

ASEAN RISING:

ASEAN and AEC Beyond 2015

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- Fukunari Kimura (chief economist);
- Yoshifumi Fukunaga (senior policy coordinator); and
- Dionisius Narjoko (researcher).

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ASEAN RISING: ASEAN and AEC Beyond 2015 is but the latest endeavour of ERIA in its unceasing support to ASEAN and regional integration efforts in ASEAN and East Asia. The Institute shares the optimism embodied in the report as ASEAN and the region cooperatively and concertedly address the challenges and tap the opportunities that deeper integration in the region entails and offers respectively. We hope the recommendations in the report would help ASEAN and the region move forward confidently into 2015 and beyond. The Institute stands ready to contribute to the fulfilment of ASEAN RISING.



Prof. Hidetoshi Nishimura
Executive Director
ERIA
20 January 2014

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LIST OF ACRONYMS

AADMER	=	ASEAN Agreement on Disaster Management and Emergency Response
AANZFTA	=	ASEAN-Australia-New Zealand Free Trade Agreement
ABIF	=	ASEAN Banking Integration Framework
ABIS	=	ASEAN Business Investment Summit
ACCSQ	=	ASEAN Consultative Committee on Standards and Quality
ACFTA	=	ASEAN-China Free Trade Agreement
ACIA	=	ASEAN Comprehensive Investment Agreement
AC-SPS	=	ASEAN Committee on Sanitary and Phytosanitary
ACT	=	ASEAN Consultation to Solve Trade and Investment Issues
ACTD	=	ASEAN Technical Dossiers
ACTR	=	ASEAN Common Technical Requirement
ACTS	=	ASEAN Credit Transfer System
ACWL	=	Advisory Center for WTO Law
AEC	=	ASEAN Economic Community
AEM	=	ASEAN Economic Ministers
AFAFGIT	=	ASEAN Framework Agreement on the Facilitation of Goods in Transit
AFAFIST	=	ASEAN Framework Agreement on the Facilitation of Inter-State Transport
AFAMT	=	ASEAN Framework on Multimodal Transport
AFAS	=	ASEAN Framework Agreement on Services
AFSIS	=	ASEAN Food Security Information System
AFTA	=	ASEAN Free Trade Agreement
AHTN	=	ASEAN harmonized tariff nomenclature
AIF	=	ASEAN Infrastructure Fund
AIFDR	=	Australia-Indonesia Facility for Disaster Reduction
AIFS	=	ASEAN Integrated Food Security
AIFTA	=	ASEAN-India FTA
AJCEP	=	ASEAN-Japan Comprehensive Economic Partnership
AKFTA	=	ASEAN-Korea Free Trade Area
AMCHAM	=	American Chamber of Commerce
AMRO	=	ASEAN+3 Macroeconomic Research Office

AMSS	=	ASEAN Member States
ANZ	=	Australia-New Zealand
APBSD	=	ASEAN Policy Blueprint for SME Development
APEC	=	Asia Pacific Economic Cooperation
APS	=	Alternative Policy Scenario
APSA	=	ASEAN Petroleum Security Agreement
APTERR	=	Asian Plus Three Emergency Rice Reserve
ARDEX	=	ASEAN Regional Disaster Emergency Response Simulation Exercise
ARIC ADB	=	Asia Regional Integration Center Asian Development Bank
ARPDM	=	ASEAN Regional Program on Disaster Management
ASAM	=	ASEAN Single Aviation Market
ASCOPE	=	ASEAN Council on Petroleum
ASEAN	=	Association of Southeast Asian Nations
ASEC	=	ASEAN Secretariat
ASTP	=	ASEAN Strategic Transport Plan
ASW	=	ASEAN Single Window
ATIGA	=	ASEAN Trade in Goods Agreement
ATR	=	ASEAN Trade Repository
ATS	=	Alternative Technologies
AUN	=	ASEAN University Network
AUN-SEED	=	ASEAN University Network-Southeast Asia Engineering Education Development Network
BAPPENAS	=	Badan Perencanaan Pembangunan Nasional/ National Development Planning Agency
BCLMV	=	Brunei, Cambodia, Lao PDR, Myanmar, Viet Nam
BOCM	=	Bilateral Off-set Credit Mechanism
BSEC	=	Black Sea Economic Community
CADP	=	Comprehensive Asian Development Plan
CCA	=	Coordinating Committee for Implementation of ATIGA
CCRIF	=	Caribbean Catastrophic Risk Insurance Facility
CCT	=	Clean Coal Technology
CEPEA	=	Comprehensive Economic Partnership for East Asia
CEPT	=	Common Effective Preferential Tariff
CERM	=	Coordinated Emergency Response Mechanism
CGE	=	Computable General Equilibrium
CJK-FTA	=	China-Japan-Korea FTA
CLMV	=	Cambodia, Lao PDR, Myanmar, Viet Nam

CMIM	=	Chiang Mai Initiative Multilateralisation
COMESA	=	Common Market for Eastern and Southern Africa
COO	=	Certificates of Origin
CSME	=	Caribbean Single Market and Economy
DRR	=	Disaster Risk Reduction
DSM	=	Dispute Settlement Mechanism
DVA	=	Domestic Value Added
EAFTA	=	East Asian FTA
EAS	=	East Asia Summit
EASG	=	East Asia Study Group
EAVG	=	East Asia Vision Group
EDSM	=	Enhanced Dispute Settlement Mechanism
EEC	=	Energy Efficiency
EFTA	=	European Free Trade Association
EIB	=	European Investment Bank
ERIA	=	Economic Research Institute for ASEAN and East Asia
ESB	=	Eastern Seaboard Development
EU	=	European Union
FDI	=	Foreign Direct Investment
FIT	=	Feed-in-Tariff
FSI	=	French-Singapore Institute
FTAAP	=	Free Trade Area of the Asia-Pacific
GATS	=	General Agreement on Trade in Services
GCI	=	Global Competitiveness Index
GDP	=	Gross Domestic Product
GII	=	Global Innovation Index
GSI	=	German-Singapore Institute
GTAP	=	Global Trade Analysis Project
GVC	=	Global Value Chain
HDI	=	Human Development Index
IAI	=	Initiative for ASEAN Integration
ICT	=	Information and Communication Technology
IEA	=	International Energy Agency
IMF	=	International Monetary Fund
IPR	=	Intellectual Property Rights
IRENA	=	International Renewable Energy Agency
JETRO	=	Japan External Trade Organization
JICA	=	Japan International Cooperation Agency
JSI	=	Japan-Singapore Institute

JV	=	Joint Ventures
LAIA	=	Latin American Integration Area
LCOE	=	Levelised Cost of Energy
LPI	=	Logistics Performance Index
LSPs	=	Logistics Services Providers
MAAS	=	Multilateral Agreement on Air Services
MAFLAFS	=	Multilateral Agreement on the Full Liberalisation of Air Freight
MAFLPAS	=	Multilateral Agreement on the Full Liberalisation of Passenger Air Service
MCDV	=	Myanmar Comprehensive Development Vision
METI	=	Ministry of Economy, Trade and Industry
MNC	=	Multinational Corporations
MNPED	=	Myanmar Ministry of National Planning and Economic Development
MPAC	=	Master Plan on ASEAN Connectivity
MTR	=	Mid-Term Review
NAFTA	=	North American Free Trade Agreement
NEDA	=	National Economic and Development Authority
NRE	=	New Renewable Energy
NSW	=	National Single Window
NSWs	=	National Single Windows
NTB	=	Non-Tariff Barriers
NTM	=	Non-Tariff Measures
ODA	=	Official Development Assistance
OECD	=	Organisation of Economic Co-operation and Development
PBCE	=	Project Bond Credit Enhancement
PDC	=	Penang Development Corporation
PIDS	=	Philippine Institute for Development Studies
PPP	=	Public-Private Partnership
PPP	=	Purchasing Power Parity
PSDC	=	Penang Skills Development Center
QAB	=	ASEAN Qualified Banks
RCEP	=	Regional Comprehensive Economic Partnership
RIA	=	Roadmap for Integration of ASEAN
RIA	=	Regulatory Impact Assessment
RIATS	=	Roadmap for Integration of Air Travel Sector
RIN	=	Research Institutes Network
ROK	=	Republic of Korea
ROO	=	Rules of Origin
RORO	=	Roll-on/Roll-off

RPS	=	Renewable Portfolio Standard
S&C	=	Standards and Conformance
SAPASD	=	Strategic Action Plan for ASEAN SME Development
SAR	=	Search and Rescue
SEOM	=	Senior Economic Officials Meeting
SKRL	=	Singapore-Kunming Railway Link
SMEs	=	Small and Medium Enterprises
SPA-FS	=	Strategic Plan of Action on Food Security
SPR	=	Strategic Petroleum Reserve
SPS	=	Sanitary and Phytosanitary
STOM	=	Senior Transport Officials Meeting
SWOT	=	Strengths, Weaknesses, Opportunities, Threats
TBT	=	Technical Barriers to Trade
TFP	=	Total Factor Productivity
TPES	=	Total Primary Energy Supply
TPP	=	Trans-Pacific Partnership
TPRM	=	Trade Policy Review Mechanism
TRIPS	=	Trade Related Aspects of Intellectual Property Rights
UNCED	=	United Nations Conference on Environment and Development
UNCTAD	=	United Nations Conference on Trade and Development
UNISDR	=	United Nations International Strategy for Disaster Reduction
USA	=	United States of America
USAID	=	United States Agency for International Development
WIPO-ASEAN	=	World Intellectual Property Organization-ASEAN
WIPO-INSEAD	=	World Intellectual Property Organization-Institut Européen d'Administration des Affaires
WTO	=	World Trade Organization

Chapter 1

ASEAN and AEC: Progress and Challenges

Remarkable economic and social progress

ASEAN had remarkable if somewhat tumultuous economic progress during the past quarter century. A number of ASEAN member states have seen marked economic structural transformation during the period. The region's economic progress translated into social progress as best captured by the marked reduction in poverty rate and in the extent of poverty gap in the region and was also made manifest in other social outcomes like in health and literacy.

Economic progress

ASEAN had very robust growth rates in GDP during its “golden decade” of the late 1980s and early 1990s, with an average growth rate that was close to a near doubling within a decade (see **Table 1.1**). The ASEAN GDP per capita declined sharply in 1998 due to the 1997 East Asian financial crisis that started in Thailand. It inched up secularly during 2001-2007, then had been hit again by the global financial crisis and succeeding global volatility since 2008. Overall, ASEAN GDP grew moderately in the 2000s.

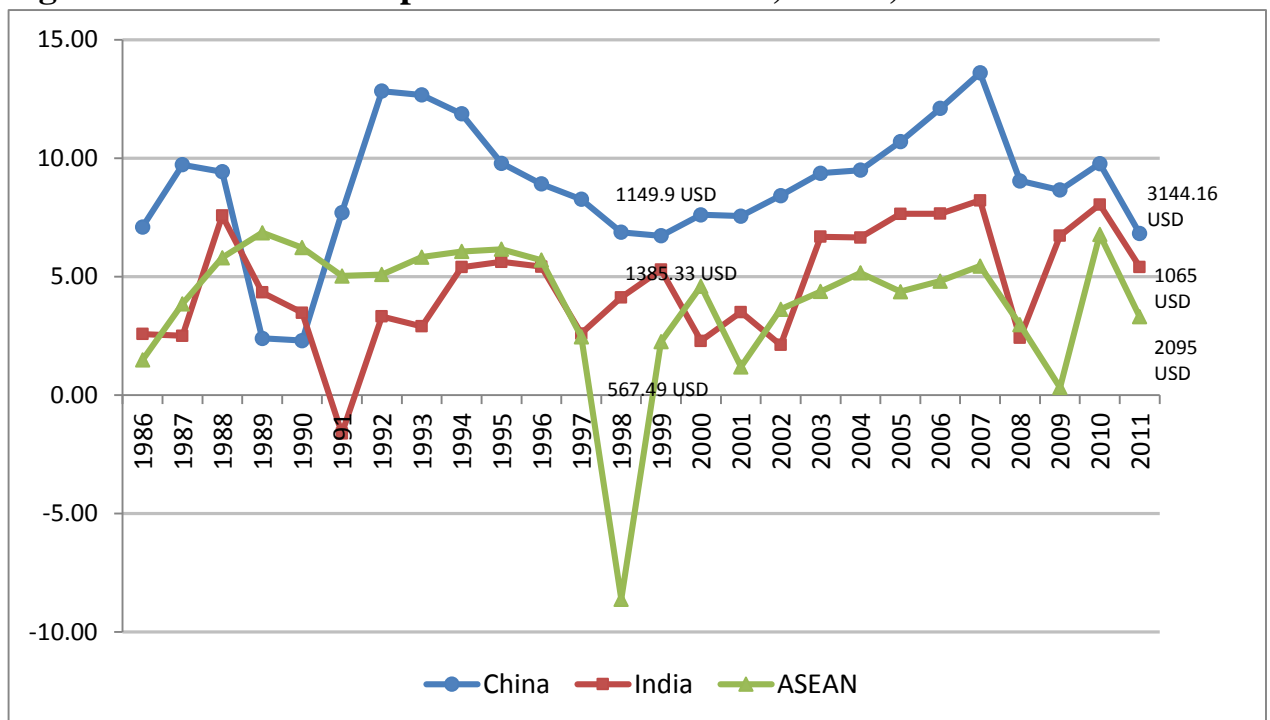
Table 1.1: The Average Growth of Selected Region in the World (in percent)

Country	1991-1995	1996-2000	2001-2005	2006-2011
China	12.28	8.64	9.76	10.87
India	5.18	5.80	6.99	7.93
Developing Asia	6.92	5.43	6.45	7.15
All-Developing Economies	5.05	4.60	5.32	6.12
ASEAN	7.48	2.82	5.09	5.14
LAIA	2.98	3.18	2.65	3.90
ROK	7.90	5.35	4.50	3.81
Russia	-8.50	1.77	6.14	3.80
BSEC	27.97	2.29	5.50	3.50
ANZ	3.29	3.71	3.53	2.54
World	2.10	3.43	2.87	2.36
EU	1.63	2.91	1.91	1.03
USA	2.55	4.35	2.40	0.86
Japan	1.42	0.85	1.20	0.17

Source: UNCTAD Stat (2013)

The overall economic performance of ASEAN during the past quarter century can be captured by comparing the per capita GDP growth in real terms of ASEAN with those of China and India, the two big neighbouring countries of ASEAN and which have hogged the development and growth story in East Asia during the past one and a half decades. **Figure 1.1** presents the growth performance of ASEAN vis-a-vis China and India. The figure clearly shows the spectacular growth performance of China over the past quarter century that transformed it from a poor and isolated but liberalising country in the mid-1980s to the second largest economy in the world at present. China's spectacular economic transformation had marked impact on its neighbours including ASEAN countries as the discussion later in this Integrative Report would abundantly show. As **Figure 1.1** also shows, ASEAN grew much faster than India during 1988-1996 (India faced an economic crisis in 1991 that paved the way to India's liberalisation process). However, India clearly outshone ASEAN during the 2000s. Thus, as the popular discussion on the global shift of economic power heated up during the past decade, it is not surprising that it has been China and India that hogged the headlines.

Figure 1.1: GDP Per Capita Growth of ASEAN, China, and India



Notes: the data label means Constant (2005 dollar) GDP per capita.

Source: UNCTAD Stat (2013)

ASEAN, of course, is not one monolithic country but an association of 10 countries. Thus, the ASEAN average in **Figure 1.1** is underpinned by the country growth performances of the 10 member states, as presented in **Table 1.2**. There are essentially three broad groups of individual performances of the ASEAN member states during the period.

The first group, i.e., Indonesia, Malaysia, Singapore and Thailand, anchored ASEAN's golden decade of the late 1980s and early 1990s before the 1997 financial crisis, with the huge burst in industrialisation and manufactured exports often linked with the emerging production networks in East Asia that was initially catalyzed by the currency realignment under the Plaza Accord in the mid- 1980s. All four countries would figure prominently as among the high growth economies in the World Bank's famous book on Emerging Asia.

Table 1.2: Average GDP and GDP Per Capita Growth (in percent)

GDP Growth	1986-1990	1991-1995	1996-2000	2001-2005	2006-2011
Brunei	-1.65	3.17	1.35	2.08	0.94
Cambodia	8.49	6.46	7.18	9.36	6.80
Indonesia	6.93	7.83	1.06	4.71	5.86
Lao PDR	4.47	6.19	6.17	6.33	7.99
Malaysia	6.70	9.47	4.99	4.76	4.57
Myanmar	-1.98	5.90	8.35	12.87	10.30
Philippines	4.74	2.19	3.59	4.60	4.75
Singapore	8.69	8.57	5.84	4.83	6.33
Thailand	10.34	8.50	0.87	5.45	3.09
Vietnam	4.16	8.21	6.96	7.51	6.83
ASEAN (Aggregate)	7.02	7.48	2.82	5.09	5.14
GDP Per Capita Growth	1986-1990	1991-1995	1996-2000	2001-2005	2006-2011
Brunei	-4.37	0.35	-1.08	-0.03	-1.26
Cambodia	4.54	3.14	4.89	7.83	5.59
Indonesia	4.98	6.15	-0.29	3.40	4.73
Lao PDR	1.60	3.38	4.00	4.67	6.40
Malaysia	3.66	6.68	2.46	2.51	2.84
Myanmar	-3.60	4.42	6.96	12.20	9.52
Philippines	2.03	-0.17	1.33	2.50	2.96
Singapore	6.38	5.50	3.37	3.06	2.93
Thailand	8.44	7.55	-0.27	4.30	2.38
Vietnam	1.96	6.11	5.64	6.35	5.67
ASEAN (Aggregate)	4.84	5.63	1.28	3.74	3.94

Source: UNCTAD Stat (2013)

The 1997 Asian financial crisis ended the high growth phase and led to a few years of domestic adjustment and macroeconomic stabilization. Nonetheless, the China-led commodity and resources boom (especially important for Indonesia and Malaysia), the deepening of the regional production networks (most important for Thailand) and the growth of regional hubbing and successful drive towards technological frontier (Singapore) provided the impetus for the robust if relatively modest (compared to the early 1990s) economic growth performance during much of the 2000s.

The second group consists of the CLMV countries. As **Table 1.2** indicates, virtually all of them had stellar growth rates during much of the period. Viet Nam is the exemplar of the four, and arguably is second only to China for its remarkable economic transformation and, as will be shown later, rapid decline in poverty during the period. Cambodia's growth performance has been consistently impressive, and more recently, also Lao PDR's. GDP data in Myanmar are known to be far less reliable, and so it is not clear what the real magnitude of the growth of the Myanmar economy was during the period. Nonetheless, it is definitely the case that Myanmar grew much faster during the period than the decade before 1988; sharp (government) investment in irrigation and land clearance led to marked expansion in agricultural produce while energy resources were the backbone of export surge in the 2000s despite the import bans imposed on Myanmar's exports by a number of developed countries. Myanmar is now on the cusp of an economic boom, and thus would likely bookend the CLMV growth story.

And the CLMV growth story is one ASEAN success story with lessons for the developing world, especially on the potential benefits of economic integration and opening economies up to foreign investment and trade. The stellar growth performances of the CLMV countries meant that the development gaps between the "poorer" CLMV countries and the "more advanced" ASEAN 6 countries have narrowed during the past decade.

The last group, consisting of Brunei Darussalam and the Philippines, are more like outliers from the rest of the ASEAN in terms of their growth performances during the past quarter century, as **Table 1.2** suggests. Brunei Darussalam is a high income country of about 421 thousand people, dependent essentially on its energy resources, and has persistently huge trade (and current account) surplus relative to GDP and thus effectively is a capital exporter. The country has to manage its resources prudently, and high growth is revealed as *not* a high priority for the country.

The comparatively more modest growth performance of the Philippines during the period stemmed from (a) a pervasive macroeconomic constraint during much of the period arising from debt overhang and economic crisis of the early 1980s, (b) the difficult and long process of industrial restructuring arising from the opening up of the economy in the face of comparatively higher wages and

power rates, poor infrastructure, and regulatory constraints vis-a-vis competitor countries in the region, and (c) the concomitant relative failure to attract much more foreign direct investment. Nonetheless, the country has successfully established its global export niche in outsourced services. With much improved investment climate (including sharp rise in infrastructure development) recently, the country has started to entice more investments for its recently robustly growing and large domestic market as well as an export platform in relatively more skilled labour intensive products. The result has been much higher growth rate in the last two years, surpassing the growth performances of virtually all the other ASEAN countries.

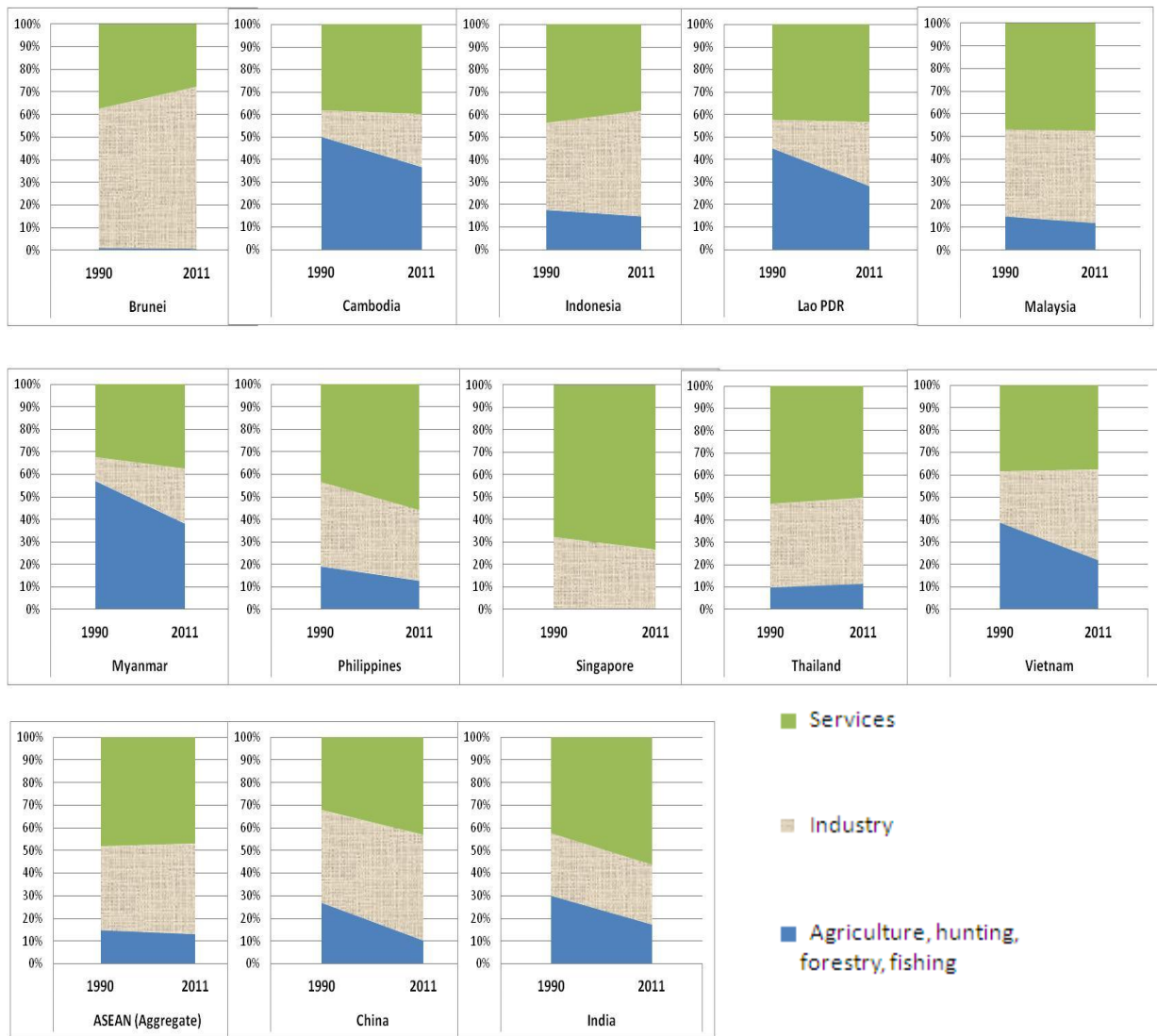
Economic transformation

The economic growth during the past two decades or so led to significant economic transformation of a number of ASEAN member states. This is most evident for Viet Nam, Myanmar, Lao PDR and Cambodia where there was a marked increase in the share of industry and a significant reduction in the share of agriculture to GDP during the period. Brunei Darussalam and Indonesia also experienced significant increases in the share of industry to GDP but interestingly, this was at the expense primarily of a reduction in the share of services. The Philippines and Singapore present the opposite case where there was a significant increase in the share of services at the expense of reduced share of industry as well as, for the Philippines, agriculture. Both Malaysia and Thailand had relatively stable sector shares during the period (see **Figure 1.2**).

