Environment in ASEAN

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Abstract

The investment and services sectors in the Association of Southeast Asian Nations (ASEAN) towards 2040 will see major differences compared with the trade in services and investment in the region in 2018. The services sector will see a major transformation towards meeting new trends and the use of digital technology as the mode of delivery. Changes in the services sector, coupled with the economic dynamics in ASEAN, will also change the investment approach in the region. The economic development of newer ASEAN Member States (AMS) and increased intra-ASEAN investments may cause changes in investment policies. The policies of AMS may also move away from focusing on natural resources-based investment towards efficiency seeking and strategic assets investments. To move up the global value chain and the income level, ASEAN must increase the contribution of the services sector to the economy of AMS, including services contributing towards manufacturing.

Key Words: **Investment, Services, Megatrends, Global Value Chain, Linkages, Liberalisation**

1. Introduction

The Association of Southeast Asian Nations (ASEAN) Member States (AMS) have always been important destinations for foreign direct investment (FDI) in Asia and the Pacific. Despite economic difficulties in many parts of the world, such as the financial crisis in Europe and the United States (US), ASEAN continues to receive FDI and to invest in other countries in the form of outward FDI. The success of ASEAN in attracting FDI makes it the envy of other regions (Organisation for Economic Co-operation and Development (OECD), 2018). Reasons for the continued interest of investors include the availability of resources for export-oriented efficiency-seeking investment; export-oriented manufacturing-based investments; and market-seeking investments, as ASEAN has a large population of about 625 million people with about 100 million middle class (OECD, 2014).[1]

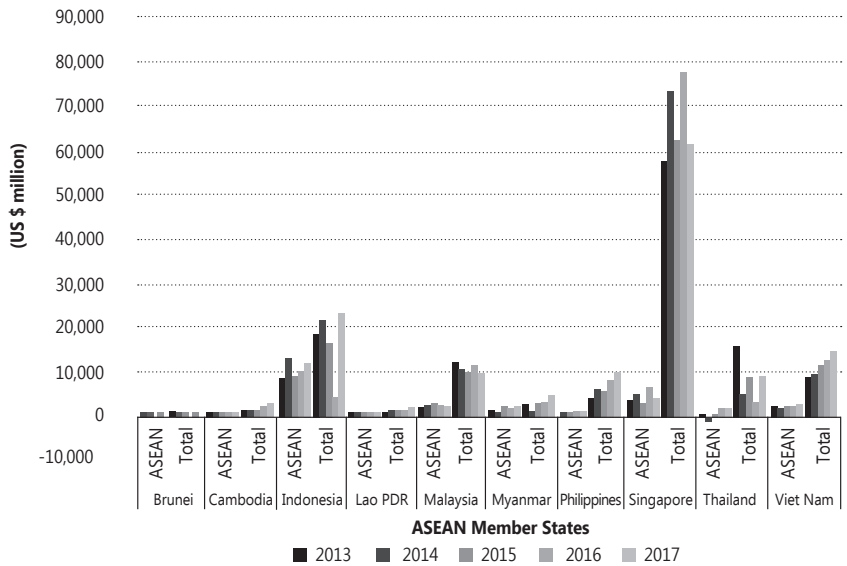
In turning ASEAN into a single production base, connected to the world through Global ASEAN under the ASEAN Vision 2025 Forging Ahead Together (ASEAN, 2015), ASEAN has to focus on quality and sustainable FDI. In addition, to move up the global value chain (GVC) and the income level, ASEAN must increase the contribution of the services sector to the economy of AMS, including services contributing towards manufacturing. This chapter addresses measures that AMS may undertake to achieve the objective of attracting more FDI and increasing the contribution of the services sector to the economy of ASEAN. It discusses the current FDI and services contribution to AMS, and the challenges faced to attract more FDI in the main and service sectors. The chapter will refer to the main ASEAN documents in investment and services: the ASEAN Comprehensive Investment Agreement (ACIA) and the ASEAN Framework Agreement on Services (AFAS). The AMS are currently negotiating the ASEAN Trade in Services Agreement (ATISA) as an improvement to the AFAS. The chapter will then address the megatrends which may affect the service sectors leading up to 2040. In conclusion, it proposes several policy measures for ASEAN to consider undertaking towards 2040.

[1] For an analysis of the ASEAN Comprehensive Investment Agreement (ACIA) and its role in ASEAN investments, see Chaisse and Jusoh (2016).

2. Existing FDI and Services Sectors in ASEAN

FDI is important to AMS as it brings the advantages of advanced technology, management practices, and assured markets. FDI also contributes to gross domestic product (GDP) growth, foreign exchange earnings, employment creation, and increases in incomes, especially of skilled and semi-skilled workers in these industries. In analysing investments, one should refer to both investments in the main sectors (e.g. manufacturing and mining) and the services sector (e.g. financial services, professional services, and accounting).

Figure 1: FDI Inflow into ASEAN, 2013–2017 (in US$ million)



FDI = foreign direct investment, ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic.

Source: ASEANstats, Flows of Inward Foreign Direct Investment (FDI), https://data.aseanstats.org/fdi-by-hosts-and-sources (accessed 15 December 2018).

Total FDI inflow to ASEAN grew from $121.75 billion in 2013 to $137 billion in 2017 (Figure 1). More than half of the FDI inflow goes to Singapore, mainly to financial services, high technology services, and manufacturing. At the end of 2017, FDI inflow to Viet Nam surpassed that of the more traditional FDI destinations in ASEAN such as Indonesia, Malaysia, and Thailand. At the same time, intra-ASEAN investment has increased from 15% in 2013 to 21% in 2016 and 19.3% in 2017. This shows that a significant amount of FDI inflow to ASEAN still comes from

non-ASEAN investors, whereas the intra-ASEAN investments could also be contributed by third-country investors who qualify as ASEAN investors as defined under the ACIA. Intra-ASEAN investments are mainly in natural resources, manufacturing, wholesale and retail, financial and insurance activities, and estates. Most of the non-ASEAN investments flow into manufacturing and financial services, followed by investments in natural resources, wholesale and retail, and real estate activities (ASEAN, 2017a; Masudi, 2016).

The proportion of FDI inflows to GDP in AMS from 2013 to 2017 is shown in Table 1.

Table 1: Proportion of FDI Inflows to GDP in the AMS, 2013–2017

Country	2013	2014	2015	2016	2017
Brunei Darussalam	4.29	3.32	1.32	(1.32)	
Indonesia	2.55	2.82	2.30	0.49	2.17
Cambodia	12.29	10.30	9.42	11.43	
Lao PDR	3.57	6.88	9.88	6.31	
Myanmar	3.74	3.32	6.84	5.18	6.76
Malaysia	3.49	3.14	3.33	4.54	3.02
Philippines	1.37	2.02	1.93	2.72	3.20
Singapore	21.18	22.32	23.21	23.97	19.65
Thailand	3.79	1.22	2.22	0.74	2.00
Viet Nam	5.20	4.94	6.11	6.14	6.30
World	2.56	2.20	3.12	3.12	2.44
East Asia and Pacific	2.77	2.80	2.80	2.37	2.21
European Union	3.37	2.11	3.84	5.23	3.68
High-income	2.47	2.10	3.50	3.62	2.73
Low-income	4.52	3.64	3.87	4.03	
OECD members	2.28	1.74	3.08	3.30	2.36
Upper middle-income	2.92	2.44	2.39	2.22	1.86
ASEAN	6.15	6.03	6.66	6.02	4.31

( ) = negative, AMS = ASEAN Member States, ASEAN = Association of Southeast Asian Nations, FDI = foreign direct investment, GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic, OECD = Organisation for Economic Co-operation and Development.

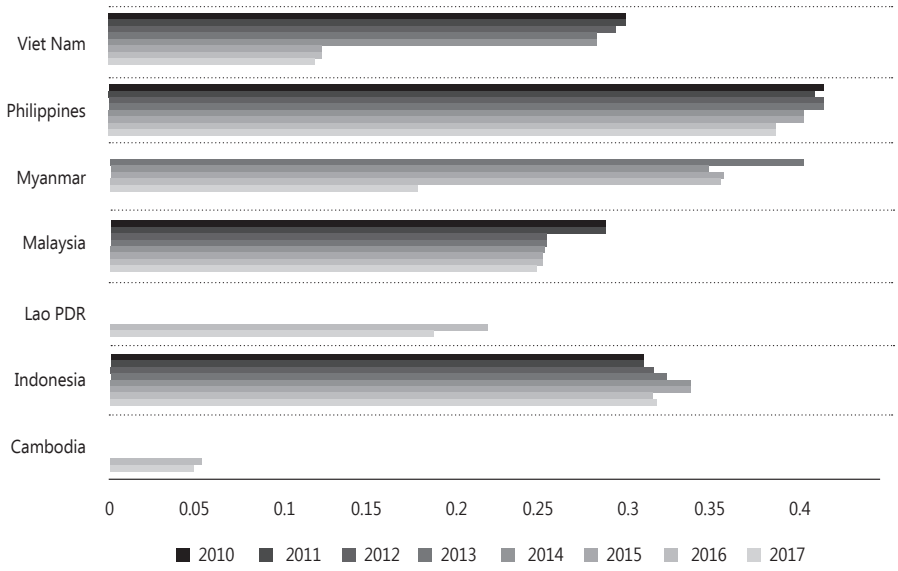
Source: World Bank (2018), *World Development Indicators: Growth of Output*, http://wdi.worldbank.org/table/4.1 (accessed 15 December 2018).

Table 1 shows that FDI makes a significant contribution to Singapore's GDP, with an FDI to GDP ratio of 19%–23% compared with the ASEAN average of 4%–7%. Singapore's double-digit ratio raises the ASEAN average above the 2%–3.6% of high-income countries. Since 2016, Viet Nam's FDI to GDP ratio has also grown above the ASEAN ratio. Table 1 also shows that most of the newer AMS–Cambodia, the Lao People's Democratic Republic (Lao PDR), and Myanmar–have a high FDI to GDP, whereas the ASEAN 5 (which excludes Singapore) have an average FDI to GDP ratio lower than the ASEAN average. Hence, it is important to note that Singapore and the newer AMS would need continuous FDI to support their economic growth.

Other AMS are less reliant on FDI for their economic growth, which is contributed by domestic direct investment (DDI) or government spending. However, these countries need to sustain the DDI to contribute towards continuous economic growth. With the help of increased FDI and linkages with DDI, their economic output may also increase. Building linkages between FDI and DDI will assist countries to accelerate productivity gains through access to foreign technology and frontier knowledge that, if successfully absorbed by local firms, can improve their productivity directly. FDI can also increase competition amongst firms in the local market by leading to a reallocation of resources away from less productive to more productive firms, thereby increasing aggregate productivity in the long run (World Bank, 2018). Those countries with higher reliance on FDI will need to counter any potential shock from external disruptions by increasing contributions from DDI.

To enhance ASEAN's competitiveness as a single investment destination, AMS will need to address national measures that restrict FDI. This is very important for AMS which have both low FDI and DDI.

Figure 2: ASEAN FDI Restrictiveness Index, 2010–2017



Country	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Viet Nam
2010	0.000	0.312	0.000	0.290	0.000	0.417	0.302
2011	0.000	0.312	0.000	0.290	0.000	0.412	0.302
2012	0.000	0.318	0.000	0.255	0.000	0.417	0.296
2013	0.000	0.325	0.000	0.255	0.406	0.417	0.285
2014	0.000	0.339	0.000	0.254	0.350	0.406	0.285
2015	0.000	0.339	0.000	0.253	0.359	0.406	0.124
2016	0.54	0.317	0.221	0.253	0.357	0.390	0.124
2017	0.05	0.32	0.19	0.25	0.18	0.39	0.12

ASEAN = Association of Southeast Asian Nations, FDI = foreign direct investment,
Lao PDR = Lao People's Democratic Republic.

Source: Organisation for Economic Cooperation and Development (OECD) (2018) *OECD.Stat, OECD FDI Regulatory Restrictiveness Index*, https://stats.oecd.org/Index.aspx?datasetcode=FDIINDEX# (accessed 15 December 2018).

FDI restrictions in ASEAN are generally higher than the OCED and non-OECD country average (Figure 2). FDI restrictions in several AMS remain above the non-OECD average: Indonesia (0.32), Malaysia (0.25), and the Philippines (0.39). Viet Nam has reduced its FDI restrictions, where the index dropped from the ratio of 0.302 in 2010 to 0.12 in 2017, which is below the non-OECD average of 0.126, and further liberalisation could be one of the factors that contribute to increased FDI inflow to the country. Myanmar has also undertaken policy reform by introducing the Myanmar Investment Law, 2016, and has reduced the number of sectors in the restricted sectors list.[2]

Any discussion on investment must also relate to trade since trade and investment rely on each other, especially in the age of the GVC where a final product is made from various components made in different locations. There is evidence of positive self-reinforcing relationships between bilateral trade and FDI flows, with trade inducing FDI as well as FDI inducing trade in ASEAN (Chaisrisawatsuk and Chaisrisawatsuk, 2007). It is estimated that 66% of ASEAN exports are accounted for by participation in GVCs, making the region the second largest regional grouping worldwide in terms of GVC presence, behind only the European Union (EU), which has a 70% share (Pricewaterhouse Coopers, 2018).

Countries that export the most also have the highest FDI flows (Sjöholm, 2013). This is clearly shown in Table 2, where Singapore, which receives the largest amount of FDI, also trades the most with international trade forming 310%–365% of its GDP. The same is true for Viet Nam, which received the second largest amount of FDI in ASEAN in 2017, at 200%. Indonesia has a smaller trade to GDP ratio, at 39% at the end of 2017, since most of the FDI in Indonesia is natural resource-seeking and market-seeking investment, rather than efficiency-seeking investments as in the case of Malaysia, Singapore, or Viet Nam.

[2] For discussion on Myanmar investment policy reform, see Jusoh (2018); and for Myanmar and the Lao PDR, see Jusoh (forthcoming).

The traditional notion of investment and trade, relating to the main sectors or tangible products, is slowly being eroded by the increase in cross-border trade in services, making investment in services ever more important. It can be implied that strong growth in trade in goods and services is one of the factors for the continued attractiveness of AMS as investment destinations. By 2016, the services sector had accounted for 53.1% of ASEAN's GDP (ASEAN, 2017b). In terms of contributions to national GDP, it is estimated that services contributed the following percentages to each AMS at the end of 2017: 42.3% in Brunei Darussalam, 41.9% in Cambodia, 45.9% in Indonesia, 45.9% in the Lao PDR, 54.7% in Malaysia, 39.39% in Myanmar, 59.8% in the Philippines, 75.2% in Singapore, 55.6% in Thailand, and 41.3% in Viet Nam (Central Intelligence Agency, 2017).

The services sector is also the most significant recipient of FDI flows to the region. FDI in services increased from about 60% of total FDI inflow to ASEAN in 2001 to 80% in 2016. Almost half of the FDI to the services sectors generally goes to finance and insurance; about 20% to the wholesale and retail trade and repair services of motor vehicles; 10%–14% to real estate; and 3%–6% to transportation and storage (ASEAN, 2017b). The main investors in services in ASEAN are from Japan, the EU, and the US, followed by the intra-ASEAN investors.

In terms of trade, ASEAN's exports reached $326.8 billion in 2016 or almost 2.5 times the level just a decade earlier, while its imports reached $316.5 billion in 2016 or almost doubled within the same period. Singapore has the largest ratio of total services trade to GDP, at 103% in 2017, followed by Thailand at 26% and Malaysia at 25% (Table 2).

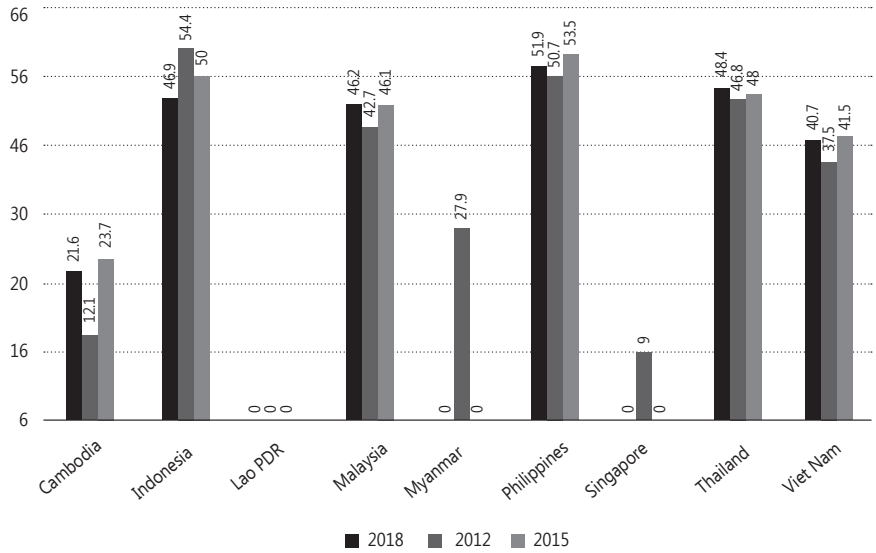
Table 2: Total Trade and Total Trade in Services as a Share of GDP, 2013–2017

	2013		2014		2015		2016		2017	
	Total Trade	Services	Total Trade	Services	Total Trade	Services	Total Trade	Services	Total Trade	Services
Brunei Darussalam	110.94	18.52	99.37	16.05	84.90	17.80	87.32	19.07	85.18	
Indonesia	48.64	6.35	48.08	6.41	41.94	6.17	37.44	5.76	39.54	5.63
Cambodia	130.05	34.52	129.61	34.09	127.86	32.56	126.95	30.43	124.89	
Lao PDR	98.18	11.01	99.06	9.51	85.80	10.33	75.09	9.17	75.83	
Myanmar	38.58	8.19	42.26	8.14	47.36	10.35	39.06	9.98		10.15
Malaysia	142.72	26.99	138.31	25.85	133.55	25.34	128.64	25.54	135.92	25.26
Philippines	60.25	14.59	61.47	16.31	62.69	17.99	64.90	18.16	70.66	19.68
Singapore	365.69	96.64	359.25	104.12	329.05	105.91	310.26	103.44	322.43	103.57
Thailand	133.41	25.26	131.80	24.74	125.90	25.98	121.66	26.99		26.69
Viet Nam	165.09	14.33	169.53	13.68	178.77	13.82	184.69	14.57	200.31	13.44
World	60.13	12.24	59.84	12.75	57.81	12.79	56.21	12.73		12.78
High-income	62.66	10.16	62.77	10.85	61.00	10.59	59.45	10.39		10.11
ASEAN average	129.35	14.32	127.88	15.02	121.78	15.00	117.60	14.94	105.47	15.22

ASEAN = Association of Southeast Asian Nations, GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic.

Source: World Bank (2003), World Development Indicators, 2003. Washington, DC: World Bank. http://www.worldbank.org/data/wdi2003/index.htm (accessed 27 August 2003).

Figure 3: ASEAN Services Trade Restrictiveness Index, 2008–2015



Lao PDR = Lao People's Democratic Republic.

Source: World Bank (2018), Services Trade Restrictiveness Index, https://tcdata360.worldbank.org/indicators/trade.stri.stri (accessed 15 December 2018).

Access to the ASEAN services market is also subject to national restrictions and policies. The World Bank Services Trade Restrictiveness Index (STRI, Figure 3) shows that AMS (i.e. Indonesia, Malaysia, the Philippines, Thailand, and Viet Nam) tend to impose a higher degree of restrictions on services trade, which is above the global mean of 32.7248 (François and Manchin, 2016). With a reduction in the STRI, some AMS such as Malaysia and Thailand could increase investment in services and enhance trade in services' contribution to GDP.

3. The ASEAN Investment and Services Framework

Under the ASEAN Economic Community Blueprint 2025: Forging Ahead Together (ASEAN, 2015), ASEAN leaders envisioned that by 2025, ASEAN was set to achieve a highly integrated and cohesive regional economy which supports sustained high economic growth by increasing trade, investment, and job creation; improving regional capacity to respond to global challenges and megatrends; deeper integration in trade in services; and more seamless movement of investment, skilled labour, business persons, and capital.

The blueprint also envisions a competitive, innovative, and dynamic community which fosters robust productivity growth, including through the creation and practical application of knowledge, supportive policies towards innovation, a science-based approach to green technology and development, and by embracing the evolving digital technology; promotion of good governance, transparency, and responsive regulations; effective dispute resolution; and a view towards enhanced participation in GVCs.

In the quest for a freer and more open investment regime based on international best practice, the ASEAN Economic Ministers (AEM) signed the ACIA, which consolidated two existing agreements – the ASEAN Investment Guarantee Agreement (IGA) and the ASEAN Investment Area (AIA) Agreement – on 26 February 2009. It encompassed four pillars: liberalisation, facilitation, protection, and promotion, containing new features to promote and encourage FDI inflows to ASEAN. The ACIA covers 10 sectors, as shown in Table 3 and the AMS agreed to liberalise other areas subject to agreement by all member states. In terms of liberalisation, the ACIA enshrines provisions which accommodate the expansion of the scope of this agreement to cover other sectors in the future.

Table 3: Liberalised Sectors in ACIA

Sectors	Examples/Illustrations/Opportunities for Foreign Investors
Manufacturing	Manufacture of food products and beverages Manufacture of textiles
Agriculture	Growing of crops, market gardening, and horticulture Farming of animals)
Fishery	Fishing, operation of fish hatcheries, and fish farms
Forestry	Forestry
Mining and quarrying	Extraction of crude petroleum and natural gas Mining of coal and lignite and extraction of peat
Services incidental to manufacturing	Manufacture of basic metals on a fee or contract basis Manufacture of office, accounting, and computing machinery, on a fee or contract basis
Services incidental to agriculture	Services providing agricultural machinery with drivers and crew Harvesting and related services Services of farm labour contractors; animal board, care, and breeding services Services to promote propagation, growth, and output of animals
Services incidental to fishery	2Services related to fishery and operational services of fish hatcheries or fish farms
Services incidental to forestry	Timber evaluation, fire-fighting, forest management including forest damage assessment services Logging-related services
Services incidental to mining and quarrying	Drilling services Repair and dismantling services Oil and gas well casings cementing services

ACIA = ASEAN Comprehensive Investment Agreement, ASEAN = Association of Southeast Asian Nations.

Source: Authors; International Standard Industrial Classification (ISIC) Revision 3 and the United Nations Provisional Central Product Certification (pCPC) 1991.

The ACIA covers both FDI and portfolio investment, while the AIA covers FDI only. Benefits of the ACIA are extended to ASEAN investors as well as foreign-owned ASEAN-based investors.

In ensuring substantial elimination of restrictions to trade in services amongst AMS to improve the efficiency and competitiveness of ASEAN services suppliers, the AEM signed the AFAS on 15 December 1995 during the 5th ASEAN Summit in Bangkok, Thailand. The AFAS provides broad guidelines for progressive improvement of market access amongst AMS and ensures equal national treatment for services suppliers in ASEAN. Its rules are consistent with international rules for trade in services provided

by the General Agreement on Trade in Services (GATS) of the World Trade Organization (WTO). Liberalisation of services trade under the AFAS is directed towards achieving commitments beyond member states' commitments under GATS, known as the GATS-Plus principle.

The AFAS was implemented through several rounds of negotiations, which resulted in commitment packages from each AMS in each agreed economic sector/subsector and mode of supply. The AEM has signed 10 packages of commitments under the AFAS since 1 January 1996. Each package provides details of the commitments of the respective AMS in various services sectors and subsectors. Under the AFAS, the ASEAN Finance Ministers Meeting (AFMM) signed six additional packages of commitments on financial services and air transport.

Both the ACIA and AFAS adopt the principle of 'progressive liberalisation', which follows the mechanism in use within the WTO, especially in relation to the liberalisation of the services sector under the GATS Article XIX. ASEAN also adopts this approach in the AFAS. Article XIX of the GATS calls for achieving progressively higher liberalisation, promoting the interests of all participants on a mutually advantageous basis, and securing an overall balance of rights and obligations. The mandate further states that negotiations will take due regard of national policy objectives and the level of development of individual members, both overall and in individual sectors. It also states that individual developing countries will have appropriate flexibility to open fewer sectors, liberalise fewer types of market transactions, and progressively extend market access in line with their development situation and flexibility of attaching market access conditions to foreign service suppliers. The principle also includes the concept that once liberalisation of sectors occurs, the government should not backtrack or reintroduce restrictions that have been removed.

To enhance ASEAN's trade and production networks, as well as to establish a more unified market for its firms and consumers, there is a need to broaden and deepen services integration within ASEAN and ASEAN's integration into global supply chains in services, and to enhance AMS' competitiveness in services. AMS agreed to pursue the maximisation of the potential contribution of the services sector to

economic development and growth, and continued to broaden the coverage and reduce the limitations on market access and national treatment across the services sectors, with the negotiations of the ATISA as the legal instrument for further integration of the services sectors in the region.

The ATISA sets out to review existing flexibilities, limitations, thresholds, and carveouts; enhance mechanisms to attract FDI to the services sectors to support GVC activities; have further liberalisation; establish possible discipline on domestic regulations to ensure the competitiveness of the services sector, taking into consideration other non-economic, development, or regulatory objectives; consider the development of sectoral annexes; and enhance technical cooperation in the services sector for human resources development, joint promotion activities to attract FDI to the services sector, and the exchange of best practices.

4. Challenges Faced by ASEAN on Investment and Services

The ASEAN Economic Community still faces challenges in moving towards a single investment destination and developing a region-wide services sector (OECD, 2014). First, a development gap remains between the ASEAN 6 and the newer member states. In addition, as discussed earlier, a large gap persists between the FDI received by Singapore and the FDI of the rest of ASEAN.

Second, 'behind-the-border' legacy issues related to domestic regulations before the formation of ASEAN and the ASEAN Economic Community impose obstacles to full liberalisation in ASEAN. This is illustrated in the STRI index and FDI restrictiveness indexes (Figures 2 and 3), which show that the degree and type of liberalisation vary from one member state to another.

Third, investors in ASEAN are concerned with political risks relating to transparency and investment facilitation. They have highlighted the inconsistent investment regulations and treatment in AMS in many

surveys and publications such as World Bank (2018), A.T. Kearney (2013), and The Economist (2013); and at the ACIA Forum in Kuala Lumpur in March 2013. The Economist (2013) survey shows that investors are concerned about the uncertain legal environment, especially the protection of domestic markets in certain AMS. The respondents are concerned that governments may reverse policies on legal issues and important legislation with little warning, and court decisions can be highly arbitrary.

The Economist (2013) survey found that the largest impediments to business in Asia-10 countries are laws governing the establishment of a commercial presence and those restricting the movement of both skilled and unskilled labour. Most AMS impose foreign equity limits on certain sectors or activities. The use of a foreign equity limit varies significantly from country to country. In some countries, legal and administrative instruments require that foreign investors obtain government approval for almost all investments, even in non-sensitive sectors. The survey was also of the view that some countries are more open and less protected than others.

5. ASEAN Investment and Services Sectors in the Face of Global Megatrends

5.1 'Servicification' of the Economy

Moving towards 2040, AMS could face challenges from global megatrends, including the 'servicification' of the economy. Servicification of the economy is evident throughout the world, but especially in developed countries. Services trade is critical to keep manufacturing sectors competitive. Moreover, there is a rise in service value chains wherein input and output along the value chains are primarily services. Developed countries are very competitive in services exports, especially English-speaking countries such as the US and the United Kingdom (Table 4). Asian countries in general have a huge services deficit from developed countries. At the same time, whilst the US goods trade deficit is huge, its service surplus is also massive (Pakravan, 2018).

Table 4: Services Trade Balance, 2016 ($ billion)

Item	Export	Import	Balance
G7	2,011	1,658	353
United States	759	510	249
United Kingdom	348	211	137
China	208	442	(233)
Japan	176	186	(10)
India	162	96	66
Indonesia	23	30	(7)

( ) = negative.

Source: Organisation for Economic Co-operation and Development (2018), *Trade in Services*, https://data.oecd.org/trade/trade-in-services.htm (accessed 15 December 2018).

It is widely believed that the US has a huge trade deficit with Asia, especially China, which results in the frustration of many US administrations, particularly the Trump administration. However, if we look at trade in services between the US and China, the US has a huge surplus that is increasing rapidly (Reynolds, 2016). Many ASEAN countries such as Indonesia will face a similar situation to that of China sooner or later. Once services trade becomes as large as goods trade, most Asian countries may have an overall trade deficit. Hence, it is perhaps necessary for ASEAN to identify the services sectors that can earn surplus. Tourism and back office operations are typical examples, but other service sectors may also have development potential.

5.2 Digitalisation of the Economy

The second megatrend is the digitalisation of the economy, or the internet of things (IoT), which is inevitable for both developed and developing nations. Examples of well-known companies that take advantage of digitalisation are Uber, Facebook, Airbnb, and Alibaba. It is important to note that the majority of IoT companies originated in the United States, although Alibaba is from China.

Information and communication technology (ICT) is transforming society significantly. With it, the world has seen the rise of the internet and digital economy, smart manufacturing, artificial intelligence (AI), 3D printing, blockchain, and IoT. This new wave of technologies is creating opportunities but also testing governments' ability to harness their benefits and provide prudent oversight. If harnessed correctly, these technological developments could be a key driver of economic growth (WTO, 2018) and development, deeper economic integration, and more inclusive outcomes.

E-Commerce has huge potential to change economic integration inside and beyond ASEAN. E-Commerce transactions are mostly domestic (OECD, 2016). However, the share of international e-commerce transactions is rapidly increasing in many developed countries, especially for members of the EU and the North American Free Trade Agreement (OECD, 2016). This implies two possible scenarios. First, there is a large opportunity to increase intra-ASEAN (or Asian) e-commerce. Second, there is a risk that future transaction of e-commerce in ASEAN (or Asia) could be dominated by international e-commerce providers in Europe and North America (and Japan and the Republic of Korea (henceforth, Korea)) (UNCTAD, 2017).

The largest challenge to promote e-commerce in ASEAN/Asia is the huge gap in readiness, as illustrated by the United Nations Conference on Trade and Development (UNCTAD) E-Commerce Index (Table 5). The index has four sub-components: internet use, payment, secure server, and delivery, which give us reasonable policy implications related to services and investment reform. Good internet infrastructure (both broadband and mobile) is necessary. The role of foreign investment and foreign service providers may be critical in this regard. A strong financial sector which provides people with e-payment facilities is important. Logistics services are also critical because products purchased online may be delivered from warehouses abroad.

Table 5: UNCTAD E-Commerce Index

Country	
Rep. of Korea	95.5
Japan	93.6
New Zealand	93.0
Australia	92.0
Singapore	90.0
Malaysia	77.0
Thailand	68.0
China	60.0
Viet Nam	50.0
India	44.0
Lao PDR	41.0
Philippines	40.0
Indonesia	36.0
Cambodia	29.0
Myanmar	23.0

Lao PDR = Lao People's Democratic Republic, UNCTAD = United Nations Conference on Trade and Development.

Source: UNCTAD (2017), *UNCTAD B2C E-commerce Index*, https://unctad.org/en/PublicationsLibrary/tn_unctad_ict4d09_en.pdf (accessed 15 December 2018).