The varying changes in the shares of economic sectors among the AMSs reflect to some extent the differing levels of development and different comparative advantages. Thus the sharp increase in the industry share in Cambodia and Viet Nam resulted from the explosive growth of labour intensive export oriented manufacturing even in the face of marked increase in the output of agriculture (including forestry and fishery) during the period, especially in Viet Nam. Export oriented resources boom are at the heart of the sharp rise in industry share in Lao PDR (mining and energy) and Myanmar (gas). The case of Indonesia is essentially a two-part story: the first part was the sharp rise in export oriented labour intensive manufacturing during ASEAN's golden decade; the second part, during the 2000s, is the resources boom in tandem with

the resources-cum-commodities -boom -induced -industrial expansion primarily to meet fast expanding domestic demand for industrial products.

Figure 1.2: The Structure of Economy by Industry (in percent to total GDP)



Source: UNCTAD Stat (2013)

Both Malaysia and Thailand seem to have had a more balanced growth path during the period. Malaysia also benefited from the China-induced commodities boom during the 2000s that drove substantially its oil palm dominated agriculture sector. The country also experienced an explosive tourism growth. However, in contrast to Indonesia, there was more muted industrial expansion in Malaysia because the domestic market is so much smaller than Indonesia's and the country's electronics and electrical machinery, equipment, etc. industry faced strong competition from China. Thailand

appears to be one that experienced a more balanced cross-sectoral growth during the period. The country remained competitive in agri-based processed foods, became the hub of production networks in ASEAN especially in automotive manufacturing, and deepened its strength in tourism services as well as logistics hub for neighbouring countries during the period.

The Philippines and Singapore are the only two ASEAN member states where services account for more than one-half of GDP. Singapore's shift to services is not surprising since its very high wages could only be feasible for highly skilled labour intensive and/or technology intensive industries like regional and global finance, regional hub services, regional logistics, etc. In the case of the Philippines, the emergence of the country as a key destination for outsourced business processes as well as the robust growth of domestic consumption arising from the country's large and growing remittances from abroad are the key reasons for the significant increase in the share of services sector to GDP. Nonetheless, if the growth figures in recent quarters are any indication, the country appears to be experiencing a resurgence of manufacturing in recent years because of increasingly robust domestic market, similar to the case of Indonesia during the 2000s.

Drivers and impulses of economic growth and transformation.

The expenditure accounts of national income accounts provide some indication of drivers and impulses of the economic transformation and progress of the ASEAN member states during the past two or so decades (see **Table 1.3**). Two stand out prominently from **Table 1.3**; namely, investment and foreign trade. The table suggests that high economic growth rate is correlated with high or substantially rising investment rate; there is also a tendency for a higher share of international trade to national output. This is probably not surprising. Given relatively more abundant labour resources, it is the pace of growth of the scarcer resource, capital, that would determine the secular growth of the economy. Similarly, increased or high participation in international trade, adjusted for the size of the economy, is indicative of a country hewing to and growing on its evolving comparative advantage and thereby utilizing and deploying more effectively its resources.

Barring Singapore's exceptionally high trade to GDP ratios because of its historical entreport role in the region, **Table 1.3** shows relatively high trade

orientation of many ASEAN member states exemplified by Malaysia, Thailand, Viet Nam and, to a lesser extent, Cambodia. Singapore, Malaysia and Thailand are the main ASEAN participants in regional production networks; this explains in part the high trade ratios of the three countries. The table shows the marked rise in the trade ratios for Viet Nam and Cambodia during the 1990s and the 2000s. Viet Nam is increasingly pulled into the regional production networks; this explains in part the surge in the trade share of Viet Nam. In both Cambodia and Viet Nam, exports of manufactures are heavily dependent on imported components; hence, the coincident rise in both export and import shares. The regional production networks, and ASEAN countries' participation in them, as well as the intensity of intra-regional trade by commodity are discussed more in **Chapter 4** of this Integrative Report.

Table 1.3: The Structure of Economy by Expenditure (in percent total GDP)

Country	Type of Expenditure	1990	1995	2000	2005	2011
Brunei	Total by Expenditure	100	100	100	100	100
	Private (Household) Consumption	26.49	36.65	24.83	22.46	19.87
	Government consumption (expenditure)	22.02	26.75	25.82	18.41	17.33
	Gross capital formation	18.68	36.66	13.06	11.37	13.36
	Exports of goods and services	61.81	59.72	67.35	70.17	81.28
	Imports of goods and services	37.27	55.83	35.82	27.29	29.13
	Statistical Discrepancies	8.27	-3.95	4.77	4.88	-2.71
	Cambodia	Total by Expenditure	100	100	100	100
Private (Household) Consumption		90.43	90.91	88.81	84.29	82.86
Government consumption (expenditure)		7.23	5.1	5.23	5.8	6.02
Gross capital formation		8.31	13.4	17.53	18.47	17.1
Exports of goods and services		2.44	32.7	49.85	64.08	54.08
Imports of goods and services		8.4	43.92	61.76	72.75	59.5
Statistical Discrepancies		0	1.81	0.35	0.1	-0.56
Indonesia		Total by Expenditure	100	100	100	100
	Private (Household) Consumption	52.98	56.75	61.63	64.36	54.58
	Government consumption (expenditure)	8.05	7.13	6.62	8.11	8.99
	Gross capital formation	27.91	29.06	22.27	25.08	32.77

	Exports of goods and services	24.18	25.12	40.93	34.07	26.33
	Imports of goods and services	21.6	25.16	30.51	29.92	24.92
	Statistical Discrepancies	8.48	7.11	-0.94	-1.7	2.26
Lao PDR	Total by Expenditure	100	100	100	100	100
	Private (Household) Consumption	89.11	90.11	93.5	69.93	63.2
	Government consumption (expenditure)	7.25	7.27	6.69	8.22	11.46
	Gross capital formation	16.83	16.73	13.9	36.35	31.13
	Exports of goods and services	11.33	23.22	30.03	25.81	22.83
	Imports of goods and services	24.52	37.33	44.11	38.97	28.76
	Statistical Discrepancies	0	0	0	-1.35	0.13
Malaysia	Total by Expenditure	100	100	100	100	100
	Private (Household) Consumption	52.72	48.8	43.12	44.19	47.5
	Government consumption (expenditure)	12.53	11.24	9.44	11.47	13.02
	Gross capital formation	35.68	48.12	30.11	22.4	23.58
	Exports of goods and services	68.92	87.09	115.15	112.9	91.56
	Imports of goods and services	67.03	90.73	96.69	90.96	75.66
	Statistical Discrepancies	-2.82	-4.52	-1.14	0	0
Myanmar	Total by Expenditure	100	100	100	100	100
	Private (Household) Consumption	74.74	78.4	68.75	76.5	70.18
	Government consumption (expenditure)	13.57	8.23	18.9	10.44	10.28
	Gross capital formation	13.38	14.24	12.45	13.19	19.3
	Exports of goods and services	1.94	0.83	0.5	0.16	0.11
	Imports of goods and services	3.63	1.7	0.59	0.09	0.1
	Statistical Discrepancies	0	0	0	-0.2	0.22
Philippines	Total by Expenditure	100	100	100	100	100
	Private (Household) Consumption	69.45	72.25	72.2	75.01	73.37
	Government consumption (expenditure)	10.09	11.37	11.42	9.04	9.41
	Gross capital formation	27.77	25.81	18.37	21.55	21.81

	Exports of goods and services	23.62	31.21	51.37	46.14	31.19
	Imports of goods and services	30.52	40.51	53.36	51.74	36.21
	Statistical Discrepancies	-0.41	-0.14	0	0	0.42
Singapore	Total by Expenditure	100	100	100	100	100
	Private (Household) Consumption	45.36	41.39	41.94	40.13	39.37
	Government consumption (expenditure)	9.54	8.39	10.89	10.49	10.32
	Gross capital formation	35.05	33.27	33.18	19.97	22.44
	Exports of goods and services	177.45	183.01	192.34	229.68	208.95
	Imports of goods and services	167.38	166.25	179.49	200.27	182.28
	Statistical Discrepancies	-0.02	0.19	1.14	0	1.2
Thailand	Total by Expenditure	100	100	100	100	100
	Private (Household) Consumption	53.29	51.22	54.04	55.93	52.85
	Government consumption (expenditure)	10.03	11.27	13.52	13.65	15.75
	Gross capital formation	41.62	42.93	22.33	30.53	25.47
	Exports of goods and services	33.08	41.6	64.97	68.64	71.99
	Imports of goods and services	40.56	48.3	56.57	69.69	68.47
	Statistical Discrepancies	2.55	1.28	1.71	0.93	2.42
Viet Nam	Total by Expenditure	100	100	100	100	100
	Private (Household) Consumption	89.55	73.61	66.46	63.53	64.31
	Government consumption (expenditure)	7.54	8.19	6.42	6.15	6.48
	Gross capital formation	14.36	27.14	29.61	35.57	32.62
	Exports of goods and services	26.42	32.81	55.03	69.03	74.58
	Imports of goods and services	35.66	41.91	57.5	73.21	86.53
	Statistical Discrepancies	-2.22	0.15	-0.02	-1.08	8.53
ASEAN (Aggregate)	Total by Expenditure	100	100	100	100	100
	Private (Household) Consumption	55.37	55.07	55.72	57.28	54.36

	Government consumption (expenditure)	9.73	9.53	10.09	10.19	10.7 9
	Gross capital formation	32.3	34.94	24.8	24.98	27.4 3
	Exports of goods and services	48.2	58.43	82.8	83.07	67.1 1
	Imports of goods and services	48.74	59.92	73.55	75.17	61.6 1
	Statistical Discrepancies	3.13	1.95	0.14	-0.35	1.92
China	Total by Expenditure	100	100	100	100	100
	Private (Household) Consumption	48.85	44.88	46.44	38.99	35.0 5
	Government consumption (expenditure)	13.64	13.25	15.86	14.11	13.1 1
	Gross capital formation	34.87	40.29	35.28	41.61	49.2 2
	Exports of goods and services	15.51	19.45	23.44	36.63	30.5 7
	Imports of goods and services	12.87	17	21.02	31.17	27.0 8
	Statistical Discrepancies	0	-0.86	0	-0.16	- 0.87
India	Total by Expenditure	100	100	100	100	100
	Private (Household) Consumption	65.9	62.78	63.7	58.29	56.0 3
	Government consumption (expenditure)	11.81	10.83	12.61	10.87	11.7
	Gross capital formation	27.81	29.27	24.16	34.28	35.5 2
	Exports of goods and services	7.11	10.92	13.23	19.28	24.6 4
	Imports of goods and services	8.54	12.11	14.15	22.03	29.8 5
	Statistical Discrepancies	-4.08	-1.69	0.44	-0.69	1.97

Source: UNCTAD Stat (2013).

Indonesia and the Philippines have been the less trade oriented among the major ASEAN countries although the table shows increased trade ratios for the two countries over the period. For Indonesia, the comparatively lower trade orientation is due to the large domestic market and with it the domestic orientation of the industries. It has not been well wedded into the regional production networks. The Philippines is very much wedded into the regional production networks but only on very limited range of products. The adjustment difficulties of the country's manufacturing during much of the

1990s and the 2000s, together with a low FDI inflow for much of the period, prevented the deepening and widening of the range of significant manufactured product exports of the country. For both Indonesia and the Philippines, export expansion during the 2000s has been less import dependent: for the former, because of the boom in agricultural and natural resources exports; for the latter, because of the surge in exports of business related services.

With respect to investment, the high growth countries during ASEAN's golden decade of the latter 1980s and early 1990s had high and rising investment rates, from close to 30 percent (Indonesia) up to close to 50 percent (Malaysia) of GDP (see **Table 1.3**). The table also shows the marked decline in the investment rate during the late 1990s and early 2000s in the ASEAN countries most adversely affected by the 1997 crisis (Indonesia, Malaysia, the Philippines, Singapore, and Thailand). Of the five, only Indonesia's investment rate recovered fully during the 2000s to surpass pre-1997 crisis rates, most likely a major reason for its much more consistently robust economic growth rate during the 2000s as compared to the other four countries.

The investment rate in Viet Nam rose dramatically during the past two decades (from around 14 percent of GDP in 1990 to around 39 percent in 2010) that effectively underpinned the remarkable economic transformation of the country. Similarly, the investment rate rose substantially in Cambodia in the 1990s and dramatically in Lao PDR in the 2000s. Note that the substantial difference in the investment rates of Cambodia and Lao PDR in the 2000s, when both countries experienced high economic growth, reflects to some extent the nature of the industries the countries relied on for growth. Specifically, Lao PDR's comparative advantage lies in capital intensive mining and energy sectors while Cambodia relied on substantially less capital intensive garment manufacturing, tourism and agriculture for growth.

Foreign direct investment (FDI) has played an important role in the high or robust growth of investment in most of the ASEAN countries. For the ASEAN region as a whole, FDI inflow as a share of gross fixed capital formation averaged about 19 percent during 2005-2011 as against about 11 percent during 1990-1996. The relative contribution of FDI to fixed capital formation varies tremendously, however, among ASEAN member states (see **Table 1.4**). At one extreme, Singapore's fixed capital formation has preponderantly been from

FDI during the past decade. On the other hand, FDI share to fixed capital formation in Indonesia and the Philippines has been in the single digits since the 1990s. This comparison of the opposites is interesting to some extent: Singapore, with its FDI-preponderant economy, has been at the vanguard of free trade push; Indonesia and the Philippines, with their capital stocks being predominantly domestically owned, have been much more cautious in their investment and trade liberalisation efforts. Alternatively, the table suggests that Singapore has been far more successful than Indonesia and the Philippines in attracting FDIs during the past two decades. Indeed, FDI inflow into ASEAN has been markedly an FDI –inflow- into- Singapore story

Table 1.4: FDI Inward flow as a percent Gross Fixed Capital Formation

(in average %)

YEAR	1990 - 1995	1996 - 2001	2002 - 2007	2008 - 2011
Brunei	6.20	53.62	86.32	30.91
Cambodia	23.97	42.04	26.34	39.59
Indonesia	4.95	-2.24	4.45	5.66
Lao PDR	13.89	24.47	8.37	11.83
Malaysia	16.73	12.48	14.32	13.50
Myanmar	23.27	48.87	20.54	17.81
Philippines	6.44	7.13	7.75	4.50
Singapore	32.06	46.56	82.57	65.45
Thailand	4.30	15.86	14.70	9.54
Viet Nam	33.52	23.08	13.70	23.65
ASEAN (Aggregate)	10.77	16.52	20.03	15.58
China	9.69	12.20	7.78	4.49
India	0.82	3.11	4.30	7.15

Source: UNCTAD Stat 2013.

The other ASEAN member states are in between the Singapore-Indonesia/Philippines continuum. Brunei Darussalam and the CLMV countries share with Singapore the larger than (ASEAN) average dependence on FDI for fixed capital formation. The case of Brunei Darussalam is expected since the country does not have the capability to develop its oil resources by itself and therefore needs the joint ventures with, and FDI from, major global oil companies and oil service companies. It is the case of the CLMV countries that is more insightful, because it highlights the concordance of the high FDI contribution to fast rising investment rates in those countries and the

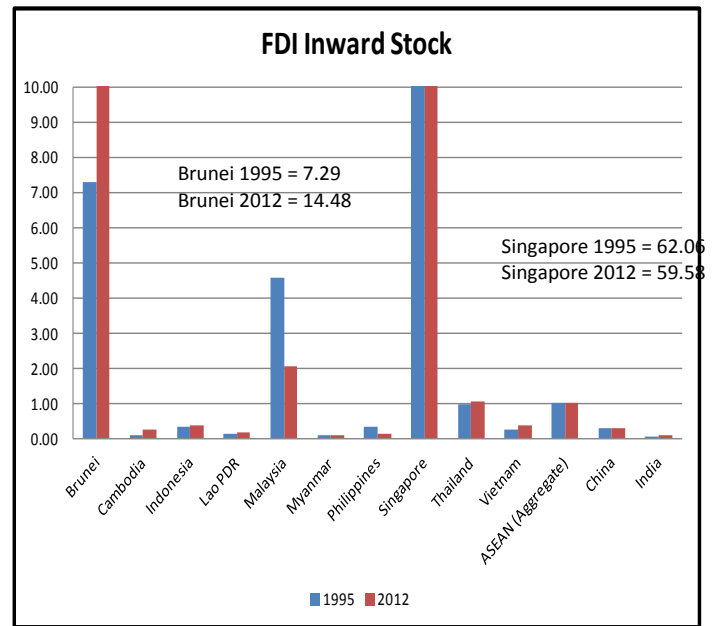
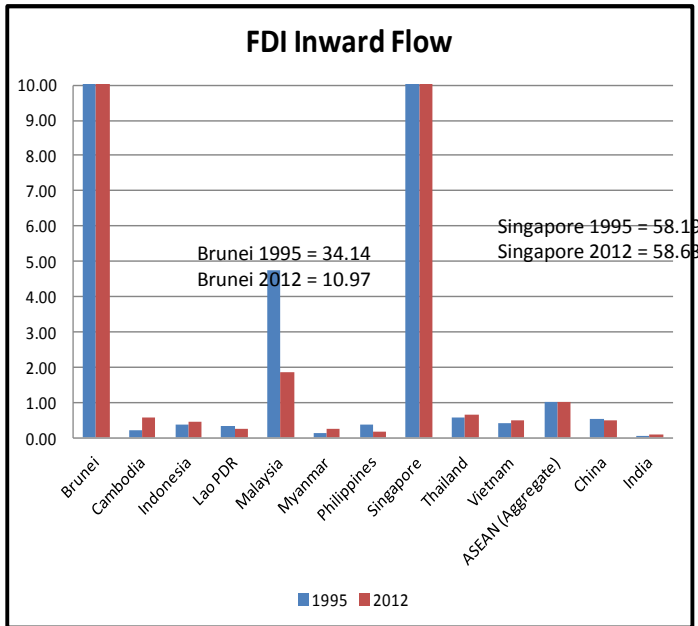
remarkably high economic growth rates and significant economic transformation of those countries, especially Viet Nam and Cambodia.

Another way of looking at the relative importance of foreign direct investment is the comparison of FDI flows or FDI stock per capita among the countries and over time (see **Figure 1.3**). Again, the extremely high levels of FDI flows and stock per capita in Singapore stand out among the ASEAN countries as well as China and India. Brunei Darussalam's per capita FDI inflows and stock are also very high as compared to the other countries. As **Figure 1.3** shows, the per capita FDI flows and stock in Singapore and Brunei Darussalam are so many times higher than the average for ASEAN during the past two or so decades. Coincidentally, Brunei Darussalam and Singapore are now high income countries. It is almost tempting to say that it is the very large FDI flows per capita over at least two decades that have made them to what they are today as prosperous countries. It must be noted though that Brunei Darussalam and Singapore are essentially small city states and as such, their FDI per capita can be expected to be higher than that of large population countries like Indonesia or even Thailand and Malaysia.

Figure 1.3: FDI Inward Flow and Stock Per Capita as a share to ASEAN and 2000's value

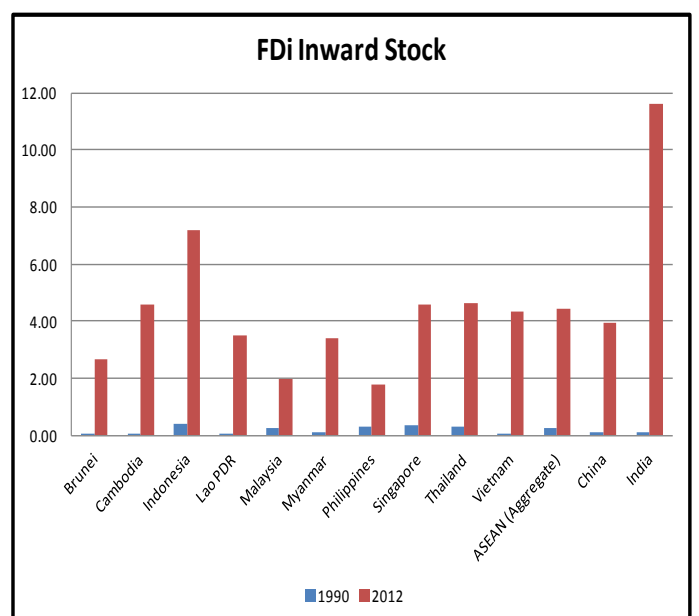
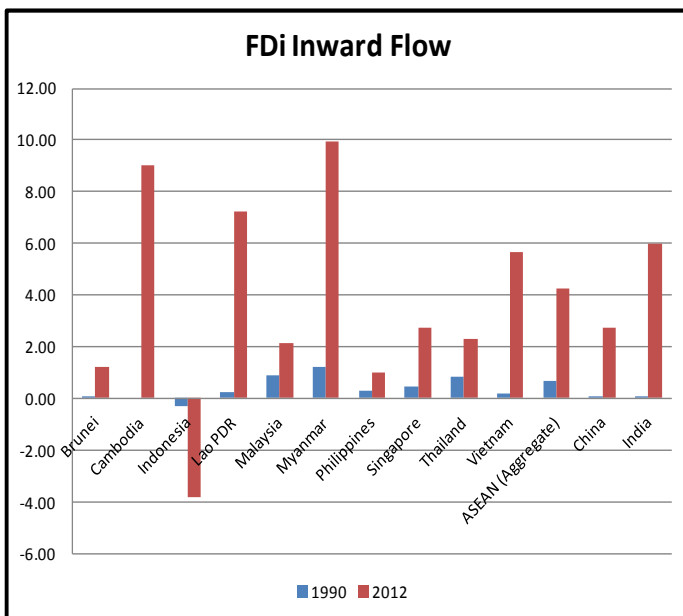
FDI Inward Flow per capita as a relative to ASEAN (Index)

FDI Inward Stock per capita as a relative to ASEAN (Index)



FDI Inward Flow per capita as a relative to 2000's value (Index)

FDI Inward Stock per capita as a relative to 2000's value (Index)



Source: UNCTAD Stat (2013)

Malaysia, and to a less extent, Thailand, ASEAN's two upper middle income countries at present, have also received FDI per capita that is higher than the ASEAN average for nearly all (Malaysia) or much (Thailand) of the past two decades or so. And foreign direct investment has played a major role in the economic transformation of these two countries, enabling them to be important players in regional production networks in East Asia especially in electronic and electrical machinery and parts (both countries) and automotive industry (Thailand).

For the other ASEAN member states, although their FDI inflows per capita have been less than the ASEAN average, there was a marked increase in the level of FDI inflow per capita in recent years, most especially in Cambodia, Indonesia and Viet Nam. This marked rise in the levels of FDI inflow per capita is reflective of the sharp rise in the ASEAN to the total world FDI inflow from an average of 3.7 percent during 2007-2009 to an average of 7.4 percent during 2010-2011. This marked increase in the ASEAN share compares very well with the more muted rise in the share of China (from an average of 6.1 percent during 2007-2009 to 8.5 percent during 2010-2011) and the decline in the share of India (from 2.2 percent during 2007-2009 to 2.0 percent during 2011-2012).

Simple regressions of FDI inflow as well as FDI stock on manufacturing value added and on manufactured exports (see **Table 1.5**) show strong positive relationship between the performance of the manufacturing sector and FDI inflows in a number of ASEAN member states, especially taking into account the degree of determination (R-squared). This is especially the case for Cambodia, Indonesia, Singapore and Viet Nam. As expected, the degree of determination is much higher for the FDI stock than for the FDI inflow. The dynamics of the FDI-manufacturing performance is likely to be complex, and the simple regressions may have auto-correlation issues. Nonetheless, the regression results highlight the importance of FDI- investment-trade-manufacturing nexus that is at the heart of production networks and the surge of economic activity in the region.

FDI inflow is not decided out of the blue of course. FDI decisions are affected by factors shaping the investment climate in the ASEAN member states as well as global factors. The issue of investment climate is discussed further in **Chapter 7** of this Report. There are other factors affecting the secular growth

of an economy such as the factors affecting the growth of total factor productivity of the economy; e.g., research and development. In this regard, the performance of the ASEAN member states on total factor productivity growth during the past one and a half decades is decidedly mixed. The issue of productivity growth and the relationship with technology transfer and innovation is discussed further in **Chapter 4** of the Report.

Table 1.5: The Effect of FDI Inflow and Stock on Manufacturing Value Added and Export in each AMSs from 1990-2011

Country/FDI Type	FDI Inflow			FDI Stock		
	Coefficient	Intercept	R-Squared	Coefficient	Intercept	R-Squared
Brunei	0.14	872.18	0.04	0.09	457.65	0.84
Cambodia	1.73	270.30	0.79	0.28	192.51	0.94
Indonesia	7.79	48599.00	0.76	0.94	36241.00	0.89
Lao PDR	1.63	61.94	0.69	0.33	-5.00	0.95
Malaysia	3.72	13605.00	0.37	0.57	5537.80	0.89
Myanmar	4.87	-511.16	0.80	0.87	-1332.10	0.77
Philippines	6.24	15206.00	0.21	1.26	8058.10	0.90
Singapore	0.66	13012.00	0.80	0.06	13386.00	0.92
Thailand	6.08	21057.00	0.48	0.58	23249.00	0.94
Viet Nam	2.23	2038.10	0.81	0.38	1020.10	0.98
ASEAN (Aggregate)	4.15	63777.00	0.87	0.36	85774.00	0.97
Country/FDI Type	FDI Inflow			FDI Stock		
	Coefficient	Intercept	R-Squared	Coefficient	Intercept	R-Squared
Brunei	0.0325	298.34	0.042	-0.0055	361.36	0.0426
Cambodia	4.3494	642.8	0.7833	0.8246	101.49	0.9455
Indonesia	1.7558	30258	0.6718	0.2169	25951	0.8176
Lao PDR	0.4098	163.58	0.3883	0.0935	126.39	0.6916
Malaysia	5.8995	60701	0.3833	0.8594	41454	0.7407
Myanmar	0.0909	704.99	0.0167	0.081	352.2	0.269
Philippines	4.997	23094	0.1708	0.6981	19948	0.3026
Singapore	3.3861	81940	0.727	0.315	79662	0.9151
Thailand	11.4	10226	0.5017	0.8877	21448	0.9714
Viet Nam	5.8398	-1456.9	0.7382	1.017	-7430.3	0.9765
ASEAN (Aggregate)	5.4158	168817	0.8465	0.463	193122	0.9304

Note: The regression equations are linear, not log-linear

Source of basic data: UNCTAD Stat 2013

Social progress

Social progress in ASEAN can best be encapsulated by the marked reduction in poverty rate and poverty gap and by the significant rise of the middle class in the region. **Figure 1.4** shows the headcount poverty rate of ASEAN (aggregate), a number of ASEAN member states, China and India; **Figure 1.5** shows the poverty gap rate in the above mentioned countries. The headcount poverty rate gives the percentage of people with income below the 1.25 \$ PPP per day per capita. The poverty gap gives the gap in percentage terms between the poverty line income and the average income of the people living below the poverty line. The headcount poverty rates were all calculated from the World Bank PovCalNet database using a common poverty line of 1.25 \$ PPP per day per capita for comparability. The poverty gap estimates were also taken from the PovCalNet database. **Figure 1.6** summarizes the ASEAN performance in poverty reduction and the rise in the middle class in the region.

As **Figure 1.6** shows, ASEAN's headcount poverty rate has declined markedly from around 45 percent in 1990 to about 14 percent in 2010, excluding Myanmar, or about 15.6 percent including Myanmar¹. While ASEAN's performance is less spectacular than the sharp drop in China's poverty incidence from about 60 percent in 1990 to about 12 percent in 2009, it is nonetheless much faster than India's decline from about 49 percent in 1993 to about 33 percent in 2009.

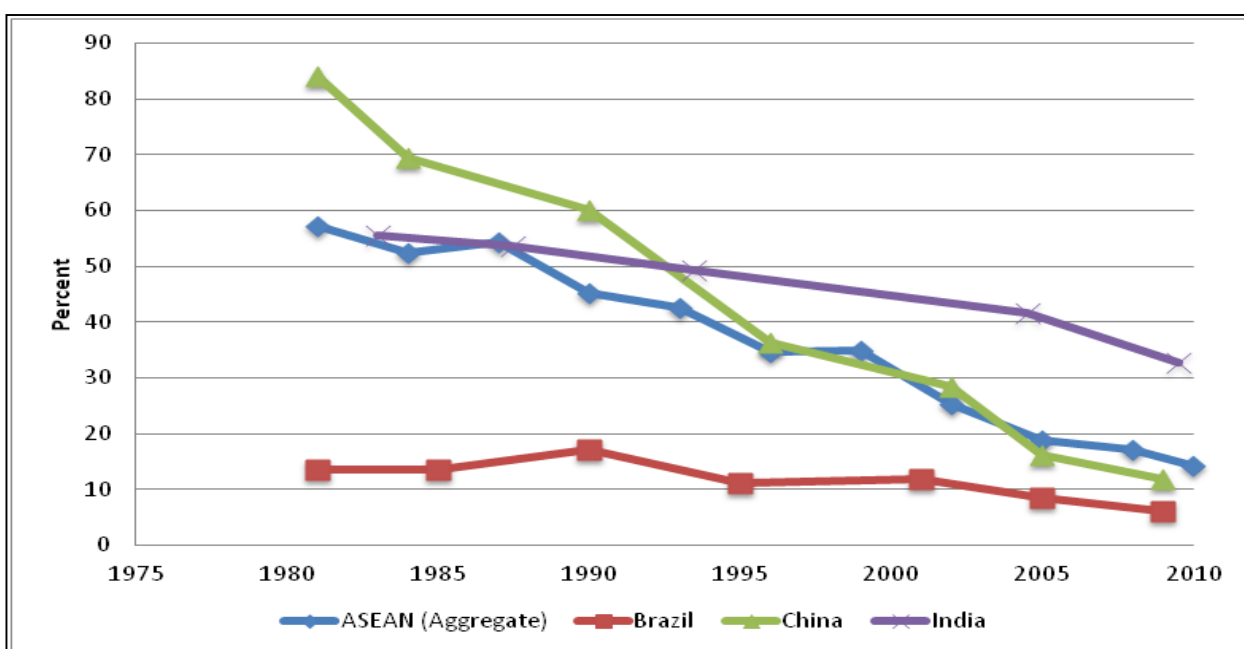
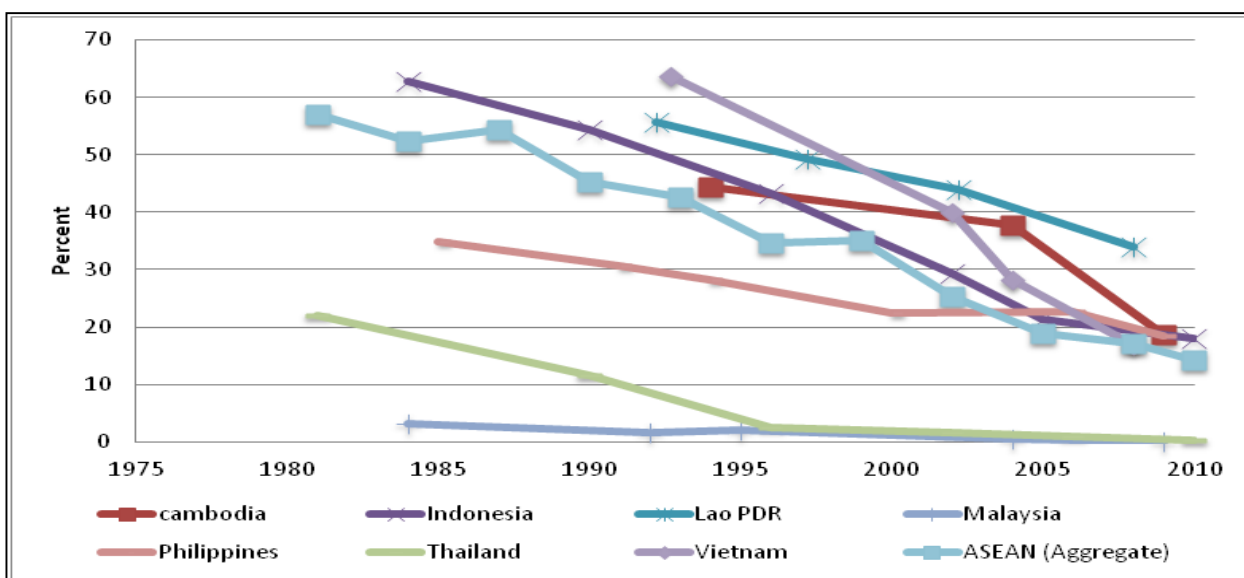
The robust performance in ASEAN's poverty reduction is highlighted by the sharp declines during the period in Viet Nam, Cambodia, Indonesia and even Lao PDR from the early 1990s. The decline in poverty incidence is also remarkable in Thailand from the early 1990s to the mid- 2000s. Malaysia and Thailand had nearly zero poverty rates during the mid to late 2000s. (See **Figure 1.7a**.) The decline in the poverty incidence in the Philippines was much more modest than the other ASEAN member states, a reflection of the more modest overall economic growth performance of the country during the period, combined with relatively greater income disparity.

¹ The poverty rate for ASEAN as an aggregate is the sum of people with income below the poverty line divided by the total population in ASEAN. ASEAN in this computation **excludes** Brunei Darussalam, Myanmar and Singapore because of lack of data; i.e., family income and expenditures data. For the estimate including Myanmar, the Myanmar poverty figure uses Myanmar national poverty line which may not be the same as the \$ 1.25 PPP per capita per day at 2005 prices that was used in the PovCalNet computations for the ASEAN-7 countries.

The marked decline in the poverty rate in ASEAN has been accompanied by the corresponding large drop in poverty gap in the region, from around 14 percent in 1990 to around 3 percent by 2010. The sharpest declines were recorded by Viet Nam and Indonesia, the two best performers in poverty reduction among the ASEAN member states. Noteworthy also are the declines in poverty gap in Thailand from the latter 1980s to near zero by the mid- 1990s as well as the sharp decline in Cambodia in the latter 2000s. Note that the marked reduction in the poverty gap to around 3 percent only (except for Lao PDR which is still relatively high) means that a sustained growth spurt in ASEAN would readily bring the poor out of poverty and move them on the road to middle class status.

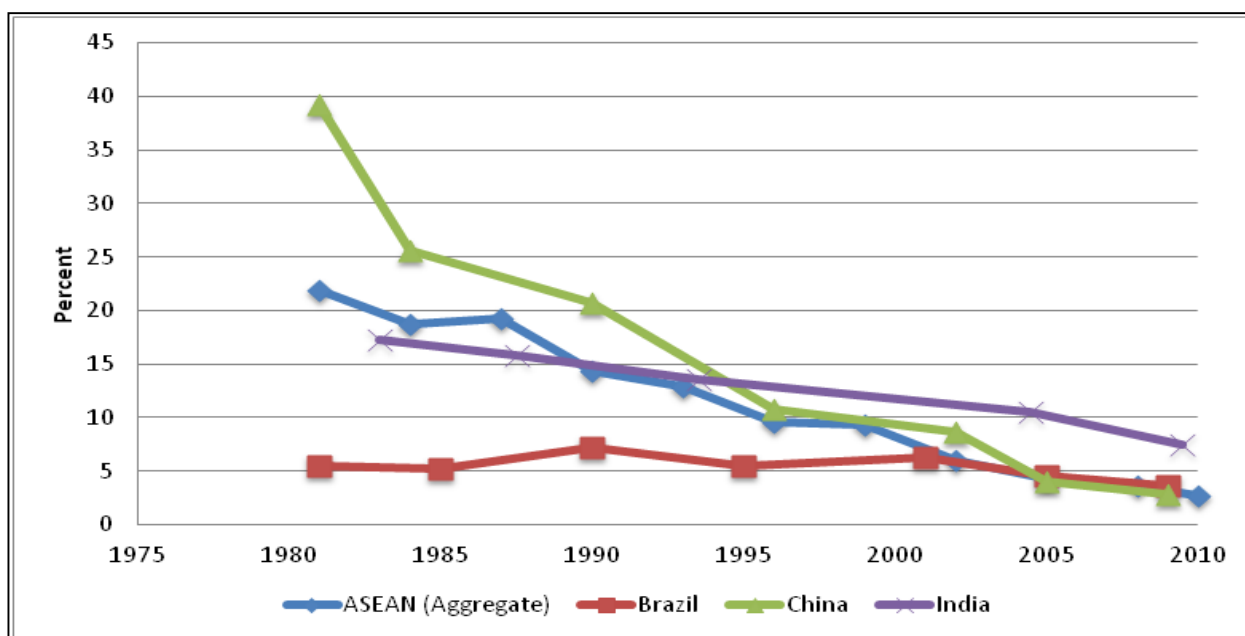
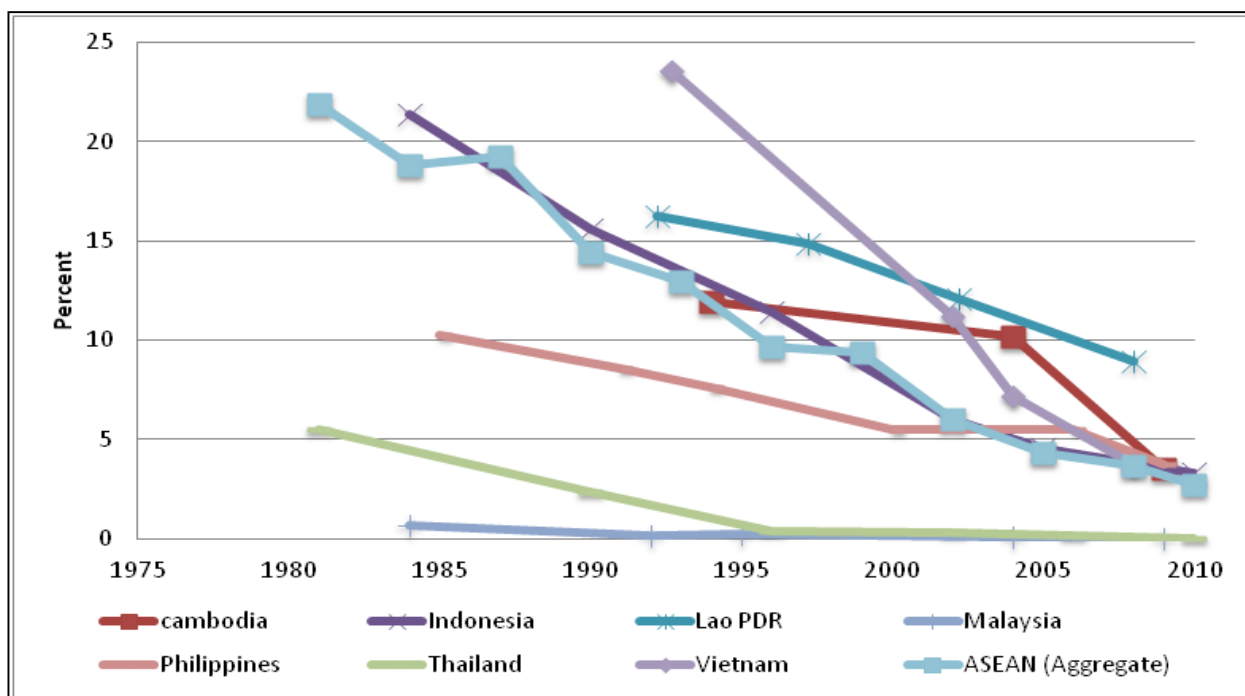
As **Figure 1.5** shows, ASEAN has also been relatively more successful than India in reducing the poverty gap; and both have been more successful than Brazil which has failed to eliminate it (as Thailand did) despite a much lower poverty gap since the 1980s. The Brazilian case of persistent poverty gap--despite higher per capita income and robust economic growth during the past decade --suggests that economic growth need not always translate into effective poverty elimination in the face of highly unequal distribution of income. (Brazil has had one of the most unequal distributions of income in the world for quite some time.)

Figure 1.4: Headcount Poverty Rate of ASEAN Member Countries, China, India, and Brazil (in percent)



Notes: The aggregation is calculated over all available ASEAN member states data on a common poverty line (1.25\$ PPP per day / 38\$ PPP per month). The aggregation excluded Brunei, Myanmar, and Singapore in all years, as well as Malaysia only in 2008 and 2010 due to availability of data.
 Source: PovcalNet: the on-line tool for poverty measurement developed by the Development Research Group of the World Bank (<http://iresearch.worldbank.org/PovcalNet/index.htm?0>)

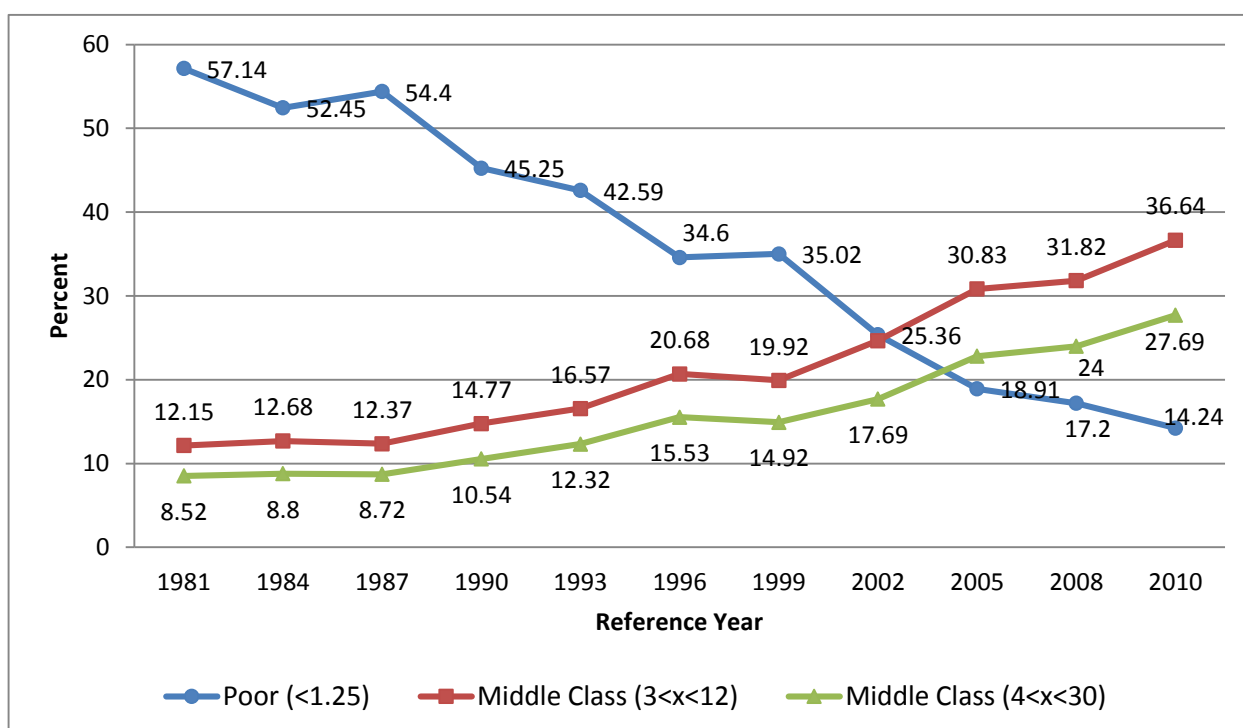
Figure 1.5: Poverty Gap Rate of ASEAN Member Countries, China, India, and Brazil (in percent)



Notes: The aggregation is calculated over all available ASEAN member states data on a common poverty line (1.25\$ PPP per day / 38\$ PPP per month). The aggregation excluded Brunei, Myanmar, and Singapore in all years, as well as Malaysia only in 2008 and 2010 due to availability of data.

Source: PovcalNet: the on-line tool for poverty measurement developed by the Development Research Group of the World Bank (<http://iresearch.worldbank.org/PovcalNet/index.htm?0>)

Figure 1.6: The Dynamics of ASEAN Poor and Middle Class



Source: PovcalNet: the on-line tool for poverty measurement developed by the Development Research Group of the World Bank (<http://iresearch.worldbank.org/PovcalNet/index.htm?0>)

Notes:

- If the survey at reference year is not available, the nearest survey will be used. If the reference year is between two survey years, the poverty measurements at reference year are linear interpolation of poverty estimates at two survey years.
- Rural and urban distributions are included when aggregating poverty measures from a group of countries

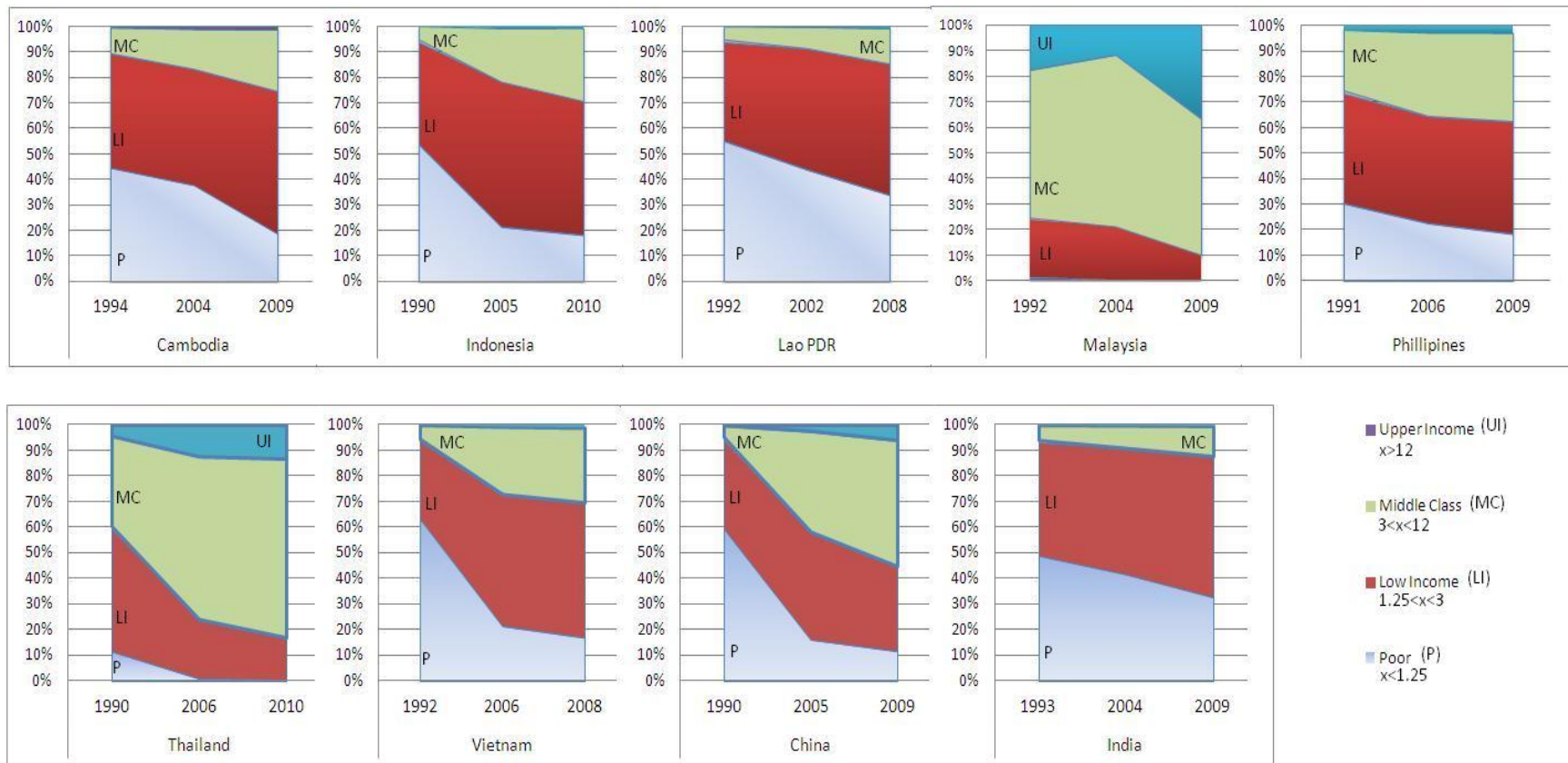
Rise of the middle class. The rise to middle class status of a huge segment of the ASEAN population during the past two decades is well captured in **Figure 1.7a**. **Figure 1.7a** stratifies people in ASEAN, China, and India into a number of income classes. The data come from the World Bank PovCalNet database. The income classification used in the table is as follows (note: PPP means Purchasing Power Parity):

Poor	income below 1.25 \$ PPP per day per capita
Low income	income $1.25 \$ PPP < x < 3 \$ PPP$ per day per capita
Middle class	income $3 \$ PPP < x < 12 \$ PPP$ per day per capita
“Upper income class”	income $x > 12 \$ PPP$ per day per capita

The income classification above is based on criteria for middle class in Duflo and Banerjee (2007) and the McKinsey paper on China (Farrel, *et al.*, 2006).