An appropriate legal and institutional environment needs to be in place covering concerns such as (i) e-transactions, including rules related to electronic signatures and authentication; (ii) consumer protection; (iii) data protection and privacy; and (iv) cybercrime (Asian Development Bank (ADB), 2017). Those are the items covered by e-commerce chapters in free trade agreements (FTAs) signed by Asian countries, including ASEAN members. It is important to note that the e-commerce chapter in some FTAs emphasises the necessity of capacity building support for institutional development (e.g. see the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) Chapter 14.15).

5.3 Demographic and Ageing Society

Higher life expectancy, falling birth rates, and migration are expected to have a significant impact on demographics. Higher life expectancy

and falling birth rates will lead to societies with ageing populations which in turn will impact consumer spending and strain existing social welfare systems as well as pose the challenge of how to integrate youth populations into saturated labour markets (Pricewaterhouse Coopers, 2018). Migration ('replacement migration') would have delayed the inevitable but it has its own challenges such as wage differentials; difference in fertility, resulting in demographic shifts; possible welfare dependence; and managing heterogeneity.

The International Labour Organization estimates that ASEAN will record the second largest growth in labour force worldwide from 2018 to 2030 (behind only India) as another 59 million people are projected to enter its workforce by 2030. ASEAN will continue to represent the third largest labour force worldwide, behind only China and India, accounting for 10% of the global labour force by 2030. In fact, ASEAN's labour force will be more than twice the size of the next ranked market, the US, with 175 million in its labour force by then. However, ASEAN also faces the risk of underutilising this demographic opportunity if it fails to generate quality employment at the required scale while training this growing workforce in the skills needed to shift to higher value-added jobs in time to boost productivity levels (PriceWaterhouse Coopers, 2018).

As for the demand-side factors impacting economic growth, the region is poised to witness the expansion of ASEAN's middle-income segment (defined as $10–$100 in daily expenditure). This group is projected to represent two-thirds of the overall population by 2030, compared with only 29% in 2010. This emerging middle class, which is associated with a higher willingness to pay for quality, convenience, and choice, will drive the demand for more discretionary and aspirational product categories in the coming years. However, to target these growth opportunities, companies will need to align business strategies with shifts in consumption patterns being witnessed in the region. Online retail will increasingly challenge the traditional brick-and-mortar model, with consumers demanding more personalised products and services, through an integrated omni-channel experience (Kelleher, 2018).

One of the most serious social problems that developed countries face is ageing. The impact of this problem on developed countries which accept migration may be manageable (e.g. Australia–Table 6), but for those that do not accept migration, the entire economy could become unsustainable. An obvious example of this type of country is Japan, but countries like China may also have serious ageing problems. In this context, it is important to note that some countries will continue to have a large youth population even in 2050 (Table 6). In ASEAN, the ageing population in Cambodia, Indonesia, the Lao PDR, Myanmar, and the Philippines is likely to be less than 20% even in 2050.

Table 6: Ageing Population Ratio

Country	2016	2050
Japan	33.4	42.5
Korea	19.3	41.5
Singapore	18.7	40.4
Thailand	16.4	37.1
China	15.7	36.5
Brunei Darussalam	8.1	30.9
New Zealand	20.8	29.4
Australia	20.7	28.3
Viet Nam	10.7	27.9
Malaysia	9.5	23.6
Indonesia	8.5	19.2
India	9.1	19.4
Myanmar	9.2	18.8
Cambodia	6.9	17.6
Lao PDR	6.1	14.7
Philippines	7.4	14.0

Lao PDR = Lao People's Democratic Republic.

Source: United Nations, Economic and Social Commission for Asia and the Pacific (UNESCAP) (2016), *Population data sheet.* https://www.unescap.org/resources/2016-escap-population-data-sheet (accessed 15 December 2018).

If some ageing societies do not accept migration (say Japan), other forms of adjustment become necessary, often in the form of services trade. This is natural, because services that were supposed to be supplied domestically by migrants should then be supplied internationally. Thus, the magnitude of the ageing problem can be mitigated by further integrating services and investment in ASEAN and Asia. There is significant potential to increase international services in 'silver industries', which deal with ageing persons.

Many aged persons are expected to live in a nursing or retirement home where they can receive various services from caregivers. To fill the demand for trained caregivers, some standardisation of the caregiver 'profession' may be necessary amongst Asian countries, perhaps through a form of mutual recognition agreement (MRA). It may be wise for both importing and exporting countries of caregivers to agree on the basic competencies of caregivers (see the discussion below on MRAs). Further, companies running nursing homes may want to establish nursing homes in nearby conducive environments such as Indonesia, Thailand, or the Philippines. This would lead to liberalisation of Mode 3 (commercial presence) for social services and medical tourism.

With the potential demand for professional/trained caregivers, nursing homes in Indonesia, the Philippines, or Thailand could provide the necessary work experience before supplying such services in requesting countries such as Japan. AMS such as Indonesia, the Philippines, and Thailand could develop medical tourism for aged persons. Developed ASEAN markets such as Brunei Darussalam and Singapore, which have more advanced institutions and infrastructure as well as ageing populations, will need to focus on increasing technology adoption to counter declining productivity growth (Pricewaterhouse Coopers, 2018).

5.4 International Movement of Students and Professionals

The international mobility of people is expected to continue to be enhanced, partly because of the declining trend in air travel costs. It is critically important to carefully consider the prospect of international

movement of students and professionals, which are intrinsically linked since students who obtain engineering degrees become professional engineers.

Mutual recognition of professional qualifications is critical to enhance the international mobility of professionals. While ASEAN has some MRAs, it is desirable to have more MRAs within ASEAN and between ASEAN and non-ASEAN countries (Hamanaka and Jusoh, 2018). If Japanese or Korean engineers can practise in developing ASEAN countries (e.g. the Lao PDR) under MRA schemes, that would help enhance the capacity of Laotian engineers if the MRA were designed properly (such as joint practice requirements). Laotian engineers would also have an opportunity to go to Japan or Korea to enhance their skills under MRAs.

Students in developing countries often have to move to developed countries for a good university or post-graduate education. This is not necessarily a bad phenomenon but it has two risks. First, students who study abroad may not return to their home country and decide to stay abroad. Second, the flow of people is one-sided: from developing to developed countries (Bista, 2018). So, the question is how to avoid the brain drain and achieve more mutual exchange of talent.

AMS could enhance efforts to attract offshore or satellite campuses of foreign universities, including those of other ASEAN/Asian countries (e.g. offshore campuses of Chinese universities). Offshore campuses of developed country universities are likely to facilitate the inflow of foreign professors, which could contribute to an improvement in the quality of domestic professors. ASEAN countries' exportation of offshore campuses to fellow ASEAN members and other Asian countries (say Japan) could also prove useful such as a Philippine university's offshore campus in Korea.

Further, intra-regional student exchanges should be increased. This could lead to some harmonisation of curricula, and even MRAs. Suppose a university in Korea opens an offshore campus in the Philippines and Filipino students study engineering there. If he/she

obtains an engineering qualification in the Philippines/Korea, it would be advantageous if he/she could also practise in Korea/the Philippines. This becomes possible with an MRA. Higher international mobility of university students would considerably transform the international service flow for the movement of natural persons.

5.5 Improved Infrastructure

The most important consideration is that ASEAN requires improved infrastructure to spearhead economic growth through increased trade, investment, competitiveness, and connectivity in the region and with the rest of the world. ADB estimates that the total infrastructure investment needs in ASEAN from 2016 to 2030 will be $2.8 trillion (baseline estimate) to $3.1 trillion (climate-adjusted estimate) (ADB, 2017).

These infrastructure needs are important to support the increasing amount of ASEAN trade, with total merchandise trade increased from $4 trillion in 2010 to $5 trillion 2017 (ASEAN, 2018). The total merchandise trade is projected to increase as ASEAN grows from the seventh to the fourth largest economy in the world by 2050, with annual GDP growth of 5.25% from 2016 to 2020 (Tan, 2017).

5.6 Sustainable Resources and Climate Change

Rising greenhouse gas emissions are causing climate change and driving a complex mix of unpredictable changes. We have seen the devastating effects of climate change in the rise in unpredictable weather patterns and natural disasters (Riebeek, 2005). These can impact our economies through increased global temperatures, increased intensity of storms, and wetter monsoon seasons (consequently, increased instances of flooding). There is a need to address this issue as it not only results in disruptions in food supply and economic activities, but the destruction it brings about will tax the economy in the form of costs associated with recovery.

The combined pressures from population growth, economic growth, and climate change will increase the stress on essential natural resources, i.e.

water, food, arable land, and energy. Demand for food, water, and energy is projected to grow by about 35, 40, and 50% over this period until 2030, resulting in food and water shortages. Governments will need to inculcate sustainable resource management and identify alternative sources of power.

While abundant across Southeast Asia, natural resources are depleting rapidly as they are used for industry and to meet the consumption needs of growing populations. Depletion reduces national wealth; and most natural resources, when transformed into energy, unavoidably aggravate pollution. Accordingly, their mobilisation and sale must be carefully weighed against economic and social costs. Market prices do not always reflect social costs. Similarly, corporate balance sheets rarely account for environmental effects.

5.7 Economic Power Shift

Emerging economies like China, India, and Brazil are projected to dominate the world's top 10 economies in 2050. Other potential economies identified are Viet Nam, the Philippines, and Nigeria. The US and the EU stand to lose ground to China and India. This means that these emerging economies will exert more influence on the direction of the global economy. The rise of China and India in the global economy increasingly challenges ASEAN to enhance its competitiveness. Over the coming decades, competitive pressures will not only come from within Asia, but also more distant economies such as the Russian Federation, Brazil, South Africa, and Turkey (ADB Institute, 2016).

With the economic power shift, AMS will have to identify optimal trade and investment partners. In the long run, as globalisation increases the importance of multipolar development, the region should be able to leverage its diversity. Through investment in research and development (R&D) and innovation, competitiveness can be built in agriculture, manufacturing, and services from high-yielding crops to industrial clusters, tourism, telecommunications, and finance, to name a few strategic sectors.

6. Conclusion and The Way Forward Towards 2040

The above discussion shows that investments in manufacturing and services are important for ASEAN to remain competitive into the future, and for integration into the GVC and the global economy. As ASEAN is moving towards becoming an economic powerhouse, it is important to focus on increasing investment in services.

At the same time, the dynamics of the investment landscape in and around ASEAN may change in the future. Intra-ASEAN investment could increase, with Malaysia, Singapore, Thailand, and Viet Nam as potential FDI exporters. Similarly, the dynamic of FDI inflows to ASEAN may also change, with Viet Nam potentially attracting more FDI than traditional destinations such as Indonesia, Malaysia, and Thailand. Myanmar is also striving towards being a new focus of FDI in the region.

The dynamics in the investment sector may also change by 2040. The changes may be forced on the AMS by the new megatrends discussed above. Many AMS will become ageing societies which require recalibration of services and products produced in those countries. Technological changes may also affect consumer behaviour related to the services and products they will purchase and how the products and services are delivered. These technologies may be either homegrown or from abroad, mainly China and India. Further, the sources of FDI may also change, as China and India are expected to become more economically dominant. Hence, the way FDI is secured and sectors are promoted needs to be changed. The disruptions expected in the future may not just come from technologies but also from political economic changes as well as changes taking place within ASEAN.

Moving towards 2040, ASEAN may have to rethink the way to handle investments, domestic and foreign, in the main and services sectors. ASEAN should look at recalibrating the economic and investment focus or promoted sectors, which will have to be based on the niche of each AMS, considering the megatrends and domestic considerations discussed above. Recalibration may take place in several forms, such as

(i) changing the list of promoted sectors, which is normally in the form of a positive list; and (ii) reducing services and FDI restrictions through the liberalisation of ownership and control of certain sectors, which is normally conducted through the national negative list, which may differ from the negative list in the annexes to the FTAs.

Based on the above, moving forward to 2040, the paper makes several recommendations.

First, ASEAN should work towards reducing restrictions for investment in the services and main sectors. Reduced restrictions may be achieved through a short national consolidated negative list, which covers the whole country and not just the non-conforming measures normally found in the FTAs. Negative lists should be short and cover high-risk sectors related to national security; plant, animal, and human health; the environment; and sustainability. AMS should conduct proper cost and benefit analysis in setting up the negative list. The preparation of the negative list will involve all levels of government (central and sub-central levels), with one coordinating central agency in charge. AMS should have a much more open investment regime because FDI is critical for technology upgrade and innovation. Hence, AMS may consider raising the allowable foreign equity share to at least 70%, and expand areas with allowable 100% foreign equity participation.

Second, liberalisation does not just include the opening up of sectors but also the loosening of admission rules. AMS may consider minimising other restrictions on foreign investors. This means reducing the need to screen investors and their investments at the pre-establishment phase of an investment, providing investment facilitation, and reducing the unnecessary regulatory burden. AMS may also increase national treatment provisions in the pre-establishment phase of an investment to promote bilateral FDI (Berger et al., 2013). Market access liberalisation, along with the provisions on non-discrimination (Büthe and Milner, 2008 and 2014) and the treatment of investors in an international investment agreement, is important to attract investors to any destination (Kenyon and Margalit, 2014). Again, investment entry liberalisation will have to involve all levels of government.

Third, ASEAN should focus on selecting niche investment sectors for both promotion and liberalisation. Increased linkages are needed between foreign and domestic investors. Accelerating technological diffusion and absorption in key areas with large spillover to the rest of the economy should be one goal. Exploiting synergies with science, R&D, and innovation could make ASEAN a leader in emerging market niches. These sectors should further integrate AMS within the regional and global value chains.

Fourth, ASEAN needs to re-strategise FDI and domestic investment promotions. Based on the megatrends, China and India together with Japan and Korea will be the new powers in the east, leaving behind the EU and the US. Thus, more products and services will be traded between ASEAN and these countries, leaving room for investments to take place in ASEAN.

Fifth, to facilitate investment and growth in the services sector, ASEAN should encourage investments that develop seamless connectivity in the region. The ability to travel, transit, and trade across borders is a priority for ASEAN countries as they build a truly borderless economic community. Improved connectivity, such as through aviation, will allow AMS to exploit their strategic location next to China and India. Domestic connectivity is also important in providing public services (electricity, water, sanitation, and telecommunications) where they are most needed and in linking peripheries to urban centres, allowing remote areas to unlock their development potential. Enhanced connectivity is crucial for improving competitiveness in all aspects of economic activity, including participation in production networks and supply chains.

Sixth, ASEAN should develop an integrated investor after-care and retention mechanism. This consists of a system to track investors, including investment implementation and grievances. An investor grievance mechanism will assist AMS to deal with issues raised by investors before they escalate to disputes.

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Regional Regulatory Coherence in the Association of Southeast Asian Nations: The Case of Competition Law and Intellectual Property

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Abstract

As the Association of Southeast Asian Nations (ASEAN) is not a supranational organisation and does not have specific competence to regulate certain areas, ASEAN Member States rely on tools such as regulatory cooperation and coordination to address fragmentation in the laws, policies, and regulations relating to intellectual property and competition policy. These tools involve harmonisation, standardisation, or mutual recognition to bring related laws and regulations closer to each other. Using these tools to reduce fragmentation and increase coherence will help ASEAN reduce barriers to investment, innovation, and economic activity in the case of intellectual property. Regarding competition policy,

regulatory coherence is important to encourage businesses to participate in the market and avoid the market dominance of certain firms to create de facto barriers to entry and innovation. This is especially important as the world moves towards a more innovative economy through digitalisation, and as ASEAN integrates more fully in the global value chain, for which it will need to boost innovation while increasing trade and investments. To ensure that ASEAN remains an attractive trade and investment destination towards 2040, ASEAN must bring a high degree of coherence to its substantive and procedural laws concerning intellectual property and competition. This can be achieved by establishing minimum rules and standards for substantive laws, and employing mutual recognition for procedural laws.

Keywords: **Harmonisation, standardisation, mutual recognition, enforcement, compliance, intellectual property, competition policy, regional integration**

1. Introduction

Decades of integration initiatives amongst Southeast Asian countries have turned the region into one of the world's most dynamic and fastest growing regions. The removal of tariff and non-tariff barriers, which formed the main agenda of the Association of Southeast Asian Nations (ASEAN) Free Trade Area, has increased intra-regional trade from around 18% of the region's total trade in the early 1990s to around 26% in the 2010s, and increased total trade by almost 10% on average over the course of two decades. The region has also become an attractive destination for foreign direct investment (FDI). FDI currently accounts for more than 20% of total investment, compared to 12% in the early 1990s when economic integration began.

The removal of border barriers such as tariffs and quotas was later complemented by various initiatives to deal with behind-the-border barriers and trade facilitation. For example, the ASEAN Framework for Agreement in Services and the ASEAN Comprehensive Investment Agreement included the principle of national treatment to prohibit

discrimination with regard to cross-border services, activities, and investments. Technical regulations and non-tariff measures are also subject to non-discriminatory principles to ensure that imported and domestically produced goods are treated similarly.

However, it has been realised that the removal of trade barriers and adoption of non-discriminatory treatment are insufficient to induce deeper economic integration and the creation of a single market and production hub as envisioned by the ASEAN Economic Community (AEC). Regulatory heterogeneity might hinder deeper integration as it increases costs for cross-border activities, which will become more prevalent with the rise of a regional production network. In addition, greater interdependence amongst ASEAN Member States (AMS) creates regional and international externalities that require regulatory arrangements at the regional level. Hence, greater regulatory harmonisation and coordination are necessary for AMS to pursue deeper integration.

This chapter discusses the way forward for ASEAN towards 2040 in two important areas of laws and policy: intellectual property rights (IPRs) and competition policy. These two areas are very important in the drive to position ASEAN as a competitive region and single production base. By effectively implementing IPRs and competition policies, ASEAN will be able to attract more economic activity and FDI while protecting the interests of innovators, talent, and consumers.

The chapter explores steps taken by ASEAN to bring coherence to laws and policies related to IPRs and competition. It also discusses gaps in the implementation of IPRs and competition laws and policies, despite various policy documents designed and prepared to achieve harmonisation and coherence in ASEAN, such as the AEC Blueprint 2025. The chapter proposes a way forward for ASEAN to plug these gaps and bring convergence and harmonisation to IPRs and competition policy towards 2040.

2. The Costs of Regulatory Heterogeneity

Regulatory heterogeneity relates to the fragmentation of rules and principles. Fragmentation of laws relating to IPRs and competition policy can be described as substantive, horizontal, or vertical fragmentation. Substantive fragmentation involves conflict between different understandings or interpretations of general law, conflict arising when a special body deviates from the general law (not as a result of disagreement as to the general law but based on the basis that a special law should be applied), and conflict arising when specialised fields of law seem to be conflict with each other (International Law Commission, 2003). Horizontal fragmentation implies the risk of clashes between diverse and competing ethical rationales, goals, and norms (Gehne, 2009), which may also involve the conflict structure of differing ethical backgrounds and values. Conversely, vertical fragmentation involves diverse layers of governance comprising competing ethical rationales in terms of different cultural, traditional, and societal backgrounds (Gehne, 2009). Regulatory fragmentation in the International Patent and Trademark Register and competition in ASEAN are mainly due to vertical fragmentation where ASEAN Member States (AMS) have different legal and regulatory environments in IPR and competition matters.

Regulatory heterogeneity can hinder the realisation of the ASEAN single market and the deeper economic integration of the region. Differing regulations increase the cost of regional economic activities, since businesses need to adapt to different regulatory environments in terms of IPRs and competition. The cost of regulatory heterogeneity is believed to be significant. Nordas (2016) used the Organisation for Economic Co-operation and Development's service trade restrictiveness index to measure regulatory heterogeneity and estimate its impact on trade in services for 42 countries. This revealed that the 2014 level of regulatory heterogeneity was associated with a trade cost of 20% to 75%, depending on the level of regulatory restriction.

The costs related to regulatory heterogeneity can be divided into three categories. The first of these includes costs related to identifying, gathering, and processing information on the regulatory requirements in the destination markets that might differ from the requirements at home.

In the case of IPRs and competition policy, producers must seek legal advice to obtain information from 10 different countries, instead of using one system for all 10 countries. The extent of the impact of this obligation depends on the transparency and availability of regulatory information. Although countries with a good regulatory management system provide detailed information at a relatively low cost, in countries with undeveloped systems, the private sector might have to bear significant additional costs.

The second category includes costs related to compliance with regulations. Different regulations require business to adapt their production processes or supply of services to the specified regulations. For foreign business, compliance costs increase when regulations diverge significantly from those in their original country.

The third category includes costs related to conformity assessment to verify compliance with regulations. Duplicating conformity assessments in each country increases the cost of conducting cross-border economic activities, since producers must file applications for intellectual property protections (IPPs) in different countries by modifying applications where necessary to meet national intellectual property laws (IPLs). This involves additional costs such as registration fees and attorney fees. With regard to competition law, businesses must behave differently in different countries. For example, businesses must ensure that mergers and acquisitions concerning the same subject matter and possibly the same partners in different countries are designed separately to avoid falling foul of competition law.

In creating a single market and production hub, AMS should deal more seriously with the issue of regulatory heterogeneity with respect to the various aspects of cross-border economic activities, such as cross-border mergers and acquisitions and IPPs. This is mainly because the regional production network in Southeast Asia has become deeper, wider, and more complex (Obashi and Kimura, 2016), and involves not only trade and investment, but also trade in services, technology transfer, innovation, and various strategic business actions.

3. Economics of Competition Policy

Competition policy is premised on the need to enhance community welfare through overall economic efficiency. Hence, competition policy that encourages greater overall economic efficiency will lead to provision of informed choices and providing values to consumers. In a perfect competitive environment, while producers of goods or services will seek to maximise profits, they are not able to simply doing so by increasing prices. Instead, to be competitive, producers will seek to reduce their cost by increasing efficiency.

To reduce cost, price and to increase profit, firms in a perfect competitive environment are encouraged to invest, innovate and conduct research and development to meet consumer demands. Innovation may include innovative design, branding, pricing and product differentiations. Firms that are not competitive will have to exit the market either by choice or by consumer force. This situation will then encourage new entries which will seek to offer a new and possibly more efficient and more innovative products and services. Fear of losing market share, market demand and new entry will in itself encourage improvements and efficiency by firms.

In contrast, uncompetitive environment such as monopoly, duopoly or to certain extent oligopoly lead to a counter-efficient market. Firms that have market dominance through uncompetitive environment may dictate price, may have less motivation to innovate and move with time. These firms may also be contented by their market position hence offering less value to consumers. Not only consumers may face with higher prices and less choices, but also faced with low quality products and services.

Anti-competitive behaviour could result from several factors, including creation of monopolistic government related services; provision goods and services through state-owned enterprises which have a default advantage over private firms; merger and acquisition of rival firms which lead to market domination; and cartel or collusion between firms in the same economic sector. In addition, protections of intellectual property are anti-competitive in nature, as holders of intellectual property are

generally granted exclusive rights to exploit the intellectual property or its derivative over a specified period of time.

States may have to intervene in order to avoid or reduce incidence of anti-competitive practice, either through market domination of private firms; or the anti-commercial practice of state-owned enterprises, or unfair practice of intellectual property right holders. Many countries in the world have introduced competition policy, which either is based on the anti-trust or competition policies. Theoretically, well-designed state policies could enhance choices, reduce transaction costs and provide information to consumers.

However, over time, many economies see the escalation of state-owned enterprises in the market. These government owned or government linked firms are created either to provide specific services such as electricity or telecommunications or to increase government revenue through offering goods and services that could be offered by private firms. The former group of state-owned enterprises are important as they provide goods and services which are normally costly produce and beyond the reach private firms. On the other hand, the latter group of firms provide unfair competition to private firms. Many of these firms provide banking and financial services and some venture into construction and retail services in direct competition with private firms. These state-owned firms tend to venture into government procurement, hence crowding out private venture.

Apart from state-owned enterprises, government policies relating to issuance of incentives, quota, licences and permit may lead to anti-competitive environment. For example, some countries restrict the entry of hypermarkets in the retail and distribution sectors. Cabotage policy, either in the maritime or aviation services is another example of a quota which leads to inefficient and expensive services, the cost of which are forced on consumers. Many countries impose restrictions on ownership and control on maritime and aviation companies purely based on nationalistic ground, which are archaic in the more globalised economy, which is either based on multilateralism or regionalism.

Thus, in creating competition policy, economies should focus on conducts, policy and rules that harm competitive market, either by private firms or state-owned enterprises. The main focus is the market efficiency rather than behaviour of specific firms or groups of firms. The competition policy should be neutral to the ethnic groups, business group, business practice or technology. On the other hand, states should also realise that not all services or goods can efficiently be supplied by private firms. Some services will have to remain within the realm of the government, such as healthcare, water and power.

Policy makers are also encouraged to move with time and be able to accommodate new sources of competition. With globalisation or regionalism, and digitalisation of the economy, the nature of market and competition has also changed and evolved. Whilst digitalisation and e-commerce will increase choice of products and services, intellectual property protections over these goods and services may create another layer of anti-competitive environment. Firms, through their government, are beginning to seek intellectual property protection beyond what are originally envisaged in the international treaties such as the TRIPs Agreement of the WTO or the treaties administered by the World Intellectual Property Organisation (WIPO).

4. The Importance of Regulatory Coherence in Intellectual Property and Competition Policy to the Association of Southeast Asian Nations

IPRs comprise a wide range of rights, including patents, trademarks, copyrights, industrial designs, integrated circuits, and geographical indications. IPRs are territorial in nature, meaning that they are protected by national laws relating to individual IPRs. These rights are granted in the form of exclusive rights to work, manipulate, and use intellectual property within a certain period of time. Hence, IPRs are the antithesis of competition, meaning that they exclude free competition over the use of the same findings or innovation. Most IPRs are granted on a first-to-file basis (at the relevant national intellectual property office [IPO]) and, in some countries, on a first-to-use basis. IPRs registered in one

territory may be registered in another territory subject to registration in accordance with the territory's laws.

Of the many international drives to harmonise IPRs around the world, the main examples are those undertaken by the World Intellectual Property Organisation (WIPO) and the World Trade Organisation (WTO). These multilateral organisations provide broad guidance on what components of intellectual property should be recognised, how to recognise them, and the length of the term of protection. However, other issues need to be addressed at the national and regional levels, including the interpretation of the terms of protection and, importantly, the enforcement of those rights against infringers. Intellectual property is an important element of boosting innovation and private investment, whether in the form of domestic direct investment or FDI.

IPP has a positive effect on all four economic indicators, that is, gross domestic product, trade, FDI, and the level of innovation. IPP provides confidence to investors, leading to inflows of foreign capital that promote technological competition, which in turn fosters innovation (Jusoh and Kam, 2016). As a result, higher quality goods and services are produced more efficiently within the country. This increases the competitive advantage of a country in terms of exports, and positively impacts its gross domestic product growth. IPRs have the potential to make innovation economically functional and managerially controllable, thus enabling companies to enter a market-based economy and creating additional value.

IPRs can be used for various business purposes and, like other forms of property, can form the baseline of a secondary market, decoupled from the primary economic function of the underlying asset (European Union Expert Group on Intellectual Property Valuation, 2013). IPRs allow the sale, purchase, trade, or licensing of innovations via processes made explicit and codified through the legal system, leading to strategic-asset investments in many countries. Hence, IPRs play an increasingly fundamental role in corporate strategy to maximise revenue and attract new investment, such as in mergers and acquisitions. IPRs have substantially altered the competitive landscape of developed economies.

In their efforts to encourage revenue maximisation and attract new investment, organisations are recognising that intellectual property and IPRs are key assets that require treatment like any other assets, including the need for a proper valuation (Arora, Fosfuri, and Gambardella, 2001).

As globalisation and international trade expand, the number of cross-border IPR re-registration applications is increasing, making it necessary to understand each nation's IPLs fully. A coherent and predictable IPP system throughout ASEAN is important to ensure that domestic innovations are protected and promoted, as expected by foreign investors. Although IPP is not the main consideration for certain firms when making investment decisions, investors perceive intellectual property systems as important when establishing investments and commencing business operations in AMS.

Investors in ASEAN tend to be advised to see ASEAN as a set of territory for intellectual property, rather than seeing the 10 AMS separately. An ERIA study (2013) found that intellectual property issues are perceived as a major problem for investors expanding businesses in ASEAN. The European Union (EU) advised its small and medium-sized enterprises (which could also be applicable to multinationals) to see Southeast Asia as 'one area' for IPP, and to 'consider incorporating IP [intellectual property] protection on an [sic] South-East Asia-wide basis into their regular IP strategy reviews or at the least, through expanding their protection to prioritised countries within the region, proportionately to their financial resources' (EU, 2017). This puts more pressure on AMS to harmonise national IPLs to facilitate easier cross-border intellectual property registration, IPP, and IPR enforcement.

The intellectual property system also has to keep up with global megatrends. The digitalisation of the economy will create more opportunities for cross-border trade and investments in digital trade and e-commerce, thus heightening the need for cross-border IPP and enforcement. Further digitalisation of the economy (the 'internet of things') is inevitable, in ASEAN as elsewhere. This will increase the demand for IPPs such as patent rights and enforcement.

On the other hand, IPRs are by nature anti-competitive as they provide intellectual property holders with exclusive rights to work and exploit the intellectual property over several years. Intellectual property holders could practise anti-competitive behaviour by manipulating their property for unfair gains, such as by increasing the prices of products (e.g., medicines), ensuring the usage of certain software, and dictating consumer choices (such as online movie downloads). The move towards the fourth industrial revolution and the greater usage of the digital economy, standards, and standard essential patents (SEPs) that rely heavily on intellectual property and innovation could increase de facto anti-competitive behaviours amongst intellectual property holders.

Technology transfer has been somewhat problematic. Technology developers want to minimise the risks from technological diffusion by keeping innovation private and protecting their rights to the technology through intellectual property policy. On the other hand, technology importers want to minimise the costs of acquiring and using the technology; however, their efforts could be subject to IPRs and the sometimes anti-competitive behaviour of intellectual property holders. ASEAN should be able to deal with this issue, since more businesses will produce and utilise technology in the future.

More recent anti-competitive complaints against intellectual property holders include a complaint against Qualcomm regarding its anti-competitive licensing tactics to maintain its monopoly on the sale of baseband processors for mobile handsets in the United States (US) and the Republic of Korea. In 2016, the Korean Fair Trade Commission found that Qualcomm's refusal to license SEPs to its competitors and what the commission deemed to be customer coercion into unfair licensing agreements violated Qualcomm's fair, reasonable, and non-discriminatory commitments and constituted an abuse of market dominance. In a related case in 2017 (*Unwired Planet International Ltd. versus Huawei Technologies Co. Ltd.*), the English High Court found that Huawei had infringed on Unwired Planet's SEPs, and that Unwired Planet was entitled to seek an injunction, even though Unwired Planet had not offered to license those patents, nor had Huawei made a counteroffer.