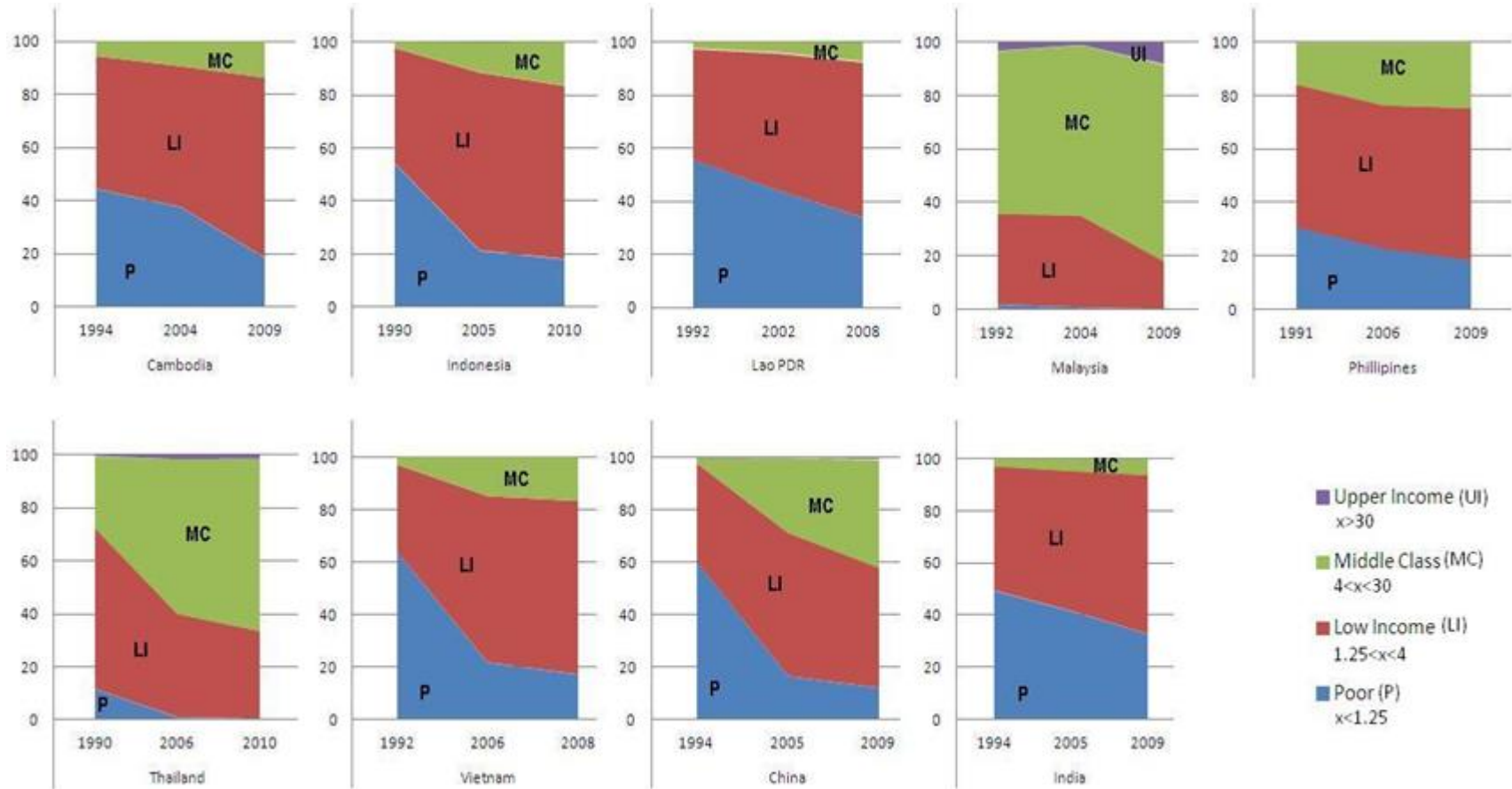
A more stringent criterion of middle class would be the income range $4 \$ PPP < x < 30 \$ PPP$ per day per capita, consistent with METI (2010); **Figure 1.7b** presents the estimates based on the alternative criterion of middle class consistent with METI (see **Appendix Table 1** for the estimates by country). Note that the classification of the middle class is essentially arbitrary as there is no accepted definition of it.

Figure 1.7a: People Living within certain Income Range / Class: Middle class ($3 < x < 12$)



Source: PovcalNet: the on-line tool for poverty measurement developed by the Development Research Group of the World Bank (<http://iresearch.worldbank.org/PovcalNet/index.htm?0>)

Figure 1.7b: People Living within certain Income Range / Class: Middle class ($4 < x < 30$)



Source: PovcalNet: the on-line tool for poverty measurement developed by the Development Research Group of the World Bank (<http://iresearch.worldbank.org/PovcalNet/index.htm?0>)

Figure 1.7a shows that the middle class population in the ASEAN 7 (excluding Brunei, Singapore and Myanmar due to lack of data) increased from about 59 million in 1990 to about 197 million in 2010, accounting for about 37 percent of the total population. As a comparison, ASEAN's middle class population is bigger than India's 143 million, accounting for about 12 percent of India's total population. The comparable number of the middle class population in ASEAN using the more stringent middle class definition is about 149 million in 2010, accounting for 28 percent of the population. (Brunei Darussalam and Singapore are among the richest countries in the world on a per capita basis, so their populations are at least in the middle income class group. Thus, one can possibly arbitrarily add another 4 - 5 million to the total size of the middle class in ASEAN.)

Indonesia accounted for the largest increase in middle class population in ASEAN because it has the region's largest population and had one of the more consistently robust economic growth performances during much of the period. Viet Nam stands out with the sharp rise in the middle class population, a result of its fast economic growth during the period and a relatively more equitable distribution of income. Malaysia and Thailand, as **Figure 1.7a** brings out, presently consist preponderantly of middle class and higher income populations.

The pattern of income mobility engendered by economic growth in ASEAN member states is well captured in **Figure 1.7a**. The reduction in the number and percentage of poor people is mirrored to some extent by the rise in the number and percentage of the marginally non-poor and the low income during the past two decades; indeed, they account for more than one half of total population in a number of ASEAN member states. At least a fifth of the total populations are on the cusp of middle class status and who will be pushed upward by sustained robust economic growth, just as the poor graduate into being marginally non-poor and low income status especially as the poverty gap narrows closer to zero. This pattern of income mobility brings out clearly the importance of attaining and maintaining sustained high and equitable economic growth in order for poverty (so defined in terms of the above stated poverty line) to be eliminated and for the low income majority to graduate into middle class status, just as what happened in Thailand and Malaysia during the past two decades.

Human development. Social progress in ASEAN is made manifest not only in terms of the declines in poverty rate and poverty gap. The past two decades have seen significant strides in health and education outcomes such as the sharp reduction in infant mortality rate and marked increase in youth literacy rate especially in the CLMV countries. Adult schooling completion (in years) and life expectancy have also increased modestly. Nonetheless, the adult schooling completion in CLMV countries is still relatively low and the gap vis-a-vis the ASEAN 6 is substantial. As industrialisation moves apace in the region, and the concomitant demand for better skilled workers grows, the relatively low adult schooling completion in CLMV can become a significant growth constraint in the future. Thus, this is an area of significant policy concern that needs to be addressed by the CLMV countries in order for the countries to sustain their hitherto high economic growth into the future (see **Table 1.6**).

Table 1.6: ASEAN Selected Social Indices: 1990, 2005, 2012

Country	Human Development Index (HDI) value		Education index		Health index		Income index	
	1990	2012	1990	2012	1990	2012	1990	2012
Brunei	0.782	0.855	0.620	0.757	0.844	0.917	0.919	0.904
Cambodia	N/A	0.543	0.391	0.520	0.561	0.687	N/A	0.449
Indonesia	0.479	0.629	0.380	0.577	0.664	0.785	0.436	0.550
Lao PDR	0.379	0.543	0.304	0.453	0.542	0.754	0.331	0.471
Malaysia	0.635	0.769	0.532	0.731	0.789	0.859	0.612	0.726
Myanmar	0.305	0.498	0.267	0.402	0.588	0.721	0.182	0.428
Philippines	0.581	0.654	0.581	0.679	0.712	0.773	0.476	0.535
Singapore	0.756	0.895	0.607	0.804	0.877	0.966	0.815	0.925
Thailand	0.569	0.690	0.413	0.599	0.828	0.856	0.540	0.642
Viet Nam	0.439	0.617	0.374	0.539	0.719	0.874	0.315	0.501

Source: Human Development Report 2013

Challenges facing ASEAN for further economic and social progress are discussed further in **the latter part** of this chapter.

Remarkable progress in economic integration

The 1990s and the 2000s have seen remarkable acceleration of the economic integration efforts in ASEAN and East Asia, of which for the latter, ASEAN served as the fulcrum of such East Asia integration efforts. The acceleration of economic integration efforts occurred alongside deepening economic linkages among the ASEAN member states and between them and the rest of East Asia.

ASEAN economic integration efforts. ASEAN integration efforts accelerate tremendously during the past two decades from the ASEAN tariff preferential arrangements (PTA) of the 1980s to a decision in the early 1990s to create an ASEAN Free Trade Area (AFTA) and culminating to a decision during the early 2000s to establish an ASEAN Community, including an ASEAN Economic Community (AEC), by 2020 (accelerated to 2015 later on).

External developments contributed to the acceleration of the integration process in ASEAN. By 1989, the fear of a potential “fortress Europe” under European Union, the expected establishment of NAFTA as well as the creation of the APEC have all contributed to the recognition by the ASEAN economic ministers of the need to deepen ASEAN integration; ASEAN put in place the ASEAN Free Trade Agreement (AFTA) in early 1990s. Similarly, the marked shift in the investors’ interest towards China coincided with the decision in 2002 and 2003 to create an ASEAN economic community initially by 2020 but later accelerated to 2015.

Nonetheless, it is the internal dynamic of the ASEAN process towards deep regional cooperation in the region that can be considered to be the driving force for deeper economic integration in ASEAN. It is noteworthy that a few years after AFTA has been put in place, the 1997 ASEAN Vision 2020 was adopted by the ASEAN Leaders at the 2nd Informal Summit in Kuala Lumpur, just a few months after the 1997 East Asian crisis broke out in Thailand. The document, meant to chart an ASEAN in the 21st century, provided much of the core elements of what would eventually become the AEC Blueprint. It is indeed remarkable that the response of the ASEAN Leaders to the unfolding economic crisis in the region at

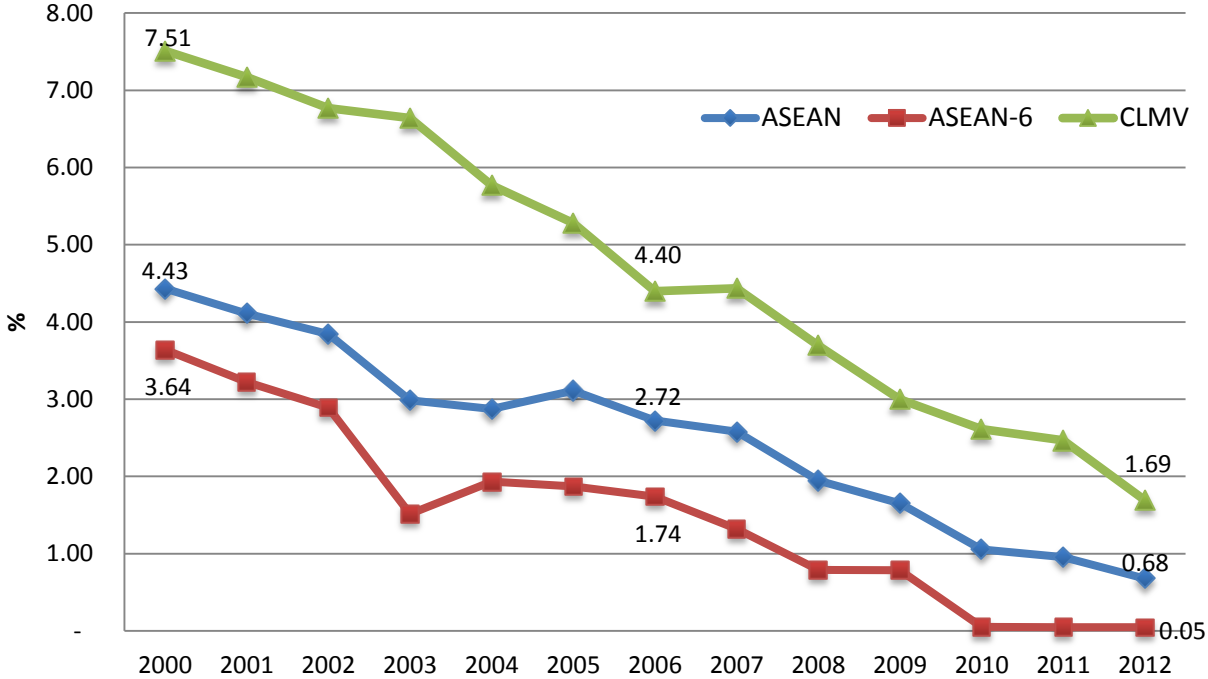
that time was forward looking and to deepen further the economic integration and cooperation among themselves and with the rest of the world.

The AEC Blueprint 2009-2015 was approved by the ASEAN Leaders in 2009 with the Cha- am Hua Hin Declaration on the Roadmap for an ASEAN Community 2009-2015 that also includes the blueprints for the ASEAN Political-Security Community and the ASEAN Socio-Cultural Community.

The Economic Research Institute for ASEAN and East Asia (ERIA) undertook a Mid-Term Review of the Implementation of the AEC Blueprint in 2012. The Mid-Term Review highlights a number of significant achievements of ASEAN towards AEC 2015, to wit:

- Intra-ASEAN tariffs (CEPT) have drastically come down during the past decade. Indeed, for the ASEAN-6, the percentage of items with zero tariff in CEPT rose from 40 percent in 2000 to 99.11 percent in 2012. Similarly, the percentage of zero tariff in CEPT for CLMV countries rose from about 10 percent in 2000 to 67.6 percent in 2012. The average CEPT rate for CLMV countries is 1.69 percent in 2012 while that of the ASEAN-6 has been virtually zero at 0.05 percent since 2010 (see **Figure 1.8**). The elimination of tariffs is the *sine qua non* of any regional free trade area, and ASEAN is very much well on the way to fulfilling it. This is clearly a success story of political commitment in the region.

Figure 1.8: Average CEPT Rates in ASEAN Countries: 2000-2012



Source: ASEAN Tariff Database 2013

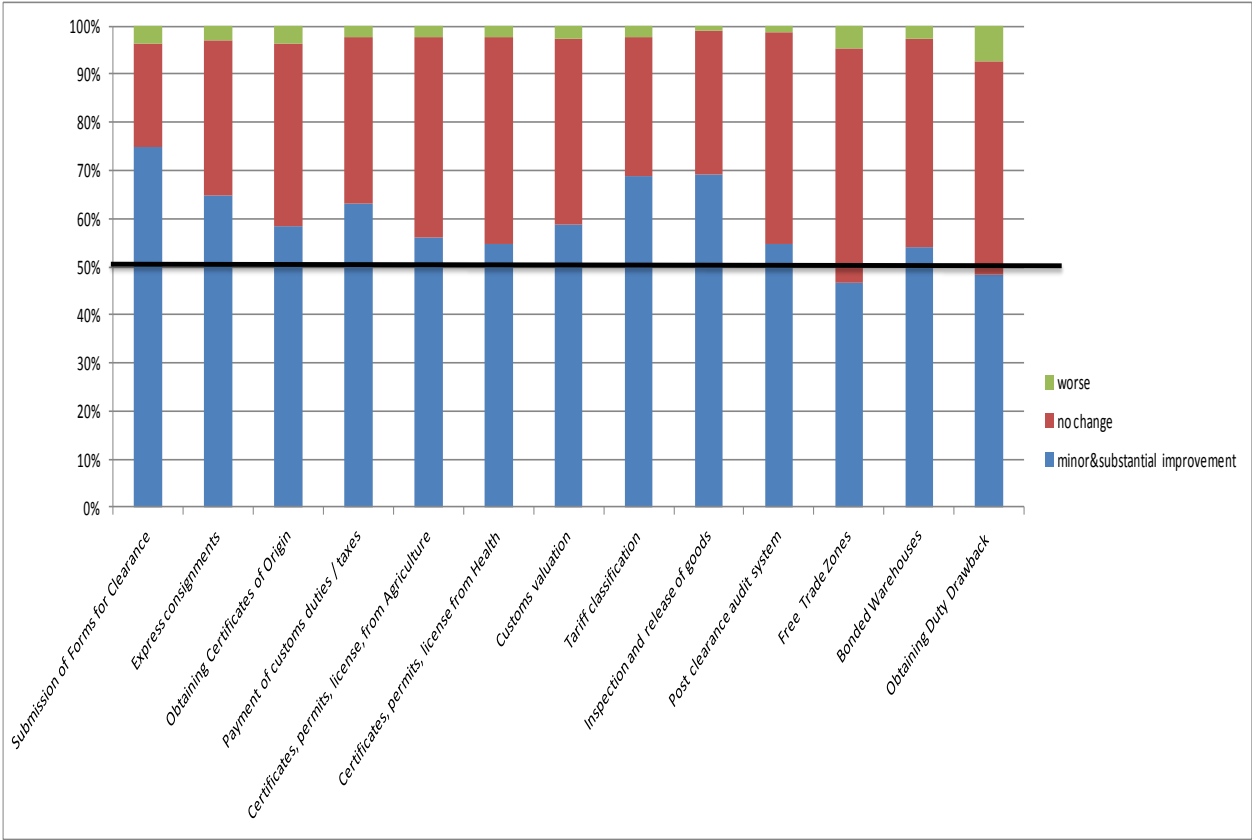
- ASEAN has been working hard at having a fully functional National Single Windows and ultimately an ASEAN Single Window. The Single Windows are the centerpiece of the trade facilitation measures in the AEC Blueprint for 2015. At present, five ASEAN member states have National Single Windows (i.e., Indonesia, Malaysia, the Philippines, Singapore, and Thailand) with Brunei Darussalam having an operational one in the last quarter of 2013. Given that it takes a lot of time, close inter-agency cooperation of many trade related government agencies, and large financial resources to have fully developed and fully functional Single Windows, it is primarily Singapore and, to a lesser extent, Malaysia that have such fully functional and developed single windows. The large archipelagic countries of Indonesia and the Philippines, and even to some extent, Viet Nam, are handicapped by the large number of ports and the more dispersed agencies to be able to develop a fully functional and developed single window nationwide. Nonetheless, both Indonesia and the Philippines have operational single windows albeit primarily in the major ports and, for the

Philippines, still in the process of technical refinement and integration over a very large number of agencies involved.

The CLM countries are still way off in implementing the national single window while Viet Nam is much well on the way. There appears to have strong political will in the four countries to implement the national single window. Nonetheless, given that there are only two years remaining towards 2015, it would not be surprising if CLM countries could at best have a pilot scheme by 2015 involving their main port (or in the case of landlocked Lao PDR, main border point) and few government agencies. It needs to be pointed out that there can already be substantial benefits from undertaking the preparatory processes towards the establishment of single window such as the streamlining of processes as well as the consolidation of all the relevant rules and regulations.

The concerted efforts in the ASEAN to improve the trade facilitation regime in the region appear to be bearing some fruit already. The results of the ERIA survey of the private business sector in the ASEAN as part of the Mid-Term Review of the implementation of the AEC show that the majority of the survey respondents have noted improvements, both major and minor, in the export/import and customs clearances during the period 2009-2011 (see **Figure 1.9**).

Figure 1.9: Good News: Percentage of Respondents in ASEAN Stating Improvement in Customs Performance during 2009-2011



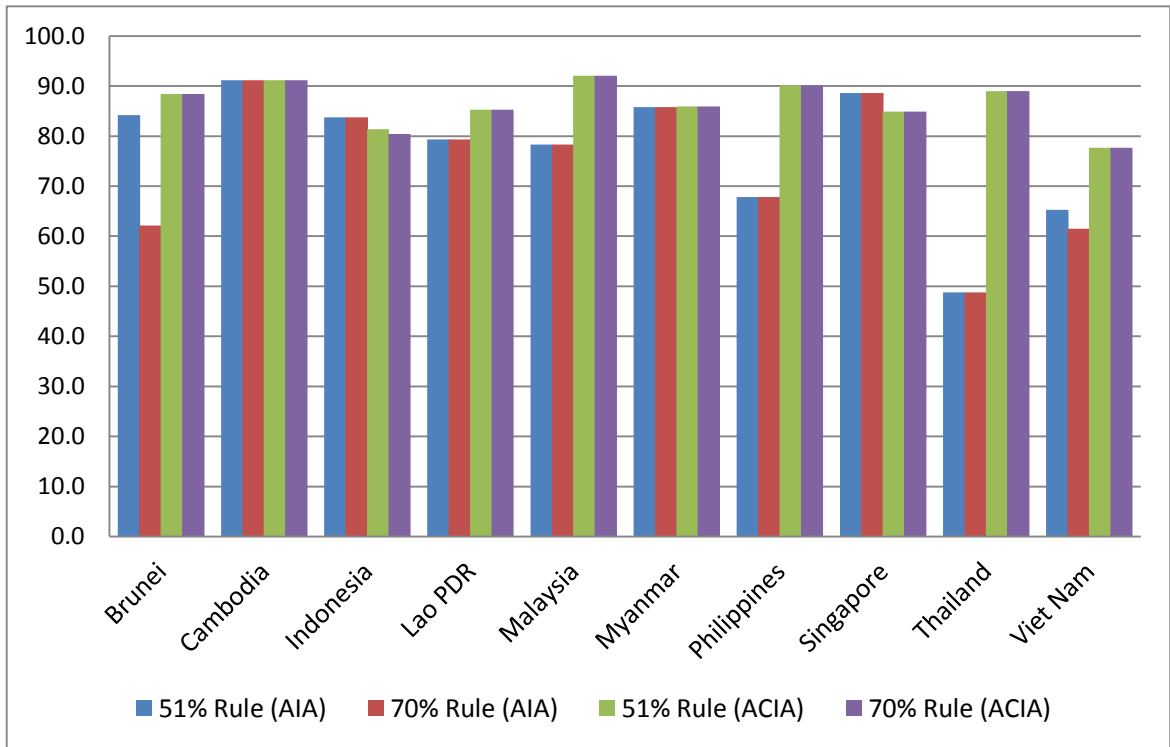
Source: Computed by Intal and Laksono .