In addition to potential anti-competitive behaviour by intellectual property holders (especially those involved in the latest technology), other threatened anti-competitive behaviours in ASEAN involve potential cross-border business and actions. As foreign investment amongst AMS increases, issues related to competition might no longer be handled at the national level. While the liberalisation of investment amongst AMS should encourage the free entry of foreign companies, it should not result in monopolies at the regional level. Anti-competitive behaviours might occur at the international level without violating domestic requirements for dominant powers. These include the practices of international cartels, regional price fixing, or various vertical anti-competitive modes of conduct. Greater coordination in competition policy and law at the ASEAN level is critical to reduce the abuse of market power.

For example, the acquisition of Uber Southeast Asia by the ride-hailing company Grab attracted anti-competition investigations in Malaysia and Singapore, with differing results. Singapore issued Grab a fine of S$13 million (Reuters, 2018), whereas Malaysia only put Grab on an anti-competition watch list.

Hence, this chapter discusses approaches to (i) create more coherent regulatory measures to provide IPPs, and (ii) ensure that anti-competitive behaviours do not jeopardise consumer interests in the region. The contradictions and juxtapositions outlined in this chapter require concerted and coherent approaches throughout ASEAN.

5. Approaches to Achieve Regulatory Coherence and Coordination

The costs of heterogeneity can be reduced through greater regulatory coordination and coherence. Regulatory coordination refers to a means of achieving regulatory coherence, whereas regulatory coherence refers to the content of the regulations. Regulatory coordination is normally achieved through a process of harmonisation or mutual recognition. On the other hand, regulatory coherence may be achieved by harmonising or recognising the rules, standards, or principles.

5.1 Regulatory Coherence—Rules, Standards, or Principles

As globalisation and regional integration increase, there is a need to enhance regulatory coherence to overcome increased fragmentation across different nations. The increased fragmentation across different nations is due to the legacy issues, with the multitude of national legal orders (Fischer-Lescano and Teubner, 2004).

In discussing regulatory coherence, Balkin (1993) suggested distinguishing between different types of coherence. The first type of coherence is a set of factual beliefs that can relate to standards or principles; the second type is the coherence of a normative system like the law, which relates to the rules; and the third is the coherence of the world around us. The coherence of factual beliefs is a question of logical or narrative coherence, while the coherence of the legal system is a question of normative coherence. In a coherent legal environment, coherence of law relates to the integrity of both political decisions and the law. This means that the state acts on a single coherent set of principles, even when its citizens are divided 'about what the right principles of justice and fairness really are' (Dworkin, 1986).

One way to bring regulatory coherence is through adapting standards, meaning that AMS should adopt similar standards with regard to the law, compliance, and enforcement. For such standards to be adopted, they have to be recognised, in this case by the AMS. Various international organisations have issued model laws or international conventions that can be considered standards. Although compliance with these standards is not mandatory, importers may insist on compliance with these standards, in which case they will become necessary to access the market. Enforcing standards will present a problem as these standards are voluntary, not compulsory. Problems may also arise when a state has the option to resort to different mechanisms of enforcement in attempting to resolve one particular problem because each state considers itself committed, first of all, to applying only its own system or subsystem of standards (Pauwelyn, 2001).

AMS can also achieve regulatory coherence by adopting a clear system of rules and competencies based on positive theory of law.

In addition to rules, one can seek an answer to legal coherence from other standards, such as principles (Dworkin, 1977). Principles are active when agents use them either rhetorically or instrumentally. They are passive when they are not being used within a domain or when they are used symbolically (Braithwaite and Drahos, 2000). Principles may refer to decisions of judges or jurists when interpreting the laws when the rules are ambiguous. For the legal principle to be accepted as one of the major principles, it must satisfy two conditions: (i) the principle coheres with existing legal materials, and (ii) the principle is the most morally attractive standard that satisfies the former principle.

Principles and rules do not operate in the same way: rules are applicable in an all-or-nothing fashion whereas a principle 'states a reason that argues in one direction, but does not necessitate a particular decision' (Braithwaite and Drahos, 2000). Rules lay down specific rights and obligations, whereas principles formulate general and flexible imperatives (Hilf, 2001). Since principles are based on reasons, conflicting principles provide competing reasons that must be weighed according to the importance of the respective values they express. Other differences between principles and rules include the following: rules necessitate, where principles only suggest, a particular outcome; and principles have the dimension of weight that rules lack (Hilf, 2001).

Like any other law, both rules and principles can be enacted or repealed by legislatures and administrative authorities. Many legal systems recognise that both rules and principles can be made into law or lose their status as law through precedent (Raz, 1979). According to this view, legal principles are similar to legal rules in that both derive their authority under the rule of recognition from the official acts of courts and legislatures.

5.2 Regulatory Coordination – Harmonisation or Recognition

A constitutionalist attempting to address 'bad' fragmentation phenomena generally aims to achieve coherence through establishing, not only a coherent legal system, on which the technical approach focusses, but a legally determined, clear system of political order and governance (Gehne, 2009). This can be achieved through the process of either harmonisation or recognition by way of mutual recognition arrangements.

Harmonisation can be broadly defined as the process of making different domestic laws, regulations, principles, and government policies substantially or effectively the same or similar (Mayeda, 2004). This involves bringing divergence into a state of comparability. Harmonisation of law takes place through gradual mutual convergence and the adoption of model codes developed by international private and professional bodies, or by direct negotiation. Alternatively, harmonisation can be described as the process of 'making the regulatory requirements or governmental policies of different jurisdictions identical or at least more similar' (Leebron, 1996). Thus, harmonisation is the process of reducing divergence or fragmentation to increase similarity or comparability.

Harmonisation must be distinguished from standardisation. Standardisation involves focussing on a generally accepted and followed system of nomenclature. Setting standards is a 'top-down approach' that does not necessarily consider existing conventions and definitions. Hence, harmonisation means bringing accepted and enforceable rules into the legal system, while standardisation sets voluntary standards, making this a softer approach than harmonisation.

Harmonisation may be achieved through several different means, the degrees of which may vary (Leebron, 1996). These can be described as follows: (i) the harmonisation of specific rules that regulate the outcome, characteristics, or performance of goods; (ii) the harmonisation of policy objectives that sets policies for governmental action, but leaves room for discretion as to how these objectives are to be achieved; (iii) the

harmonisation of policies in a particular area, such as cost allocation (e.g., the 'polluter pays' principle), the requirement for a scientific basis for decisions, or preserving labour's right to organise; and (iv) the harmonisation of institutional structures and procedures, such as public participation in rulemaking and access to judicial dispute settlement.

Goode (2003) identifies four crucial factors for success in any harmonisation process. The first of these is the avoidance of excessive ambition. It is better to have a limited target that is achievable than a grand design that is not. Second, it is important to ensure the participation of all interested parties from the outset. The early participation of interested sectors is necessary to show that there is a serious problem to be addressed and that a solution is possible. If major players give an affirmative answer to these two points, then the case for harmonisation has at least been properly made and the project can proceed. Third, harmonisation requires continuity of effort. Finally, there must be a driver, namely the enthusiasm and commitment of a single individual or group, whose self-appointed task is to generate interest and support for the project, draw in participants, and secure their active and continuous involvement in the work.

Harmonisation can take two forms: soft and hard. Soft harmonisation consists of provisions embodied in model laws (to be incorporated in the national law), principles found in legal guides, and scholarly restatements of international commercial law. It provides for the flexible and effective convergence of different legal systems, and is often the recommended harmonisation method. Hard harmonisation is based on treaties, involves state rights, and consists of international conventions, national statutory law, and regional or international customary law. Only a small proportion of hard law rules are mandatory, and they are normally specific to a national legal system.

Nevertheless, harmonisation has its downsides. The process of harmonisation through an international instrument is almost always lengthy and arduous, and involves the infusion of a prodigious amount of expertise, time, and money. In addition, it can be argued that the drive towards harmonisation restricts political sovereignty over domestic

regulations. At the same time, different countries have different legal cultures, resulting in different approaches to legal issues. Wealthy countries may prefer stricter rules since the people living there can afford such rules (Mayeda, 2004), while developing countries may prefer more lenient rules.

To overcome these problems, Posner (1998: 5) suggested that developing countries should adopt rules rather than standards. There are two reasons for this. First, rules are easier to apply, resulting in 'fewer demands on the time and the competence of [judges]', and their use is 'both cheaper and more likely to be accurate'. Second, 'rules facilitate monitoring of the judges and so reduce the likelihood of bribery and the influence of politics in the judicial process'.

Furthermore, in some cases harmonisation may undermine the development of effective legal systems. This is based on the notion of unity of law and state that can be perceived as the identity of law and territory (Shaw, 1996). Thus, the law needs local constituencies with a strong interest in and understanding of the laws (Pistor, 2000). The effective consequence is low levels of voluntary compliance with the law, and consequently, low levels of compliance overall.

5.3 Mutual Recognition Arrangement

In recent years, the internationalisation of regulations has increased, including those pertaining to health, safety, consumer protection, the environment, and labour markets (de Brito, Kaufmann, and Peklmans, 2016). To overcome barriers caused by the internationalisation of regulations, instead of harmonising fully, countries are increasingly working on international regulatory cooperation, including mutual recognition arrangements (MRAs). Nicolaidis (1991) defined an MRA as a form of contractual agreement where countries, standards agencies, or professional organisations (e.g., licensing bodies) agree to recognise the equivalence of another country's technical regulations (or conformity assessment procedures) and sanitary or phytosanitary measures.

In trade in goods, an MRA embodies the general principle that, if a product can be sold lawfully in one jurisdiction, it can be sold freely in any other participating jurisdictions without having to comply with the regulations of these other jurisdictions, regardless of any differences in standards or other sale-related regulatory requirements. The EU through the European Court of Justice (ECJ) has also introduced MRAs through judicial fiat as decided in *Cassis de Dijon* (ECJ Case 120/78). In other words, under an MRA, a process of approval can be initiated domestically by the producers and exporters set by the national law and based on the same standards set by the destination country.

MRAs are trade-facilitative instruments that are negotiated and concluded, often in support of market-access commitments that reduce the cost and time that would otherwise be required to obtain product approvals or certification of professional qualifications. Exporters of goods and services benefit from the conditional recognition such MRAs provide, while market regulators in the importing state essentially agree to forgo any further testing or additional compliance requirements on the suppliers of imported goods or foreign services (Nicolaidis and Shaffer, 2005).

Hamanaka and Jusoh (2018) proposed several reasons why ASEAN needs a recognition system as part of the convergence of the region's regulatory regimes. This is mainly due to limitations of supranational power, the drive to build confidence amongst members, and the need for capacity development. Moreover, neither simple harmonisation nor simple mutual recognition functions well in ASEAN, due to the diversity of legal backgrounds. This suggests that the combination of harmonisation preferred by civil law countries and mutual recognition preferred by common law countries is suitable. Thirdly, the variety in social norms ranging from market mechanisms to social safety implies that the combination of harmonisation and mutual recognition is also suitable.

There are limits to mutual recognition (Trachtman, 2007), the first of which is set by the degree to which the foreign regulation achieves the regulatory goals, and by the importance of meeting these goals. There is a risk that mutual recognition will be implemented in a way that sacrifices

important regulatory goals without adequate justification. States may at times accept compromises in their regulatory goals, but they should not do so unless they are compensated by enhanced welfare from free trade or other sources.

The second limit of mutual recognition relates to the material capacities of developing countries. The risk is that developed countries will establish mutual recognition in a way that disadvantages poor countries. Trachtman (2007) argued that mutual recognition as developed in the EU has managed the first risk through a nuanced deliberative process that includes both legislative and adjudicative capacity, and has experienced only an attenuated form of the second risk, largely due to the relative economic homogeneity of EU member states. This problem will arise when there are disparities in ability to implement the rules in the countries involved in the mutual recognition.

The third limit of mutual recognition is that developing countries may face challenges in creating trust in the domestic system to ensure compliance with the rules or standards agreed in the MRA. A lack of trust can be costly, as it may undermine the cooperative attitude of partners and derail the MRA scheme. To overcome this problem, Trachtman (2007) suggested that mutual recognition be embedded in a two-pronged process of governance. First, mutual recognition can only take place to achieve satisfactory essential harmonisation, to the extent that states can legitimately agree on an appropriate level of regulatory protection. Second, mutual recognition cannot leave poor countries at a disadvantage in international trade. Therefore, essential harmonisation must be established in a way that protects poor countries. This will require technical assistance, the transfer of resources, and the accommodation of differences.

6. Achieving Regulatory Coherence in Intellectual Property and Competition Policy

6.1 Intellectual Property

The AEC has taken steps to harmonise IPRs throughout ASEAN. At the outset, this looks relatively easy to achieve and manage because all AMS are also members of the WTO and are signatories of the Trade-Related Intellectual Property Rights (TRIPs) Agreement. This automatically makes them the signatories of certain, if not all, conventions, managed by the WIPO.

The AEC Blueprint 2025 provides a plan for ASEAN to achieve by 2025. Amongst other things, the blueprint targets the development of regional intellectual property platforms and infrastructure through several key measures. These include a new network of integrated intellectual property services for the region, technology transfer offices, and innovation technology support offices (patent libraries) focusing on commercialisation and linking existing or new virtual intellectual property marketplaces in AMS. Second, ASEAN aims to improve the service delivery of AMS through connected online services, including patent, trademark, and design search systems, and online filing systems. Third, ASEAN plans to improve and centralise the management of the ASEAN Intellectual Property Portal by ensuring that intellectual property information, including statistical data (e.g., number of filings, registrations, grants, and pendency periods), is accurate and updated regularly. Fourth, ASEAN plans to adopt information technology modernisation to improve the quality of services, including the development of an automated translation system for sharing patent information, and regional patent and trademark databases.

The AEC Blueprint 2025 also aims to expand the ASEAN Intellectual Property Ecosystem, through the following key measures:

(i) Establish an ASEAN network of offices (intellectual property, judiciary, customs, and other enforcement agencies) to enhance effective cooperation on regional IPR enforcement and to build respect for intellectual property;
(ii) Enhance engagement with the private sector, intellectual property associations, other stakeholders within the region, and external parties; and
(iii) Increase the capacity of ASEAN intellectual property practitioners through a study on a regional accreditation system.

The AEC Blueprint 2025 aims to (i) improve awareness and promote the protection and utilisation of intellectual property, including incentive schemes for micro, small, and medium-sized enterprises and creative sectors; (ii) develop intellectual property valuation services to raise awareness of the value of intellectual property as a financial asset; (iii) promote the commercialisation of geographical indication products in ASEAN by improving the capacity of the productive sector in the development of protection and branding strategies; and (iv) promote a protection mechanism for geographical indications and genetic resources, traditional knowledge, and traditional cultural expression and assist in their protection in ASEAN and in foreign markets.

The main instrument for IPR cooperation in ASEAN is the ASEAN Framework Agreement on Intellectual Property Cooperation (AFAIP), which was signed by seven AMS on 15 December 1995 and later ratified by nine AMS.

The objectives of the AFAIP (Articles 1 and 2) include the following:

(i) To strengthen cooperation in the area of intellectual property to support the growth of trade liberalisation regionally and globally, covering government agencies, the private sector, and professional bodies;
(ii) To explore the establishment of an ASEAN patent and trademark system (including a regional office), taking into account the development of regional and international patent and trademark protection;

(iii) To promote innovation, transfer, and dissemination of technology, consistent with Article 7 of the TRIPs Agreement; and
(iv) To create ASEAN standards and practices that are in line with international standards. The article clearly states that AMS 'shall implement intra-ASEAN intellectual property arrangement in a manner in line with objectives, principles, and norms set out in such relevant conventions and the Agreement on TRIPs', to provide mutual benefits 'to creator, producers and user of intellectual property and in a manner conducive to social and economic welfare.'

The AFAIP provides for comprehensive cooperation for IPP and enforcement as reflected in the TRIPs Agreement, which includes copyright and related rights, patents, trademarks, industrial designs, geographical indications, undisclosed information, and the lay-out designs of integrated circuits (Article 3). AMS also set up a number of cooperations for (i) enhancing effective intellectual property enforcement and protection; (ii) strengthening the administration of ASEAN intellectual property and intellectual property legislation; (iii) promoting the development of human resources, public awareness of IPR, and private sector cooperation; and (iv) exchanging information on issues of intellectual property. To implement the AFAIP, in 1996 ASEAN formed the ASEAN Working Group on Intellectual Property Cooperation consisting of IPOs from all 10 AMS.

The AMS are currently working on the ASEAN Intellectual Property Rights Action Plan 2016–2025, which will replace the ASEAN Intellectual Property Rights Action Plan 2011–2015. The new plan has four strategic goals: (i) developing a more robust ASEAN intellectual property system by strengthening IPOs and building intellectual property infrastructure in the region; (ii) developing regional intellectual property platforms and infrastructure to enhance the AEC; (iii) developing an expanded and inclusive ASEAN intellectual property ecosystem; and (iv) enhancing regional mechanisms to promote asset creation and commercialisation, particularly geographical indications and traditional knowledge.

To enhance regulatory coherence, ASEAN under the AFAIP originally planned to have a regional patent and trademark office, a regional

electronic information network, an intellectual property database, a common system of protection for industrial design (patents as well as copyright), and newly created ASEAN standards and practices. The plan to set up a regional patent and trademark office with a regional filing system was one of the most important efforts undertaken by the ASEAN intellectual property working group. Under the proposed system, applicants from AMS would be able to file their IPR application with any ASEAN office, after which the application would be forwarded to other designated offices. However, this proposal was not well received as it could lead to some IPOs losing their source of income. As most AMS are also parties to the multilateral system of the Patent Cooperation Treaty, of which most countries in the region are members, a regional system is meaningless.

Most of the harmonisation that has taken place in ASEAN consists of memberships of external organisations, including the WTO and WIPO, which entail a minimum number of conventions to accede to. The AMS have undertaken to ensure that their IPLs compy with the TRIPs Agreement.

The above discussion shows that most AMS are laying down more effective foundations for intellectual property policy (Global Innovation Policy Centre, 2018). However, despite these efforts, fragmentation in IPP persists between AMS, and the level of IPPs varies greatly. Issues and disparities mostly involve issues with either TRIPs Plus (e.g., term extension or restoration for pharmaceutical patents) or TRIPs Minus (e.g., reducing the flexibility allowed under TRIPs Article 27, or reducing the scope of use of compulsory licences) as imposed or proposed by ASEAN Dialogue Partners. In fact, the Plus and Minus provisions will only affect some AMS, mainly through bilateral free trade agreements (FTAs) with more developed nations such as the EU and the US or with the emergence of US membership in the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CTPPP). Countries not joining these high standard FTAs will not be affected by the TRIPs Plus and Minus provisions.

The following table shows the IPP rankings in select AMS.

Table: Association of Southeast Asian Nations International Intellectual Property Rankings

AMS	WEFCI (intellectual property pillar) (of 137)	GIPC Index (of 50)	Harmonisation efforts	Barriers to harmonisation
Brunei Darussalam	55	35	• 2017 accession to WIPO internet treaties • Major intellectual property reforms in the past few years, including the establishment of an IPO	• Life sciences IPRs lacking • Regulatory data protection not available • Compulsory license framework overly broad • Limited framework for addressing online piracy and circumvention devices, and high software piracy rates (66% according to the latest estimates)
Cambodia	130	NA		
Indonesia	46	43	• Administrative relief available for copyright infringement online • Good cabinet-level coordination and a coordinating framework for intellectual property enforcement	• Heightened efficiency requirement targeting biopharmaceutical patents • Patent law that includes a requirement for technology transfer of all patented technologies and processes in Indonesia • Challenging copyright environment with high levels of piracy • Limited participation in international intellectual property treaties
Lao PDR	85	NA		
Malaysia	26	23	• The Intellectual Property Corporation of Malaysia has PPH agreements in place with both the European Patent Office and Japan Patent Office.	• Compulsory licences, including one issued in 2017 for sofosbuvir, a new breakthrough medicine to treat Hepatitis C • Patent term restoration not allowed • Ex o¬fficio powers not used by customs officials
Myanmar	NA	NA		

AMS	WEFCI (intellectual property pillar) (of 137)	GIPC Index (of 50)	Harmonisation efforts	Barriers to harmonisation
Philippines	71	38	• Most basic IPRs provided for in legislation (although missing certain key sector-specific rights) • Growing specialisation and capacity building, such as in administrative intellectual property courts • Streamlining of the intellectual property registration system • Coordination with rights holders and government agencies, and raising public awareness	• Loopholes, red tape, and non-deterrent remedies in intellectual property legislation and in courts • Significant gaps in life sciences and content-related IPRs • Digital piracy largely unaddressed • Limits on trademark protection, and mixed enforcement outcomes
Singapore	4	9	• Advanced national intellectual property framework in place • Active participant in efforts to accelerate patent prosecution (the IPO of Singapore has a few PPHs in place and is a member of the Global PPH).	• Software piracy decreased from an estimated 35% in 2009 to 30% in 2018, but is still quite high for a high-income economy. • Lack of transparency and data on customs seizures of intellectual property-infringing goods
Thailand	106	41	• Prioritisation of greater enforcement, awareness, and use of intellectual property within a wider development plan • Basic level of protection and a registration system in place for copyrights, trademarks, and designs, including recent membership in the Madrid Protocol • Efforts to adjust copyright legislation to new technological developments • Increased enforcement campaigns	• Gaps in patentability, and severe patent backlogs • Life sciences IPRs inconsistent with TRIPs, including trade and competition law as the basis for compulsory licensing • An incomplete digital copyright regime and a lack of clarity on effective implementation • Barriers to market access for patent holders • Physical counterfeiting and digital piracy • Weak IPR enforcement due to delays, lack of resources, and non-deterrent sentences

AMS	WEFCI (intellectual property pillar) (of 137)	GIPC Index (of 50)	Harmonisation efforts	Barriers to harmonisation
Viet Nam	99	40	• Basic intellectual property protections and enforcement framework in place, with stronger penalties for commercial-scale infringement • Development of a national intellectual property strategy • Growing integration into international intellectual property platforms • Effort to coordinate intellectual property enforcement • Promotion of IPR awareness	• Inadequate protection of life sciences patents, and a challenging enforcement environment • Gaps in copyright protection, including a lack of measures to address online infringements • High physical counterfeiting rates and rampant online infringement • Enforcement generally poor; penalties insufficient in practice; administrative inaction

AMS = ASEAN member state, GIPC = Global Innovation Policy Center, IPO = intellectual property office, IPRs = intellectual property rights, Lao PDR = Lao People's Democratic Republic, NA = not applicable, PPH = patent prosecution highway, TRIPs = Trade-Related Intellectual Property Rights Agreement, WEFCI = World Economic Forum Competitiveness Index, WIPO = World Intellectual Property Organisation.

Sources: World Economic Forum (2018) *Competitiveness Index (Intellectual Property Protection Pillar)*; United States Chamber of Commerce, Global Innovation Policy Centre (2018), International Intellectual Property Index; European Union (2017), Intellectual Property Rights Small and Medium-Sized Enterprises Helpdesk.

Some reasons for the fragmentation of IPR laws, regulations, and frameworks are differing levels of development, levels of understanding, and preferences on issues related to intellectual property. Some AMS such as Singapore and Malaysia place high importance on strong protections of traditional intellectual property such as patents, trademarks, and copyrights, whereas other AMS such as Viet Nam, the Lao People's Democratic Republic, and Thailand place a high degree of importance on other forms of intellectual property, such as geographical indications.

In addition, the details of IPLs may differ from one AMS to another due to differing legal traditions. Former British colonies in ASEAN, i.e. Brunei Darussalam, Malaysia, Myanmar, and Singapore inherited their IPLs from the British system, which contains similarities with the TRIPs Agreement of the WTO. Conversely, other AMS need to work from the ground up to prepare their national IPLs, and require technical assistance from donors. As a consultant who has worked on developing a national IPL, the author can attest that the transfer of knowledge between drafters (who

were mainly international consultants and national intellectual property officials) was minimal at best. The situation in ASEAN is different from that of most other regional cooperations in the world. For example, the EU, apart from Ireland and the United Kingdom, is mainly based on the civil law system. The same can be said of the Common Market of the Southern Cone (Mercosur) and Caribbean Community countries, which are mainly linked with Spanish civil law systems. In addition, Europe is the main birthplace of the IPLs that form the basis of the WIPO conventions and TRIPs Agreement that started during the First Industrial Revolution.

Two other key issues facing AMS are intellectual property infrastructure and enforcement. The Singapore IPO is an important element of Singapore's strong intellectual property system, and it provides an effective and efficient intellectual property management and registration system within the country. The Malaysian Intellectual Property Corporation has also introduced a comparatively more efficient intellectual property system. Meanwhile, Singapore, Malaysia, and the Philippines have established intellectual property courts, and Singapore has also established the Arbitration and Mediation Center in collaboration with the WIPO to support intellectual property dispute resolution in Asia.

Intellectual property enforcement mechanisms and sanctions for the infringement of IPRs in some AMS do not provide adequate deterrence in themselves. Common problems facing AMS include the inefficient coordination of action by enforcement bodies, a lack of deterrent sanctions for piracy, lax border controls that allow counterfeit products easy access to the country, and a lack of well-trained staff (Butt, 2008; Saidin, 2016). The intellectual property courts in Malaysia, Singapore and the Philippines contribute towards a more effective intellectual property enforcement system (Anton 2003).

Indonesia, on the other hand continues to face issues with intellectual property enforcement, mainly due to its weak intellectual property governance system. In the Philippines (Negre and Perez 2009), the poor enforcement of intellectual property ties in with a lack of public awareness, limited intellectual property expertise, slow IPR registration

procedures, lack of coordination amongst enforcement agencies, gaps in enforcement and prosecution, lack of leadership, lack of data and information for effective decision-making, and limited operational transparency. In the case of infringements, it is very difficult for right holders to seek assistance from enforcement bodies such as police agencies.

In Viet Nam, there is insufficient understanding of IPRs on the part of enforcement officials, as well as a shortage of resources, resulting in lengthy and burdensome enforcement procedures (Nguyen, 2010). The legal frameworks in Cambodia and the Lao People's Democratic Republic is still in the early stages of development. On the other hand, Myanmar does not generally recognise trademarks or copyrights from other countries, and infringement of IPRs is common. As per the WTO's decision on 29 November 2005, Myanmar would have to provide IPP in accordance with the TRIPs Agreement by 1 July 2013 (on 11 June 2013 the WTO extended this deadline to 1 July 2021).

In Thailand, intellectual property piracy and breach of copyright law are not in line with technological developments, and actions against digital piracy have been insufficient (Global Innovation Policy Center, 2018). Nevertheless, Thailand has made intellectual property enforcement a priority by creating a national task force, setting up intellectual property dialogue with the EU, introducing creative economy initiatives requiring strong IPP, and introducing amendments inducing Thai custom officers to take enforcement actions ex officio.

Another issue relating to IPP in AMS is the linkage of IPP with public health, mainly relating to access to and the price of medicine. This includes the linkage between compulsory licence mechanisms and the AIDS crisis in the country, mainly to due to the high cost of patented pharmaceuticals for AIDS patients (see Harrelson, 2001). Thailand and Malaysia, for example, have been issuing compulsory licenses for AIDS-related medicines.

The primary challenge for any harmonisation effort within ASEAN is the fact that IPR continues to be governed within the sovereignty of each state. AMS have the right to choose their own standards of IPPs, either through adopting the minimum standards under the WIPO and WTO arrangements or adopting higher standards, mainly through FTA commitments. For example, as a result of CTPPP, Brunei Darussalam, Malaysia, Singapore, and Viet Nam (being parties to the CTPPP) undertake certain TRIPs-Plus measures. To comply with the 2004 US–Singapore FTA, Singapore allows patents to support life science industries such as patent protections for plants and animals, and essentially biological processes (other than non-biological and microbiological processes) for the production of plants or animals. In 2004 Singapore also joined the 1991 International Union for the Protection of New Varieties of Plants Convention (2004 US–Singapore FTA, Article 16).

ASEAN differs from the EU in that it lacks the EU's competence and legal system. For example, the EU can enforce harmonisation through the EU legal system by means of regulations or directives. ASEAN on the other hand remains relatively individualistic, meaning that each AMS has sovereignty over the IPR system in their country.

Having an established legal system with its own enforcement mechanism, the EU is generally able to take regional steps to harmonise IPRs. For example, it tackled the problem of piracy exacerbated by new digital technologies with a directive harmonising the protection of certain neighbouring rights through the 1992 council resolution on increased protection for copyright and neighbouring rights. The 2003 EU InfoSoc Directive (or European Union Copyright Directive) harmonised the principal rights of a copyright holder (i.e., reproduction, communication, and distribution rights), provided legal technological protection measures, and listed several exceptions to the exclusive rights that member states could choose to implement.

The EU has also harmonised IPR enforcement through various measures. For example, in 2004 it introduced the Intellectual Property Enforcement Directive setting minimum standards for civil remedies in the courts of member states. The directive sets a general obligation to establish an

efficient and not too costly procedure to protect copyright and regulates the production of evidence, right to information, provisional measures, and injunctions. IPR enforcement will utilise private international law on legal conflicts in the law based on the 2001 Brussels Regulation, which was repealed in 2012 and will be used against non-signatory countries from 2015. Critics argue that the Intellectual Property Enforcement Directive has not met its objective as it is only effective against occasional, not professional, infringers (see Ricolfi, 2004.

The first level of harmonisation took place through the 1973 Convention on the Grant of European Patents (also known as European Patent Convention [EPC]). The EPC, which is also open to non-EU states, established a European Patent Office that provides a legal framework for a centralised procedure for patent application in Europe. The European Patent Office is charged with receiving the applications and centrally administering revocation and opposition procedures. As the EPC recognised the territorial nature of patents, the procedure does not grant a single European patent but rather a bundle of national patents enforceable in the states for which the patent is filed. The EPC has harmonised the most essential features of patent protection, such as patentable subject matter (Article 27), rights conferred by a patent (Article 28), conditions on patent application (Article 29), exceptions to the rights and other allowed unauthorised uses (Articles 30 and 31), revocation and forfeiture, and term of protection (Articles 32 and 33). However, the harmonisation process is more difficult to apply to new technologies such as biotechnology (Favale and Plomer, 2009) and information communication technology (Deschamps, 2011).

The EU has also been working on an EU patent package as part of a unified European patent system with a unified patent court. Unitary community patents are created through three pieces of legislation: (i) Regulation 1257/2012, which outlines the features and discipline of the community patent (defined as a 'European patent with unitary effect'; (ii) Regulation 1260/2012, which settles the crucial question of the translations of the patent application; and (iii) Agreement on a Unified Patent Court 2013, which establishes a patent court with jurisdiction over cases regarding unitary patents. The court will consist of (i) a court of first instance (including a central division, and local and regional divisions);

and (ii) a court of appeal. However, this process and other proposals for a community patent have been heavily criticised for their lack of attention to exceptions and limitations (Hilty, 2012).

The ECJ also plays an active role in enforcing harmonisation in the EU. In the EU, harmonisation in the field of copyright is achieved by several decisions of the ECJ.[1]

In addition, the European Council invites the European Commission to 'pay particular attention' to the ratification of international IPR treaties by non-EU members when negotiating agreements with them. This means that AMS entering into an FTA will face similar demands from the EU, and if the EU has an FTA with ASEAN as a group, there would be a creeping harmonisation of IPRs in the region. As ASEAN does not have a judicial system covering the whole region, ASEAN may be unable to achieve judicial harmonisation, as in the EU.