- Based on the investment liberalisation commitments under ACIA, most of the ASEAN member states have relatively liberal investment regimes in the goods sector, especially in manufacturing (see **Figure 1.10**). Thus, to a large extent, the ASEAN member states are well on the way towards relatively free flow of investments, which is one of the major strategies of economic integration in the ASEAN as enunciated in the ASEAN vision 2020 and elaborated in the AEC Blueprint.

It is also worth noting that the results of the survey of private sector in the ASEAN under the Mid-Term Review of the AEC Blueprint implementation indicate that the private sector in the region has noted improvements in the ASEAN member states in investment facilitation as well as the in the overall investment climate in recent years. The results of the ASEAN

Business Outlook Survey 2014 of the American Chambers of Commerce in ASEAN also indicate incremental improvements in most factors affecting investors' satisfaction of local environment in much of ASEAN, most especially for the Philippines (Amcham Singapore, 2013, p.28).

Figure 1.10: Overall Foreign Investment Liberalisation Rate



Source: Intal, *et al.* (2011), as updated by Intal and Panggabean.

- ASEAN has made significant progress on air transport with the entry into force, under the ASEAN – X formula, of the Multilateral Agreement on the Full Liberalisation of Air Freight (MAFLAFS), Multilateral Agreement on Air Services (MAAS), and the Multilateral Agreement on the Full Liberalisation of Passenger Air Services (MAFLPAS). There has been significant expansion in air travel within the region in line with the growth of intra-ASEAN trade, of intra-ASEAN tourist flows, and of low cost carriers. Nonetheless, there is yet no ASEAN single aviation market in as much as not all of the ASEAN member states have signed up and ratified the above mentioned multilateral agreements.

- Despite some difficulties, the series of rounds of negotiations of the ASEAN Framework Agreement on Services (AFAS), according to some agreed formula and in order to reach a clear and agreed upon end goal, has been delivering: service sector liberalisation commitments have gone significantly beyond the GATS. Services liberalisation has been a particularly difficult one in the multilateral trade negotiations under the World Trade Organization (WTO), and therefore the continuing process of liberalising negotiations, albeit increasingly tougher as they deal with the more sensitive sectors, has been on the whole productive and facilitative for the region.
- There has been some movement forward, albeit more limited, in other areas such as standards and conformance and mutual recognition agreements and arrangements on the movement of professional service providers like engineers and accountants. There have also been many more regional cooperation agreements and initiatives, e.g., on food security (APTERR), competition policy, intellectual property rights, agriculture, etc. They all add to a robustly growing sense of community within the region.

Despite the significant achievements stated above, the road towards a fully integrated economic region under the ASEAN Economic Community remains long. Much remains to be done moving into and beyond 2015. Charting the ASEAN story post 2015 can be expected to be an interesting and fulfilling challenge to ASEAN officials and the region's stakeholders. This Integrative Report hopes to contribute to this process.

ASEAN integration efforts with East Asia and the world.

ASEAN

has been in the forefront of integration initiatives in East Asia, but with the active involvement of its dialogue partners, especially China and Japan. Interestingly, the 1997-99 East Asian financial crisis was a major catalyst of deeper and broader East Asian economic cooperation and integration, with the first ASEAN Plus Three Summit in December 1997 in Kuala Lumpur, a few months after the outbreak of the financial crisis. (It is to be noted that the 1997 ASEAN Vision 2020 was also approved by the ASEAN Leaders during the anchor ASEAN

Summit at the same time.) It is the ASEAN Plus Three Summit (involving China, Japan and South Korea) and later on, also the East Asia Summit (adding Australia, India and New Zealand) as related summits of the ASEAN Summit that have provided the institutional platform for deeper East Asian cooperation and integration initiatives. China's proposal for an ASEAN-China FTA in 2001 catalysed the series of ASEAN + 1 FTAs, initially with China (ACFTA) in 2004, Korea (AKFTA) in 2006, Japan (AJCEP) in 2008, Australia and New Zealand (AANZFTA) in 2009 and India (AIFTA) also in 2009. With the exception of AANZFTA which is a single undertaking, the rest started with agreements on trade in goods and then followed with agreements on trade in services and on investment (still under negotiation for Japan).

These ASEAN-centric FTAs differ significantly among themselves in terms of level of ambition on tariff elimination and the degree of liberalisation in services and investment. Thus, they are best viewed as the initial key steps towards an integrated East Asian community. The East Asian Leaders created in early 2000s the East Asia Vision Group (EAVG) and East Asia Study Group (EASG) that were initially proposed by South Korea in order to develop the groundwork for the roadmap for an East Asian community. Proposals for an East Asian FTA (EAFTA), championed by China, and for a Comprehensive Economic Partnership for East Asia (CEPEA), championed by Japan, followed suit and provided the impetus for further elaboration of the process of the way forward for East Asia's economic integration. In view of the two conflicting visions and proposals towards an East Asian community, ASEAN ultimately responded with the Regional Comprehensive Economic Partnership (RCEP) that deftly embraces both EAFTA and CEPEA and projects "ASEAN centrality" in the evolving regional architecture in East Asia.

RCEP, still under negotiation, will be the main venue of ASEAN's deepening economic relations with the rest of East Asia. RCEP is now also the main mechanism for the official initiatives to deepen economic integration and cooperation in East Asia. The major challenge for ASEAN is how to steer the RCEP to its successful conclusion that takes into consideration the widely differing levels of development and different concerns of the 16 countries

involved in the negotiations. This issue is discussed in greater detail in **Chapter 6** of this report.

Deepening market integration. Alongside the official regional integration initiatives, and indeed to some extent driving such initiatives, has been the deepening market integration in ASEAN and East Asia. More importantly, it is the nature of the market deepening that has markedly affected the substance and pace of official regional integration initiatives. Specifically, the growth and increasingly complex production (and distribution) networks in East Asia, and the critical importance of just-in-time management of supply chains, necessitate that regional integration efforts cannot focus only on liberalisation issues which had been the main bias in the WTO trade negotiations. Instead, facilitation issues, logistics and connectivity issues, standards and conformance issues, and domestic regulatory issues, among others, become particularly salient and need to be addressed in regional integration efforts in order for the regional production networks to be well performing and efficient and thereby increase the competitiveness of the region as a production and export platform.

Indicators of trade linkages within ASEAN and East Asia are shown in **Table 1.7**. The table shows the export and trade intensity ratios as well as export and import shares of ASEAN with itself and with China, Japan and ASEAN + 3. The table shows that the ASEAN member states trade is most intense with the other ASEAN member states; that is, the trade flows among the ASEAN member states have been much more than what is expected given their importance in world trade. ASEAN has also relatively intense trade relationships with China, Japan and ASEAN + 3 as reflected in the greater than unity intensity ratios. The table shows the marked increase in the export and import shares of China and the corresponding decline of the export and import share of Japan for ASEAN in the 2000s. This is one of the major developments in the trade relationships in the East Asia region during the past one and a half decades; that is, the emergence of China as the hub of East Asia's regional production networks, and the redirection of such network relationships from Japan to China even if the significant driver of such redirection have been the Japanese multinationals in China and Southeast Asia themselves. Note that much of the decline in the trade intensity between ASEAN

and Japan has been on the import side; that is, Japan has become a much less important source of imports for ASEAN over time.

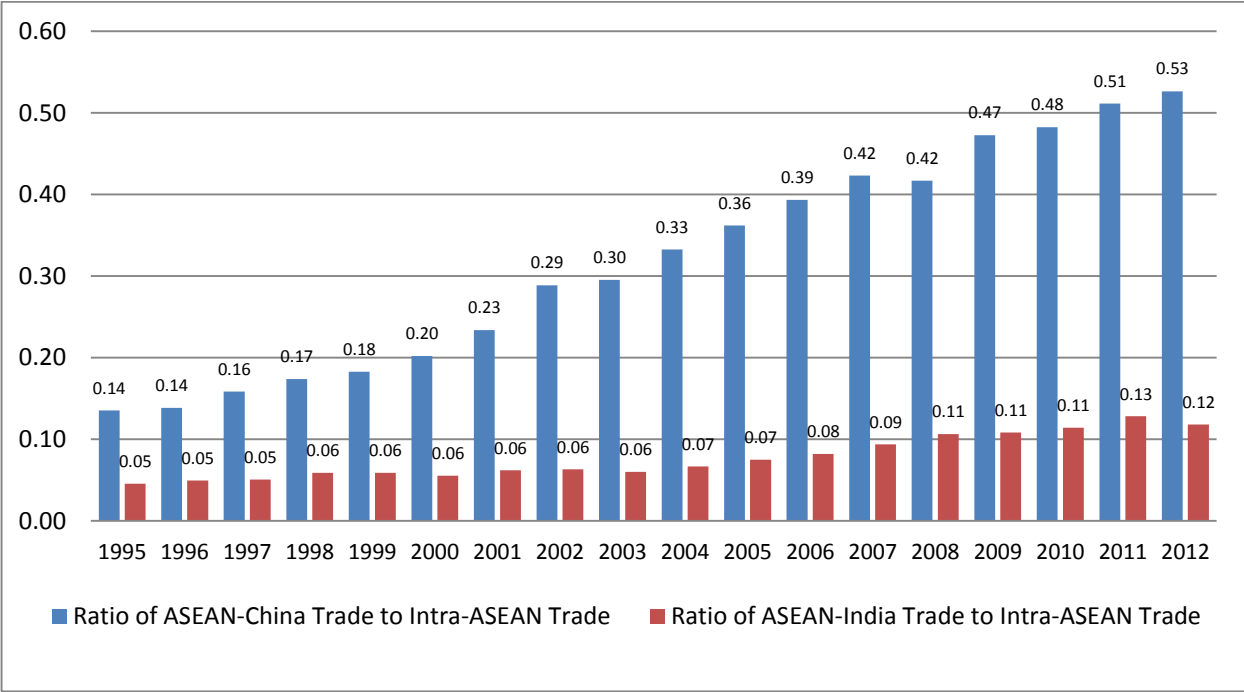
Table 1.7: Export-Import Share and Trade Intensity Index of ASEAN and Selected Partners

Indicator	Country/Region	1990	1995	2000	2005	2010	2012
Export Share (%)	ASEAN	18.94	24.41	22.98	25.33	25.03	25.92
	China	1.82	2.69	3.84	8.05	10.85	11.35
	Japan	18.89	14.23	13.44	11.12	9.84	10.27
	ASEAN+3	43	44.44	43.93	48.32	50.01	51.96
Import Share (%)	ASEAN	15.22	17.95	22.47	24.34	24.17	23.18
	China	2.93	3.04	5.05	10.5	13.58	14.77
	Japan	23.13	23.45	19.08	13.95	12.23	11.05
	ASEAN+3	44.42	48.88	51.4	53.47	55.98	55.24
Trade Intensity Index	ASEAN	4.06	3.32	3.68	4.24	3.74	3.57
	China	1.21	0.78	0.94	1.23	1.2	1.27
	Japan	2.82	2.53	2.45	2.35	2.34	2.36
	ASEAN+3	2.84	2.35	2.38	2.39	2.18	2.18

Source: ARIC ADB (2013)

Table 1.7 shows that the intra-ASEAN trade intensity increased during the 1990s through the early 2000s and then declined somewhat in the latter 2000s. The decline is due primarily to the decrease in the import sourcing from other ASEAN countries which, in turn, appears to be a result of increased import sourcing from China as reflected in the continued increase in China's share of ASEAN total imports. Note the apparent stagnation in the share of ASEAN in ASEAN's total exports during the latter 2000s while there is some increase in the ASEAN + 3 share in ASEAN's exports, mainly due to China. The growing importance of China in ASEAN trade is clearly seen in **Figure 1.11**, where ASEAN-China trade has been largely growing consistently as a ratio of intra-ASEAN trade. The growing China-centric element of ASEAN trade may reflect to some extent the emergence also of China as major exporter of parts and components and not just as an assembler of final manufactured products (see Baldwin, et al., 2013). China is also a significant source of inputs for the garment exports of Viet Nam and Cambodia, where most of the exports go to Western countries.

Figure 1.11: Ratio of ASEAN-China & ASEAN-India Trade to Intra-ASEAN Trade: 1995-2012



Source: UNCTAD Statistics 2013

Note that the decline in the trade intensity within ASEAN occurred during the period of greater liberalisation within the region as part of the ASEAN economic community build-up towards 2015. The decline could be a result to some extent of the softening of international commodity prices in recent years since a substantial portion of intra-ASEAN trade is in agriculture and natural resource-based products such as rice, palm oil, sugar, oil, and gas. Nonetheless, it is also likely that China has become a very competitive import source for manufactured inputs of ASEAN. This seems to have two important implications for ASEAN and AEC, as follows:

- ASEAN is not yet well integrated enough to be competitive vis-a-vis China in terms of scale economies, depth of industrial clusters, and just-in-time operations. This implies that ASEAN needs to do much more in order to be one integrated production base in such areas as connectivity, trade and transport facilitation, non-tariff measures, etc.; and /or

- ASEAN is not competitive enough in terms of the value chain. That is, ASEAN has not moved up the technology ladder fast enough relative to China. If so, then the challenge for ASEAN is not just to be a much more integrated region and production base but also to be much more competitive and dynamic. This means that ASEAN needs to skill up, raise the extent and quality of tertiary and post graduate education which is a critical human capital element for innovation, and increase much substantially its investments in research and development. Note that in these dimensions, especially in research and development expenditures as well as in research and innovation capacity, China has indeed gone much ahead than most of the ASEAN member states.

Challenges

The discussion above brought out the progress that transpired in ASEAN over the past two decades or so. Nonetheless, it is apparent from the discussion that the goal to eliminate dire poverty and raise the ASEAN population to middle class status has a long way to go. And with still a large segment of the population either poor or low-income, a number of ASEAN member states face the challenge of ensuring greater resiliency to the vicissitudes of climate, food supplies and even energy. It is also apparent that the drive towards an integrated ASEAN economic community is an unfinished business, and more so an integrated East Asia. It is also apparent that in light of dynamic developments in East Asia and the world, especially in China and even India, ASEAN has to move up and keep up.

The main challenges for ASEAN beyond 2015 are therefore as follows:

- ***Still large number of poor and marginally non-poor in most of the ASEAN member states.*** There were around 80 million people in ASEAN who were still poor in the late 2000s, excluding Myanmar. There are no comparable data and estimates for Myanmar. Nonetheless, the poverty incidence of Myanmar using official poverty line is about 29 percent in 2010, or about 17.5 million people. Thus, there were still at least

around 100 million people in ASEAN who were poor in the late 2000s. In addition to the 100 million or so poor based on the 1.25 \$ PPP per capita per day, there were about 121 million people (excluding Myanmar) in the late 2000s who were marginally non-poor as their per capita income is below the 2.00 \$ PPP per capita per day which is sometimes used as the more stringent poverty line. This means about two- quarters of the ASEAN population were still either poor or marginally non-poor in the late 2000s. This is clearly still the dominant key challenge facing ASEAN now and beyond 2015 -- that of eliminating the number of the poor and ultimately even the marginally non-poor.

A related policy and regional cooperation challenge for AMSs and ASEAN as a whole is that the poor and the marginally non-poor tend to be more vulnerable to significant price hikes of food products, disasters and even of energy shortages. Food is the largest expenditure component of the poor and the marginally non-poor, and as such, significant price hikes substantially reduce their welfare. Most of the poor tend to be in the rural areas and many of them live in flood-prone and erosion-prone areas; hence, they are more vulnerable to natural disasters including the negative effects of flooding and drought. Many of the poor eke out living working in farms, fisheries, and small off-farm enterprises; as such, sharp price hikes and shortfall of energy sources, including diesel, substantially compromise the viability of operations of small firms, farms and fisheries on which their employment and livelihood rests. Thus, alongside the drive of AMSs and ASEAN towards higher economic growth, AMSs and ASEAN would need to give more importance to regional cooperation to improve food security and energy security as well as greater readiness to address disasters within the region.

- ***Mixed record on income inequality.*** To some extent, this is related to the issue of poverty reduction discussed above. ASEAN member states have a mixed record with regards to income inequality amidst growth during the past three decades or so although overall, their performance is

better than that of China and definitely those of the major Latin American countries (see **Figure 1.12**).

As the figure indicates, income inequality has been worsening in Indonesia and Lao PDR, although both countries come from relatively more equitable distribution of income than all the other ASEAN member states.

Malaysia has had the most inequitable distribution of income among the AMSs during much of the 1980s and early 1990s; income inequality decreased very substantially during the late 1990s and the early 2000s but then rose dramatically again in the late 2000s to emerge again as the AMS with the most unequal distribution of income.

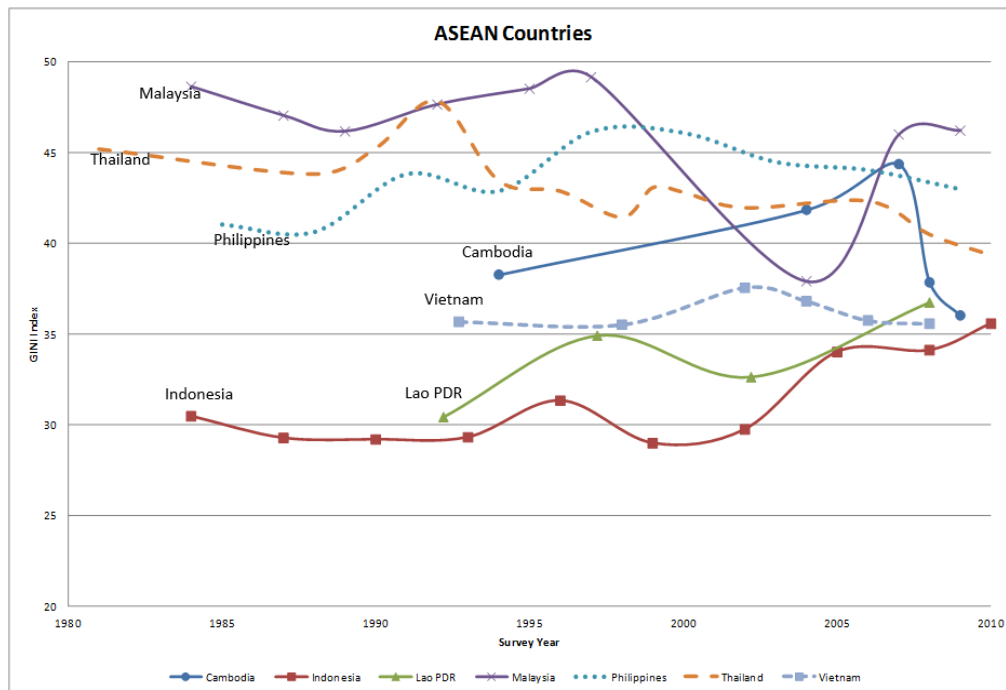
The Philippines has the second most unequal distribution of income after Malaysia at present. Income inequality in the country worsened in the 1990s to the extent that it was the worst in the ASEAN during the late 1990s and early 2000s, and then improved during the 2000s albeit only mildly so much so that the country still has the second most inequitable distribution of income in the ASEAN at present. Note that it is this comparatively more inequitable distribution of income in tandem with modest economic growth performance of the country that has made Philippine performance in poverty reduction a very lackluster one among the AMSs. The Philippine performance contrasts sharply with the case of Viet Nam as will be brought out below.

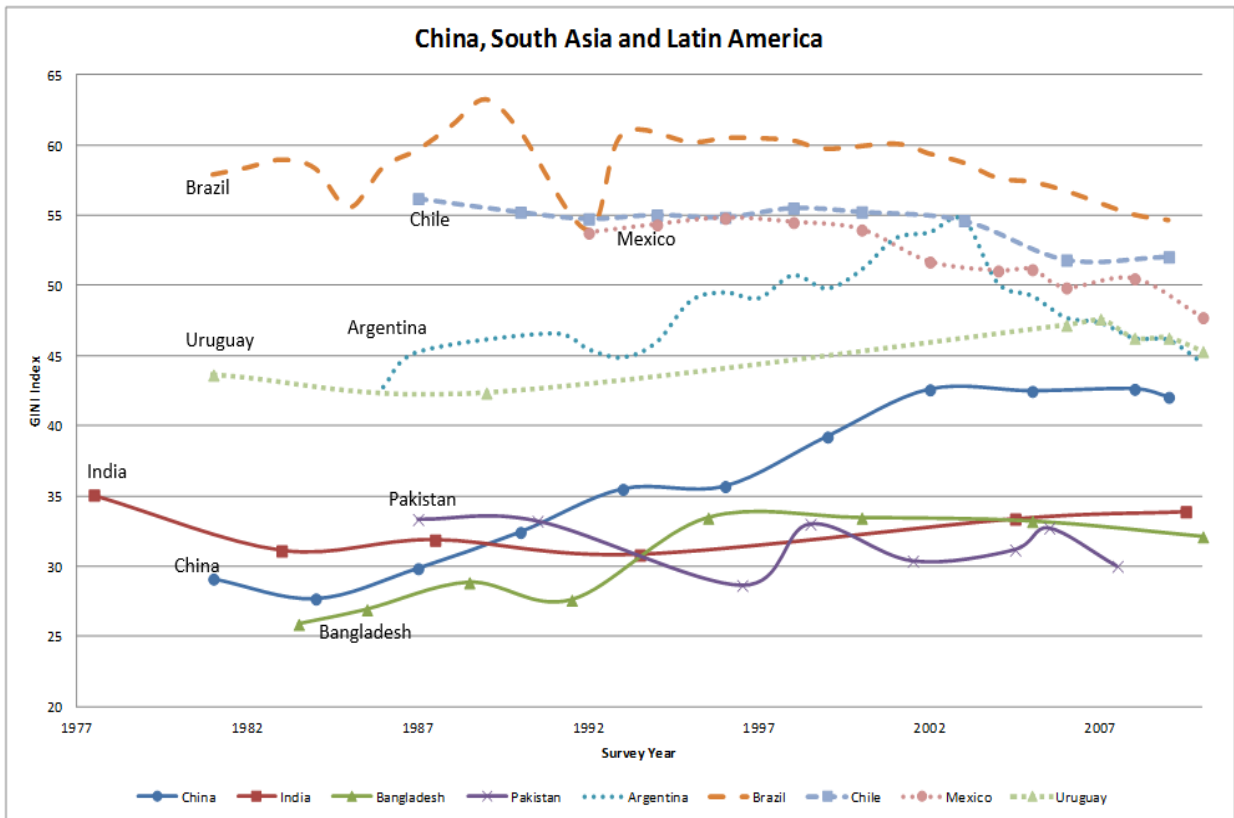
Thailand has had more success in engendering better distribution of income amidst growth during the past two decades. Coming off from having the second most inequitable distribution of income after Malaysia during the latter 1980s and the early 1990s, income inequality in the country declined secularly since then to the extent that its latest Gini index (the measure of income inequality used in **Figure 1.12**) has declined below the threshold of 40 percent, although still higher than the other AMSs apart from Malaysia and the Philippines.