Beyond the EU, African countries have also made good progress in setting up regional IPOs, including the African Regional Intellectual Property Organisation for English-speaking African countries, which is based in Harare, and the African Intellectual Property Organisation for French-speaking African countries. These two organisations act as receiving offices for patents and trademark applications from the member countries. Other regional patent offices include the Gulf Cooperation Countries Patent Office and the Eurasian Patent Organisation (for Russia and several former Soviet Union countries).

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[1] See *Infopaq International A/S v Danske Dagblades Forening* (C-5/08)*I.P.Q. 57 (2009) I-6569; (2009) E.C.D.R. 16, *Football Association Premier League Ltd v QC Leisure and Karen Murphy v Media Protection Services Ltd* (C-403/08 and C-429/08) (2012) Bus. L.R. 1321, *Eva-Maria Painer v Standard VerlagsGmbH* (C-145/10) (2012) E.C.D.R. 6, *Football Dataco v Yahoo! UK Ltd* (C-604/10) (2012) E.C.D.R. 10, *Bezpečnostní softwarová asociace* (2011) E.C.D.R. 3; and *SAS Institute Inc v World Programming Ltd* (C-406/10) (2012) E.C.D.R. 22.

6.2 Harmonisation of Competition Policy

Competition policy plays an important role in single market integration efforts like ASEAN, which aims to be a single production base. The primary objective of competition policy and law is to foster economic efficiency and consumer welfare while maintaining the free competitive process, or protecting effective competition (Khemani, Anderson, and Bamford, 1998). The focus of competition policy is the supply side of the market, such as business conduct (which is anti-competitive), cartels, price control arrangements, or the abuse of dominant positions by intellectual property holders. In a single market or single production base where businesses tend to operate across borders, competition policy may affect trade and investment, such as via cross-border mergers (Lee and Fukunaga, 2013).

Competition policy is important for the AEC as trade barriers to new entries may exist in a regional economic community. These obstacles come from the restrictive business practices of dominant domestic firms (Lee and Fukunaga, 2013). For example, intellectual property holders may set high licence fees or introduce unreasonable licencing arrangements, which set barriers for entry. High entry barriers may also impact research and innovation, and intellectual property holders may limit access to research tools to work on new innovations.

The AEC Blueprint 2025 acknowledges that for ASEAN to be a competitive region with well-functioning markets, rules on competition will need to be operational and effective (ASEAN, 2015). It also states that the fundamental goal of competition policy and law is to provide a level playing field for all firms, regardless of ownership. ASEAN recognises that enforceable competition rules that proscribe anti-competitive activities are an important way to facilitate liberalisation and a unified market and production base, as well as to support the formation of a more competitive and innovative region.

The measures proposed by the AEC Blueprint 2025 include the following:

(i) Establishing effective competition regimes by putting in place competition laws for all AMS that still lack them, and effectively implementing national competition laws in all AMS based on international best practices and agreed-upon ASEAN guidelines;

(ii) Strengthening the capacities of competition-related agencies in AMS by establishing and implementing institutional mechanisms necessary for the effective enforcement of national competition laws, including comprehensive technical assistance and capacity building;

(iii) Fostering a 'competition-aware' region that supports fair competition, by establishing platforms for regular exchange and engagement, encouraging competition compliance and enhanced access to information for businesses, reaching out to relevant stakeholders through an enhanced regional web portal for competition policy and law, outreach to and advocacy for businesses and government bodies, and sector studies on industry structures and practices that affect competition;

(iv) Establishing regional cooperation arrangements on competition policy and law by establishing competition enforcement cooperation agreements to deal effectively with cross-border commercial transactions;

(v) Achieving greater harmonisation of competition policy and law in ASEAN by developing a regional strategy on convergence;

(vi) Ensuring that competition policy chapters negotiated by ASEAN under the various FTAs with Dialogue Partners and other trading nations align with competition policy and law in ASEAN to maintain a consistent approach to competition policy and law in the region; and

(vii) Continuing to enhance competition policy and law in ASEAN, taking into consideration international best practices.

The other important ASEAN competition policy document is the ASEAN Regional Guidelines on Competition Policy 2010, which serves as a general framework to introduce, implement, and enforce competition policy and law in each AMS, although it is not binding. To implement the

policy, ASEAN formed the ASEAN Experts Group on Competition, which acts as an official body comprising representatives from the competition law authorities and agencies responsible for competition policy in the AMS. The group's main function is to coordinate competition policy for all ASEAN members. According to some, the experts group acts as an official ASEAN body for cooperative work on competition policy, and serves as a network for competition agencies or relevant bodies to exchange policy experiences and institutional norms on competition policy and law (Lee and Fukunaga, 2013).

To date, there is no regional legal framework regulating competition and no regional body overseeing the administration of competition policy and law at the ASEAN level. As with the IPLs, the competition laws and policies in ASEAN are territorial and subject to national laws. Each AMS now has some form of legislation addressing competition issues.

As competition is subject to domestic competition laws, each AMS will be responsible for anti-competitive behaviour in each member state. The concentration on the domestic law and the absence of regional competition law will impose obstacles on cross-border anti-competitive behaviour for businesses operating in more than one AMS. At the same time, it will also impose a regulatory burden on businesses involved in a merger or acquisition in more than one AMS as the firms will have to deal with more than one competition law.

These differences in approach towards competition law in the AMS are influenced by several factors. First, the state law depends on the competition culture in each country. Countries with dominant state-owned enterprises tend to exclude such enterprises from the coverage of the competition law, thus distorting the actual economic and competition behaviour in the economy.

Secondly, the state law depends on the model adopted by the national legislatureand in some circumstances based on the models provided by development partners through technical assistance. For example, the competition laws in Malaysia (Competition Act 2010) and Singapore

(Competition Act 2004) are modelled on the EU competition law, and modified to suit local circumstances. On the other hand, Indonesia's competition law (Law No. 5, 1999) has a hybrid character. These laws differ in many ways, including in their substantive and procedural provisions. While the ultimate objective of the Malaysian and Singaporean laws is to protect the process of competition in the market, the Indonesian law pursues broader objectives, including the promotion of equal business opportunities for large, medium-sized, and small-scale business actors in Indonesia (Ahamat and Rahman, 2013).

These different models may also lead to fragmentation in the substantive provisions of the domestic competition laws in the region. While the Malaysian and Singapore laws include a general provision prohibiting anti-competitive agreements (with non-exhaustive lists of prohibited agreements), the Indonesian competition law prohibits specific conduct based on several specific provisions. For example, Article 9 (market allocation) and Article 11 (cartels in general) of the Indonesian law consider business behaviour illegal if it is 'potentially resulting in monopolistic practices and/or [sic] unfair business competition' (Indonesian Competition Law, Article 11).

The Singaporean law does not consider the imposition of unfair prices as abusive conduct, whereas the Malaysian law confers upon the Malaysian Competition Commission the status of a quasi-price regulator with the right to determine whether a price is fair or unfair. While the Singaporean law excludes vertical agreements from the ambit of competition law, the prohibition of anti-competitive agreements under the Malaysian law covers both horizontal and vertical agreements. This leads to fragmentation of the laws, causing legal uncertainty and conflict when applied across borders or over the same subject matter in different jurisdictions.

AMS whose laws allow for extraterritorial application, such as Malaysia and Singapore, will face several obstacles. The Malaysian Competition Act 2012 applies to any commercial activity, both within and outside Malaysia that influences competition in any market in Malaysia. The Singapore Competition Act 2004 applies to anti-competitive conduct committed

outside its territory so long as it has the object or effect of preventing and restricting competition in Singapore. Thus, these countries face certain obstacles, including the gathering of evidence, exchange of confidential information, and reciprocal enforcement of judgements. The fact that the Singaporean and Malaysian competition authorities issued different conclusions and recommendations over the Grab e-hailing business taking over Uber provides an example of different results produced from the same subject matter in two different jurisdictions.

ASEAN is not the only region seeking to achieve coherence in competition policy; however, some regions achieve a higher level of coherence than others. The African approach is based on hard law, as in the EU. The South African Development Community bound its member states to implement measures that prohibit unfair business practices and promote competition within the Community (Gladmore, 2012). The West African Economic and Monetary Union established a treaty prohibiting abuse of dominant position on the common market.

Competition policy and law have been part of the EU since the establishment of the European Economic Community in 1957. Based on the EU treaties, EU members are required to adopt national competition policies and laws parallel to the EU laws as contained in Regulation 1/2003. The EU also enforces its competition policy through a hybrid approach, where cross-border competition issues are addressed by EU organs and domestic competiti issues are addressed by national laws. Some fragmentation still exists in the national competition laws of EU member states. Cultural differences play a role even within the EU where the strength of the competition culture of member states varies. Nevertheless, the EU's cultural identity is more homogeneous compared to that of ASEAN, which is more heterogeneous (Low, 2003).

In Latin America, the harmonisation of competition policies has been on the agenda of the Mercosur project since the signing of the Treaty of Asunción in 1991. In 1993, a protocol indicating the guidelines for a single competition policy was signed by the Mercosur member countries. Under this framework, Argentina, Brazil, Paraguay, and Uruguay entered

into an agreement for the Defence of Competition.[2] The scope of the agreement covers all acts by individuals and legal persons, private or public, with effects on competition within Mercosur and that affect commerce for the parties.

7. Conclusion and Policy Recommendations

The above discussion shows that ASEAN faces disparities in the substantive and procedural provisions of domestic laws and policies relating to IPRs and competition in the AMS. To reduce the gaps and disparities in IPR laws, AEC 2025 focuses more on technical and procedural convergence, rather than on the provisions of substantive laws. This does not address the main fragmentation in the substantive procedure to provide IPP, and substantive provisions and procedures on the enforcement of IPRs.

ASEAN should consider adopting both substantive and procedural coherence. Substantive coherence may be achieved through harmonising or standardising rules, principles, and standards. In addition, procedural convergence may be achieved by harmonising or recognising the rules regarding the procedure.

With regard to IPRs, ASEAN should work on the following:

(i) ASEAN should come up with a model of a substantive law and of procedures in the laws relating to patents, copyrights, trademarks, and other intellectual property, based on the minimum standards commonly adopted in the region. ASEAN will have to ensure that all AMS agree on the common standards contained in the model law. Most common standards are already being promoted through individual AMS FTAs with more developed countries, such as the Singapore–US FTA, Singapore–EU FTA, Viet Nam–EU FTA, and the

[2] Mercosur, *Protocolo De Defensa De La Competencia Del MERCOSUR 1996* http://www.mre.gov.py/v1/Adjuntos/mercosur/Acuerdos/1996/espanol/19-protocolodedefensadelacompetenciadelmercosur.pdf.

CTPPP. It can assumed that by 2040 ASEAN will have entered into an ASEAN–EU FTA, and the CTPPP have been ratified by AMS that enter into the arrangement, making it easier to achieve the ASEAN model law containing the minimum standards.

(ii) If AMS are unwilling to change their existing IPLs, they could work on recognising IPRs issued by another AMS without having to go through national substantive formalities and procedures again. This can be done either through the harmonisation of rules or mutual recognition of the intellectual property registration. AMS may adopt recognition arrangement of IPRs issued in another AMS without having to go through the examination process of the host intellectual property authority, not just in terms of patents and trademarks, but all registrable IPRs, such as geographical indications. For example, Malaysia and Myanmar are yet not parties to the Madrid Union, and applicants for trademarks in these counties must still go through the normal country-to-country application. In addition, the Patent Cooperation Treaty and Madrid arrangements only act as common receiving offices, whereas intellectual property awards are still subject to national IPLs, creating the need to reach a common standard and mutual recognition of substantive examinations.

(iii) To facilitate cross-border IPPs in ASEAN, all ASEAN IPOs can introduce a single intellectual property ASEAN window in each AMS, where each applicant may file a single application in one AMS (designating as many AMS as desired for protections) and be examined and awarded in a single examination office, which will then issue an ASEAN IPP. AMS that lack the capacity to conduct a substantive examination may designate another examination office within ASEAN to do so. Through such cooperation, ASEAN may be able to achieve a standardised time to award IPPs. At the time of writing, Indonesia and Thailand are facing significant backlogs of applications for patents, with delays of 5–9 years in Thailand (Setiati and Darmawan, 2018).

(iv) In addition to recognising IPRs issued in other AMS, AMS need to facilitate cross-border enforcement of court awards to counter professional intellectual property infringers who infringe or become conduits for intellectual property infringements across AMS borders. Hence, ASEAN may want to introduce a cross-border intellectual

property enforcement system, such as the mutual recognition of decisions by courts or authorities on intellectual property infringements.

With regard to competition law and policy, as ASEAN lacks a harmonised competition law, ASEAN has two options for creating competition policy harmonisation: (i) a bilateral approach to recognise competition law of each AMS; and (ii) a regional approach to assist in cross-border enforcement.

ASEAN may achieve competition policy and law harmonisation by establishing model laws that impose minimum standards of rules or principles. AMS could help each other implement the model laws through capacity building and experience sharing. AMS may also work on realising cross-border anti-competition enforcement through the application of positive comity (Ahamat and Rahman, 2013). ASEAN may introduce an agreement to effect positive comity in the region. This would allow a party to notify another party about anti-competitive conduct being carried out in the jurisdiction of the host state, which would take effect in the requesting jurisdiction. It would also allow the requesting state to ask the host state to launch an investigation, remedy anti-competitive conduct, and notify the requesting state of its decision. This would involve the recognition of decisions and awards, and the standardisation or harmonisation of substantive procedural rules. Finally, another important way to harmonise competition law within ASEAN is the reciprocal recognition and enforcement of judgements or awards. This mechanism would enforce decisions made by one AMS in another AMS, freeing the latter from conducting a new investigation over the same anti-competitive behaviour. One model for this type of cooperation is included in the Australia–New Zealand Closer Economic Relations Trade Agreement.

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Seamless Transport, Logistics Markets, and Physical Connectivity

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I. Introduction

As the Association of Southeast Asian Nations (ASEAN) Member States (AMS) become more integrated and interconnected, their socio-economic activities will influence one another significantly. One of the main characteristics is growing intra-regional trade and the movement of people. Factors that have stimulated more trips in the region include the intra-ASEAN visa waiver policy, more frequent flights, emerging budget airlines and expanding airports, and tourism promotion. Bilateral liner shipping connectivity between major maritime AMS (especially Indonesia, Malaysia, Singapore, Thailand, and Viet Nam) has increased continuously, showing deepening regional trade.

AMS need to do more to reap the full benefits of such deepening connectivity. Seamless connectivity will improve efficiency in the movement of people and goods. It will support business, the labour market, and trade competition; and influence relocation and investment. This will result in a significant positive impact on the regional economy (Itakura, 2013; Kumagai et al., 2013; Stone, Strutt, and Hertel, 2012).

Growth in demand for infrastructure and logistics services outpaces the rise in supply. The region needs to develop more physical infrastructure such as seaports, airports, rail links, and highways; and to link them with the hinterland, especially industrial zones and regional distribution centres. In parallel, soft infrastructure such as transport and trade facilitation also needs to be improved to support optimum utilisation of the investment in physical infrastructure. Currently, the main documents guiding ASEAN connectivity are the Kuala Lumpur Transport Strategic Plan (KLTSP or ASEAN Transport Strategic Plan), 2016–2025 and the Master Plan on ASEAN Connectivity 2025 (MPAC 2025). Sector bodies derived and added relevant agreements, projects, and policies to complement and to implement the objectives of KLTSP and MPAC 2025. To achieve seamless connectivity, AMS should advance the harmonisation of the transport and logistics regulatory regime.

The rest of the chapter proceeds as follows. The next section presents simulation results of improved connectivity in ASEAN up to 2040 and its economic impact. The results suggest that enhanced connectivity benefits the region as a whole as well as most of the countries and many subnational regions. The rest of the chapter concentrates on four major issues related to ASEAN connectivity: the ASEAN Single Aviation Market (ASAM), ASEAN land connectivity, the ASEAN Single Shipping Market (ASSM), and the logistics system. The chapter ends with suggestions for turning challenges into opportunities towards seamless connectivity in the ASEAN region up to 2040.

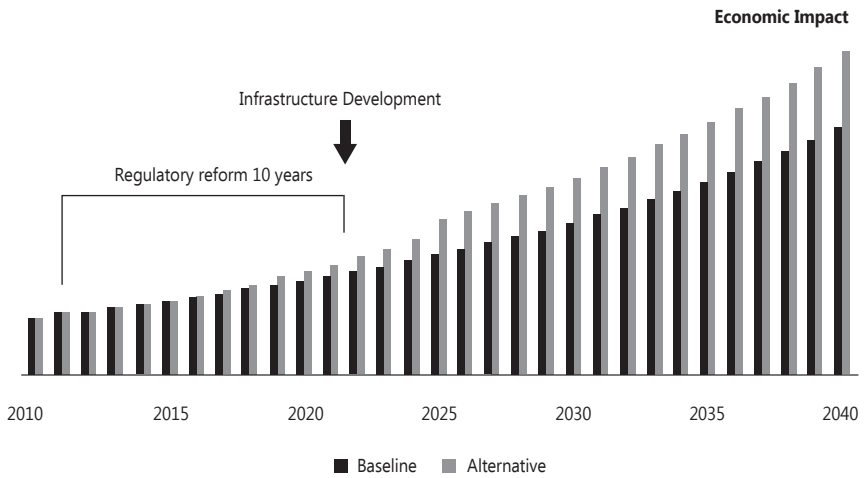
II. Economic Impact of Connectivity Improvement on ASEAN: GSM Results

The simulation used the model developed by the Institute of Developing Economies (IDE)/Economic Research Institute for ASEAN and East Asia (ERIA) Geographical Simulation Model (GSM), with 2010 as the base year (Kumagai et al., 2013). The variables used are sectoral and regional gross domestic product, prices, and wages to create a short-run equilibrium. Based on the short-run equilibrium obtained, it is assumed that workers will move to sectors and regions with a higher real wage rate. With this new distribution and the projected population increase, the next short-run equilibrium can be calculated with the new equilibrium wage and

price, and the predicted labour movement is recalculated. One short-term equilibrium calculation corresponds to 1 year, and the calculations are repeated 30 times until 2040.

To determine the economic impact of enhanced connectivity, two scenarios were simulated: a baseline scenario assuming no additional specified infrastructure development or institutional reform in ASEAN, and a development scenario assuming additional infrastructure development and institutional reform. The difference in the regional Gross Domestic Product (GDP) of 2040 between the simulation results of the two scenarios is taken as the economic impact, as depicted in Figure 1.

Figure 1: Image of Economic Impact



Source: Authors.

There are two important points to understand the simulation results illustrated in Figure 1. First, the baseline scenario assumes that the travel time currently required for roads, ports, airports, and border clearance remains the same up to 2040. With high economic growth in ASEAN, however, the volume and traffic of transport can be expected to increase dramatically. This means that congestion worsens and the assumed travel time cannot be kept constant if the level of infrastructure up to 2040 is the same as at present. Therefore, even though the baseline scenario

does not assume any specific infrastructure development such as a high-speed railway, it allows for upgrading of the current infrastructure to accommodate the increased demand for transportation to maintain the current travel time.

Second, infrastructure development and institutional reform do not necessarily result in uniformly positive economic impacts, i.e. some geographical relocation of economic activities could occur. For example, if infrastructure development is undertaken only in a distant region, firms and households may relocate and the regional GDP may be lower than the baseline scenario in areas negatively impacted by the infrastructure development.

Nonetheless, the simulations (ERIA, 2010; 2015) indicate that combining infrastructure development and institutional reform would lead to a high economic benefit at the national level as well as in many subnational (state, city, prefectural) regions.

This section presents a scenario combining infrastructure development and institutional reform. We assume that the following infrastructure development projects will be completed and available in 2025:

(i) Road improvement, Dawei deep sea port development, and border facilitation along the Mekong–India Economic Corridor
(ii) Road improvement and border facilitation along the East–West Economic Corridor
(iii) Road improvement and border facilitation along the North–South Economic Corridor
(iv) Indonesia–Malaysia–Thailand Growth Triangle and connection to surrounding economic clusters
(v) Brunei Darussalam–Indonesia–Malaysia–Philippines East ASEAN Growth Area (BIMP–EAGA) and connection to surrounding economic clusters
(vi) Sea route improvement between Manila and Singapore, Singapore and Jakarta, and Jakarta and Manila

(vii) Road development in Indonesia, the Lao People's Democratic Republic (Lao PDR), Myanmar, the Philippines, and Viet Nam, including the proposed Vientiane–Vinh Expressway (Keola and Kumagai, forthcoming)

(viii) High-speed railway in Indonesia, Malaysia–Singapore, and Thailand in planning or under construction (Isono, 2018; Kumagai, Isono, and Hayakawa, 2018)

Additionally, an annual reduction in non-tariff barriers (NTBs) from 2016 to 2025 in nine ASEAN countries is assumed as shown in Table 1.

Table 1: Assumption of Reduction in Non-Tariff Barriers, 2016–2025

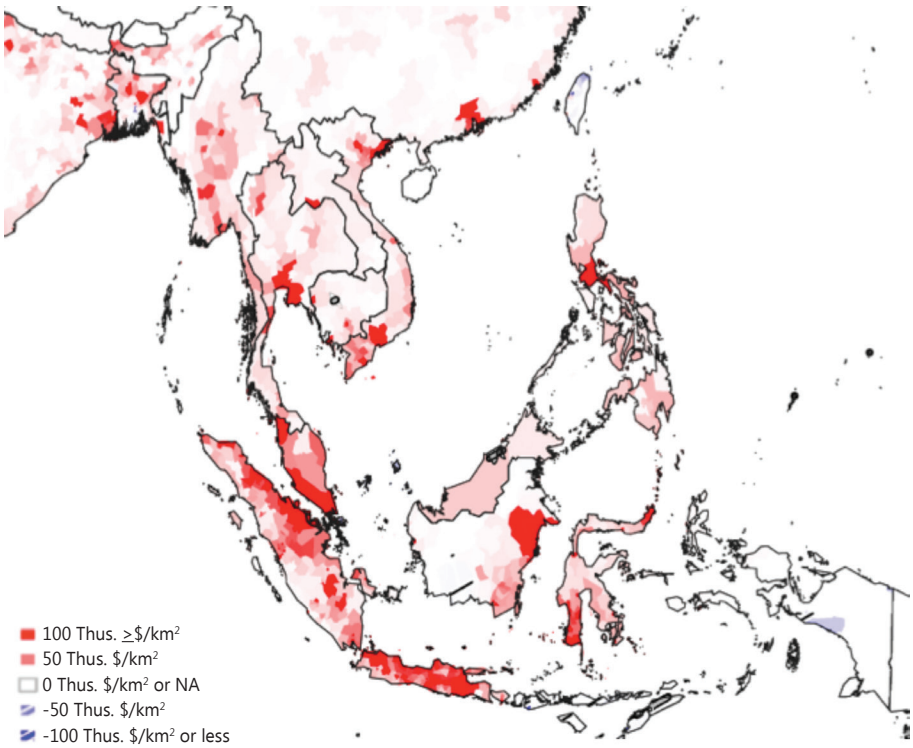
Country	%
Brunei Darussalam	2.18
Cambodia	1.31
Indonesia	1.97
Lao PDR	1.81
Malaysia	1.44
Myanmar	3.48
Philippines	1.05
Thailand	1.30
Viet Nam	1.23

Lao PDR = Lao People's Democratic Republic.

Source: ERIA (2015).

The economic impact is illustrated in Figure 2 by the 'impact density' index, which means the impact per area. ASEAN as a whole has an economic impact of 6.5%. As mentioned above, certain regions may achieve positive economic impacts individually. The top 10 regions with high economic impacts are shown in Table 2. These include major cities of Sulawesi Island, Indonesia and regions in southern Myanmar, indicating that the current connectivity of these regions and cities is relatively poor and has high economic potential.

Figure 2: Economic Impact of Infrastructure Development and Regulatory Reform in ASEAN Countries, 2040
(impact density)



Source: IDE/ERIA–GSM simulation result.

Note: ASEAN = Association of Southeast Asian Nations, km^2 = square kilometre, NA = not applicable.

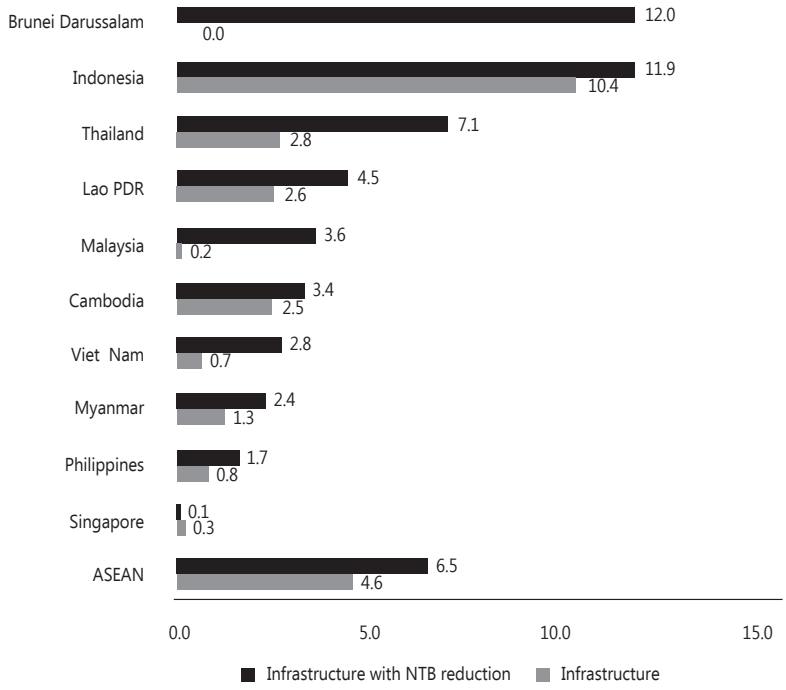
Table 2: Top 10 Regions with Highest Economic Impact (%)

No.	Region	Country	Economic impact (2040)
1	Dawei	Myanmar	49.8
2	Kawthoung	Myanmar	46.7
3	Kota Makasar	Indonesia	42.3
4	Kota Bontang	Indonesia	42.2
5	Kota Parepare	Indonesia	40.7
6	Myeik	Myanmar	39.0
7	Kendari	Indonesia	37.9
8	Kota Manado	Indonesia	36.2
9	Kota Kendari	Indonesia	34.8
10	Kota Bitung	Indonesia	32.9

Source: IDE/ERIA–GSM simulation result.

Figure 3 compares the economic impact of infrastructure development and a combination of NTB reduction and infrastructure improvement on each country. ASEAN as a whole will have a 4.6% economic impact from infrastructure development alone and a 6.5% impact from infrastructure improvement with NTB reduction. Figure 3 shows that the major beneficiaries of the infrastructure improvement are Indonesia and the continental ASEAN countries, in large part because most of the infrastructure investments in the simulation package are situated in the Greater Mekong Subregion area and Indonesia. It is also worth noting that Indonesia benefits most from the infrastructure investment because of the deficient infrastructure in the country. In contrast, countries with much better infrastructure – Brunei Darussalam, Malaysia, and Thailand – benefit more from the reduction in NTBs than infrastructure development.

Figure 3: Economic Impact on ASEAN Member States, 2040
(%)



ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic, NTB = non-tariff barriers.
Source: IDE/ERIA–GSM simulation result.

III. ASEAN Single Aviation Market

The ASAM is aimed at full liberalisation of air travel within AMS, which would contribute positively to the region's competitiveness and the acceleration of ASEAN integration. It was first endorsed during the 13th ASEAN Summit in 2007 and was intended to be realised by 2015. To establish the ASAM, several key agreements were developed:

(i) ASEAN Multilateral Agreement on Air Services (MAAS) and its protocols 1–6.
(ii) ASEAN Multilateral Agreement on the Full Liberalisation of Air Freight Services (MAFLAFS) and its protocols 1 and 2.
(iii) ASEAN Multilateral Agreement on the Full Liberalisation of Passenger Air Services (MAFLPAS) and its protocols 1 and 2 (protocol 3 was added in 2017 and protocol 4 in 2018).

The MAAS was ratified in 2009, the ASEAN Multilateral Agreement on the Full Liberalisation of Air Freight Services in 2009, and the MAFLPAS in 2010, with some ratifications pending by several countries[1]. In 2011, the leaders of the AMS adopted the implementation framework of the ASAM, which covers economic and technical elements.[2] In 2016, all AMS had signed the agreement on ASEAN open skies, allowing the implementation of unlimited 'third', 'fourth', and 'fifth' freedom market access rights[3] between and within the ASEAN subregion and capital cities. Not all major international airports are included in this agreement, however, and some actions still need to be carried out to achieve full implementation.

Progress towards full liberalisation of the ASEAN aviation market has been marked by both enthusiasm and pessimism. On a positive note, significant progress has been made via regional agreements (MAAS, MAFLAS, and MAFLPAS), especially when Indonesia ratified the Open Skies Act in May 2016. With about 40% of the total AMS population, Indonesia is a decisive player in the market.

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1 Some countries need critical investments and efforts to fulfil the standards in the agreements, besides other reasons.

2 Economic elements comprise market access, charters, airline ownership and control, tariffs, commercial activities, competition law and policy/state aid, consumer protection, airport user charges, dispute resolution, and dialogue partner engagement. Technical elements comprise aviation safety, aviation security, and air traffic management.

3 The third freedom refers to the right to fly between home country of an airline to another country, e.g. Bangkok–Singapore by Thai airline. The fourth freedom is the corresponding right in the reverse direction of the third freedom, e.g. Singapore–Bangkok by Thai airline. The fifth freedom refers to the right to fly between two foreign countries on a flight originating or ending in one's own country, e.g. Jakarta–Kuala Lumpur–Bangkok by an Indonesian or Thai airline.

Additional adjustments have also been made, such as adding protocol 3 on 'Domestic Code-Share Rights Between Points Within the Territory of any other ASEAN Member States' and protocol 4 on 'Co-Terminal Rights between Points within the Territory of Any Other ASEAN Member State' to the MAFLPAS.[4] This shows adaptive responses to the dynamics of aviation market integration.

Some scholars and aviation experts also show scepticism, however, especially in the efforts towards full liberalisation and realising the full benefits of a single aviation market. The European Union (EU) single aviation market is the benchmark for a fully integrated aviation market because it is the only fully integrated regional aviation market (implementing up to the ninth freedom[5]) in the world. The liberalisation of the EU aviation market was based on a strongly binding European Single Market, beginning in 1983 after the European Council issued a directive on community authorisations for interregional air services between its member states. Therefore, the historical context of the EU and ASEAN cases is significantly different.

Scepticism is also directed at the limitation of the ASAM to the fifth freedom, with no discussion on moving towards the seventh freedom, let alone the ninth freedom. This is viewed as incomplete liberalisation, preventing people in the AMS from enjoying the full benefits of liberalisation. Other restrictions relate to the ownership and control of airlines. Two major restrictions apply to airlines' cross-border operations: (i) domestic restrictions, where countries do not allow full foreign ownership or dominant control of airlines based in their jurisdiction; and (ii) external restrictions, where bilateral airline service agreements between countries apply only to designated airlines which are 'substantially owned and effectively controlled' by their respective

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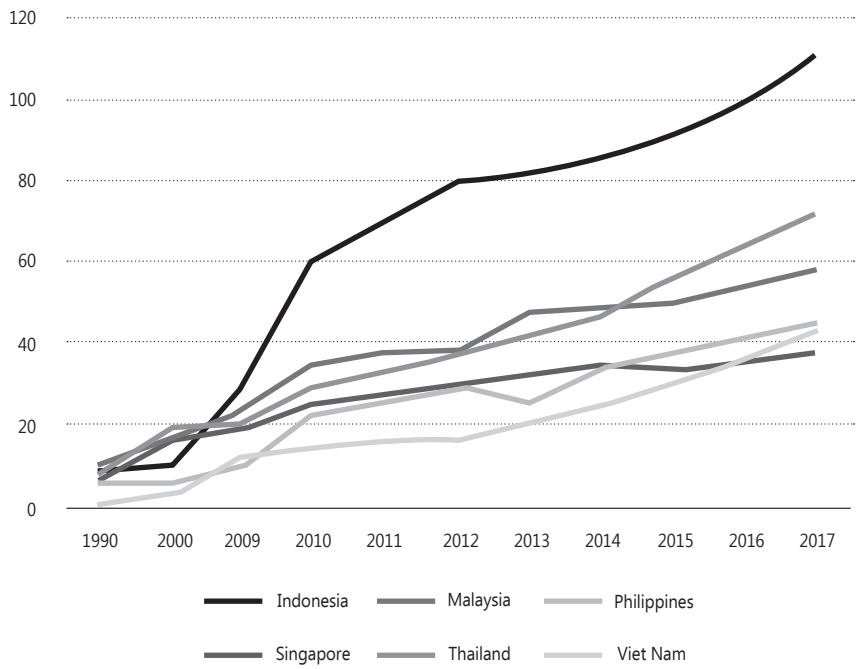
4 Recent additional agreements (2017) are the ASEAN Mutual Recognition Arrangement on Flight Crew Licensing and the Protocol to Implement the Tenth Package of Commitments on Air Transport Services Under the ASEAN Framework Agreement on Services.

5 The seventh freedom refers to the right to fly between two foreign countries while not offering flights to one's own country, e.g. Singapore–Bangkok by an Indonesian airline without making a stop in Indonesia. The ninth freedom refers to the right to fly inside a foreign country without continuing to one's own country (also known as cabotage), e.g. Denpasar–Medan by a Singaporean airline

nationals (Tan, 2017:2). This imposes investment barriers because of unrealised market potential in the region.

In terms of economic value, Southeast Asia's aviation market has developed rapidly during the last decade. The number of passengers carried has surged significantly thanks to positive regional economic growth and the expansion of low-cost carriers. Indonesia experienced the highest passenger growth from 2009 to 2017 (Figure 4) of the six largest contributors of passengers in ASEAN countries (Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Viet Nam). These 'ASEAN6' quadrupled their total number of air passengers over the same period, mainly because of the expansion in the budget airlines market.

Figure 4: Air Passengers in ASEAN6, 2009–2017
(million)



ASEAN = Association of Southeast Asian Nations.

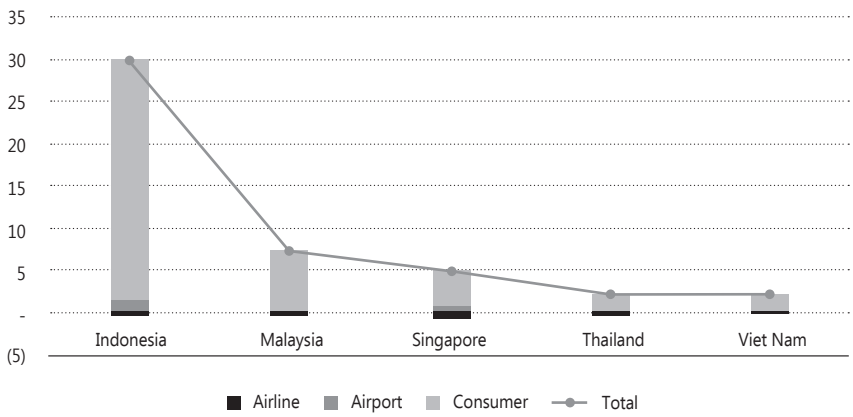
Note: The ASEAN6 countries are: Indonesia, Malaysia, Philippines, Singapore, Thailand, and Viet Nam.

Source: World Development Indicators. https://databank.worldbank.org/data/reports.aspx?source=2&series=IS.AIR.PSGR# (accessed 11 March 2019)

Passenger growth has exceeded increases in airport capacity. Indonesia has been building new airports and expanding existing airports to accommodate rapid air passenger growth, but capacity is still overstretched. Yogyakarta, for instance, must accommodate 7.8 million passengers annually through its 1.7 million passenger capacity airport.

The simulation of benefits gained from implementing the seventh freedom – applied to nine airlines and nine airports in five AMS – shows positive consumer and airport surpluses in all samples, but some decreasing profits for airlines (Figure 5).

Figure 5: Estimation of Surplus in Selected AMS Airlines and Airports from Implementation of the Seventh Freedom ($ million, estimated year: 2018)



( ) = negative, AMS = ASEAN Member States, ASEAN = Association of Southeast Asian Nations.
Source: Zen et al. (forthcoming).

The economic benefits mainly come from higher demand, additional frequency and extended routes, and a higher consumer surplus resulting from lower travel costs. As it happened in EU aviation market, liberalisation will reshape the airline markets. Full-service airlines will be more efficient if they focus on the network at one or a few central hubs. In Europe, full-service airlines used the liberalisation to increase third and fourth freedoms operations between their country of origin and other EU countries, and combined them into sixth freedom. By this, they can

maximise their network economies. There will be a consolidation on full-service airlines and expansion by budget airlines (Burghouwt et al., 2015). Thus, we expect that there will be some decreased profits experienced by full-service airlines given they have not changed the service patterns yet, but there will be higher consumer surplus and airport profits due to reduced airfare costs and increased air traffic..

Maintenance, repair, and overhaul (MRO) is also a lucrative industry. Several MRO corporations have established their hubs or centres in AMS in response to the region's growing market. In 2017, AFFIX KLM E&M and FL Technics strengthened their MRO operations in Indonesia. This type of business is typically carried out in cooperation with local companies such as GMF AeroAsia (Garuda Indonesia), the Philippines' Asian Aerospace Corporation, and SIA Engineering Company.

The realisation of a single aviation market has been slowed by lack of progress on regulatory advancement in the region. Progress on mutual recognition agreements (MRAs) is slow, and the fifth freedom is not fully implemented. At the same time, AMS need to align their regulatory capability and safety standards with the International Civil Aviation Organization (ICAO) safety-related Standards and Recommended Practices. The ICAO standards with their recommended practices could be interpreted and implemented in different ways across the countries. This hampers harmonisation of aviation standards in ASEAN.

The ICAO began the Universal Safety Oversight Audit Programme (USOAP) in 1999 to ensure the implementation of its Standards and Recommended Practices. The USOAP focuses on a country's capability to provide safety oversight by assessing whether it has effectively and consistently implemented the critical elements of a safety oversight system (ICAO, 2019). The system evolved into the USOAP Continuous Monitoring Approach to reduce the cost burden on the audited countries. The ICAO audits in 2016, 2017, and 2018 showed that some AMS fell below the target of 60% overall effective implementation, despite improvement over time.

If ASEAN had a regional oversight body to enforce ICAO standards (perhaps partially) – allowing a reduction of the ICAO audit process and cost sharing between members – the cost of audits might be reduced. A regional oversight body could also provide capacity building for AMS; support methods appropriate to each country's conditions (e.g. transfer of knowledge, systems, or technology under bilateral cooperation); and speed up the integration process.

ASEAN needs a champion to establish an ICAO regional office in order to speed up the harmonisation and standardisation process. Airline safety standards must not be compromised, as the impact could be substantial and harmful. The integration of the aviation market needs to be accelerated alongside the enforcement of security and safety standards.

The absence of community ownership (community airlines) hinders the transfer and efficient allocation of cross-border resources through cabotage barriers as well as control and ownership restrictions. Regional strategies have been developed but do not supersede national regulations.

To reap the full benefits of a single aviation market, ASEAN should move faster towards full implementation of the third, fourth, and fifth freedoms; and start the necessary steps to discuss and establish agreements on the seventh freedom. Some immediate actions include (i) establishing an ICAO regional body, (ii) expediting the MRA process on Flight Crew Licensing (currently only two countries have ratified the MRA), (iii) ratifying protocols 3 and 4 on the MAFLPAS and the Protocol to Implement the Tenth Package of Commitments on Air Transport Services Under the ASEAN Framework Agreement on Services, and (iv) exploring additional airports to be included in the open skies agreements (MAAS, MAFLAFS, and MAFLPAS) in parallel with the expansion in

airport capacity. Further relaxation of 'ownership and effective control' rules also merits serious consideration. Since the aviation market is growing vigorously, it demands a quick and adaptive response as well as anticipatory policy to embrace the dynamics. Amongst ASEAN single market sectors, the aviation and information and communication technology sectors may be the most dynamics, despite high economic potential.

IV. ASEAN Land Connectivity

This section will discuss land connectivity issues, focusing on continental ASEAN where most land borders amongst AMS are located. It will look at both rail and road connectivity.

A. ASEAN Rail Connectivity

The railway system in continental ASEAN is not connected despite concrete plans to develop the Singapore–Kunming rail link (Asian Development Bank, 2010). Table 3 describes existing and new requirements for the railway construction in the missing sector/ routes and spur lines along the Singapore–Kunming Rail Link (SKRL) network. To complete the SKRL network, new railway construction will be required in Cambodia, the Lao PDR, Myanmar, and Viet Nam, with further rehabilitation in Thailand and China. The maximum length of new construction is required in the least developed country, the Lao PDR. The railway development discussed in this section does not consider the Chinese high-speed train project, which is not part of the SKRL.

Table 3: Construction Requirements in Missing Routes and Spur Line as per SKRL

Country	Missing sector/route and spur line	Existing (km)	New construction (km)
Lao PDR	Vientiane–Thakhek–Mu Gia (No 1 in triangle on the map)	-	466
Viet Nam	Mu Gia–Tan Ap–Vung Anh (No 2 in triangle on the map)	6	119
Cambodia	Poipet (Thai border)–Sisophon (No 1 on the map)	-	48
Cambodia	Phnom Penh–Loc Ninh (Viet Nam border) (No 2 on the map)	32	254
Viet Nam	Loc Ninh (border)–Ho Chi Minh City (No 3 and No 4 on the map)	20	129
Myanmar	Thanbyuzayat–Three Pagodas Pass (No 5 on the map)	-	110
Thailand	Three Pagodas Pass–Nam Tok (No 6 on the map)	-	153

km = kilometre, Lao PDR = Lao People's Democratic Republic, SKRL = Singapore–Kunming Rail Link.

Source: Adapted from ASEAN Connectivity Project Information Sheets (ASEAN Secretariat, 2012).

Rail logistics are complex as they require the management of capacity, schedule, shipment characteristics, origin, and destination. Table 4 describes the rail situation in continental ASEAN.

Table 4: Continental ASEAN Rail Matrix

Components	Cambodia	Lao PDR	Myanmar	Thailand	Viet Nam
Standard gauge	No	No	No	No	Planned
Double track	No	No	Yes	Limited	No
Dedicated track for freight services	No	No	No	No	Planned
Centralised train control	No	No	Planned	Limited	Limited
Electrified lines	No	No	No	Planned	Planned
Heavy load wagons	No	No	No	No	No
Long train (over 60 TEUs)	No	No	No	No	No
Modern locomotives	No	Limited	Yes	Planned	Limited
Unit container train operations	No	Planned	No	Yes	Yes
24 freight terminal operations	No	Planned	Yes	Yes	Limited

Components	Cambodia	Lao PDR	Myanmar	Thailand	Viet Nam
Privately owned rail wagons	Planned	Planned	Limited	Planned	No
Private freight train operations	Planned	Planned	No	Planned	Limited

ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic, TEU = twenty-foot equivalent unit.

Source: Adapted from Banomyong (2013).

The ASEAN rail freight system is characterised by the following issues:

(i) Access charges are higher than direct road transport. To use rail transport, goods usually have to be transported by road to rail terminals for intermodal transfers –increasing access charges to rail transport.
(ii) The lack of international routes (almost none) leads to excessive transit times and poor service quality.
(iii) Priority is not given to timetables, resulting in poor reliability.

Apart from physical constraints, ASEAN railways generally need to be more customer-oriented, particularly in terms of pricing flexibility and contract arrangements, amongst others. Efforts to improve and integrate the ASEAN rail network need to be based on long-term support, as the network capability is currently constrained by limited infrastructure and lack of management capability. Completion of the missing links in the SKRL are still significantly behind schedule, as illustrated in Figure 6.

Figure 6: SKRL Route Network

SKRL = Singapore–Kunming Rail Link.

Source: ASEAN Secretariat (2012).

B. ASEAN Road Connectivity

Road is the dominant mode of transport in continental ASEAN, but its management and operation need to be harmonised and standardised. The challenge is that road infrastructure in Cambodia, the Lao PDR, Myanmar, and Viet Nam lags behind that of Thailand and Malaysia. Multi-lane dual carriageway only exists in Viet Nam, while limited access highways are non-existent in Cambodia, the Lao PDR, and Myanmar. Both Myanmar and Viet Nam have toll roads and ring roads around

major cities, as urban congestion has hindered the efficient flow of goods carried by trucks, especially during peak hours. This is also the reason behind the implementation of total or partial truck bans in many AMS. Table 5 describes road transportation issues in continental ASEAN.

Table 5: Continental ASEAN Road Transport Matrix

Components	Cambodia	Lao PDR	Myanmar	Thailand	Viet Nam
Multi-lane dual carriageway	No	Planned	No	Yes	Yes
Limited access highway	No	Planned	No	Partial	No
Toll road	Limited	Planned	Yes	Yes	Yes
Ring road – capital	Limited	Planned	Yes	Yes	Limited
Ring road –major cities	Limited	Planned	Yes	Yes	Limited
Partial truck ban	Limited	Planned	Yes	Yes	Yes
Control – axle load limit	Partial	Yes	Yes	Partial	Planned
Limit enforced by police	Partial	Planned	No	Partial	No
Articulated trucks	Yes	Limited	Yes	Yes	Yes
Modern commercial trucks	Limited	Planned	Yes	Yes	Yes
Road- worthiness certificate	Partial	Limited	Yes	Yes	Planned
Pollution control	No	Planned	Yes	Yes	Yes
Test failed but still on road	Partial	Yes	Yes	Yes	Yes

ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic.

Source: Adapted from Banomyong (2013).

Overloading of cargo is another issue that many ASEAN countries face. Axle load limits are in place but enforcement is often lacking. In terms of compliance, a roadworthiness certificate is theoretically required in most ASEAN countries, but enforcement is again often lacking. The same applies to pollution control. Substandard trucking is a general problem in ASEAN, as well as insufficient equipment for container transport, and constitutes a formidable barrier to the widespread introduction of door-to-door multimodal movement of containers.

ASEAN countries are characterised by a lack of enforcement capability with regard to road rules and regulations. This observation needs to be interpreted with great care, however, as these cases usually occur on separate circumstances. Nevertheless, low enforced road rules and regulations appear to have important implications for sector competitiveness and sustainable development.

V. ASEAN Single Shipping Market

Cooperation between AMS on a single shipping market and logistics began in the 1990s. The Transport Action Agenda and Successor Plans of Action, 1996–1998 were concluded at the first ASEAN Transport Meeting (ATM) in 1996, followed by the Transport Action Agenda and Successor Plans of Action, 1999–2004. Since then, cooperation and integration of the ASEAN transport sector have been guided by a series of consecutive sectoral plans of action: the ASEAN Transport Action Plan, 2005–2010; the ASEAN Strategic Transport Plan, 2011–2015; and the ASEAN Transport Strategic Plan, 2016–2025 (KLTSP) (ASEAN Secretariat, 2017).

Under the KLTSP, four working groups were created by the Fifth ATM: (i) the ASEAN Air Transport Working Group, (ii) the ASEAN Land Transport Working Group, (iii) the ASEAN Maritime Transport Working Group, and (iv) the ASEAN Transport Facilitation Working Group. These groups coordinate and implement the decisions of the ASEAN Senior Transport Officials Meeting. Together with the ASAM, the ASSM was stated in the Master Plan on ASEAN Connectivity, 2010–2015; and its implementation framework was endorsed by the 20th ATM meeting in Myanmar in 2014.

The KLTSP provides seven goals and related actions for maritime transport for 2016–2025:

1. Realise the ASSM through the implementation of the agreed strategies and measures.[6]
2. Realise the roll-on roll-off shipping network operation in ASEAN.
3. Develop an efficient and integrated inland waterway transport network.
4. Enhance the navigation system and security measures in line with international standards.
5. Formulate necessary policy initiatives and recommendations to develop strategic maritime transport logistics between ASEAN and its Dialogue Partners.
6. Intensify regional cooperation in improving transport safety.
7. Strengthen ASEAN search and rescue cooperation to ensure effective and coordinated aeronautical and maritime search and rescue operations in the region.

AMS have worked towards ensuring that the 47 designated ports meet acceptable performance and capacity levels (part of strategy 1, see footnote (vi)), but recognise the need to enhance the implementation. The KLTSP also agrees to adopt relevant International Maritime Organisations (IMO) conventions on the navigation system and security measures, even though the ratification has not yet been fully done. Key IMO conventions – including the International Convention for the Safety of Life at Sea (SOLAS, including the 1996 amendment); the International Convention for the Prevention of Pollution from Ships (MARPOL, including the 1997 amendment); and the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW, including the 1995 amendment) – have not yet been fully ratified by AMS. No AMS have ratified the SOLAS 1996 or the STCW 1995; and only half of the AMS have ratified the MARPOL 1995. This should become a high action priority for AMS to realise the ASSM.

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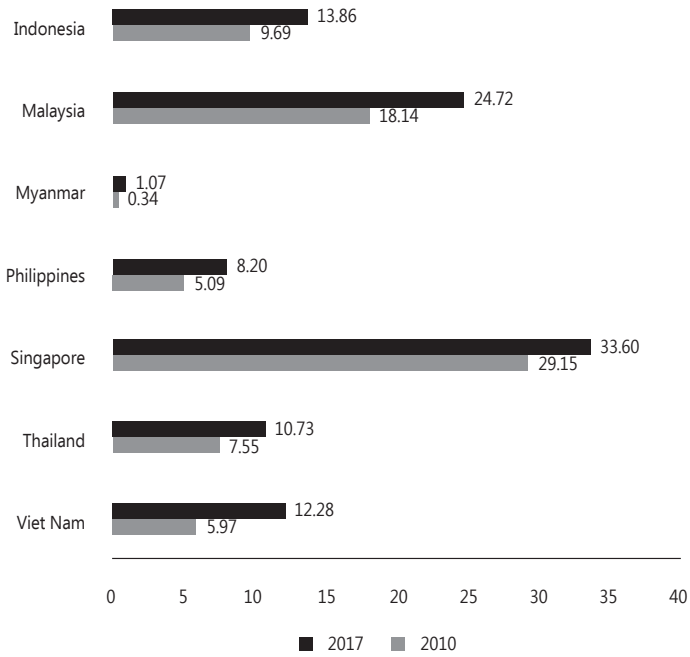
[6] The list of strategies is: (i) develop and monitor the key performance indicator on port efficiency; (ii) conduct a pilot project on the operationalisation of the ASSM, including in-depth cost and benefit studies; (iii) identify a mechanism to mutually recognise the certificates of competency for near coastal voyages issued by AMS; (iv) enhance the implementation of Electronic Data Interchange in ASEAN ports; (v) establish a national coordinating body, where applicable, to oversee the port and land transport infrastructure development, and work on a national master plan for port and land transport development for better port access; (vi) enhance the capacity of the 47 designated ports; (vii) improve the reliability of the technical standards of ASEAN ports; and (viii) establish cruise corridors.

The shipping market in the ASEAN region has been growing continuously. Several ports in Indonesia, Malaysia, Myanmar, Singapore, Thailand, and Viet Nam have been developed and expanded. This has created more opportunities to cooperate by unleashing the potential of domestic and regional markets. The two largest archipelagic economies in the region – Indonesia and the Philippines – have strong but underdeveloped maritime potential. From 2010 to 2017, the region's container throughput grew by 42%, outpacing global throughput growth of 34% (UNCTADstat). Figure 7 shows the increased throughput in selected AMS, with Myanmar, Viet Nam, and the Philippines as significant achievers in terms of percentage change. Myanmar grew by 219%, Viet Nam by 106%, and the Philippines by 61%, while Indonesia increased by 43% and Thailand by 42%.

Figure 7: Container Throughput in Selected AMS, 2010 and 2017 (million TEU)



AMS = ASEAN Member States, ASEAN = Association of Southeast Asian Nations, TEU = twenty-foot equivalent unit.

Source: UNCTADstat (2018). International trade in goods and services. Geneva: United Nations Conference on Trade and Development. https://unctadstat.unctad.org/wds/ReportFolders/reportFolders.aspx (accessed 26 February 2019).

Indonesia, as the largest economy in Southeast Asia with more than 17,000 islands, has not fully utilised its maritime potential. This is depicted in Table 6, as the liner index indicates a country's integration level into global liner shipping networks.

Table 6: Liner Shipping Connectivity Index in Selected AMS

Country	2010	2018
Indonesia	25.60	47.76
Malaysia	88.14	109.86
Myanmar	3.68	9.29
Philippines	15.19	28.98
Singapore	103.76	133.92
Thailand	43.76	47.95
Viet Nam	31.36	68.82

AMS = ASEAN Member State, ASEAN = Association of Southeast Asian Nations.

Source: UNCTADstat (2018), International Trade in Goods and Services. Geneva: United Nations Conference on Trade and Development. https://unctadstat.unctad.org/wds/ReportFolders/reportFolders.aspx (accessed 26 February 2019).

Underdeveloped maritime economies in some AMS have significant scope to maximise their potential and support deeper intra- and extra-ASEAN connectivity. The ASEAN economic community envisages ASEAN as a single market and production base. Manufacturing is the key element in ASEAN production networks that also connects the region with the global value chain. The expansion in manufacturing will drive demand for shipping.[7] PwC predicts that major ports in Malaysia, Indonesia, the Philippines, and Viet Nam will outpace other ASEAN ports in their throughput growth (Wijeratne, Tripathi, and Sircar, 2018).

Connectivity with the hinterland is important in determining the success of the logistics system. However, this issue – along with cabotage restrictions and unbalanced flows of goods – has yet to be resolved. The unbalanced flow of goods (between the east–west, north–south,

[7] Exporters with 1% lower shipping costs will enjoy a 5%–8% higher market share (Hummels, 1999).

and southern corridors) has caused a long-term uneven distribution of the population and centres of growth. The trend in the world shipping market is towards bigger fleets and fewer players. In general, liner shipping connectivity with countries outside ASEAN is stronger than within ASEAN. Indonesia, Malaysia, Singapore, and Thailand have a moderate to strong liner shipping bilateral connectivity index with one another. Stronger shipping bilateral connectivity occurs between Malaysia and Singapore and between them and non-AMS – especially East Asian economies (China, Hong Kong, India, Japan, and the Republic of Korea (henceforth Korea)); several European Union member states; the United Arab Emirates; the United Kingdom; and the United States. Other ports (Indonesia, the Philippines, and Thailand) have weak connectivity with the rest of the world, except Singapore, which is the main regional hub (UNCTADstat, 2018).[8]

This means that Southeast Asia may need a deeper and larger regional shipping market which uses midsized fleets to distribute and feed large vessels in regional ports. Currently, Singapore port and Kelang and Tanjung Pelepas ports in Malaysia are the biggest players in Southeast Asia. Additional ports such as Kuala Tanjung port in North Sumatra could also become important regional ports. Other ports in the Philippines and eastern Indonesia could become secondary hubs. India and Southeast Asia could enhance the maritime trade route by connecting ports in the Bay of Bengal and Sabang. To ease excessive traffic in the Strait of Malacca, a new route along the east coast of Sumatra could be explored as an alternative between India and Java; and could be expanded to central and eastern Indonesia and the Philippines. Together with the expansion of the regional shipping market, ASEAN must improve its hinterland connectivity and related elements such as distribution centres, cold storage, and gateways, to provide a seamless logistics system.

[8] The authors assume that a connectivity index higher than 0.5 is strong.

VI. ASEAN Logistics System

The system to operate the transport infrastructure is equally important in relation to connectivity. In the KLTSP, the logistics system was guided under three areas: (i) maritime transport, (ii) sustainable transport, and (iii) transport facilitation. The three goals are (i) developing strategic maritime transport logistics between ASEAN and its Dialogue Partners, (ii) developing a framework for green and efficient freight and logistics, and (iii) building skills and capacity in logistics and supply chain management for logistics service providers.

In 2007 AMS endorsed the Roadmap for the Integration of Logistics Services, which aims to liberalise maritime logistics services,[9] enhance competitiveness and expand the capability of ASEAN logistics service providers, improve human resources capability, and enhance multimodal transport infrastructure and investment. To enhance the competitiveness of the logistics system, the region must ensure a seamless process of multimodal transport and transport facilitation. Agreements related to this effort are: (i) the ASEAN Framework Agreement on the Facilitation of Goods in Transit in 1998; (ii) the ASEAN Framework Agreement on Multimodal Transport in 2005; (iii) the ASEAN Framework Agreement on the Facilitation of Inter-State Transport in 2009; and (iv) the ASEAN Framework Agreement on the Facilitation of Cross Border Transport of Passengers by Road Vehicles in 2017.

The first three agreements are for goods and the fourth is for facilitating the movement of people across borders. The implementation of multimodal transport, as agreed in the ASEAN Framework Agreement on Multimodal Transport, will minimise time loss at trans-shipment points, simplify administrative procedures, and result in cost savings and a more competitive logistics system. According to United Nations Global Survey on Trade Facilitation and Paperless Trade Implementation, the implementation rate of trade facilitation varies across AMS, especially on

[9] These include cargo handling, storage and warehousing, freight transport agency, courier, packaging, customs clearance, international freight transportation (excluding cabotage), and international road and rail freight transport services.

transparency,[10] formalities,[11] institutional arrangements and cooperation, paperless trade, and cross-border paperless trade (ESCAP, 2017).

The abovementioned UN Global Survey on trade facilitation measures showed that 'transparency', 'formalities', and 'institutional arrangement and cooperation' highly influence the realisation of multimodal transportation, whereas 'paperless trade' and 'cross-border paperless trade' measures affect more the speed, cost, and efficiency of logistics systems. If ASEAN wants to have a competitive logistics system, it must increase the implementation of those four trade facilitation measures. Additional suggestions include harmonising tax codes; providing support for multimodal transport operators in all member states (sufficient infrastructure, integrated service, and a legal framework);[12] establishing an institutionalised ASEAN public–private dialogue mechanism in the logistics sector (to facilitate dissemination, feedback from the private sector, adjustments, and implementation); and developing a cross-border framework for integrated e-commerce and logistics system (the success of e-commerce is influenced by logistics systems). In this context, it is crucial to develop a reliable, adequate, and efficient chain system, including warehouses, cold storage, distribution centres, and gateways.

VII. Turning Challenges into Opportunities: Seamless Connectivity

Evidence-based research and simulations indicate significant economic benefits of deeper ASEAN connectivity. This requires significant work to realise the vision and enjoy its full benefits. The above-mentioned challenges must be addressed individually and collectively, according to each domain. Apart from developing and expanding physical infrastructure to meet increasing demand and to support the logistics market, it is imperative to improve the performance of trade facilitation,

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10 This relates to Articles 1–5 of the World Trade Organization Trade Facilitation Agreement; and Article X of the General Agreement on Tariffs and Trade on the Publication and Administration of Trade Regulations.

11 This relates to Articles 6–10 of the World Trade Organization Trade Facilitation Agreement; and Article VIII of the General Agreement on Tariffs and Trade on the Fees and Formalities connected with Importation and Exportation.

12 Limao and Venables (2001) estimated that differences in infrastructure quality account for 40% of the variation in transport costs for coastal countries and up to 60% for landlocked countries.

customs, and standards. This includes institutional development to monitor standards, improve regional systems, and provide feedback for the evaluation process.

The ASAM should aim for the seventh freedom in 2040, which allows traffic between the territory of the granting state and any third state with no requirement to include on such operation any point in the territory of the recipient state. This allows optimal use of regional resources, since it facilitates increased geographical coverage for all regional airlines. The recognition of community airlines will also produce greater benefits. The community airlines can take advantage of their position as regional airlines to make agreements with other countries or regions. The recognition also abolishes ownership restrictions for community carriers (Tan, 2017:6). The market for trade and tourism would be enlarged and airlines could operate more efficiently.

Rail connectivity in ASEAN is still a challenge because of limited regional infrastructure linkages. If ASEAN is serious about promoting rail connectivity, it is necessary to align regional and national rail development priorities to enable physical rail linkages through the disbursement of adequate national budget. If this is not done, railway connectivity in ASEAN will be dependent upon Chinese-led rail development projects which may serve the interests of China more than those of ASEAN.

Road connectivity has improved significantly, despite discrepancies in road quality and capacity. The biggest drawback to road connectivity are land border crossings, which need to be improved – especially regarding procedures to improve cross-border transport, as the main ASEAN transport facilitation agreements still have not been enforced in AMS. It is time to rethink the cross-border transport system to establish truly seamless transport between AMS. This could be done with the provision of integrated border management, which will facilitate the movement of vehicles from one AMS to another with full harmonisation of technical requirements and documentation.

Relaxing cabotage, even partially, would improve maritime connectivity by opening the market, increasing economies of scale, and raising competitiveness. Careful implementation of partial cabotage could be applied to existing subregional cooperation such as BIMP–EAGA. Subregional maritime markets will be connected to regional hubs such as Singapore and Malaysia, as well as Indonesia. Connectivity with non-AMS Asian hubs (China, Hong Kong, India, Japan, and Korea) is equally important. Potential new routes could be explored, e.g. between south India (Visakhapatnam or Paradip ports) and west Indonesia (Sabang port in Aceh) via the Indian Ocean; and extended to Jakarta or Surabaya and then to the BIMP–EAGA area. This type of route could ease congestion in the Strait of Malacca.

Additionally, as proposed for the ASAM, establishing a regional body for maritime connectivity merits consideration. Such an institution could become an arm of the IMO in ASEAN, providing a regular forum for knowledge exchange, capacity building, certification, simple audits, and support for accelerating the ratification process. As a regional institution, it would have strong credibility and funding, as well as knowledge accumulation. This would make it attractive for international dialogue partners to support.

Other crucial actions to realise a seamless transport and logistics market include:

- An agreement on standards related to economic measures and the transport sector, commitments to obtaining and sharing data, and knowledge sharing to support regional development.
- Considering the regional market integration plan as one of the determinants of national planning to tap opportunities, secure long-term regional projects, and identify all types of cooperation for synergy.
- Agreeing on progressive technology platforms while securing the standards for consumer protection, efficient rules, and cybersecurity. This is particularly important to support general trade, e-commerce, and the logistics system.
- Promoting public engagement during the planning and development process to ensure that the results will benefit the public.