Cambodia's income distribution worsened substantially during the 1990s through the mid- 2000s and then dramatically declined in the late 2000s. It is interesting to know the reason for this dramatic decline because Gini indices tend not to change drastically. It is likely that this is related to the movement of commodity prices and possibly improved agricultural production, especially rice, as well as the tightening of the labour market in view of the success of Cambodia in labour intensive garment manufacturing and tourism.

Viet Nam is perhaps the most successful ASEAN member state in engendering high and equitable growth during the past two decades. Income distribution in the country has been relatively stable despite having very high growth during much of the past two decades. This is the reason for the major success of Viet Nam in reducing dramatically its poverty incidence, arguably the world's second best after the spectacular success of China in poverty reduction.

Figure 1.12: GINI Index for ASEAN, South Asia, and Latin America Countries from mid- 1970's to late 2000's





Source: Povcalnet, World Bank (2013)

Despite the mixed performance of AMSs, however, **Figure 1.12** clearly shows that Latin American countries have more inequitable distribution of income, as exemplified by Brazil and Chile, than virtually all AMSs. Similarly, China’s fast economic growth appears to have been accompanied by marked deterioration in the distribution of income². Although there is a tendency for income inequality to worsen during the early to middle income phase of countries, i.e., the so-called inverted U hypothesis, it is nonetheless apparent that there are structural reasons for the degree of income inequality given the level of development. Thus, the challenge is how to craft the set of policies and strategies that would engender a more equitable growth, as what appeared to be the case in Viet Nam during the past two decades.

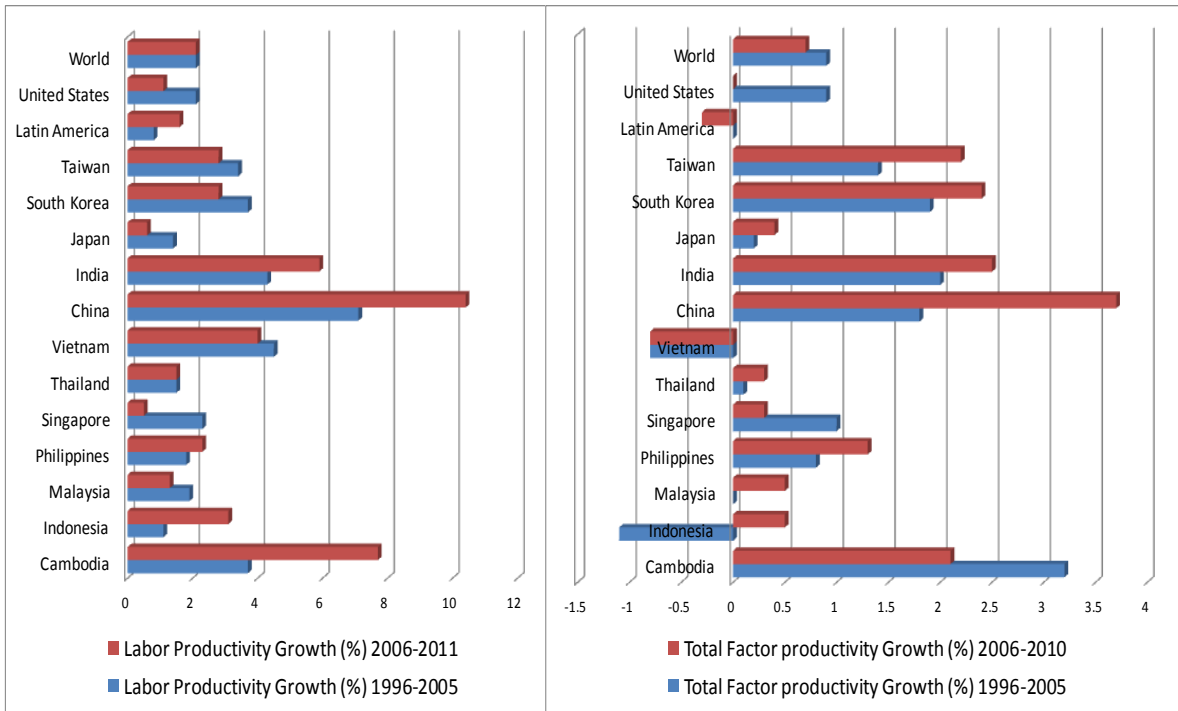
² There may be complication in the case of China especially on the attribution of the millions of migrants into the urban areas primarily in China’s Eastern Seaboard.

- ***Need to improve competitiveness of ASEAN.*** The long term competitiveness of ASEAN member states is strongly determined by the rate of growth of total factor productivity relative to other countries over a significant period of time. Estimates of labour productivity growth and total factor productivity growth during 1996-2011 for AMSs as well as China, India, Korea, Taiwan, Japan, USA and Latin America are shown in **Figure 1.13**. The estimates, taken from The Conference Board, use the same methodology and therefore are comparable. The growth of labour productivity is affected by the growth of capital stock, the efficiency in the use of capital, and advancement of knowledge, innovation or technological progress. The growth of total factor productivity is affected by the efficiency in the use of capital and labour as well as the advancement of knowledge, innovation or technological progress.

The results in **Figure 1.13** show robust growth in labour productivity, particularly in Cambodia and Viet Nam, during the whole period, together with significant acceleration in the labor productivity growth in Indonesia and the Philippines in the latter 2000s. However, the growth of total factor productivity has been very modest for most of AMSs. Indeed, Viet Nam registered negative growth of total factor productivity during the period, most likely a reflection of the much higher growth of capital than the growth of output. Cambodia had the highest total productivity growth rate; the Philippines also has a significant rise in total productivity relative to its labour productivity growth.

The very modest growth in total productivity in AMSs stands in contrast to the more robust growth in China, India, South Korea and Taiwan, the countries which are more directly competitive vis-a-vis AMSs. Thus, from this perspective, ASEAN's long term competitiveness appears to have deteriorated relative to its neighbours, most especially China. It is clear that AMSs need to improve their total productivity growth performance relative to their neighbours if ASEAN wants to improve its competitiveness, move up the value chain, and rely less on relatively low labour cost for success in exports.

Figure 1.13: Labour Productivity and TFP Growth in ASEAN and Selected Partners (Annual Average)



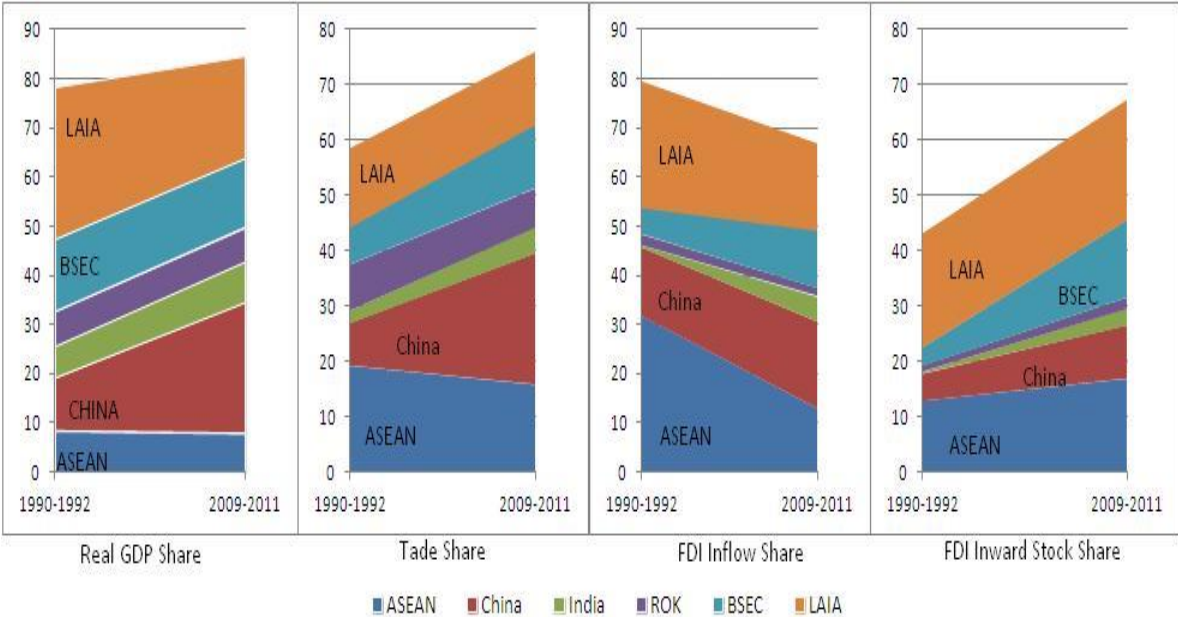
Source: The Conference Board Total Economy Database (2013)

One indicator that is suggestive of increased competitiveness is ASEAN’s share in the total trade and output of all developing countries. Thus, for example, the share of ASEAN to the total output (GDP) of all developing economies averaged 8.6 percent during 1990-1992 but dropped to an average of 8.1 percent during 2009- 2011. In contrast, China’s share rose dramatically from 10.7 percent during 1990-1992 to an average of 26.5 percent during 2009-2011 while India’s share rose from 6.5 percent during 1990-1992 to 8.4 percent during 2009-2011 (see **Figure 1.14**). Increasing the competitiveness of ASEAN post 2015 would have to be to the extent that ASEAN’s share of the total output of all developing countries increases to its share in 1990 and even higher. This would likely mean that ASEAN needs to attain, and sustain, high economic growth rates comparable to, if not better than, China in the years beyond 2015.

It is worth noting from the figure that ASEAN has a larger share of total trade of all developing economies and of the world’s total than the larger Latin America Integration Area (LAIA) as well the Black Sea Economic Community (BSEC)

and India. This reflects that ASEAN plays a bigger role in international trade globally relative to its size. It also reflects that international trade plays a bigger role in ASEAN economies than the other major regional integration areas in the developing world.

Figure 1.14: The Share to GDP, Trade, and FDI of All Developing Economies: ASEAN and Selected Partners (in percentage)



Source: UNCTAD Stat (2013)

The other indicator suggestive of increased competitiveness of ASEAN is ASEAN’s share to the total trade of all developing countries. The share of ASEAN to total trade of all developing countries was 19.3 percent during 1990- 1992 but dropped to 15.9 percent during 2009-2011 (see Figure 1.14). This decline occurred primarily because of the sharp increase in the share of China to the total trade of all developing countries during the period; i.e., from 7.7 percent during 1990 - 1992 to 23.7 percent during 2009- 2011. The growth of trade in China has been so spectacular that China is now the world’s largest exporter. Much more than in the case of the ASEAN share in total GDP of all developing economies, an increase in the ASEAN share to the total trade of all developing countries would be an important barometer of increased ASEAN competitiveness in international trade. This would call for the growth of ASEAN trade to be higher

than the growth of trade of all developing economies, and most likely also of the whole world.

Raising the ASEAN share to total output and trade of all developing countries would necessarily require very robust growth in output and trade of ASEAN. In view of the still limited capital in ASEAN compared to the region's needs, it behooves that ASEAN needs to attract more foreign direct investments. It is therefore likely that ASEAN would need to increase its share to the total FDI inflows to all developing countries and likely also globally. Note from **Figure 1.14** that ASEAN had the largest share of FDI inflows into the developing world during the early 1990s. However, ASEAN share declined dramatically in the latter 1990s and early 2000s. It is only in recent years that there was a notable increase in the ASEAN share to global FDI inflows. ASEAN may thus need to attract an even higher share of global FDI inflows in order for the region to gain a higher share of GDP and total trade of all developing economies and of the world.

• ***Building a fully functioning ASEAN economic community remains unfinished.*** Despite the substantial achievements on the implementation of AEC measures as discussed earlier, much remains to be done to have a fully functioning ASEAN Economic Community. Some of the key sticking points that need to be addressed into and beyond 2015 are as follows:

- There remain a significant incidence of “core NTMs’ especially quantitative limitations” in a number of AMSs. Given that CEPT tariffs are coming down very fast and are virtually zero for the ASEAN 6 countries, it is now non-tariff measures that have become particularly salient as a potential barrier to smoother trade linkages among AMSs.
- National Single Windows are not yet fully operational in most AMSs; and indeed, for three AMSs, they have yet to be put in place. The ASEAN Single Window (ASW) is not yet operative. Moreover, the planned operations for the ASW by 2015 are very limited in scope for effective facilitation of trade within ASEAN and between AMSs and the rest of the world. Related to this is the

need for the full operationalisation of both national and regional trade repositories, which are needed to enhance transparency on trade related policies, rules and regulations in the region for the benefit of firms and people transacting business in the region.

- Despite some progress on standards and conformance as well as on MRAs on professional services, so much more is needed to ensure greater regulatory convergence on standards and technical regulations, greater confidence on conformance assessments and certifications, and greater mobility of skilled professionals within the region.
- AMSs have mixed record on services and investment liberalisation, given the different political economy challenges facing each of the AMSs. It is likely that negotiations for the AFAS beyond AFAS 8 would be increasingly much more difficult since the deepening and widening of services liberalisation efforts would almost certainly touch the more sensitive sectors in each of the AMSs. AMSs may have to determine the degree of liberalisation of the services sector that would be consistent with a highly contestable services sector in the region needed for greater competitiveness vis-a-vis other major economies in the region.

There are many more initiatives by ASEAN to deepen its economic integration and become one community, many still unfinished and/or continuing.

On the whole, what the above examples bring out is that the ASEAN Economic Community project would likely be far from completed by 2015. ASEAN and AMS officials are well cognisant of this, with AEC 2015 as an important milestone and first stage, in ASEAN's continuing drive to become a truly integrated ASEAN economic community. Perhaps, the US Ambassador to ASEAN best sums it all when he said that what matters most with respect to AEC is not AEC 2015 per se but

ambition and *momentum*. ASEAN Leaders remain wedded to the ambition and vision that underpin the ASEAN Economic Community project. The challenge for ASEAN is to maintain, and better still, strengthen the momentum post 2015 moving forward towards an integrated, highly contestable, competitive, dynamic, inclusive, resilient and sustainable region that is deeply engaged with the rest of East Asia and the world.

Appendix

Table 1: People Living within certain Income Range / Class: Based on METI Definition in Millions Person

Income Class	USD Per day per capita	Cambodia			China			India			Indonesia			Lao PDR			Malaysia			Philippines			Thailand			Vietnam		
		1994	2004	2009	1990	2005	2009	1993.5	2004.5	2009.5	1990	2005	2010	1992.2	2002.2	2008	1992	2004	2009	1991	2006	2009	1990	2006	2010	1992.7	2006	2008
Poor	<1.25	4.8	5.0	2.6	683.2	211.9	157.1	458.5	467.6	394.7	100.0	48.7	43.3	2.5	2.4	2.0	0.3	0.1		19.4	19.7	16.9	6.6	0.7	0.3	43.6	17.8	14.3
Low Income	1.25<x<4	5.4	7.0	9.5	429.7	718.6	615.1	443.5	603.9	737.7	80.0	152.4	156.7	1.9	2.9	3.5	6.6	8.8	5.0	33.7	46.8	52.1	34.6	26.2	22.8	22.9	53.1	56.4
Middle Class	4<x<30	0.6	1.2	1.9	22.2	371.2	550.4	26.1	51.2	74.6	4.4	25.9	39.8	0.1	0.2	0.4	11.7	16.4	20.6	10.0	20.6	22.6	15.6	39.4	45.1	2.0	12.4	14.4
Upper Income	>30	0.0	0.0	0.0	0.1	2.1	8.8	0.1	0.2	0.7	0.0	0.3	0.0	0.0	0.0	0.0	0.6	0.2	2.3	0.1	0.0	0.1	0.3	1.0	1.0	0.0	0.0	0.0
Total		10.9	13.2	14.0	1135.2	1303.7	1331.4	928.2	1123.0	1207.7	184.4	227.3	239.9	4.4	5.5	6.0	19.2	25.6	27.9	63.2	87.1	91.7	57.1	67.3	69.1	68.5	83.3	85.1

in Percentage to Total Population

Income Class	USD Per day per capita	Cambodia			China			India			Indonesia			Lao PDR			Malaysia			Philippines			Thailand			Vietnam		
		1994	2004	2009	1990	2005	2009	1993.5	2004.5	2009.5	1990	2005	2010	1992.2	2002.2	2008	1992	2004	2009	1991	2006	2009	1990	2006	2010	1992.7	2006	2008
Poor	<1.25	44.5	37.7	18.6	60.2	16.3	11.8	49.4	41.6	32.7	54.3	21.4	18.1	55.7	44.0	33.9	1.6	0.5	0.0	30.7	22.6	18.4	11.6	1.0	0.4	63.7	21.4	16.9
Low Income	1.25<x<4	50.0	53.0	67.8	37.9	55.1	46.2	47.8	53.8	61.1	43.4	67.0	65.3	41.8	51.9	58.6	34.2	34.5	17.9	53.4	53.7	56.8	60.6	38.9	33.0	33.4	63.7	66.3
Middle Class	4<x<30	5.5	9.2	13.5	2.0	28.5	41.3	2.8	4.6	6.2	2.4	11.4	16.6	2.5	4.2	7.4	61.0	64.1	73.8	15.8	23.7	24.7	27.3	58.6	65.3	2.9	14.9	16.9
Upper Income	>30	0.0	0.1	0.1	0.0	0.2	0.7	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.1	3.2	0.9	8.3	0.1	0.0	0.2	0.5	1.6	1.4	0.0	0.0	0.0
Total		100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Source: PovcalNet: the on-line tool for poverty measurement developed by the Development Research Group of the World Bank

<http://iresearch.worldbank.org/PovcalNet/index.htm?0>

Table 2: People Living within certain Income Range / Class in Millions Person

Income Class	USD Per day per capita	Cambodia			China			India			Indonesia			Lao PDR			Malaysia			Philippines			Thailand			Vietnam		
		1994	2004	2009	1990	2005	2009	1993.5	2004.5	2009.5	1990	2005	2010	1992.2	2002.2	2008	1992	2004	2009	1991	2006	2009	1990	2006	2010	1992.7	2006	2008
Poor	<1.25	4.8	5.0	2.6	683.2	211.9	157.1	458.5	467.6	394.7	100.0	48.7	43.3	2.5	2.4	2.0	0.3	0.1	N/A	19.4	19.7	16.9	6.6	0.7	0.3	43.6	17.8	14.3
Low Income	1.25<x<2	3.3	3.7	4.3	277.7	269.7	205.2	300.1	381.6	435.8	55.9	73.6	67.3	1.3	1.8	1.9	1.8	1.9	0.6	15.6	19.5	21.2	14.6	4.5	2.5	15.0	22.2	22.6
	2<x<3	1.6	2.3	3.5	119.5	276.9	234.2	113.0	170.6	228.6	18.7	56.1	59.3	0.4	0.8	1.2	2.5	3.5	2.2	12.0	17.1	19.3	13.0	11.0	8.9	5.9	20.6	22.2
Middle Class	3<x<12	1.1	2.1	3.4	54.0	514.8	657.0	55.3	99.4	142.5	9.6	46.9	67.9	0.2	0.5	0.8	11.2	17.2	14.9	15.1	28.3	31.6	20.5	42.9	48.4	3.9	22.1	25.1
Upper Income	>12	0.0	0.1	0.2	0.8	30.4	77.9	1.3	3.8	6.2	0.1	2.0	2.0	0.0	0.0	0.0	3.4	3.0	10.2	1.1	2.5	2.8	2.5	8.2	9.1	0.0	0.6	0.9
Total		10.9	13.2	14.0	1135.2	1303.7	1331.4	928.2	1123.0	1207.7	184.4	227.3	239.9	4.4	5.5	6.0	19.2	25.6	27.9	63.2	87.1	91.7	57.1	67.3	69.1	68.5	83.3	85.1

in Percentage to Total Population

Income Class	USD Per day per capita	Cambodia			China			India			Indonesia			Lao PDR			Malaysia			Philippines			Thailand			Vietnam		
		1994	2004	2009	1990	2005	2009	1993.5	2004.5	2009.5	1990	2005	2010	1992.2	2002.2	2008	1992	2004	2009	1991	2006	2009	1990	2006	2010	1992.7	2006	2008
Poor	<1.25	44.5	37.7	18.6	60.2	16.3	11.8	49.4	41.6	32.7	54.3	21.4	18.1	55.7	44.0	33.9	1.6	0.5	N/A	30.7	22.6	18.4	11.6	1.0	0.4	63.7	21.4	16.9
Low Income	1.25<x<2	30.7	28.4	30.9	24.5	20.7	15.4	32.3	34.0	36.1	30.3	32.4	28.1	29.1	32.9	32.1	9.6	7.3	2.3	24.7	22.4	23.1	25.5	6.6	3.7	22.0	26.6	26.5
	2<x<3	14.3	17.4	25.3	10.5	21.2	17.6	12.2	15.2	18.9	10.2	24.7	24.7	9.9	14.6	19.4	12.8	13.5	7.9	19.0	19.6	21.0	22.7	16.4	12.8	8.6	24.7	26.1
Middle Class	3<x<12	10.0	15.6	24.0	4.8	39.5	49.4	6.0	8.8	11.8	5.2	20.7	28.3	5.2	8.4	14.0	58.4	67.1	53.3	23.9	32.5	34.4	35.9	63.8	70.0	5.6	26.5	29.4
Upper Income	>12	0.4	0.9	1.1	0.1	2.3	5.9	0.1	0.3	0.5	0.0	0.9	0.8	0.0	0.2	0.6	17.6	11.5	36.6	1.8	2.9	3.0	4.3	12.2	13.1	0.0	0.7	1.1
Total		100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100

Source: PovcalNet: the on-line tool for poverty measurement developed by the Development Research Group of the World Bank

(<http://iresearch.worldbank.org/PovcalNet/index.htm?0>)

Chapter 2A

Vision and Indicative Outcomes

Towards ASEAN vision beyond 2015

H.E. Dr. Susilo Bambang Yudhoyono, President of the Republic of Indonesia, during the Opening of the 18th ASEAN Summit in Jakarta in May 2011, made the first clarion call to ASEAN to start “successful discussion on...[the] post 2015 ASEAN vision”. For him, it is important and urgent for ASEAN to discuss and agree on the role of the ASEAN Community in the global community of nations, when after the ASEAN Community is achieved in 2015, the region would be well equipped to “... elevating ASEAN’s role to meet the global challenges ahead...”

The Chairman’s Statement on the 18th ASEAN Summit underscored the vision of “ASEAN beyond 2015 which is competitive, fairly equal, inclusive, green, sustainable and resilient”. The Chairman’s Statement of the 19th ASEAN Summit in Bali in November 2011 emphasized that “...equitable development is one key element of our vision for ASEAN beyond 2015”. It also expressed the Leaders’ appreciation of the report of the Government of Indonesia-ERIA-Harvard Symposium on “Moving the ASEAN Community Forward into 2015 and Beyond”, “... which provides creative ideas for a competitive, dynamic, inclusive, sustainable, and globally engaged ASEAN beyond 2015”. The Chairman’s Statement of the 22nd ASEAN Summit held in Bandar Seri Begawan in April 2013 added the importance of “...realizing a truly “People–Centered” ASEAN as a central element of a post-2015 vision of ASEAN”. The essence of People-Centered ASEAN draws from the theme of the 2013 ASEAN Summit of “Our People, Our Future Together” with the emphasis on the role of the people in ASEAN’s community building.