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ASEAN 2040: Data Flows and Electronic Payments

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Context of the Digital Economy until 2040

As e-commerce and the digital economy are increasingly subsuming every aspect of commercial and societal transactions, the Association of Southeast Asian Nations (ASEAN) integration process now includes the challenge to create its digital market. In that regard, data flows and online payments are the 'glue' that integrates all the other freedoms.

E-commerce already accounts for a market turnover that is equivalent to the gross domestic product of a G7 country, and more than half of today's trade in services is dependent on information and communication technology (ICT) infrastructure and data flows (United Nations Conference on Trade and Development (UNCTAD), 2011). Consumer banking, cross-border remittances, and payments are moving onto an entirely online environment. In addition, new concepts like digital manufacturing, 5G telecom networks, and artificial intelligence (AI) will make economies even more data-dependent.

Admittedly, 2040 is far off in the context of digital technology. Billions of goods, industrial and household equipment, devices, vehicles, and containers will be connected and go online in the coming decade alone. By 2040, all the ASEAN countries should have fully realised and implemented concepts like digital manufacturing, 5G, AI, or internet of things (IoT) – and will be on the path to the next step in societal and economic transformation. As technological cycles spin faster than political cycles, ASEAN cooperation must address, solve, and move past the issues that define the incumbent decade. By 2040, ASEAN countries will probably be in the midst of tackling the next-next generation of challenges.

Inevitably, this paper looks first and foremost to the policy concepts that are known today. The mobile internet technology took less than 10 years to complete. Cross-border data flows and online payments are likely to be forgone policy challenges by 2040, but policy analysts could not possibly be expected to answer the policy implications of the 6G technology that does not yet exist on engineers' drawing boards.

However, a prerequisite for digitisation is the free flow of data which allows for seamless communications, without regulatory frictions, and permits new and innovative services to enter into the uncharted and unregulated territory – occasionally making the existing regulatory systems obsolete.

Rather than resisting such changes, the path forward also includes managing the tensions within numerous policy disciplines, e.g. security, privacy, disruptions, competition, taxation, and regulatory agencies' capacities. Within regional cooperation forums like ASEAN, interoperability and standards of technologies and regulations within a country and between countries are essential. For example, as national privacy laws have not yet been implemented in all national legislative systems, interoperability and free data flows on the level of ASEAN are not yet developed.

However, unless ASEAN countries take the step towards national and regional frameworks, ASEAN cannot build its 2040 vision – not just in the digital economy. As trade in traditional goods and services moves online, the existing intra-ASEAN commitments (as well as ASEAN free trade agreements with third countries) will be rolled back unless they are supported by commitments to keep the digital economy open.

Point of Departure: Technology and Policy

Market assessments estimate the value of all commercial transactions conducted with consumers (B2C), business (B2B), and peer to peer (C2C) to have totalled $2.3 trillion in 2017, growing at 25% per year (eMarketer, 2018). In other words, if e-commerce were a sovereign economy, it would be equivalent to the size of India or the Russian Federation – and still grow four times faster than the Chinese economy (World Bank, 2016). While much of the turnover and growth takes place in Asia and the Pacific, the e-commerce market in ASEAN is still just a fraction of these volumes. However, Southeast Asia is the fastest growing region, with a growth rate that is seven percentage points above the rest of the world and six times faster than its offline equivalents – projected to reach $90 billion by 2025 (Google and Temasek, 2017; 2018).

Data traffic is also growing in the region, both in amounts and speeds (Table 1). Asia and the Pacific will overtake North America in terms of total data traffic by 2021 (Cisco, 2017). However, the regional growth is projected at a marginally higher compound annual growth rate than the global average, while the speeds (especially the critical mobile connection speeds) will neither outpace the rest of the world nor the increase in traffic.

The critical rollout of the mobile networks is central in this regard, especially as the ongoing upgrade of the mobile networks will make the difference between broadband and mobile indistinguishable. The 5G network services are assumed to start in 2018, and full national coverage will be completed in the Organisation for Economic Co-operation and Development (OECD) countries and China within less than 4 years (Weissberger, 2018; Bushnell-Embling, 2017).

Table 1: Projected Growth in IP Traffic and Connection Speeds by Region (CAGR, 2016–2021) (%)

Region	IP traffic increase	Fixed broadband speeds	Mobile connection speeds
Global	**24**	**14**	**24**
Asia Pacific	26	13	16
Latin America	20	17	27
North America	22	18	13
Western Europe	22	12	20
Central and Eastern Europe	21	9	24
Middle East and Africa	42	18	23

CAGR = compound annual growth rate, IP = internet protocol.

Source: Cisco (2017).

By industry projections, 28 billion IoT devices – mostly non-personal devices such as household goods, industrial equipment, and transport equipment – will go online in the early stages of 5G deployment, i.e. within a couple of years (Gartner, 2017).

In other words, 5G will be built and operational in much of ASEAN by 2022 or soon thereafter. If the telecom industry follows the same investment cycles of the past 3 decades, the technology that comes after 5G – the sixth generation (6G) networks, which have not yet been invented – should also be fully implemented by 2040. By then, 6G should have at least the reach of today's 4G in each of the ASEAN countries, while 5G should be as common as 2G/3G coverage. Therefore, even the most remote regions of today's developing countries will have access to speeds equivalent to 200 times those of 4G, 1,000 times better energy consumption, and 20 times better latency (IHS Economics and IHS Technology, 2017).

Such speeds and capacities enable a fully mobile consumer-centric digital economy across the region. However, 5G is also the first network that is primarily designed for commercial business and industrial application. The 5G networks will in turn enable the so-called fourth industrial revolution (aka Industry 4.0) – including digital supply networks, smart

factories, and digital manufacturing – which will fundamentally change traditional manufacturing, especially in light manufacturing like consumer goods, textiles and clothing, and motor vehicles (and their supporting services) which are essential for the ASEAN economies.

While we can be sure that the technical infrastructure will be built, the legislative framework for supporting data flows on today's and future infrastructure is critical for the commercial applications to evolve and disseminate. The importance of cross-border data flows is increasingly recognised in global business and international trade, but many regulatory impediments have already been implemented.

Trade on the internet is increasingly fragmented by government measures designed to disrupt the open exchange of data. To date, at least 36 jurisdictions have banned moving bits and bytes across borders, imposing partial or full data localisation requirements where the authorities require all information to be stored on servers within a jurisdiction (Lee-Makiyama, 2017). Such measures are typically imposed for privacy reasons, and the vast majority of all transfers (about 75% of all transmitted data) was already user-generated by 2012 (Tucker, 2013). All data transfers, without exception, contain some form of metadata (such as email addresses, phone numbers, or internet protocol (IP) addresses), and even non-personal information in the form of enterprise and operational data (e.g. technical readings of machinery, or stock inventory) stored within a corporate network contains information on personnel who are logged in while collecting, analysing, or transmitting data.

This means that any foreign business can be restricted from conducting business in another territory using privacy rules as a justification. Amongst the ASEAN countries, forced data localisation is already enforced in Brunei Darussalam, Indonesia, Myanmar, the Philippines, and Viet Nam through privacy rules or by other means. Malaysia and Singapore allow the transfer of personal information if certain conditions are fulfilled regarding the data processing or collecting entity, or the destination of the data. Brunei Darussalam, Cambodia, the Lao People's Democratic Republic and Malaysia lack privacy rules, while Thailand is currently drafting its laws (Table 2).

The use of online payments depends on a number of enabling policies in several challenging policy areas – not just cross-border data flows. Firstly, traditional consumer payment services required the liberalisation of banking, credit, and payment intermediation services. However, the distinction between these products is blurred because of the evolution of electronic payments – and today it is difficult to distinguish from telecommunications, or over-the-top or online processing services, as mobile payments are becoming stand-alone e-money or e-payment services (e.g. AliPay, M-pesa) without being linked to a bank account or credit card.

Table 2: Data Flow Restrictions in ASEAN

Country	Regulation
Indonesia	Economy-wide data localisation (Government Regulation No. 82 regarding the Provision of Electronic System and Transaction, 2012, with implementing acts, 2016); for online services (Electronic Information and Transactions Law, 2008)
Viet Nam	Full data localisation based on both privacy and national security laws (Decree No. 72/2013/ND-CP, Law 24 on Cybersecurity, 2018)
Malaysia	Data flows allowed under certain conditions (Personal Data Protection Act of 2010)
Philippines	Offshoring of financial data forbidden (under Resolution No. 2115 of 2015 - Amendments in the Manual of Regulations for Banks and Manual of Regulations for Non-Bank Financial Institutions on the guidelines on outsourcing)
Singapore	Data flows allowed under certain conditions (Public Data Protection Act, 2012)
Thailand	Draft legislation on privacy which would require specific consent by the data subject before an overseas transfer is executed.
Myanmar	No privacy legislation in place, but there are reports of how the government prefers data to be stored locally in some circumstances, and regulators may require on-site inspections.*
Brunei Darussalam	Brunei is alleged to have practices that require data generated within the country to be stored only in servers within the country.**
Lao PDR	The Lao PDR does not have privacy laws or any data flow restrictions.
Cambodia	Cambodia does not have comprehensive privacy laws. Although the right to privacy is a constitutional right, the regulations enforcing this right are in practice very narrow, e.g. the publication of the identity of minors by the press.

ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic.

Source: * Daniels (2017); ** Ezell et al. (2013).

To make online payment services available, technical infrastructure is required that consists of networks tying up point-of-sale locations (which may be using encrypted communication over the open internet), physical payment terminals, clearing facilities, etc. Such technical infrastructure may be controlled by a monopolist or a state-owned enterprise, which may be acting in a non-competitive manner. The complexity of this was illustrated by the 2012 World Trade Organization (WTO) dispute on electronic payment services (WTO, 2013).

Against this background, markets for carding, banking, and m-commerce are converging – a process which will surely be completed by 2040 – posing a challenge to the architecture of domestic regulation as well as regional cooperation.

Benchmarks in Regional Cooperation

As data protection is not yet implemented in all national legislative systems, common privacy standards, interoperability, and free data flows are understandably yet to be developed within ASEAN. There are, however, a few parallel developments that include some ASEAN members which could set the benchmark for future ASEAN rules.

In the area of privacy, a guideline is in place for privacy legislation and international transfers under Asia-Pacific Economic Cooperation (APEC) and its Cross-Border Privacy Rules (CBPR) on how member governments could implement their laws on a strictly opt-in basis (APEC, 2015). The countries opting into the system de facto recognise each other as essentially equivalent, while private entities from other areas can obtain a certification of compliance under which they may transfer data. By July 2018, only the United States, Japan, the Republic of Korea, and Singapore had opted in to recognise CBPR certification.

It is possible to envisage a similar normative guideline and model law system, supplemented by a certification system, within the ASEAN framework, or for the ASEAN members to incorporate the CBPR outright. For instance, the United States–Mexico–Canada Agreement (USMCA)

clarifies the level of protection that the parties must achieve on the protection of personal information by referencing the CBPR as well as OECD (Article 19.8, item 2), with legislative concepts that should be considered in domestic privacy legislation (Article 19.8, item 3).[1]

On cross-border data flows, the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) binds a subset of ASEAN members (e.g. Malaysia, Singapore, and Viet Nam). It updates the existing WTO rules by protecting data flows, and data localisation measures, as barriers. The parties shall allow for 'cross-border transfer of information by electronic means' (Article 14.11). In addition, the CPTPP bans its parties from imposing data localisation requirements that 'require a covered person to use or locate computing facilities in that Party's territory' (Article 14.13).

This pair of provisions exempts domestic regulations that serve a *legitimate public policy objective*, given that the restrictions pass a two-tier test through *legitimacy* (no 'arbitrary or unjustifiable discrimination' or 'disguised restriction')[2] and *proportionality* (not 'greater than are required to achieve the objective').[3] Such exceptions correspond to the catalogue of cases for exceptions (albeit with slightly different wordings) under WTO rules granted for a limited set of objectives compared with the CPTPP's unspecific exemption for any legitimate objective,[4] while the CPTPP also exempts the entire financial industry from these provisions,[5] and is therefore inapplicable to online payments.

Such carveouts in the CPTPP are as extensive as the WTO rules, e.g. Viet Nam amended its data localisation requirements in June 2018 by invoking national security objectives in its Law No. 24 on Cybersecurity, 2018,[6]

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1 Article 19.8.3 mentions the limitation on data collection, choice, data quality, purpose specification, use, security safeguards, transparency, individual participation, and accountability.

2 CPTPP Article 14.11 3(a) paraphrases the WTO two-tier test under the General Agreement on Trade in Services (GATS) Article 14 and the General Agreement on Tariffs and Trade (GATT) Article 21.

3 ibid.

4 GATS, Article 14. For a legal discussion on WTO exceptions and the digital economy, see Erixon, Hindley, and Lee-Makiyama (2009).

5 Definitions under the CPTPP Article 14.1.

6 See also Nikkei Asia Review (2018).

despite its intention to ratify the CPTPP. Minor semantic changes in the USMCA also improved its commitments: Where the CPTPP merely states that parties 'shall allow' data flows, the USMCA states 'no Party shall prohibit or restrict' data flows. Thus, mere *restrictions* (e.g. governments slowing down or complicating access to data) are now also within the scope of the cross-border data discipline – not just outright *prohibitions*. The USMCA removes the exceptions for legitimate policy objections for data localisation – in other words, there may be legitimate reasons to limit data flowing in and out of a country (including privacy protection), but no justifications to force businesses to use local ICT infrastructure to conduct business in a country.

Other impediments to data flows also exist, e.g. upstream and downstream anti-competitive behaviour against innovations. Without net neutrality provisions, telecom providers may selectively block or restrict data used by any service transmitted or online payments conducted on its network. Singapore is one of the few jurisdictions in the world that since 2011 bans operators from blocking legitimate online content and forces them to comply with antitrust and interconnection rules.[7]

Aside from the potential anti-competitive behaviour of telecom operators, other types of dominant market players (such as banks, retailers, and technology vendors) may abuse their dominance through their ability to set and enforce industrial standards while excluding smaller competitors. There are also filtering and blocking practices by governments which may be imposed for commercial reasons (e.g. to protect state-owned enterprises or national champions) as well as to ensure the full political authority of the internet (Erixon, Hindley, and Lee-Makiyama 2009). In sum, an ASEAN single market for the digital economy will depend on freeing data and payments through antitrust disciplines against private actors as well as all the layers of services liberalisation, including banking, cloud and data flows, and access to intermediaries or public telecommunication networks.

[7] Implemented by the Infocomm Media Development Authority in 2011.

New Challenges from Digitalisation

As new technology affects productivity – and different economies have a different rate of technological adoption – new disruptive technology must theoretically lead to a change in nations' comparative advantages. Such an impact of internet technologies has been established on both firm- and economy-wide levels (van Ark, 2016; OECD, 2015). However, new market entrants that do not carry over old legacy costs of old technologies or have exploited the economies of scale in global demand have threatened local monopolies, state-owned enterprises, and other sensitive stakeholders, especially in sectors like banking, retail, and media. The internet has changed the political economy in the industrial sectors it has disrupted. The impact of digitalisation will become more pronounced in other sectors (including manufacturing) until 2040, and industrial policy responses or protectionist responses cannot be precluded.

The internet and the digital economy are also challenging the regulator outright. A widely spread misconception is that internet commerce takes place in no man's land. In reality, the digital economy is actually subject to overlapping (and often contradictory) rules as governments compete to exercise their jurisdiction extraterritorially, contravening the territoriality principle of international law (Lee-Makiyama, 2013). Restrictions by the regulator must be overcome by 'passporting' and adequacy solutions (similar to how the European Union privacy rules or financial services operate), which allow foreign businesses from essentially equivalent legal systems to operate in the economy.[8]

Meanwhile, the openness of the digital economy makes the authority of the national regulator against certain opinions, activities, or services more difficult to uphold. Such policy challenges require either normative legal prescription and harmonising of penal codes within ASEAN, or law enforcement cooperation under mutual legal assistance treaties between countries when an entity provides a service that is illegal in another country (Lee-Makiyama, 2013). While harmonisation of penal codes may

[8] Regulation 2016/679 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC.

be impractical, ASEAN has signed the Treaty on Mutual Legal Assistance in Criminal Matters, which has been in force since 2004.[9]

Fiscal policy is another area where e-commerce and online payments are already presenting a challenge. There is no evidence of tax bases in the ASEAN countries eroding (Ferracane and Lee-Makiyama, 2017). Instead, the dissemination of online payments leads to an increasing share of the informal ('grey') economy becoming formalised and properly taxed. Numerous unilateral and international initiatives address the problem, including the OECD base erosion and profit shifting,[10] the European Union digital service tax,[11] and United States taxes on profit shifting (global intangible low-taxed income).[12] In addition, by 2040, fiscal revenues may be forgone from 3D printing and other new emerging technologies not yet on the horizon.

Finally, increased digitalisation and cross-border transactions raise the issue of national and cyber security. National security concerns have already affected the open trading system where certain suppliers of network equipment, cloud services, control systems, and data processing (including payment and purchase history) are routinely excluded. Government regulations restricting digital trade and the use of data in these sectors are increasing – and ASEAN must decide whether to explore new areas of cooperation in the form of common cybersecurity standards, or even invest in joint cyber defence capabilities. Further, cyber espionage is increasingly lucrative as the value of intangibles and trade secrets on corporate clouds is increasing exponentially (Lee-Makiyama, 2018). Without proper cybersecurity measures, the number of ways to exploit the vulnerability of critical infrastructure is increasing. Simultaneously, what is deemed 'critical infrastructure' includes an ever-increasing number of sectors, e.g. telecom, transport and energy infrastructure, financial institutions, marketplaces, government, and public services.

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9 ASEAN Treaty on Mutual Legal Assistance in Criminal Matters, 2004.

10 OECD Multilateral Convention to Implement Tax Treaty Related Measures to Prevent Base Erosion and Profit Shifting, 2017.

11 European Commission Proposal for a Council Directive laying down rules relating to the corporate taxation of a significant digital presence, COM(2018) 147 final.

12 US Congress, Tax Cuts and Jobs Act, 2017 (115-97).

Conclusions

Data flows, innovative applications, and new high-speed networks are underpinning the new industrial revolution – industry 4.0 – or much broader societal concepts like Society 5.0.[13] These industrial and societal ideas should be fulfilled within ASEAN by 2040 through national policy initiatives, private investments, and open market demand. The upgrade of the digital economy nationally will enable regional cooperation within ASEAN in many areas. The ASEAN dimension will leverage and underwrite the digital dividend for its members.

Innovative use of data and payment systems will bring new products and services to more people in ASEAN and allow them to trade more efficiently within the region as well as globally. Moreover, freer flow of data and payments can harness the social benefits for small and medium-sized enterprises, expand the fiscal base, and help the region's migrants through low-cost processing of payments for remittances. Such benefits are hinged on justice and home affairs cooperation (especially in the area of privacy), service liberalisation, cybersecurity standards, reviewing fiscal policy, and a multitude of other policy areas.

The region is also supplemented by competing frameworks, e.g. the APEC CBPR and trade disciplines under the CPTPP. In the absence of its own certification framework for privacy and data flows within ASEAN (e.g. in the 2018 E-Commerce Agreement or the 2025 Work Programme), ASEAN members may instead adopt unilateral policies (similar to those of the European Union or China on data privacy; or the European Union on international taxation), forfeiting a digital ASEAN Single Market – or regional cooperation altogether.

[13] Government of Japan, Cabinet Office, Society 5.0. http://www8.cao.go.jp/cstp/english/society5_0/index.html (accessed 7 October 2018).

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Capital Market Deepening, Financial Integration, and Macroeconomic Policy Management

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Background

Since the Asian financial crisis (AFC), member economies in the Association of Southeast Asian Nations (ASEAN) have taken large strides towards enhancing regional integration and cooperation. Policymakers, who took the lessons of the AFC to heart, have rebuilt the foundations for economic growth while remaining open to trade, foreign direct investment (FDI), and capital flows. This has enabled developing ASEAN economies to reap the benefits of regional integration. As the global environment becomes less supportive of trade, the case for further integrating the ASEAN region as a key means of boosting ASEAN's growth potential is becoming more compelling. The prospects for financial integration look particularly promising. Financial integration allows the region's economies to benefit from a more effective and efficient allocation of resources and risk diversification. By allowing the region's financial resources to move more freely across borders, financial

integration will open up new opportunities for businesses and trade, enhancing further financial linkages within the region.

The ASEAN vision of 'one region, of one identity' is rising in importance as building pressures threaten to splinter the world into 19th-century spheres of influence. Crucial to ASEAN's vision is a robust financial system that efficiently provides a wide range of savings and investment products tailored to the risk and return preferences of its firms and households.

Embedded in the concept of an effective, efficient, and stable financial system are two related concepts: (i) that of 'complete markets', meaning the provision of financial contracts that allow holders to hedge risks across a variety of possible futures;[1] and (ii) that of 'efficient' intermediation of savings and investments, where efficiency is measured in terms of both cost (i.e. bank margins) and allocation (funding projects with ex-ante expected returns higher than the cost of capital).

The first concept implies a variety of products, including debt and equity (and gradations in between), and the pooling and diversification of assets and hedging instruments. The second concept raises questions of competition, regulatory oversight, and the role of the state. The state's role is especially important because the presence of a monetary payment system within a broader financial system has important collective benefits, eliminating the need for a double coincidence of wants to effect exchange. When that system is intertwined with the savings and investment function of a financial system, risks can be misaligned in ways that prejudice the system's stability and put taxpayers at risk, necessitating government oversight.

In this chapter we argue that complete, efficient, and stable financial development can be fostered by promoting greater autonomy, accountability, and access across financial firms and their users. We begin by assessing the challenges across these three broad rubrics

[1] Economists usually refer to hedging consumption risk, rather than investment or income risk, on the assumption that smoothing consumption over one's lifetime is a person's main goal.

evident in the progress to date on financial integration in ASEAN. We then elucidate a series of goals that, if achieved, would foster the desired financial development. We also explore what macroeconomic or financial measures would complement our vision of a healthy, integrated ASEAN financial system.

Progress of Financial Integration

The vision of the ASEAN Economic Community is envisaged to be a multi-year process, with individual countries choosing to move at their own pace. The 'ASEAN Way' means that each economy can take further steps to improve financial services liberalisation and capital account liberalisation as and when they are ready. A country's readiness depends on a number of factors, such as favourable economic and financial conditions and, more importantly, having adequate policy frameworks, safeguards, and institutions in place.

The ASEAN region still has a long way to go in terms of achieving a fully integrated financial market. According to Rillo (2018), ASEAN countries have made some 583 separate commitments to liberalise the financial sector (categorised as banking, capital markets, insurance, and other), and completed 56% of those commitments. However, the vast bulk of these commitments have been concentrated in insurance, and few focus on banking outside of Viet Nam, Cambodia, and Myanmar.

The relative paucity of liberalisation in banking is important because banks have traditionally dominated the ASEAN financial landscape. Commercial banks account for a majority of all financial assets in ASEAN, although domestic capital markets have developed quite rapidly in some of the larger economies since the AFC. Despite a large presence of international banks within the region, the presence of ASEAN-based international banks has expanded significantly, especially within the region. Large international banks are naturally preferable because they have more advanced banking technology and a global network. The ASEAN Banking Framework was established with this in mind, but is only expected to be implemented in 2020 due to differing levels of banking sector development in the region. The ASEAN Banking Framework is

designed to allow ASEAN banks to enter and operate freely in other ASEAN countries, creating a single market for banking services. The framework rests on three pillars: (i) the elimination of entry barriers for 'equal access', (ii) the elimination of discrimination against regional banks (providing 'equal treatment'), and (iii) ensuring an 'equal environment' through harmonisation and capacity building.

To promote regional financial integration by allowing ASEAN-based banks to operate in other countries within the region, a specific list of criteria for the qualified ASEAN bank (QAB) is proposed. These criteria are based on common principles but negotiated bilaterally between the host and parent countries on the principle of reciprocity. The QAB idea is similar to that of the European Union's 'single bank passports', which allows banks to operate in all EU member states. As of 2017, only four such bilateral QAB agreements have been signed, with Indonesia showing the most interest. QABs are intended to become pan-ASEAN banks that can compete with global banks and drive regional financial sector development. Several ASEAN economies have signed reciprocal bilateral arrangements regarding QABs, such as between Bank of Thailand and Bank Negara Malaysia. Bank of Thailand is also in the process of negotiating the establishment of QABs in Indonesia with that country's Financial Services Authority, and in Myanmar with the Central Bank of Myanmar. This progress is encouraging.

The liberalisation of capital markets is an important component of financial integration and the creation of a single ASEAN market. Free capital mobility allows excess savings within the region to be recycled and efficiently allocated towards productive investments, thereby promoting economic growth and welfare. The relationship between capital mobility and regional trade integration is mutually reinforcing. Capital mobility promotes further trade integration by facilitating payments for transaction through cross-border lending and borrowing. At the same time, increased trade openness helps to mitigate the risk of default because countries that are more open to trade are in better positions to service external obligations through export revenues, are less likely to default, and, hence, are less vulnerable to sudden reversals of capital flows. However, according to Vinokurov (2017), ASEAN capital markets are still burdened by the following restrictions:

(i) most countries limit the use of their currencies overseas;
(ii) there are restrictions on overseas borrowing and lending denominated in local currencies;
(iii) most countries restrict foreign exchange risk hedging by investors; and
(iv) some countries still use a withholding tax on securities investment.

As in the banking sector, steps have been taken to encourage capital market liberalisation. The Implementation Plan for ASEAN Capital Markets Integration established in 2009 covers the creation of regulatory environment and market infrastructure, the development of new products, and the expansion of domestic capital markets (Shimizu, 2014). Capital market integration in the region is also rendered more challenging by the varying exchange rate regimes—from Brunei Darussalam adopting a fixed exchange rate system (on par with the Singapore dollar), to Thailand and the Philippines using a managed float exchange rate regime.

Policy Implications

Kose, Prasad, and Taylor (2009) discussed the national economic development benefits of financial integration in terms of the development of the financial sector and key institutions, better governance, and informed macroeconomic policy. However, due to the varying depth of financial markets and sophistication of market institutions across the region, more developed economies benefit from financial integration to a greater extent than do emerging economies.

To achieve the best results, it is important to plan and coordinate the execution of the financial integration process carefully. The economic diversity in the ASEAN region in terms of the countries' development, regulatory infrastructure, and human capital is a risk on its own. To achieve full integration, it is important for the region to invest in capacity building to level the playing field. The region needs to be equipped with the right infrastructure such as legal, tax, and regulatory systems, as well as having adequate human resources and management skills to operate effectively under the new integrated financial market. Liberalising

financial services and allowing for the freer flow of capital is just one step to increase the breadth of financial integration across the region. However, with the right tools, the ASEAN region will be able to achieve greater depth in integration as well.

Jang (2011) raised the possibility of larger countries in the region, such as China, Japan, and the Republic of Korea, playing a more active role in furthering intra-regional integration to realise its benefits. The ASEAN Way provides more developed economies the opportunity to start the integration process before less developed economies. Despite concerns that the gaps between ASEAN countries could potentially widen due to differing speeds of financial innovation and development, it is also imperative that the less developed economies do not jeopardise their own financial stability for the sake of catching up.

The AFC served as a very good lesson as to how critical vulnerabilities in the banking and capital markets can emerge when there is rapid growth and inadequate supervision and regulation. Following the global financial crisis, the Group of 20 also addressed the need to enhance financial stability, promote financial sector development, and reform the international financial architecture.

Hence, while individual economies can work bilaterally or multilaterally to open up to each other and advance in terms of financial integration, a regional approach should be taken to ensure financial stability. There is a particular need to establish a regional oversight framework with a strong resolution management system in this single market. An ASEAN-wide oversight framework might also be necessary in the future given the diversity of financial systems across the economies. During a crisis, national-level decisions can have region-wide repercussions on financial stability. A key challenge for policymakers in the region would be to design and implement policies that support an integrated financial system that is both dynamic and resilient. For instance, a single regional supervisor could be established with responsibility for the oversight of large, systemic banks in the region. Harmonising regulations and supervisory frameworks can accelerate the pace and effectiveness of financial integration. Next, we look in greater detail at how greater

autonomy coupled with greater accountability and accessibility can provide the balance needed for ASEAN to reap the benefits of financial integration.

Improving Autonomy and Accountability

Autonomy – the scope to make independent decisions – is crucial in any environment in which actors are to be held accountable for their decisions. Financial decisions must, by their very nature, entail assessments of future uncertain outcomes. If a lack of autonomy distorts risk and return, it is unlikely that such decisions will be made prudently. Autonomy is also critical for holding actors accountable for their actions. Autonomy can be conceived of along three dimensions, that is degrees of autonomy between financial institutions; between financial institutions and the state; and between financial institutions and their customers.

Borrowers' autonomy is hindered by a structure that is highly concentrated amongst financial institutions, since market leading lenders can price in a manner that can be detrimental to customers. High concentration can diminish price competition, lessening the cost efficiency of the system, although not necessarily its profits (Berger and Hannan, 1998). Higher concentration can also foster less innovation since market power can provide excess profits.

One counter argument about bank size and concentration revolves around a purported connection between bank size and the acquisition of client information that helps overcome the problems of asymmetric information between lenders and borrowers. With the explosion of online information on retail customers and a reduction in its cost of acquisition, the extent of asymmetric information is likely eroding.

Owen and Pereira (2018) argued that, at least for financial inclusion, bank size does not adversely affect access, so long as the contestability of the market, measured by the price of a service and its marginal cost persists. Contestability is enhanced by the openness of a banking system to foreign competition, as has been demonstrated in papers by DeYoung

and Nolle (1996); Berger, Hasan, and Klapper (2004); and Claessens, Dornbusch, and Park (2001). In the ASEAN context, by increasing the passporting of ASEAN banks, member states would tend to lower net interest margins and increase the range of products provided.

Contestability is also likely to rise with the surge in the digitalisation of finance, reductions in the cost of communication, and the application of machine learning to the vast quantities of data now being produced. Generally falling under the rubric of fintech, the potential of new entrants to reshape existing financial hierarchies is already on display in the burgeoning of payments services offered by non-banks.

The labourious pace of advance on the QAB initiative reflects concerns amongst member states over the adequacy of each other's regulatory frameworks, as well as the potential for contagion and instability that greater integration can entail. Both of these issues relate to financial institutions' autonomy from the state. Regulatory or supervisory oversight of financial intermediaries is necessary because the failure of systemically important institutions is likely to necessitate capital injections from fiscal authorities to prevent broad macroeconomic distress. Such a role is clearly consistent with the ASEAN goal of financial stability, where regulation is focused on financial stability and on limiting the cost to taxpayers in the event of widespread financial distress.

In the context of the QAB programme, though, the entrance of other member state banks seems very unlikely to engender risks that would threaten overall financial sector stability in the recipient country if those banks meet local regulatory standards. Such concern might be warranted if, in the case of financial distress in the entrant's home country, the presence of the new entrant would lead to stronger contagion effects in the receiving country than would otherwise occur. Nonetheless, the solution is not to preclude QAB agreements, but rather to harmonise regulatory and supervisory standards concerning financial stability across ASEAN. A bigger issue than passporting ASEAN banks will likely be creating a proportional regulatory system focused on activities, rather than institutions, that can better manage the systemic risks that will arise as non-bank intermediaries take on larger roles in financial systems.

To achieve financial stability, rising market shares for those adopting fintech must be based on true improvements in cost and efficiency, not regulatory arbitrage that leaves the taxpayer at risk. In the context of the QAB programme, it might be prudent to license particular activities by fellow ASEAN banks, rather than the banks as institutions. While this would likely present a lower hurdle to entrance, it would be better aligned with the nature of the supervisory and regulatory environment that technological change is compelling states to adopt.

Some of the difficulty in reaching QAB agreements could reflect a link to the state that is less justifiable on the basis of financial stability than on regulatory oversight: the ownership/influence link between the state and financial institutions. The government ownership share in ASEAN banks is relatively high. Higher rates of state ownership are associated with poorer allocative and cost efficiency (Clark et al., 2005). These inefficiencies undermine financial stability. Aligning risk and return – crucial to the allocative efficiency of a financial system – hinges on eliminating implicit guarantees that arise more naturally when direct state ownership of financial institutions is prominent. In this light, protecting state banks from further competition by limiting QAB entry is counterproductive.

Besides helping to improve overall efficiency, efforts to lower the role of state-owned firms can lessen the incentive for the state to intervene. The playing field would also be more level, because the implicit guarantee on deposits in state-owned banks that accrues to them because of their state ownership would disappear. This, in turn, would create a greater incentive for large depositors to monitor the bank's credit portfolio and lessen the likelihood of poor credit decisions.

The reticence to enter into QAB agreements may also reflect regulators' concern that the QAB may not be as susceptible to moral suasion from the receiving country's regulators. Yet, if a regulatory system relies on moral suasion or unwritten rules for stability, resiliency will depend on how deeply those rules are held and how adroitly moral suasion is applied. Although social conventions are important constraints on behaviour, they do not move easily from one society to another. Thus, in targeting integration, ASEAN will need to codify social conventions

as principles by which outsiders can abide. The system of adhering to principles rather than to specific, detailed regulations has the advantage of adapting more easily to a shifting environment and being less susceptible to gaming.

The third dimension of autonomy is that which exists between financial institutions and their customers. When customers become captive to particular institutions, either because there are few institutions or because the cost of switching service providers is high, customers' leverage over pricing and their range of choices can erode. Maintaining a dynamic, competitive market will require regulatory efforts to avoid artificial barriers to customers who wish to change providers. Transparency in costs and the promotion of financial literacy, already elements of the AEC blueprint, will need to continue to form a part of the strategy for achieving financial development.

While autonomy can create a better decision-making environment and one in which accountability is easier to maintain, the irreducible element of uncertainty in any financial contract means that defaults and losses will occur. Thus, to maintain accountability, it is crucial to have a legal framework for contract resolution that combines fairness with speed and low cost, especially when hedging is limited as is the case across much of ASEAN.

Improving Accessibility

Accessibility to finance has been an objective of ASEAN ever since 1995 when members committed to push for greater integration of services. In that sense, the milestones and objectives already in place to widen both the scope of financial products on offer and the take-up of those products by a wider swathe of persons and firms remain relevant.

Going forward, accessibility can be massively expanded by the prudent adoption of the technologies embodied in fintech. To date, much of the attention has focussed on reducing the cost of payments and broadening access created by settling payments through cellular telephones. Simply

lowering costs increases access by raising the number of people who can afford to use the service. Meta-search aggregators enhance competition by making pricing more transparent. However, to the extent that banking involves intermediating saving and investment, not simply processing payments, there is still a wide scope for improving accessibility.

Retail credit extension currently relies heavily on the borrower's financial capital, which is not evenly distributed. Yet, non-banks are now extending credit not simply on the basis of financial capital, but on the basis of the nature of the social capital a borrower exhibits through activity on social media. Such social capital is inherently more evenly distributed as it requires only a cellular telephone.

To capture the benefits of greater financial inclusion through fintech, governments must take several enabling steps. Most fundamentally, they should invest in a high-speed 5G cellular network. 5G, which will form the backbone of the next stage of cellular technology, will offers download speeds 1,000 times faster than today's 4G, and its cell stations will be a small fraction of the cost of current 4G stations (although at least four times as many will need to be deployed given the smaller effective radius covered by the high-frequency spectrum used by 5G).

Beyond investing in telecommunications networks, governments will need to think through the trade-offs between data security and data availability. If future credit decisions hinge on social media and cellular telephone usage, it must be determined where that data will reside and under whose control. Decisions on the boundaries between personal privacy, business interest, and national security will profoundly affect who has access to the data needed to propagate the machine learning for building effective algorithms. This gives rise to practical questions as to the quantum of data needed to produce accurate algorithms, and how varied the criteria will be by region. Here, harmonising legal and regulatory regimes will likely increase the accuracy of lending algorithms developed based on data from other areas.

The question of who controls data developed through the use of social media will also be a crucial factor in understanding the stresses faced by incumbent financial intermediaries. If the large platform companies that house social media applications hold the data to assess 'social capital', incumbent financial intermediaries will need to focus on intermediation that is less dependent on 'social capital', such as merchant or investment banking.

The underlying turmoil in the provision of retail banking will challenge the regulatory and supervisory structure for financial stability, in dealing with both the 'stock' of existing institutions facing disruption and the 'flow' of new services. This could be especially problematic for large institutions with low-cost, sticky retail deposits but high legacy overhead costs if those deposits are lost to new entrants. Fintech will also heighten the need to calibrate regulations based on activities rather than on institutions to ensure that the flow of new services is subject to regulations that will shield taxpayers from bailout costs created by inefficient regulatory arbitrage.

Regional Financing Arrangements and the Global Financial Safety Net

As regional financial markets become more integrated and financial systems continue to expand and become more complex, not only within the region but also globally, this could lead to financial instability. The experience of the AFC 20 years ago and more recent crises in other regions have shown that volatility shocks from global financial markets are becoming more frequent. Banking crises have been a major source of macro instability since the 1980s, rising in tandem with intensifying financial deepening and interlinkages. While rapid credit growth marks desirable financial deepening and market developments, it may also increase economies' vulnerability to financial stress if loans are not subject to prudent credit standards and overall portfolios subject to periodic stress testing.

The first line of defence for countries to weather crises and external shocks are their own regulatory frameworks. The Basel Committee

on Banking Supervision has provided recommendations on banking regulations with regard to capital risk, market risk, and operational risk as standards to enhance global financial stability. However, the level of adoption and implementation of these standards within the region varies across countries, depending on their level of development and market sophistication. Larger economies such as China and Japan, and financial centres such as Hong Kong and Singapore are working towards implementing the Basel III standards, while smaller economies such as Brunei Darussalam, Cambodia, the Lao People's Democratic Republic, Myanmar, and Viet Nam have either just adopted or are in the process of fully adopting the Basel II standards.

In terms of external safeguards, past crises have shown that International Monetary Fund (IMF) resources alone are insufficient for crisis financing. In addition, borrowing from the IMF continues to be seen as carrying a stigma. This motivated the ASEAN+3[2] economies in 2000 to set up a network of bilateral swaps between central banks known as the Chiang Mai Initiative, which was multilateralised into the Chiang Mai Initiative Multilateralisation (CMIM) in 2011. As a regional self-help mechanism, the CMIM aims to address short-term United States dollar liquidity or balance-of-payment difficulties, and complements IMF financing together with bilateral swap arrangements. The CMIM and other regional financing arrangements, (RFAs)[3] form an integral part of the global financial safety net, together with other layers such as an economy's own foreign exchange reserves, bilateral swap arrangements, and IMF resources.[4] The CMIM, which currently has an endowment of $240 billion, stands at the centre of the ASEAN+3 regional financial safety net, complemented

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2 Brunei Darussalam, Indonesia, Malaysia, the Philippines, Singapore, Thailand, Myanmar, Cambodia, the Lao People's Democratic Republic, Viet Nam, China, Japan, and the Republic of Korea.

3 RFAs have proliferated since the 2008 global financial crisis. In addition to the CMIM, these include the Arab Monetary Fund, BRICS (Brazil, Russian Federation, India, China, and South Africa) Contingent Reserve Arrangement, the European Stability Mechanism, and the Latin American Reserve Fund (Fondo Latinoamericano de Reservas).

4 Policymakers are currently working towards strengthening the collaboration between the existing RFA and the IMF. A joint RFA staff paper (2018) discussed the importance of fostering the RFA–IMF collaboration through capacity building, information sharing and communication, and crisis prevention and resolution. It is necessary to explore these synergies due to the heterogeneity of RFAs and their respective mandates, expertise, operational modalities, and geographical coverage.

by an expanded network of bilateral swap agreements amounting to approximately $260 billion. Given the external risks now facing the region, firm policy commitment from ASEAN+3 to enhance the CMIM with support from AMRO is essential to strengthen the region's buffers and resilience. AMRO's macroeconomic surveillance process and its role as trusted policy advisor through frequent dialogue and engagement with the ASEAN+3 economies are key to identifying the risks and vulnerabilities facing the region. Enhancing the role of AMRO is therefore crucial to safeguard the region's economic and financial stability.

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ASEAN on Good Governance: Good Regulatory Practice, Regulatory Management Systems, and Regional Regulatory Cooperation

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This brief is complemented by the succeeding chapters of Vo on Viet Nam and Latif and Yazid on Malaysia.

Vision

By 2040, the Association of Southeast Asian Nations (ASEAN) will be an economically just community, reflecting full partnership in economic progress, where the voices from all segments of society will have the opportunity to be heard, where the regulatory environment is business- and people-friendly, and where the rule of law prevails and public resources are effectively managed.

Mandate

1. The ASEAN Charter Article 1.7[1] states that ASEAN should pursue democracy, good governance, and the rule of law; and Article 2(h) of the ASEAN Charter states that ASEAN should seek to adhere 'to the rule of law, good governance, the principles of democracy and constitutional government'.

2. ASEAN Economic Community Blueprint 2025[2] (B6): Promote the principles of good governance, transparency, and responsive regulatory regimes through active engagement with the private sector, community-based organisations, and other stakeholders of ASEAN.

ASEAN's vision for its economy is for the smooth flow of goods and services within the region, and for the region to achieve inclusive growth through a business-friendly trade and investment environment. Key to this is ensuring that good governance is central to ASEAN. This means that ASEAN must institutionalise a regulatory system where good regulatory practice (GRP) and a regulatory management system (RMS) are embedded at the national level, with regional regulatory cooperation (RRC) at the ASEAN level.

Similar to other regional initiatives such as the ASEAN Single Window or the ASEAN Trade Repository, the process of good governance at ASEAN begins at the national level. Effectiveness at the regional level is dependent on how the initiatives are implemented at the national level first, and subsequently, how the national efforts are integrated at the regional level.

For good governance at the ASEAN level, ASEAN Member States (AMS) must focus on national level GRP and RMS so that the grouping can then establish RRC to facilitate regulatory convergence. Such regulatory convergence is important for ASEAN to become more integrated; and

1 https://asean.org/asean/asean-charter/
2 https://asean.org/?static_post=asean-economic-community-blueprint-2025

focus on reducing the cost and increasing the ease of doing business, as a dynamic, inclusive, and highly competitive region.

National-Level GRP

GRP subjects regulatory actions to reality checks by institutionalising regulatory review and reform – thus embedding transparency as a basic principle, and building confidence in the regulatory framework, institutions, and process. GRP focuses on regulatory quality, and more importantly, it is non-discriminatory.

Generally, at the national level, AMS embark on regulatory reform to simplify and streamline regulations, ensure equal treatment for enterprises of all forms of ownership, and harmonise domestic laws in line with regional and international commitments and practices.

A key objective of GRP is to reduce unnecessary regulatory burdens. Most AMS use the World Bank's Ease of Doing Business survey as a starting point for regulatory reform. For example, in 2007, Malaysia set up the Special Task Force to Facilitate Business (PEMUDAH), a public–private sector body, to analyse the World Bank report and undertake regulatory reform at a granular level. Similarly, in 2014, Viet Nam's government adopted Resolution 19 to focus on the indicators highlighted in the Ease of Doing Business report. Yazid and Latif (2019) shows how Malaysia used the World Bank report as a starting point for reducing unnecessary regulations in the construction sector.

GRP at the national level has to take a whole-of-government approach, breaking down silos and providing greater clarity of the need for regulatory reform. GRP also reflects a symbiotic relationship between the state and its stakeholders. The state must ensure a conducive policy and regulatory environment, while its stakeholders act collectively to ensure that laws and policies are transparent, consistent, and current.

GRP and RRC have a positive impact on trade and investment. These include a reduction in trade costs through cross-border harmonisation of regulations, processes, and procedures; and a reduction in conformity assessment costs. A 2017 World Bank survey, involving 750 multinational investors and corporations in developing countries, found that the legal and regulatory environment was a key parameter in investment decisions, in addition to factors such as low tax rates and low cost of labour and inputs. Ultimately, GRP is about effective rule-making. The table summarises the GRP rule-making process.

GRP Calls for an RMS and RIA

For regulatory reform to have the desired effect of being transparent and predictable, there must be a structured mechanism for the review, change, or introduction of regulations. In other words, an RMS must be in place. It is necessary to institutionalise the RMS and have a dedicated multi-agency body to ensure policy and regulatory coherence across the state. This body is to provide oversight and monitoring for the regulatory reform process.

Malaysia and Viet Nam attempted to institutionalise an RMS before PEMUDAH and Resolution 19 were in place. However, the previous attempts were not successful in bringing about the desired change. Vo (2019) provides an example of the reform process in Viet Nam before Resolution 19, and highlights why previous attempts at regulatory reform were less successful.

For an RMS to be sustainable and effective, both PEMUDAH and Resolution 19 show that it requires commitment at the highest level; a formal institutional structure to drive the reform agenda; buy-in and commitment from all parts of government to undertake the reform; the engagement and involvement of all stakeholders; and clear objectives and tangible, quantitative targets.

In Malaysia, the RMS was backed by a clearly articulated policy – the National Policy on the Development and Implementation of Regulations

(see Yazid and Latif, 2019) The Malaysian RMS includes PEMUDAH as well as a dedicated Secretariat in the Malaysia Productivity Corporation (MPC) to monitor and follow through on the regulatory reform process and to undertake advisory, advocacy, and capacity building roles.

An RMS should include consultation with all relevant stakeholders as well as an assessment of the likely impact of the regulatory reform – regulatory impact assessment (RIA). The RIA provides clarity on the need for the regulatory reform or change, or the introduction of new regulations; specifies the goals of the regulation; and includes a cost–benefit analysis of the regulations. There may be variations in the way AMS undertake the RIA. In general, the RIA covers the problem statement; clear objectives to solve the problem; the range of options for solving the problem; assessment of each option to weigh the cost and benefit; sufficient public consultation with the affected parties, including interested regulators; recommended option(s) with a conclusion; and a comprehensive implementation strategy on the preferred option(s).

Some AMS have their RMS in place, with varying degrees of effectiveness. Despite acknowledging the inherent value of the RMS and GRP, the pace of implementation of some of these initiatives has fallen short of expectations. A key challenge appears to be the RIA, which is seen as onerous and a challenge for some AMS. The lack of capacity as well as data can affect the quality of the RIA, and therefore the quality of the regulations. Likewise, some AMS consultation processes lack transparency, inclusiveness, and accountability.

A comprehensive RMS would also include a mechanism for ex post evaluation of the regulatory reform. This involves assessing the impact of the regulations within a government entity (vertical ex post evaluation) and a sectoral ex post evaluation – the impact of the regulation across the value chain. The ex post evaluation is an iterative, consultative process to ensure that regulations are current and relevant.

From National Level GRP to RRC

The aspiration for ASEAN is that GRP will be part of the group's DNA by 2040. At both regional and national levels, GRP and RRC will be key determinants of ASEAN competitiveness and its attractiveness as an investment destination. It is thus necessary for ASEAN to focus on the quality and effectiveness of its regulations, and improving its institutional capacity and accountability.

While state-level GRP and RMS are necessary, they are not sufficient. The regulations may vary significantly amongst AMS. ASEAN will need to address the regulatory divergence across AMS for greater economic integration, facilitating seamless trade flows, and improving the investment environment. Regulatory divergences may reflect legitimate differences in preferences across jurisdictions. However, there may also be the unintentional result of regulators working in silos, without due consideration to state and regional level requirements. One solution to narrowing these divergences may be mutual recognition agreements. ASEAN has extensive experience with mutual recognition agreements, and is aware of the challenges in concluding and implementing them.

ASEAN will require a mechanism to deal with regulatory divergence, the impact of national-level regulations on regional supply and value chains, and regional integration; and a system to monitor impacts and ensure compliance. All regulators and enforcement agencies will need to coordinate effectively and consult and engage collaboratively with stakeholders.

The road towards RRC includes:

- ensuring that the national and ASEAN trade repositories are as comprehensive as possible, so that regulators have a better picture of and can assess regulatory divergence amongst AMS;
- developing capacity for AMS to conduct ex post evaluation activities – to help regulators question the logic of their regulatory requirements; and

- establishing a mechanism for consultation at the regional level for sharing best practices and reducing regulatory divergence.

Just as a dedicated GRP oversight body is required at the national level, the region will need a mechanism to address these challenges. Hence, the need for RRC under the auspices of the ASEAN Secretariat. In this context, ASEAN will have to leverage technology to integrate the national-level RMS and thus facilitate region-wide regulatory cooperation.

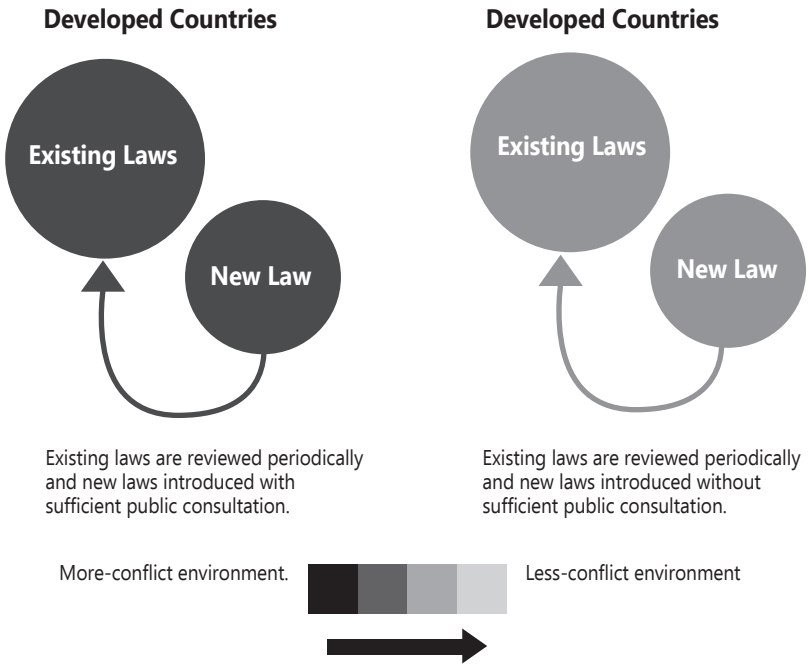
Good Regulatory Practices in Malaysia

Dato Abdul Latif,
Mohd Yazid Abdul Majid,
Malaysia Productivity Corporation

Regulatory divergences generate significant trade and other economic and administrative costs. While regulatory divergences may reflect legitimate differences in preferences across jurisdictions, they may also be the unintentional result of regulators working in silos without considering state and regional requirements. States' interventions in regional economic activities will burden not just businesses but also states' regulatory operations.

Businesses' regulatory concerns are channelled to the Special Taskforce to Facilitate Business (Pasukan Petugas Khas Pemudahcara Perniagaan [PEMUDAH]). Established in 2007, PEMUDAH aims to reduce government bureaucracy in business. PEMUDAH addresses sloppy decisions or unfair treatment resulting from poorly implemented policy or regulation and from inconsistencies in enforcement. PEMUDAH is a platform for consultation between business and government. Figure 1 illustrates how gazetted laws, with public consultation, create a conducive environment for good governance.

Figure 1: Analysis of Gazetted Laws in Developed and Developing Countries



Source: Adapted from *Global Indicators of Regulatory Governance* (World Bank, 2016); *Annual Report on Modernisation of Regulations 2016* (MPC, 2016); *National Policy on the Development and Implementation of Regulations* (Prime Minister's Department, 2013); *APEC–OECD Integrated Checklist on Regulatory Reform* (OECD, 2005).

The Malaysia initiative has moved beyond addressing the inefficiency of domestic regulations to encompassing global connectivity, market competition, and advancements in science and technology that drive businesses, and embracing Industrial Revolution 4.0. The Government of Malaysia needs more strategies to develop a comprehensive, current, sustainable policy and regulatory framework to suit the new business environment.

In 2017, the World Bank surveyed 750 multinational investors and corporations in developing countries to identify key parameters of investment decisions. These were the legal and regulatory environment, low tax rates, and low cost of labour and inputs. The government must ensure a conducive policy and regulatory environment that supports business and civil society, while stakeholders require laws and policies that are transparent, consistent, and current.

With the growing use of regulatory management tools (including regulatory impact assessment [RIA]), ex-post evaluation, and stakeholder engagement promoted by Asia-Pacific Economic Cooperation (APEC), the World Bank, and the Organisation for Economic Co-operation and Development (OECD), Malaysia has established an evidence-based rule-making methodology to strengthen good regulatory practice (GRP).

The latest government guidance documents on GRP are the following:

i. Strengthening RIA through sufficient Public Consultation,
ii. Vertical Ex-post Evaluation, and
iii. Horizontal Ex-post Evaluation.

Strengthening Regulatory Impact Assessment through Sufficient Public Consultation

To facilitate the adoption of GRP, the government introduced the National Policy on the Development and Implementation of Regulations (NPDIR) on 15 July 2013 for federal ministries and agencies. The administrative circular was issued by the Chief Secretary to the government together with the Best Practice Regulatory Handbook, which requires all federal ministries and agencies to undertake GRP and RIA in developing new regulations and amending existing ones. The intended scope covers the principal legislation, subsidiary regulations, and quasi-regulations. The circular identifies the National Development and Planning Committee as the gatekeeping authority to endorse regulatory impact statements (RISs) prepared by regulators. The Malaysia Productivity Corporation (MPC) evaluates the adequacy of RISs and collaborates with the National Institute of Public Administration to provide training to all agencies.

The reality is that there are large variations and inconsistencies in the application of RIA, and GRP principles are not religiously followed. For example, few policymakers carry out proper public consultation, which is mostly lacking in transparency, inclusiveness, and accountability. Feedback from stakeholders is often lacking or ignored. The NPDIR document and guidance handbook provide for standardisation, which has not been widely implemented.

The RIA elements listed in the NPDIR are as follows:

i. defining a clear problem statement;
ii. stating clear objectives to solve the problem;
iii. providing a range of options;
iv. assessing each option to weigh the cost and benefit;
v. engaging sufficient public consultation with affected parties, including regulators;
vi. identifying recommended options and a conclusion; and
vii. describing a comprehensive implementation strategy on the preferred options.

These elements are not always adopted, frequently due to implementers' lack of competency and many other shortcomings

Box 1: Improvement of Public Consultation

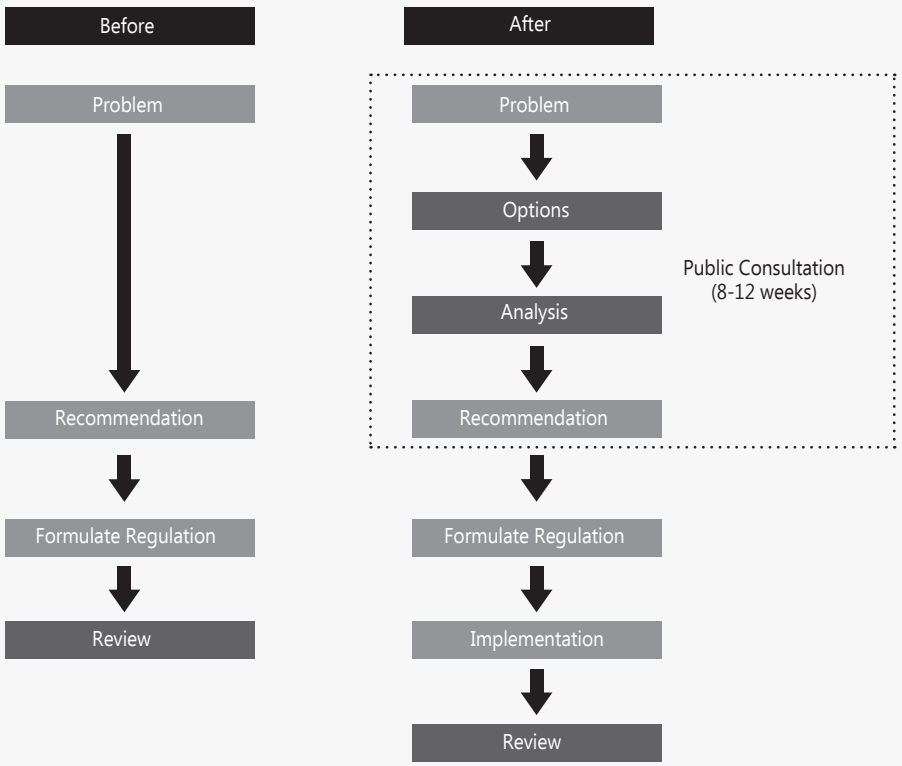
Public consultation has been conducted for a year. How sufficient is it? The National Policy on the Development and Implementation of Regulations does not specify how long or how extensive public consultation should be. Submission of regulatory impact statements to the Malaysia Productivity Corporation (MPC) in the first year of regulatory impact assessment implementation also varies.

Based on MPC's analysis, public consultation was not extensive. This observation is supported by a request from the Working Group on Institutional Legislative Framework (renamed Working Group Governance Reform in 2014) for MPC to establish public consultation guidelines for regulators. Before the new public consultation guidelines, all government agencies referred to the 2012 Online Public Engagement Circular. It stressed that any regulatory proposal should be announced online for at least 14 days but did not require public consultation if there was a clear mandate to skip it.

In October 2014, the Guidelines for Standardization of Public Consultation Procedures replaced the Online Public Engagement Circular. The new

guidelines advise regulators involved in developing new or amending existing regulations to interact with all stakeholders at all stages to ensure timely dissemination of full information, improved transparency, inclusivity, and a realistic regulatory environment (Figure 2). The ideal time to engage with stakeholders is 8 to 12 weeks, depending on the complexity and magnitude of the problem.

Figure 2: Comparison of Rule-making Process after Regulatory Impact



Source: Malaysia Productivity Corporation.

Box 2: Review of the Mechanism of the National Policy on the Development and Implementation of Regulations

On 5 April 2017, the House of Representatives passed the Tourism Tax Act 2017. Many parties question its rationale. Tourism legislation comes under the Federal List, whilst accommodation legislation comes under the State List, with hotels and motels, for example, requiring a licence from the local government.

The main stakeholders – the state governments and accommodation-industry players – disagreed with the act. The Sarawak government raised a fundamental concern to the federal government: that the Ministry of Tourism introduced the bill without consulting the Sarawak government, which believed that the bill was against the spirit of the Malaysia Agreement 1963 (The Malaymail Online, 2017). Licensed accommodation players, through the Hotel Association of Malaysia, were also disappointed with the arrangement, which they thought made them the government's tax collector. They were not sure whether the new regime applied to unlicenced accommodation service entities managed by third-party agents such as Airbnb (NST, 2017). The ministry reviewed the law and changed the tax revenue distribution formula, but the Sarawak government remained unhappy and objected to it (The Sunday Daily, 2017). The law had been formulated in a rush and tabled in Parliament at the last minute (The Utusan Borneo Online, 2017). The Attorney-General's Chamber listed the final version of the act and its subsidiary regulation on 1 August 2017 (Attorney General's Chamber, 2017) but the federal government and states continue to disagree.

The situation shows the uncertainties and concerns that can arise when a new policy is introduced without or with insufficient consultation. The bill's introduction did not conform with the National Policy on the Development and Implementation of Regulations circular. The ministry did not submit regulatory impact statements to the Malaysia Productivity Corporation but only notified the state of its intention to table the bill in Parliament (Ministry of Finance, 2017). Many actors claimed that they were not consulted and that the regulator, when formulating a new law, should identify the actors to be consulted and inform them of its intention, to avoid miscommunication.

Source: Malaysia Productivity Corporation.

After 5 years, MPC is reviewing the NPDIR document and the guidance handbook to improve regulatory management and the scope of implementation at all government levels. Malaysia is working closely with the World Bank to develop the Unified Public Consultation Portal, and with APEC to improve the implementation of public consultation strategy. The portal is a web-based tool to support and improve public participation in rule-making.

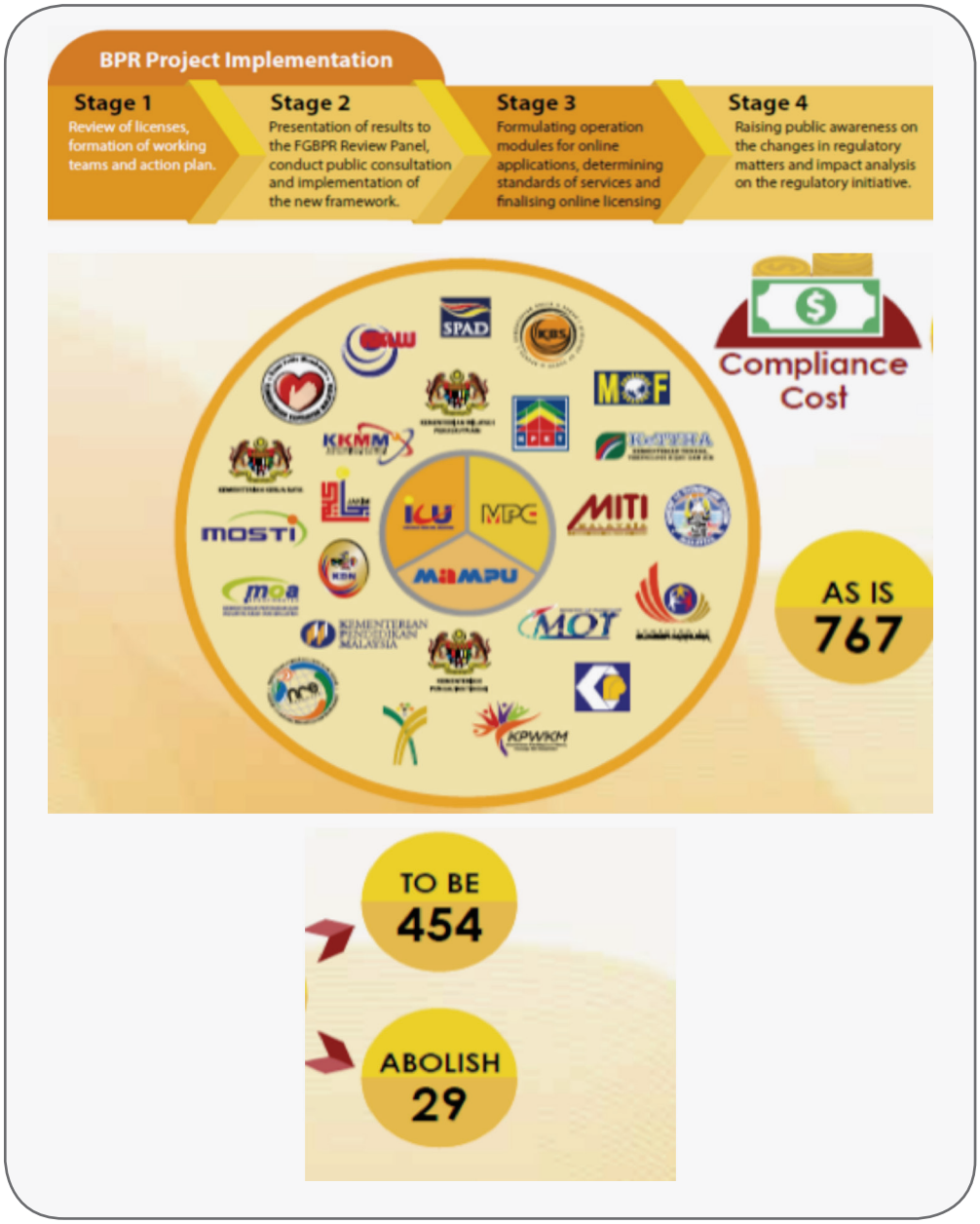
Vertical Ex-Post Evaluation

Vertical ex-post evaluation assesses impacts of regulations within a ministry or agency. Suggestions to review certain business licences usually come from business associations. This approach has become a yearly routine activity by certain ministries to capture inefficiency in government delivery. Only from 2010 onwards was a holistic approach adopted to review all business licences as a full-scale exercise as required in the 10th Malaysia Plan.