As 2015 draws near, it is indeed necessary to take heed of H.E. President Yudhoyono’s call in May 2011 to “ensure successful discussion on the urgent

need for the post 2015 ASEAN vision”. The Chairman’s statements during the 18th, 19th and 22nd ASEAN Summits are a good start. Nonetheless, there is a need for more articulation and discussion of such vision for ASEAN in order to help guide the roadmap(s) that ASEAN would need to craft on the specific way forward post 2015 after the current Roadmap for an ASEAN Community, 2009-2015, expires.

Towards this end, it is useful to refer back to the 1997 ASEAN Vision 2020 because in many ways, it remains salient today and the near future. Perhaps, the challenge at present is to reframe and update it in the light of the current and expected future realities as well as possibly expand and deepen it in light of new perspectives from recent studies and analyses and of imperatives that ASEAN Leaders would like to give more focus on for ASEAN beyond 2015, as exemplified by the aforesaid Chairman’s Statements.

1997 ASEAN Vision 2020. The 1997 ASEAN Vision 2020 adopted by the ASEAN Heads of State/Government in Kuala Lumpur on 15 December 1997 remains a compelling reading at present, in part because it was adopted during a financial and economic crisis in the region and in part because of the clarity of ambition and vision set forth in the document. The fundamental vision in the 1997 vision 2020 is as follows:

“ASEAN as a concert of Southeast Asian nations, outward looking, living in peace, stability and prosperity, bonded together in partnership in dynamic development and in a community of caring communities.”

In the section on dynamic partnership, the ASEAN Leaders stated:

“We commit ourselves to moving towards closer cohesion and economic integration, narrowing the gap in the level of development among Member Countries, ensuring that the multilateral trading system remains fair and open, and achieving global competitiveness.

We will create a stable, prosperous and highly competitive ASEAN Economic Region in which there is a free flow of goods, services, and investments, a freer flow of capital, equitable economic development and reduced poverty and socio-economic disparities.” (p.3)

The rest of the section details more specific elements of what the statements above entail. The above mentioned statements and the accompanying actions encapsulate virtually much of the essence and key components of what would eventually be the AEC Blueprint 2009-2015, albeit with much greater detail and specified time lines.

The section on “a community of caring societies” of the 1997 ASEAN Vision 2020 provides the broader vision and deeper context of the partnership in dynamic development, discussed above, which is the centerpiece of ASEAN Vision 2020. It is worth highlighting a number of the ASEAN Leaders’ statements as contained in the section on “a community of caring societies” as follows:

“We see vibrant and open societies...where all people enjoy equitable access to opportunities for total human development...”

We envision a socially cohesive and caring ASEAN where hunger, malnutrition, deprivation and poverty are no longer basic problems...

We envision a technologically competitive ASEAN competent in strategic and enabling technologies, with an adequate pool of technologically qualified and trained manpower, and strong networks of scientific and technological institutions and centers of excellence.

We envision a clean and green ASEAN with fully established mechanisms for sustainable development...

We envision our nations being governed with the consent and greater participation of the people ...

We resolve to develop and strengthen ASEAN’s institutions and mechanisms to enable ASEAN to realize the vision and respond to the challenges of the coming century. We also see the need for a strengthened ASEAN Secretariat with an enhanced role to support the realization of our vision.” (p.5)

And in the section on “Outward-looking ASEAN”, the ASEAN Leaders stated as thus:

“We see an outward-looking ASEAN playing a pivotal role in the international fora, and advancing ASEAN’s common interests...” (p.5)

The Bali Concord III: Bali Declaration on ASEAN Community in a Global Community of Nations signed by the ASEAN Leaders during the ASEAN Summit on 17 November 2011 in Bali, Indonesia gives full expression of an outward-looking ASEAN playing a pivotal role in the international fora and advancing ASEAN’s common interests. It is to

“... take forward ASEAN’s shared vision and coordinated action on various global issues of common interest and concern ... (that) ... complement continuing efforts to build and strengthen an ASEAN Community and to enhance and maintain ASEAN centrality and its role in the evolving regional architecture” (Bali Concord III, p.3).

The broad areas of common interest and concern cover areas on (a) political-security cooperation specifically related to peace, security and stability as well as political development; (b) economic cooperation specifically related to economic integration, economic stability and economic development; and (c) socio-cultural cooperation focusing especially on disaster management; sustainable development, environment and climate change; health, science and technology, education, human resources, culture and the high quality of life.

It is clear from the quotations above that much of the statements of the ASEAN Leaders in 1997 remain very relevant, salient and important today for ASEAN’s future as they were about one and a half decades ago. Arguably, much of the AEC work and initiatives as well as Chairman’s Statements of ASEAN Summits in the past decade or so are essentially amplifications and operationalisation of the vision set out in 1997 by the ASEAN Leaders. Additionally, the Bali Concord III amplifies ASEAN vision 2020 and strengthens ASEAN Community building and centrality in the evolving regional architecture with its emphasis that the ASEAN common platform on global issues needs to be characterized by, among others, the following (Bali Concord III, p.3):

- *“A more coordinated, cohesive, and coherent ASEAN position on global issues of common interest and concern, based on a shared ASEAN global view, which would further enhance ASEAN’s common voice in relevant multilateral fora;*
- *An enhanced ASEAN capacity to contribute and respond to key global issues of common interest and concern which would benefit all ASEAN Member States and its peoples;*
- *A strengthened ASEAN Community centered on ASEAN...”*

Vision on ASEAN and AEC beyond 2015: ASEAN vision post 2015. Given the continuing salience of much of the 1997 ASEAN Vision 2020, the vision in 2013 on moving ASEAN and AEC forward beyond 2015 would be fundamentally a rededication of the vision of ASEAN Leaders in 1997. The challenge is to refine, reframe, deepen, update, and expand the vision to take cognizance of deeper perspectives, different realities and changed circumstances and environments, and new challenges facing the region.

Box A presents the proposed vision on ASEAN beyond 2015, specifically the **ASEAN vision 2025/2030**. The **proposed ASEAN vision post 2015 focuses on the economic sphere** and does not cover much of the socio-political and other non-economic spheres of ASEAN community building; thus, would not be a complete and comprehensive vision statement for ASEAN.

Box A. Inclusive, Resilient, Sustainable and People-Centered ASEAN Community

ASEAN beyond 2015 is a community of open and vibrant, inclusive, resilient, green and sustainable, and participative societies where poverty, illiteracy and malnutrition are no longer basic problems.

ASEAN beyond 2015 is a community of vibrant and open societies, well aware of the region's history, embracing and welcoming the region's diversities, and bound by a common regional identity.

ASEAN beyond 2015 is inclusive and committed to equitable development, where all people enjoy equitable access to opportunities for total human development, and where development gaps between the periphery and the center, the rural and the urban, as well as the poor and the rich have substantially narrowed. An inclusive ASEAN, with the attendant further rise of the middle class, contributes to robust economic growth in the region.

ASEAN beyond 2015 is resilient, where robust national and regional mechanisms exist and operate well to help vulnerable people and households adjust well to the vagaries of food and energy prices and supplies, weather and climate, and natural disasters. ASEAN food security and energy security are enhanced by regional cooperation and a well performing ASEAN economic community.

ASEAN beyond 2015 actively supports green and sustainable development with established mechanisms to protect the region's environment and better manage its natural resources, engenders opportunities for green development as an economic opportunity for the region, and strengthens the positive contribution of the region's green development toward a resilient ASEAN.

ASEAN beyond 2015 is people-centered and participative, actively harnessing and engaging its peoples in monitoring, analyzing, refining and revising strategies, policies and regulations both nationally and internationally in order to meet the demands of the times, and in designing and implementing initiatives for deepening the sense of community within the region.

A Strong, Outward-Looking, and Globally Engaged ASEAN

AMSs endeavor to strengthen ASEAN's institutions, including the ASEAN Secretariat, and mechanisms to enable ASEAN to realize the vision of an integrated, highly contestable, dynamic, inclusive, sustainable, resilient, and people-centered community.

ASEAN community plays a pivotal role in the global community of nations. ASEAN is the fulcrum of deeper regional integration in East Asia. ASEAN is an effective force for peace, justice and moderation in Asia-Pacific and in the world. ASEAN actively engages in ensuring that the multilateral trading system remains open and fair. ASEAN cooperates actively and cohesively to contribute to international efforts to respond to key issues of common interest and concern which would benefit all ASEAN Member States and its peoples, raising its voice globally through norms and effective facilitation for peace and shared prosperity.

Desired Outcomes: Aim High ASEAN!

The Leaders' enduring vision and ambition of a dynamic, resilient, people-centered, inclusive, deeply integrated, and globally important ASEAN is best served by definable and high indicative outcomes in order to continue to animate and sustain the momentum of the region's integration, reform, institution-building, and cooperation efforts.

This Integrative Report proposes indicative outcomes for the next decade and a half to 2030. The proposed indicative outcomes are grouped together into three major areas. The proposed indicative outcomes are summarized first and then followed by the detailed discussion on the rationale for the proposed indicative outcomes.

1. **“ASEAN Miracle” of sustained high and inclusive growth realized, eliminating dire poverty and making the region predominantly middle class by 2030.** Thus, the following are the corollary indicative outcomes:

- *Dire poverty (i.e., people living below \$ 1.25 PPP at 2005 prices per day per capita) in ASEAN eliminated by 2030.* There is the corollary desired outcome of dramatic reduction in the percentage of people living below \$ 2 PPP at 2005 prices per capita per day from around 42 percent in 2010 to around 12 percent by 2030. It also has the implication of the elimination of illiteracy and serious malnutrition in ASEAN by 2030.
- *Sustained high growth rate of per capita income of the low and lower middle income AMSs: average of between 5.2 and 7.3 percent per year until 2030.* These are the growth rates needed to eliminate dire poverty in the region during 2025-2030.
- *More equitable growth in ASEAN engendered.* In addition to narrowing the development gaps among AMSs, inclusive growth means more equitable growth within AMSs. A reasonably good indicative outcome is to have a *Gini Index* of less than 40 (out of 100, with 100 as the most inequitable) for each AMS by the late

2020s if not earlier. Another important indicator is the *rise of the middle class to predominance* in virtually all the AMSs by 2030; that is, the middle class, defined either liberally or more stringently, accounts for more than fifty percent of the population in most AMSs by 2030.

2. Competitive, dynamic, and highly investment-attractive economic community engendered. Clearly, realizing the ASEAN Miracle of sustained high and inclusive growth demands that ASEAN is highly attractive to investors both foreign and domestic and that ASEAN is competitive in international and domestic markets. The proposed quantitative indicative outcomes are the following:

- *Significantly increased ASEAN share to total trade, GDP and especially FDI of all developing countries and of the world by 2030.* ASEAN share to total trade of all developing countries declined dramatically from around 19.3 percent in the early 1990s to around 15.9 percent during 2009-2011. We propose an indicative outcome of about 17.5 percent by 2030. ASEAN share to total GDP of all developing countries declined from about 8.6 percent in the early 1990s to about 8.1 percent during 2009-2011. Aiming for the return to ASEAN's share in the early 1990s would be a tall order because it means growing much faster than China and India for much of the period; nevertheless, some increase in the share is a possible outcome. Given the indicative outcome of higher trade and GDP share, ASEAN needs to endeavor to substantially increase its share to the total FDI inflow to all developing countries. ASEAN share to all FDI going to all developing countries declined dramatically from around 32 percent in the early 1990s to about 13 percent during 2009-2011. We propose aiming for an increased share to at least 16 percent by the late 2020s.
- *Dramatically improved international standing of the AMSs in ease of doing business, logistics performance, and global competitiveness indices by early 2020s and in global innovation index by the latter 2020s.* Aiming for increased share of

FDI, trade and GDP to all developing economies would call for ASEAN (or more AMSs) becoming a more highly attractive investment destination with highly favorable business climates. We propose the indicative outcomes where ALL AMSs are in the top half, and MOST AMSs in the top third, of the global rankings in ease of doing business, logistics performance, and global competitiveness indices by the early 2020s. In addition, we propose that MOST AMSs belong to the top half of global rankings in the global innovation index by the late 2020s. The global innovation index ranking is a measure of innovation capacity of AMSs relative to the rest of the world.

- *ASEAN SME Policy Index values markedly improved in all AMSs by the early 2020s.* A much improved policy environment for SMEs is important to the realization of the ASEAN Miracle through denser and more competitive industrial clusters (as SMEs form the bulk of industrial clusters) and much enhanced employment creation contributing to more equitable growth, among others. The ASEAN SME policy index has been developed by ERIA and the ASEAN SME working group. We propose that the ASEAN SME policy index be institutionalized in ASEAN with regular monitoring, e.g., every 3 years. We propose further that ASEAN sets an agreed upon extent of improvement, say by 50 percent, by the early 2020s for each AMS, except for those where an AMS is already nearly at the best practice level.
- *Intra-ASEAN trade share to total ASEAN trade from the current 25 percent substantially raised to, say, around 30 percent by 2030.* Note however that a successful RCEP and robust East Asia production networks may make 30 percent target share difficult to achieve because the trade diversion effect of AEC relative to the rest of East Asia is eliminated by RCEP if the latter eliminates virtually all trade barriers within East Asia. Nonetheless, a higher share is an important manifestation of the deepening economic integration within ASEAN under AEC. Much improved trade facilitation, regulatory convergence, much more facilitative standards and conformance, and much more streamlined non-

tariff measures are possible factors that can contribute to increased intra-ASEAN trade share despite RCEP; these factors are usually not captured in simulation models like GTAP.

3. Markedly more resilient ASEAN realized. Resilient ASEAN, as revealed from Leaders' and Ministerial statements and regional initiatives during the past decade or so, is focused on food security, energy security or resiliency, and disaster resiliency. At present, ASEAN does not yet have a set of indicators that can help the region measure the degree of improvement of the region's resiliency with respect to food and energy shocks and to natural disasters. We propose that ASEAN develops the set indicators and monitors them regularly like every 2 years. We propose further that ASEAN agrees on a percentage degree of improvement of the indicator values over the period up to 2030. Specifically, we propose the following:

- *Adopt or adapt the Rice Bowl Index for ASEAN, as the measure of food system robustness and food security in each AMS.* The Rice Bowl Index, developed by Syngenta and covering farm level, demand, trade and policy and environment factors, has been operationalised and results are available for a number of AMSs. The index, or an "ASEANised" version, can be used for all AMSs.
- *Develop and monitor a set of indicators on energy security and resiliency of ASEAN and East Asia.* A related indicative outcome is *reduction in energy demand by an agreed upon percentage arising from energy efficiency alone, e.g., 10 percent by 2030 and 15 percent by 2035* reduction in energy demand with use of energy efficient plants, equipment and vehicles as compared to business-as-usual scenario.
- *Develop and monitor regularly a set of indicators that comprise a disaster resiliency index or scorecard for ASEAN,* perhaps undertaken jointly by ERIA and AHA Center as the two institutions have started exploring the possibility of developing such an index. The Hyogo Framework Action can be a significant

input in the development of such a disaster resiliency index or scorecard.

- *AMSs to agree on a percentage improvement in the set of indicators or indices or scorecards over time into 2030, after the indicators have been developed and initial results are available.*

Discussion on the Proposed Indicative Outcomes and their Rationale

The indicative outcomes and their rationale are discussed in detail in the rest of this chapter:

1. **Eliminate dire poverty; reduce expanded poverty rate by at least two-thirds; and (nearly) eliminate illiteracy and serious malnutrition in ASEAN by 2030.**

“We envisionASEAN where hunger, malnutrition, deprivation and poverty are no longer basic problems....” **1997 ASEAN Vision 2020**, p.5

The country-specific **poverty reduction** challenges in the region during the next two decades or so are shown in **Table 2A.1.a**. The country specific reduction challenges on **illiteracy and serious malnutrition** are shown in **Table 2A.1.b**. Serious malnutrition is proxied by percentage of children under 5 years old who are wasted.

Table 2A.1.a: Population and Poverty: a Projection

Country	Total Population 2012 (Million)	Population Projection in 2030 (Million)	Number of Poor People (in Million) in 2010 (< 1.25 \$ PPP)	Number of poor people lifted out from poverty by 2030 (Million)
Brunei Darussalam	0.41	0.50	N.A	N.A
Cambodia	14.86	19.14	2.08	2.82
Indonesia	246.86	293.48	43.32	53.00
Lao PDR	6.65	8.81	1.61	2.29
Malaysia	29.24	36.85	N.A	N.A
Myanmar	52.80	58.70	N.A	17.02
Philippines	96.71	127.80	17.18	23.54
Singapore	5.31	6.58	N.A	N.A
Thailand	66.79	67.55	0.26	0.26
Viet Nam	88.78	101.83	12.14	14.22

Source: UN Data, World Bank Data, Povcalnet-World Bank

Table 2A.1.b: ASEAN, China, India Literacy and (Child) Malnutrition Rate in Late 2020s

Country	Literacy Rate (% to Total)		Malnutrition: Wasted for Age (% to total child < 5)	Indicative Outcome
	Adult	Youth		
Brunei	95.45	99.75	N/A	Indicative Outcome: Youth Illiteracy rate < 0.5% Wasted malnutrition < 1.0%
Cambodia	73.90	87.13	10.80	
Indonesia	92.81	98.78	14.80	
Lao PDR	72.70	83.93	7.30	
Malaysia	93.12	98.42	N/A	
Myanmar	92.68	96.10	7.90	
Philippines	95.42	97.75	6.90	
Singapore	95.86	99.75	N/A	
Thailand	93.51	98.05	4.70	

Viet Nam	93.36	97.07	9.70
China	95.12	99.64	2.30
India	62.75	81.13	20.00

Source: WHO-Global health Repository Data, and UNESCO Institute of Statistics

Rationale:

The popular, and usual, measure of absolute poverty is the percentage of population with income below **\$ 1.25 PPP per capita per day** at 2005 prices. We can call this the **dire poverty rate**. An alternative, and relatively more stringent, measure of poverty is the percentage of population with income below **\$ 2 PPP per capita per day** at 2005 prices. We can call this **expanded poverty rate**.

Around **95 million people** lived below the dire poverty line of \$ 1.25 PPP per capita per day at 2005 prices in 2010.¹ This is equivalent to around 15.6 percent (dire) poverty rate in ASEAN, including the estimated number of poor in Myanmar.² ASEAN population is expected to increase from 608.4 million in 2012 to 694.7 million in 2025 and 721.2 million in 2030. This means that **a total of around 112.5 million people have to be lifted out of poverty between 2010 and 2030, in order to eliminate dire poverty in ASEAN by 2030.**

Is this a realistic target? What is the implied growth rate required to attain zero headcount poverty rate by 2025-2030? **Figure 2A.1a** presents the relationship between headcount poverty rate and per capita household income in PPP terms using the ASEAN, China and India experience.³ **Figure 2A1b** presents the same relationship but using ASEAN data only. The two figures show the expected negative relationship between headcount poverty rate and per capita household income. The figures suggest that, *on the average*, the threshold per capita family income that would lead to zero poverty rate is about *2,600 \$ per*

¹ This is equal to the 76.6 million for ASEAN-7 (minus Brunei, Myanmar and Singapore) using the PovCalNet database plus an estimated 17.5 million for Myanmar based on Myanmar's poverty line, which may NOT be the same as the \$1.25 PPP per day per capita at 2005 prices used in the estimation using PovCalNet database.

² The estimated headcount dire poverty rate without Myanmar is about 14 percent in 2010.

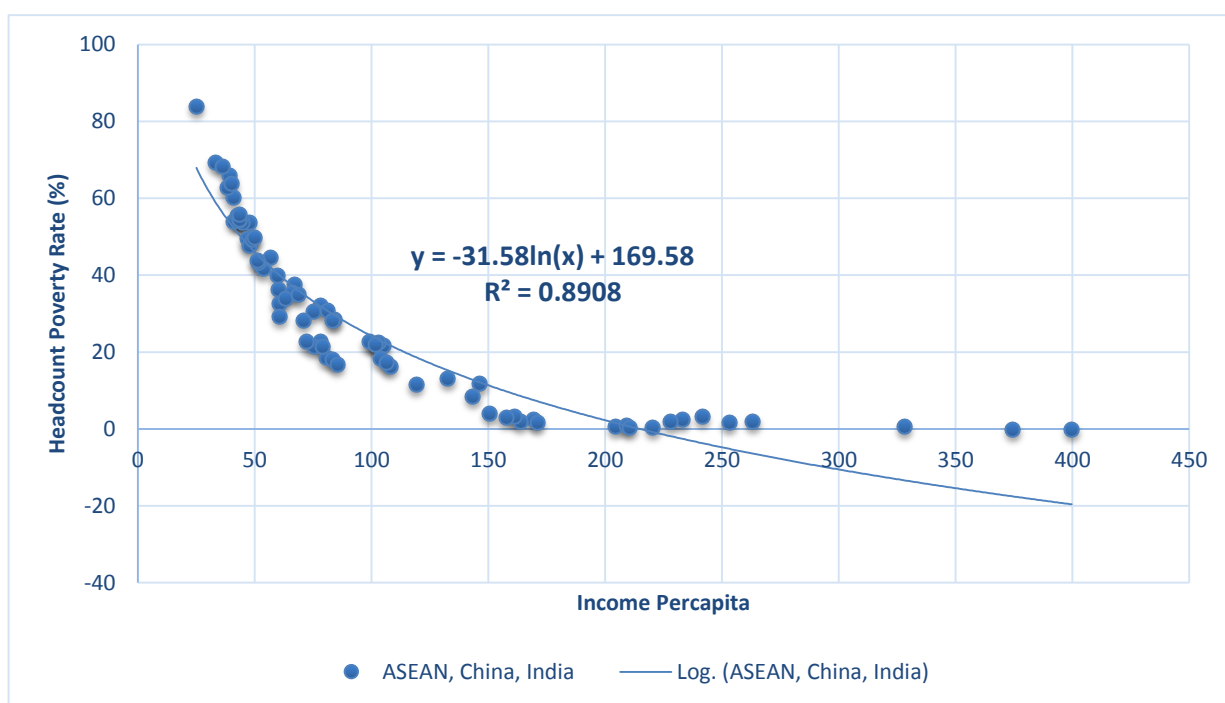
³ Note that there is a difference between per capita family (or household) income and per capita GDP. Family income is based on family income and expenditure surveys; hence, it records what households receive. GDP per capita includes incomes in the corporate sector and the government.

year at 2005 prices using the ASEAN, China and India data or a slightly higher 2, 700 \$ PPP per year at 2005 prices using ASEAN data only.

As will be shown in the succeeding section, the implied growth rate is high but feasible and realistically attainable.

Under the expanded poverty rate definition using \$ 2 PPP per capita per day at 2005 prices as poverty threshold, around **237 million** people in ASEAN lived below the \$ 2 PPP per capita per day at 2005 prices, or an expanded poverty rate of around 42 percent in 2010.⁴ To eliminate the total number of poor (under the expanded poverty definition) by 2030 would require lifting around **303 million** out of poverty.