Box 3: Modernising Business Licencing

In June 2010, to improve regulatory delivery systems, the Malaysia Productivity Corporation (MPC) reviewed licence issuances by 23 ministries and 2 departments under the Prime Minister's Department. A comprehensive scanning and stocktake of business licences were conducted to reduce irrelevant ones.

MPC reviewed the licences using business process re-engineering to understand the logical flow of the licencing process and delivery. Of 767 reviewed licences, 454 were consolidated and 29 abolished. The initiative resulted in estimated compliance cost savings of RM 729 million.



BPR = Business Process Reengineering, FGBPR = Focus Group Business Process Reengineering.

Source: Malaysia Productivity Corporation.

The Eleventh Malaysia Plan (2016–2020) focuses on logistics, with trade facilitation amongst the key initiatives that will contribute to Malaysia's economic success. The plan is complemented by the Malaysia Productivity Blueprint (Thrust No. 13 – Review non-tariff measures to accelerate movement of goods and raw materials to double production for export). Many disruptive technologies are emerging globally that require the government to review and overhaul regulations to become more competitive.

Box 4: Steps to Measure Non-Tariff Measures in Logistics Across Ministries

The Malaysia Productivity Corporation (MPC) and ministries recently agreed to conduct a baseline study to identify options for improving non-tariff measures (NTMs) using the Business licensing reform: a toolkit for development practitioners (World Bank, 2003) introduced by the World Bank. The study started in June 2017 and was completed in August 2018 in two stages:

<u>Stage 1 (completed)</u>

1. MPC and regulators scan and develop the profiling report with reference to the Integrated Trade Intelligence Portal (I-TIP) database (ERIA and UNCTAD, 2016) and Customs Prohibition Orders 2017.
2. Ministries and agencies verify the legitimacy of each NTM by answering two questions:
   a. Is it legal?
   b. Is it necessary?

<u>Stage 2</u>

3. Once the profile of NTMs is established, businesses and other stakeholders assess government delivery systems' efficiency and compliance cost.

Sectoral Ex-Post Evaluation Initiatives

Sectoral ex-post evaluation is a comprehensive horizontal review of existing regulations to create a conducive business environment. Each ex-post project using this approach is guided by the sector value chain and information from businesses. The value chain is, as suggested by Porter and Kramer (2011), to capture valuable and important activities – from-farm-to-plate or from-start-to-closing-a-business. The sectoral ex-post evaluation details will depend on the complexity of businesses and the agreement between MPC and stakeholders. The study will deliver recommendations that consider issues and concerns of regulators and businesses.

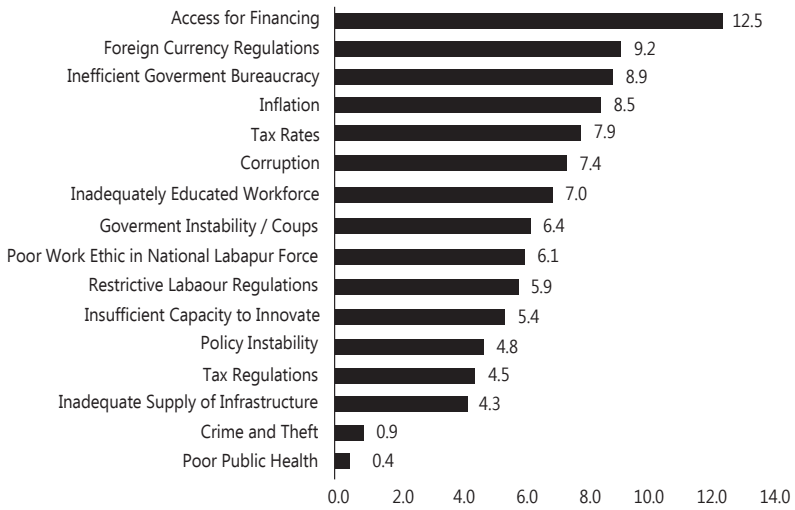
Reducing Unnecessary Regulatory Burdens

MPC, with assistance from the Government of Australia's Productivity Commission, has developed a methodology for reducing unnecessary regulatory burdens (RURB) across the business value chain. Unnecessary burdens arise from poor regulations and from poor implementation of regulations. Many regulations and regulatory regimes have become obsolete due to disruptive technology but are still being enforced. Many other regulations are under review that need to be repealed, especially by state and local governments.

Before GRP was introduced in 2013, Malaysia had many inefficient or ineffective regulations. For example, the Telemedicine Act 1997 has not been implemented. The rush to gazette new legislation to implement new policies without following GRP continues to be the bane of the country's economy.

Figure 3 in *The Global Competitiveness Report* 2017–2018 shows that inefficient government bureaucracy is still amongst the top-10 problems facing business.

Figure 3: Most Problematic Factors in Doing Business



Box 5: Development Approvals Require Permits from 15 Regulators

The Focus Group on Dealing with Construction Permits, under the ambit of the Special Taskforce to Facilitate Business (Pasukan Petugas Khas Pemudahcara Perniagaan [PEMUDAH]), has managed to improve the Dealing with Construction Permits ranking in the Ease of Doing Business Report from 137 in 2007 to 11 in 2018. Three initiatives to reduce unnecessary regulatory burdens were conducted and some of the recommendations were well received by regulators and executed. Unfortunately, only a few construction projects were successful out of thousands. The construction industry complains that it continues to face many regulatory hurdles.

The following are examples of the additional cost of doing business that can be attributed to poor implementation of regulations:

- Strata regulation. An architect is required to endorse a surveyor's plan, for a fee. Developers and house buyers find this regulation unnecessary and believe that architects do not have the tools and expertise to verify plans.

- Housing Development Act. An architect is required to certify every stage of construction of every parcel of development, for a fee. Since each parcel of development requires 14 certifications, 10,000 parcels of development require 140,000 different certifications, documentations, and inspection visits.

Imposing regulations without thorough analysis results in rent-seeking and adds to the cost of doing business. A local university study found that the construction industry loses millions every day because of unnecessary regulations and regulatory regimes.

Source: Malaysian Institute of Architects (Pertubuhan Arkitek Malaysia); Malaysia Productivity Corporation.

Lesson Learnt

Based on the APEC GRP Leaders' Declaration in 2011, Malaysia has established all three crucial GRP categories (Table 1). The first category includes internal government coordination of rule-making to ensure that all regulators conduct regulatory review and make reforms based on empirical evidence. Gazetting of new regulations occasionally bypassed National Development and Planning Committee scrutiny after 2 years of NPDIR implementation. Many stakeholders questioned the quality of regulations.

The second category includes regulatory impact assessment (RIA) by NPDIR. Implementation, however, is limited to federal regulators. State governments should develop and endorse a similar circular, which must accommodate state-level gatekeeping to safeguard RIA adequacy and, at the same time, ensure a proper public consultation timeframe so that the state government can deal with geographical and technical competency barriers.

The third category includes a public consultation mechanism, which still has many shortcomings. Public consultation aims to gather adequate feedback from businesses and citizens. In most cases, this has not been achieved. Regulators provide opportunities but not enough time

for feedback, for example, or ask only certain stakeholders. Public consultation documents related to existing or proposed regulation are shared with citizens and businesses but the draft regulation to be tabled is not.

Table 1: Rule-Making Process According to Good Regulatory Process

Good Rule-Making Good Regulatory Process Categories	Implementation Status
Internal government coordination of rule making	
• Manage regulatory review	Yes – Regulators and third-party research
• Regulatory reform	Yes – Plenty of vertical reform but less horizontal reform
• Coordinate with trade and competition officials	Yes – Need more collaboration with trade and competition agencies
Regulatory impact assessment	
• Institutionalise systematic procedure	Yes – Begins with federal government's regulators
Public consultation mechanism	
• Transparency	Yes – Certain focus groups have better access. Final draft regulation is not open for public view or feedback
• Sufficient time	Yes – Public consultations' timeframe varies. Implementation depends on issues and regulators' internal practice

Source: Adapted from Malaysia Productivity Corporation data.

Embarking on Regional Regulatory Cooperation

Malaysia measures impacts of a regulatory proposal at the domestic level and is restricted to a certain scope within a ministry or agency, without looking at the issue from a value-chain dimension (horizontal perspective). Regulators rarely assess impacts across borders and, in many cases, do not assess regulatory proposals against similar regulations in other jurisdictions. Domestic RIAs are unlikely to capture the impacts of international regulatory divergences and global supply chains. Is it possible to implement regional regulatory cooperation? Yes, but the following should be done:

1. Develop Association of Southeast Asian Nations (ASEAN) Member States' capacity to conduct ex-post evaluation to help regulators question the logic of regulatory requirements.
2. Set up a proper database of regulations in every state to enable investors to identify and assess transaction opportunities and risks. The stocktake should include all levels of regulation, including licences.
3. Develop a methodology to consider plurilateral and multilateral requirements to capture impact on business and trade. This initiative will help strengthen the ability of the private sector to create more opportunities in ASEAN.

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Making Regulations Right and Effective: Viet Nam's Experience and Lessons

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Overview of Viet Nam's regulatory reforms and regulatory system

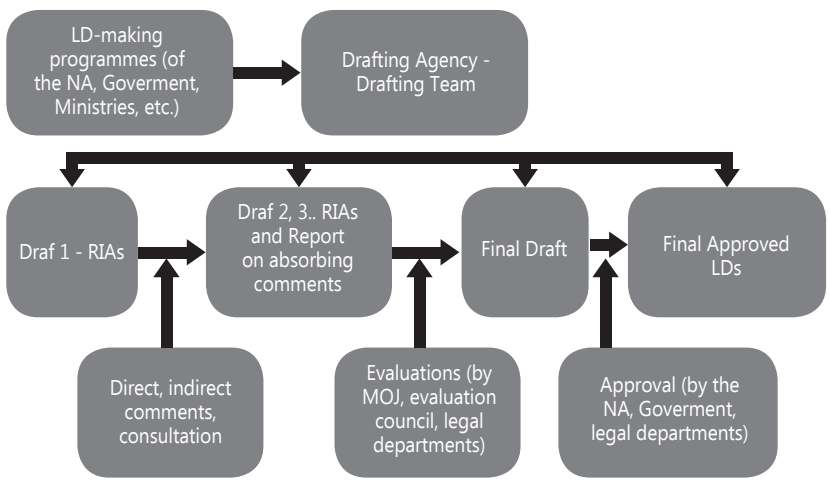
Since 1986 Viet Nam has promulgated a number of laws and regulations to regulate economic activities in line with *market-oriented reforms*. In 1996, the National Assembly issued the first Law on Legal Normative Documents (also known as the Law on Laws). This law specifies the authorities of different bodies in promulgating different types of regulations, including laws, ordinances, decisions, and circulars.

Viet Nam also embarked on *simplifying administrative procedures*. This direction of work has been initiated since the 1990s. Nonetheless, the substance of the work only materialised during the 2000s, especially from 2007, with Project 30. In 2004, the government issued Resolution No. 19 with a new and broader framework to simplify administrative procedures, acknowledging this as a core priority to support the business community and enhance competitiveness.

As another direction of work, Viet Nam has made numerous efforts to harmonise domestic laws *in line with international commitments and practices*. Such efforts had already become evident during the 2000s as Viet Nam joined the World Trade Organization (WTO) and many free trade agreements (FTAs). Various legal documents (such as Enterprise Law, Investment Law, and guiding documents) were issued and amended, with a view to creating a more level playing field for enterprises of all ownership forms. To facilitate the movement of goods and labour, Viet Nam also worked with partner countries (especially in the Association of Southeast Asian Nations [ASEAN]) to enhance mutual recognition of standards and skill qualifications.

The Law on Laws amended in 2008 and its guiding decree (Decree 24/2009/ND-CP, dated 5 March 2009) require that all draft laws (adopted by the National Assembly) and decrees (adopted by the government) have to go through a regulatory impact analysis (RIA) procedure before being officially submitted to the final decision-makers. As for drafting a law, the regulatory impact analysis report has to focus on the following aspects: (i) policy problems to be solved; (ii) goals of proposed policy; (iii) alternatives to solve policy problems, a cost–benefit analysis of each alternative, and good or bad impacts of each alternative; and (iv) the best option to solve policy problems.

Figure 1: General Process for Legal Documents in Viet Nam



LD = legal document; MOJ = Ministry of Justice; NA = National Assembly; RIA = regulatory impact analysis.

Figure 1 illustrates the general process for legal documents in Viet Nam. Transparency is one of the most important aspects of an effective regulation process. To increase consultation, legislative proposals (programmes), including their pre-RIA are required to be posted on government websites to get comments from the public for 30 days and will be posted on the Internet as soon as the legislative agenda is finalised and submitted to the National Assembly for consideration. A draft legal document is to be posted for comments online by the drafting agency for at least 60 days in parallel with the consultation with relevant entities (both from the private and government sector). Any changes to that draft as well as related comments and reports on incorporating comments will also be posted. The final draft then will be under the appraisal by the Ministry of Justice or in-charge legal departments, depending on levels of the legal documents. At the drafting stage, the in-charge agency is required to prepare an RIA, which examines likely impacts of proposed legal documents, as well as any proposals for compliance. The lead agency may utilise research institutes, academics, professionals, scientists, and other experts to conduct research and assist its preparation process.

The implementation of an RIA, however, still poses a challenge in Viet Nam. The quality of an RIA normally fails to meet expectations, while the capacity to review and access RIAs is also limited. In particular, the lack of data and rigorous approach are often the major weaknesses in RIAs. In this context, Viet Nam has exerted various efforts to promote regulatory reform with the support from international donors (namely, the United Nations Development Programme, German Technical Cooperation Agency [GTZ], and United States Agency for International Development/ Viet Nam Competitiveness Initiative [USAID/VNCI], as well as domestic agencies (the Ministry of Justice, the Viet Nam Chamber of Commerce and Industry [VCCI], and the Central Institute for Economic Management). A RIA task force was established in the Ministry of Justice to act as a central body to coordinate the implementation of Decree 24/2009/ND-CP at the beginning stage. Many workshops on capacity building for ministries and non-government stakeholders have been conducted, the majority of which were on a regular basis, to improve the quality of RIAs, as well as the capacity to review RIAs.

All laws in Viet Nam are under the authority of the National Assembly, while ordinances are issued by the National Assembly Standing Committee. However, the implementation and guidance of laws relies heavily on the government agencies. In Viet Nam, about 90% of draft laws originated from the government (executive branch). Other types of sub-law documents such as decisions, decrees, and circulars are mostly issued by the government or members of the government.

In principle, the relevant commissions of the National Assembly are responsible for reviewing regulations. For important laws (such as the Enterprise Law), the dedicated task forces will have to monitor the actual implementation and produce (both periodic and ad hoc) review reports. For sub-law documents, government agencies have to assume the role of producing reviews. The framework for such reviews has been established with the Law on Laws in 2008, the follow-up Decrees No. 2009/ND-CP in 2009, and No. 16/2013/ND-CP in 2013.

The government agencies have been also involved in various dialogues and consultations amongst themselves as well as with business associations and the people about practical issues in implementing regulations. The involvement of the business sector and social organisations in the law-making process is also made compulsory. Within 20 working days from the day of receiving the drafts, VCCI has to organise the forum to solicit opinions or comments from enterprises and reports these opinions or comments to the Ministry of Justice, the Government's Office, and the sponsor ministry. In fact, the online database of VCCI also include all draft laws, draft decrees, and draft circulars. At the same time, this database allows for direct submission of comments on the related documents.

The enforcement of laws and policies depends heavily on circulars and guiding policy documents issued by ministries and other authorities. However, the number of circulars and other policy documents is large related to the numbers of laws and decrees each year. The large number of guiding documents may imply: (i) lack of details in the laws; (ii) uncertainty in implementation of the laws and impacts on the stakeholders; and (iii) material compliance costs.

Case Studies of Regulatory Management in Viet Nam

1. Enterprise Law in 1999

The slowdown in economic growth in late 1990s put more pressure on reform. The reform process was then powered by promulgating Enterprise Law in 1999, which has been recognised as one of the most fundamental reforms in business law of Viet Nam.

- The Law officially acknowledges the right of doing business of people: 'Citizens are free to do business in all business areas not prohibited by laws'.
- The Law has brought about a fundamental shift in the approach with which the government regulate the economy. Prior 1999, it was believed that 'the freedom to do business should only be broadened along with and within the expansion in governance and monitoring capacity of authorities'. This view has receded and has been replaced by a new principle: 'management and governance capacity of the Government authorities should be strengthened and developed to the point that it can promote and manage development process'. Such view is impetus for accelerating administrative reforms and enhancing the capacity of public authorities to be in line with market economy requirements.

The Law has resulted in a business boom and hence contributed a great deal to Viet Nam's economic recovery and growth, to job creation and poverty reduction. 160,672 private enterprises were registered during the 2000–2005 period, 3.2 times more than the total number of private enterprises registered during 1991–1999. Based on the widely recognised successes of Enterprise Law 1999, the (unified) Enterprise Law was approved by National Assembly in 2005. The new Law governs not only private enterprises, but also joint-stock company, limited liability company, limited-liability company with one- person member, and partnership company regardless of the ownership. A revised Enterprise Law was issued in 2014.

The establishment of the Enforcement Taskforce was a momentum for implementation of the Enterprise Law. Unfortunately, the operation of the Taskforce was not sustainable for a variety of reasons (see Box 1).

Box 1: Success and the lack of sustainability of the Enterprise Law Enforcement Taskforce

This Taskforce was established in December 1999 when the implementation of the Enterprise Law 1999 was at risk of lagging significantly behind schedule. The Taskforce had played an essential role in enforcing the Enterprise Law and in removing unnecessary business licenses. It has been regarded as a good example in law implementation and highly appreciated by the business community and a number of stakeholders. The operation of the Taskforce, however, was not sustainable.

The success of the Taskforce can be attributed to both external and internal factors. External factors include, first, strong political commitment of the Party and Government to legal reform and to business environment improvement. In fact, the Taskforce is an advisory body to the Prime Ministry and hence, benefited a great deal from direct support of the Prime Minister. Second is wide support amongst economists, researchers, the media, and the business community. Internal factors include, first, the Taskforce is a team of members who are market reform minded, fully committed to economic reforms, and professionally independent (though they are still part of the administrative system). Second, it has a reasonable working mode and does not refrain from tackling sensitive issues. The concrete conditions and actual context of all involved stakeholders are always taken fully into account in any of its proposals.

The reasons the operation of the Taskforce cannot be sustained are as follows:

- At the beginning it is stated that the Taskforce's operation is short-term and ad-hoc in nature

- As time goes by, the external enabling factors have declined. Many reasonable proposals by the Taskforce were not considered and accepted. Many measures taken were against the Enterprise Law. These factors have dampened and depleted the energy of the Taskforce.

- As most members have to devote only part of the working time to the Taskforce, they tend to spend more and more time on the work at their organisation

- The work 'not included in the Taskforce meeting' was not clarified. There is no mechanism to protect the Taskforce members when they performed the tasks that were not identified or assigned in the Taskforce meetings, despite the fact that such tasks are part of the task list of the Taskforce. This fact gradually decreased the independence of members, particularly of standing members. Since then, the work of the Taskforce has become more 'administrative'.

Source: CIEM and GTZ (2006).

2. Project 30

With Project 30 (under Decision 30/QD-TTg, dated 10 January 2007) launched in 2007, the regulatory guillotine was introduced into Viet Nam's current regulatory management system. This project set out several key goals for 2007–2010: (i) to simplify at least 30% of administrative procedures and reduce administrative costs by at least 30%; (ii) to reduce the implementation gaps in the domestic regulatory system with international commitments (especially the WTO); (iii) to set up the first unified national database for administrative procedures; and (iv) to improve Viet Nam's competitiveness, boosting investment and increasing productivity.

Project 30 also conducted a comprehensive review of all administrative procedures. Accordingly, all administrative procedures including forms

and related dossiers had to be inventoried and reviewed in terms of: (i) necessity, (ii) legality, and (iii) user friendliness (3-questions test). Based on this review, the competent authorities made proposals for simplification (for administrative procedures failing the 3-questions test). Reasonable administrative procedures were then standardised and published through the National Database for administrative procedures. The review was undertaken in four phases:

1. Inventory: All ministries and provincial local governments prepared lists of administrative procedures under their authority and published them for public comments.
2. Self-review based on the 3-questions test.
3. Follow-up review by Special Task Force and the Advisory Council (a group of independent experts, business community, etc.)
4. Recommendations.

Note that the Special Task Force, a coordinating body with competent staff, was set up at the centre of government. The Special Task Force was assigned sufficient power to deal with and directly instruct other ministries and local governments. The Taskforce could directly report to the Prime Minister. Ultimately, the strong political determination has been a key factor in overcoming potential reluctance amongst ministerial and local officials, whilst strengthening confidence amongst stakeholders.

To sustain the results of Project 30, the government adopted Decree 63/2010/ND-CP (dated 8 June 2010) on the control of administrative procedures, which was later amended by Decree 48/2013/ND-CP (dated 14 May 2013).

Project 30 brought about remarkable results. First, for the first time in Viet Nam's governance history, an electronic database consisting of more than 5,000 existing administrative procedures was created and made available to all interested parties. This made Viet Nam's regulatory environment much more transparent and more favourable for entrepreneurship.

Second, Project 30 contributed to the reduction of administrative burdens on businesses and citizens, especially regarding invoicing procedures (saving US$20 million a year), tax declarations and collections (cutting costs by US$50 million a year), and customs procedures (saving US$30 million a year). The USAID/VNCI claimed that the savings in compliance costs for business and citizens could amount to as much as US$1.5 billion per year if all of the recommended measures are implemented by the government of Viet Nam.

Third, the implementation of Project 30 enhanced investors' confidence in the reform process. During 2007–2010, the business communities, including both domestic and foreign enterprises, were widely consulted by the government to solicit their suggestions for improving the regulatory environment. The voices from business communities fed important inputs to the government's decision to simplify existing administrative procedures.

3. Resolution 19

On 18 March 2014, the government adopted Resolution 19/ND-CP on main tasks and key measures to improve the business environment and competitiveness of the nation, which was initiated based on an analysis of the actual weaknesses and shortcomings of the economy in the context of deeper integration. In 2014–2015, the main focuses of the resolution include: (i) improve competitiveness, (ii) promote administrative reform, and (iii) enhance transparency and accountability. Specifically, measures under the resolution are expected to: (i) simplify business registration procedures and shorten the process to 6 days or less; (ii) reform the tax payment procedures, in which the target is to reduce the time needed to pay tax to the average level of the ASEAN-6 countries (171 hours each year); (iii) improve regulations on ownership and protecting investors in compliance with international standards; (iv) increase the ease, equality, and transparency in accessing capital; (v) simplify import–export and customs requirements and procedures, trying to reach the average level of ASEAN-6 (14 days to export, 13 days to import); (vi) speed up bankruptcy process to the maximum of 30 days; and (vii) implement information on operations and financial situation of enterprises in comply

with legal regulations and international practices as well as promote transparency.

Depending on mandates and functions, line-ministries, local governments, and authorities, relevant government ministries, provincial people's committees, VCCI, and associations should consider, initiate, and implement appropriate actions to fulfil the stated objectives of the Resolution.

Resolution 19 reflects important changes in regulatory reforms in Viet Nam, marking the first time that specific targets are designated to ensure the improvement of the business environment. Such specific targets include the areas that need improvement and the minimum requirement of improvement. Besides, Resolution 19 officially internalises the specific areas of the business environment that are consistent with the World Bank's Doing Business survey in 2014 and 2015. This internalisation rests on a fundamental change in perception, as the survey results on Doing Business were not considered seriously in the years before 2014. This is also the difference between Resolution 19 and Project 30 (as per the first case study), since the latter did not rely on specific indicators for monitoring compliance. Finally, Resolution 19 sets out various reference targets in line with the average level of ASEAN-6, which may also imply bolder and more serious attempts by Viet Nam to get itself closer to the standard of ASEAN before the regional economic community comes into play.

On the basis of the above review, Resolution 19 also incorporated a substance of self-assessment of administrative procedures' legitimacy. Nonetheless, the self-assessment here focused more on how the administrative procedures affect Viet Nam's performance in terms of various competitiveness indicators. In doing so, Viet Nam dedicated intensive efforts to understanding the methodology of computing the Doing Business indicators, and sought potential areas of changes that can quickly improve the indicators.

Resolution 19 focuses explicitly on inducing changes of the regulations and/or administrative procedures related to doing business in Viet Nam. The ministries are requested to simplify regulations and administrative procedures, which may even require proposals for amendment at the law level. In this regard, therefore, Resolution 19 is more action-oriented than Project 30. In total, Resolution 19 sets out seven broad measures and 49 specific measures for different ministries, agencies, and localities.

There are some gaps in implementing Resolution 19. In particular, regarding the review of administrative measures, especially those related to indicators of competitiveness, only four agencies (the Ministry of Planning and Investment, the Ministry of Finance, the Ministry of Industry and Trade, and Viet Nam Social Insurance) made efforts for such reviews. Meanwhile, almost all action plans of line ministries, agencies, and the localities fail to closely follow international standards; many action plans did not specify the timing and methodology of implementing the assigned tasks.

Notwithstanding the failure to accomplish all assigned tasks, the early results of Resolution 19 were remarkable. According to the World Bank's Doing Business ranking, the amended Enterprise Law in November 2014 abolished five procedures (before there were 10 procedures) and the time for business registration was shortened from 34 days to 6 days. These improvements may be equivalent to an increase of 60 ranks in terms of Starting-A-Business indicator compared to 2013 (ranking 109th). Together with abolishing the need to list all business activities in business licences, all previous requirements, procedures, and costs for supplementing or adjusting business activities would be nullified.

Besides, the amended Investment Law in November 2014 abolishes requirements for investment certificates for all domestic investment projects irrespective of the scale and area of business. It also narrows the scope of foreign-invested projects that require investment certificates. The new regulations aim at better and more effectively protecting investors' rights in line with the core features of a modern market economy.

More achievements are also observed in the prescribed indicators of competitiveness. By the end of 2014, the time required to pay taxes and insurance was reduced from 872 hours per year to 170 hours per year. Enterprises will now be able to pay taxes on a quarterly basis, rather than on a monthly basis as had been the practice previously. Tax declaration documents have been simplified considerably, to reduce compliance costs and limit the risks of errors. The maximum time for accessing electricity from medium voltage stations is to be reduced to only 18 days, a reduction of 42 days.

Although such outcomes were positive, they were not quite as positive as had been expected, and the Resolution was being repeated and strengthened with follow-up Resolution 19 (*the same name*) in 2015, 2016, 2017, and 2018.

Lessons and Challenges

Viet Nam's regulatory reforms have contributed to the enhancement of the quality and effectiveness of laws, decrees, and circulars, and the simplification of administrative procedures. The reform agenda has not yet been completed, however, and lessons that can be learned so far will help to improve the regulatory system.

First, domestic reforms and international economic integration can reinforce each other. Market-oriented reform is Viet Nam's own goal and also a key for Viet Nam to be more confident in joining the regional and global economy. In turn, integration commitments are significant catalysts for domestic reforms in Viet Nam.

Second, empirical evidence, perception of the business community and people, and reality (economic and social life) are major tests for the rightness and effectiveness of regulatory reforms. The following factors seem to be necessary conditions for successful regulatory reforms:

- Political commitment is critical (Commitment by leader(s) is needed)
- Simple goals and adherence to international standards/best practices are essential (Self-assessment in regulatory management is simply not enough)
- Building awareness for officials responsible for handling administrative procedures is key
- Active involvement of stakeholders should be welcomed; sharing of information (comments, feedback, and transparency) and effective communication are highly complementary
- Reforms need a sound institutional structure with sufficient capacity (and thus, they are an ongoing process)
- Regulatory reforms are not resource-demanding (Even at the hand of developing countries like Viet Nam)

The achievements of Viet Nam in regulatory reforms are considerable, but largely limited to reducing barriers to market entry and transaction costs thanks to simplification of various administrative procedures. Regulatory reform in Viet Nam now faces two other major challenges.

Many studies show that in Viet Nam, MSMEs find it hard to grow their businesses. As a result, most local firms are small or very small, and Viet Nam lacks medium-sized firms (the 'missing middle' problem). Reasons for this include problems associated with property rights protection, competition, and access to factors of production. Having effective institutions and appropriate regulations to tackle such problems is still very much of a challenge.

Another challenge is to have good regulations for supporting and facilitating technology and innovation. That is really crucial for Viet Nam now, to sustain economic growth, which relies more and more on productivity improvement and innovation. In the context of the Fourth Industrial Revolution and digital transformation, it is easier to agree on key principles for the right regulations; they need to ensure:

- The enhancement of innovation;
- Efficiency based on fair competition
- A broad view of cost–benefit of all stakeholders, especially customers

However, many questions remain about how to design appropriate regulations and how to enforce them. Establishing a digital infrastructure that ensures hyper-connectivity with an open and secure database is challenging. How to create good regulations in coping with fast changing markets and various new business models and platforms is still a process of learning, and there is no reference to best practices. Quantitative assessments of the social-economic impacts of such new business models and platforms are difficult, not to mention the adjustment costs involved. We need to learn more from experience, for example through the creation of so-called regulatory 'sand-boxes'. In-depth studies of the digital economy and the economics of data are also needed to create good regulations.