Figure 2A.1.a: Income Per Capita – headcount Poverty Rate (below 1.25 \$ PPP at 2005 prices) Nexus: ASEAN, China, and India

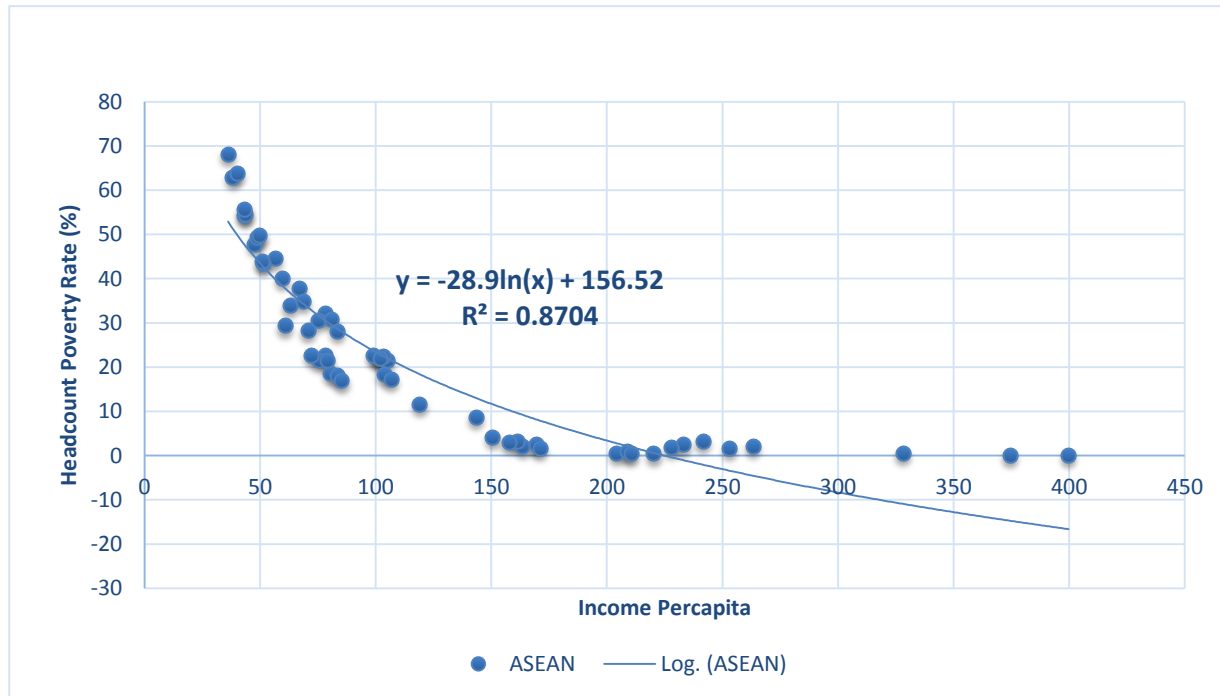


Source of Basic Data: PovcalNet, WorldBank

⁴ This estimate includes that for Myanmar. For the ASEAN – 7, the total number of poor is 196.3 million in 2010 or an expanded poverty rate of around 39 percent. To add Myanmar, we assumed that the ratio of the people earning between \$ 1.25 PPP and \$ 2 PPP per capita per day to the people earning below \$1.25 per capita per day for Myanmar is the simple average of the ratios for Cambodia and Lao PDR. This results in the estimated total number of Myanmar people living below \$ 2 PPP per capita per day at 2005 prices of around 40.3 million, or an expanded poverty rate of around 80 percent.

Note: (i) The per capita income is the average monthly per capita income/consumption expenditure (depends on available data in each country) from survey in 2005 PPP dollar; (ii) Based on the regression result, the household income per capita needed (in 2005 PPP dollar) to have “zero” headcount poverty rate is **US\$ 214.8 (monthly) / US\$ 2578 (a year)**.

Figure 2A.1.b: Income Per Capita – headcount Poverty Rate (below 1.25 \$ PPP at 2005 prices) Nexus: ASEAN Countries



Source of Basic Data: PovcalNet, WorldBank

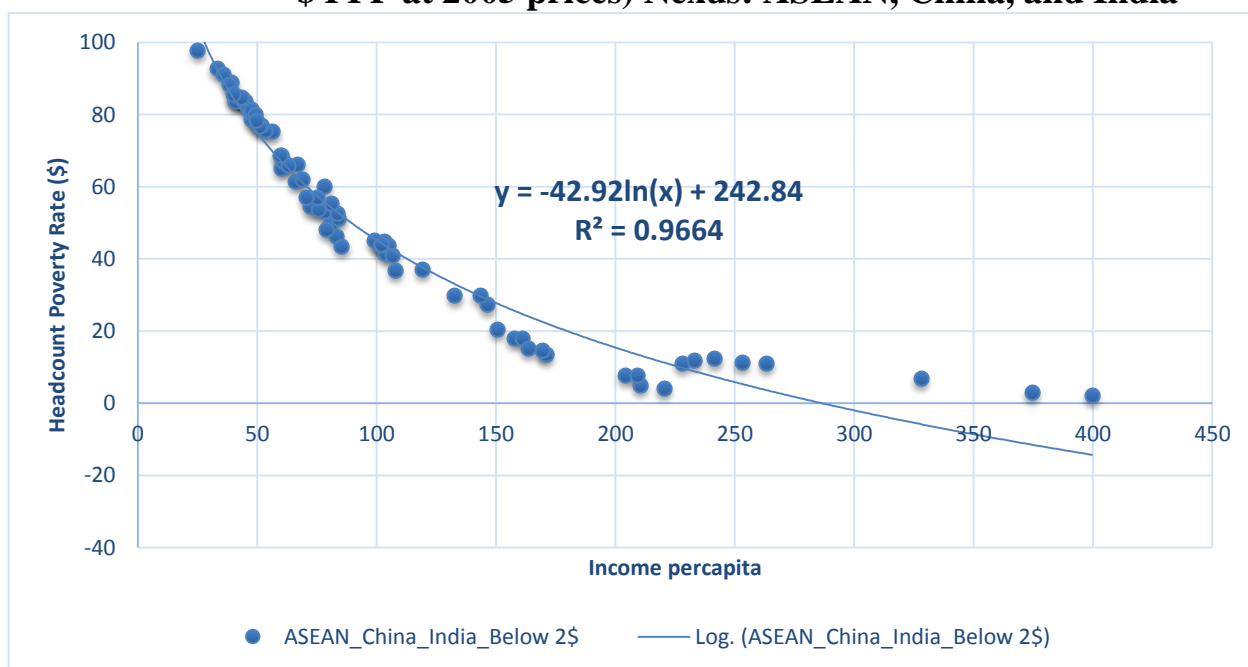
Note: (i) The per capita income is the average monthly per capita income/consumption expenditure (depends on available data in each country) from survey in 2005 PPP dollar; (ii) Based on the regression result, the household income per capita needed (in 2005 PPP dollar) to have “zero” headcount poverty rate is **US\$ 225 (monthly) / US\$ 2700 (a year)**

This is clearly a very tall order and realistically unattainable by 2030. Figure 2.2a and Figure 2.2b present the expected negative relationship between poverty rate, defined in terms of \$ 2 PPP per day per capita at 2005 prices and per capita household income. The results show that the threshold per capita household income to eliminate \$ 2 poverty rate is around \$ 3471 per year, on the average. Since both figures show cases of positive poverty rate even beyond the threshold \$ 3471 per capita per year, it is likely that per capita incomes of Cambodia, Indonesia, Philippines and Viet Nam would have to **quadruple** by 2030 in order to eliminate poverty altogether. The implied growth rate is very high and likely not attainable.

Probably a more realistic target is to dramatically reduce the expanded poverty rate of **42 percent** in 2010 to **12.5 percent** in 2030. This is the implied expanded poverty rate, based on **Figure 2A.2a**, consistent with the threshold per capita income of \$ 2,700 per capita per year in 2005 PPP needed to eliminate dire poverty.⁵ This means that a total of about 213 million people would be lifted out of poverty altogether by 2030. Considering that about 90 million remains poor (at below \$ 2 PPP per day per capita at 2005 prices) by 2030, it means that 22.5 million of the 112.5 million lifted out of dire poverty (at below \$ 1.25 PPP per capita per day) would succeed to be lifted out of poverty (at below \$ 2 PPP per capita per day) altogether by 2030.

In consonance with the elimination of dire poverty and the sharp reduction in the expanded poverty rate, AMSs need to target the near elimination of illiteracy and serious malnutrition in the region. This is because illiteracy and serious malnutrition are deleterious to household’s chances of social mobility, and therefore of getting out of poverty.

Figure 2A.2.a: Income Per Capita – headcount Poverty Rate (below 2 \$ PPP at 2005 prices) Nexus: ASEAN, China, and India



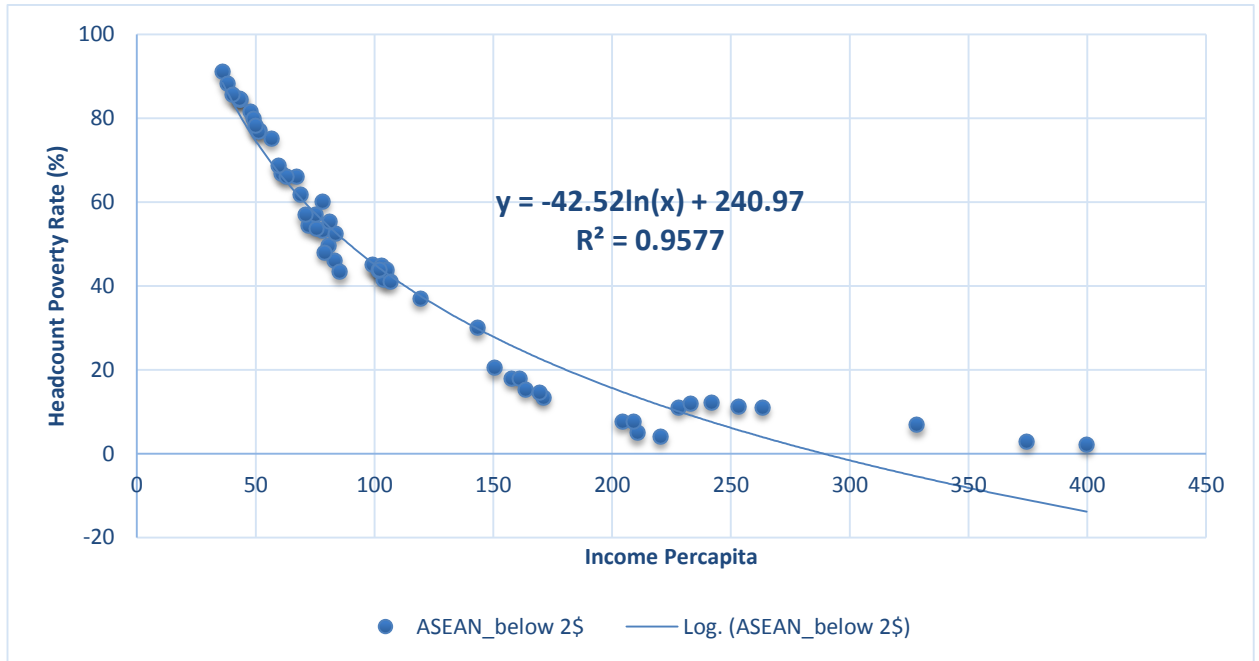
Source of Basic Data: PovcalNet, WorldBank

Note: (i) The per capita income is the average monthly per capita income/consumption expenditure (depends on available data in each country) from survey in 2005 PPP dollar; (ii) Based on the

⁵ This is adjusted for Myanmar, which is assumed to have about 20 percent expanded poverty rate by 2030, as against an estimated 11.7 percent for ASEAN 7 countries.

regression result, the household income per capita needed (in 2005 PPP dollar) to have “zero” headcount poverty rate is **US\$ 286.6 (monthly) / US\$ 3438.8 (a year)**.

Figure 2A.2.b: Income Per Capita – headcount Poverty Rate (below 2 \$ PPP at 2005 prices) Nexus: ASEAN Countries



Source of Basic Data: PovcalNet, WorldBank

Note: The per capita income is the average monthly per capita income/consumption expenditure (depends on available data in each country) from survey in 2005 PPP dollar; Based on the regression result, the income per capita needed (in 2005 PPP dollar) to have “zero” headcount poverty rate is **US\$ 289.2 (monthly) / US\$ 3470.7 (a year)**

2. Sustain high growth rate of per capita income of low and lower middle income AMSs: 5.2 percent to 7.3 percent per year until 2030.

“We pledge to sustain ASEAN’s high economic performance by building upon the foundation of our existing cooperation efforts, consolidating our achievements, expanding our collective efforts and enhancing mutual assistance.” 1997 ASEAN Vision 2020, p.3

Table 2A.2 presents a proposed range of growth indicative outcomes for each of the ASEAN member states until 2030. For the “low growth rate”, it is assumed that the elimination of (dire) poverty would occur by 2030 yet; as such, per capita income in 2030 would be 2.5 times higher than 2012 for

Indonesia, the Philippines and Viet Nam, 3 times higher for Cambodia and 3.5 times higher for Lao PDR and Myanmar. For Malaysia and Thailand, the assumption is the doubling of per capita income by 2030. For Brunei Darussalam and Singapore, the per capita income would be 50 percent higher.

For the “high growth rate” scenario, per capita incomes in Indonesia, the Philippines, and Viet Nam would increase by 2.5 times by 2025, and those in Malaysia and Thailand would double by 2025. These growth rates are maintained until 2030. In effect, the assumption is that (dire) poverty rate would be eliminated in Indonesia, the Philippines and Viet Nam by 2025 instead of 2030. For Cambodia, Lao PDR, and Myanmar, the per capita incomes in 2025 would be 2.5 times higher while those for Brunei and Singapore would be 50 percent higher.

Table 2A.2: Range of Indicative Outcome Growth rate, 2012 – 2030, annual in percent

Country	Per Capita GDP		GDP	
	Low	High	Low	High
Brunei Darussalam	2.3	3.2	3.4	4.2
Cambodia	6.3	7.3	7.7	9.1
Indonesia	5.2	7.3	6.2	8.6
Lao PDR	7.2	7.3	8.8	9.2
Malaysia	3.9	5.5	5.2	6.8
Myanmar	7.2	7.3	8.1	8.2
Philippines	5.2	7.3	6.8	9.0
Singapore	2.3	3.2	3.5	4.4
Thailand	3.9	5.5	4.0	5.5
Viet Nam	5.2	7.3	6.0	8.4

Source: Authors

For the range of growth indicative outcomes of overall national output, GDP, the projected annual population growth rate is added to the target growth rates of per capita income. **Table 2A.2** shows that the “high growth” targets are substantially high for countries like Indonesia and the Philippines and possibly even Viet Nam given the recent growth experience. From the table, a simple average of the low and high growth rates of GDP would suggest that Lao PDR, Myanmar, Cambodia and the Philippines have the biggest growth challenge in order to ensure that poverty is eliminated after more than a decade. Note that

the GDP growth targets for Thailand are modest: this reflects the extremely low growth of population. Indeed, if there would barely be any increase in population in the country over the next one and a half decades, Thailand may need significant infusion of labour from its neighbors or the country would have to rely on high growth of total factor productivity in order to have robust growth rate comparable to the other AMSs. Either is feasible for Thailand, and therefore the growth targets for the country can be viewed as conservative.

Rationale:

What is the implied growth rate required to attain zero headcount poverty rate by 2025-2030? This depends on each ASEAN Member State. As noted in the previous section, AMSs need to attain per capita household income at 2005 prices of at least \$ 2,700 per year to eliminate dire poverty.

With per capita household (or family) income of 4, 800 \$ PPP and 2,644 \$ PPP at 2005 prices per year in 2010 for Malaysia and Thailand, both Malaysia and Thailand have virtually zero headcount poverty rate based on the 1.25 \$ PPP per day per capita threshold.

With per capita household income per year at 2005 prices of between 1,000 \$ PPP to 1,270 \$ PPP in 2010, it would require, *on the average*, 2.1 times (Philippines) to 2.7 times (Cambodia and Indonesia) higher level of per capita household income to eliminate dire poverty. However, the Philippines has a more unequal distribution of income while Indonesia and Viet Nam have more equal distributions of income. (Cambodia has unstable income distribution measures but seems to have income inequality that is closer to the Philippines.) This suggests that the Philippines would require more than 2.1 times level of per capita family income to eliminate poverty. Obversely, with more equitable distribution of income in Indonesia, it is possible that Indonesia would not need 2.7 times higher per capita household income to have zero headcount poverty rate. Thus, it is likely that Indonesia, the Philippines and Viet Nam would need levels of per capita household income that is around **2.5 times higher**, and for Cambodia, about **2.7 times higher**, than the 2010 levels in order to have zero headcount poverty rate during 2025-2030.

Assuming that the growth of per capita household income mirrors the growth of per capita income, this implies an average growth rate of per capita income

for Indonesia, the Philippines and Viet Nam of **7.3 percent per year** in order to eliminate poverty by **2025** or a per capita income growth of **5.2 percent per year** in order to eliminate poverty by **2030**. The implied target growth rates for Cambodia would be slightly higher than the three countries; nonetheless, a **tripling of the per capita income over the period to 2030** would eliminate poverty in Cambodia.

Lao PDR would need about 3.2 times higher per capita household income than in 2010 in order to eliminate poverty rate. Given the reliance of Lao PDR on capital intensive mining and energy and the relative isolation of some of its peoples in the highlands, it may well be that per capita income would have to be about **3.5 times** higher than the 2010 level to have zero poverty rate. This implies that Lao PDR would need to have an average per capita growth rate per capita of **7.2 percent per annum until 2030** to eliminate poverty.

There is no comparable and reliable family income data for Myanmar. But it is likely that Myanmar would need to grow at the same rate as Lao PDR, and possibly even higher, in order to virtually eliminate poverty in the country by 2030. This is relatively a tall order for the country, but the apparent indicative target average growth rate in the Myanmar Comprehensive Development Plan is around 7.5 percent per year.

In summary, the average growth rate of per capita income of the low and lower middle income AMSs until 2030 would have to range from **5.2 to 7.3 percent per year** in order to eliminate dire poverty and drastically reduce the number of the (expanded) poor by 2030. These growth rates are high but attainable. The average growth rate of per capita income in ASEAN during 1991-1995 was in fact 5.6 percent per year; the average growth rate of per capita income of Viet Nam during the past two decades was almost 6 percent per year; that of Cambodia during 2001-2005 was 7.8 percent per year, and that of Thailand was 8.4 percent per year during 1986-1990 and 7.6 percent per year during 1991-1995. That is, a number of AMSs have experienced growth rates that are comparable to the indicative target growth rates set out above. The challenge is to sustain the high growth rate over a period of one and a half decades, which is longer than the experience of most AMSs, except for Viet Nam.

Malaysia had virtually no people in dire poverty and about 400,000 people living below the \$ 2 PPP per day per capita in 2010. Thailand had less than

300,000 people in dire poverty and about 2.8 million living below \$ 2 PPP per day per capita in 2010. It is clear that Malaysia will have no absolute poor people earning below \$ 2 PPP per day per capita even with only modest growth of the economy in a few years; indeed, it is already on the verge of moving into the high income country status. Thailand's growth indicative target that allows for, say doubling of per capita income over the period to 2030, is more than enough to eliminate absolute poverty (at \$ 2 PPP per day per capita) in the country altogether. Thailand's growth target, as well as that of Malaysia, is to join or be firmly in place in the high income group of countries during 2025-2030.

Being high income countries and with the need to strictly control the growth of population via migration or temporary employment in view of the very limited and increasingly expensive living space, it would be realistic to assume a far more moderate growth target for Brunei Darussalam and Singapore in the next one and a half decades.

3. Engender more equitable growth in ASEAN: Aim for Gini index of less than 40 (out of 100).

Our work these days and our expectations of how things will evolve may inspire us to think of ASEAN beyond 2015 which is...fairly equal, inclusive....”

Chairman's Statement, 18th ASEAN Summit, Jakarta, 8 May 2011

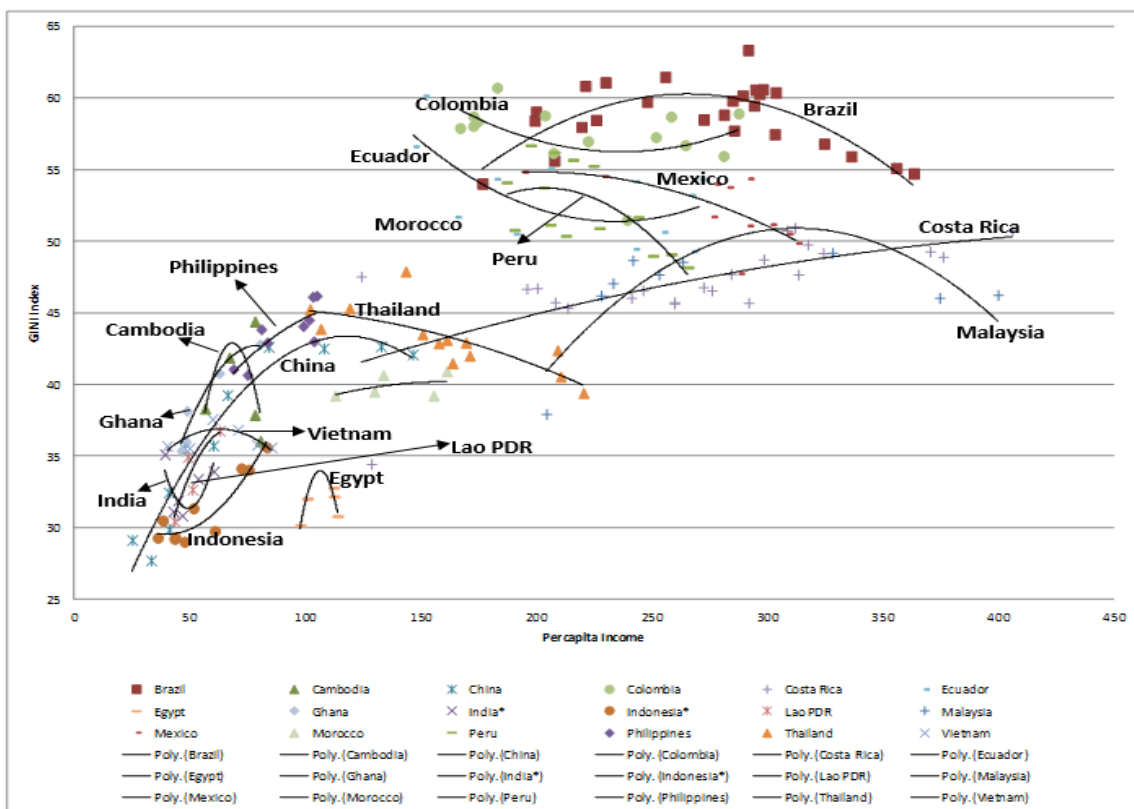
“We are committed to ensure that equitable development helps set our agenda so that our population benefits from the economic integration and cooperation”

Chairman's Statement, 19th ASEAN Summit, Bali, 17 November 2011

One of the most enduring stylised facts in economic development is the “inverted U curve” or ‘Kuznets curve’, which means that income inequality worsens in the course of economic development before it improves at a higher level of per capita income. However, there is nothing immutable about the inflection per capita income after which income inequality secularly improves,

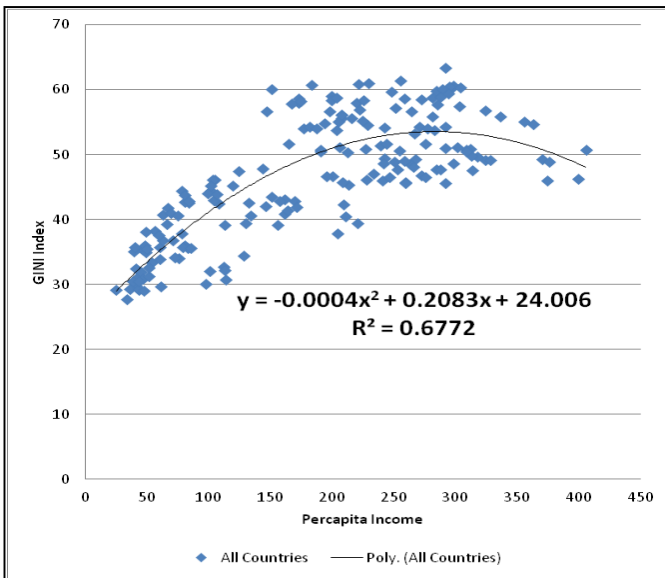
as **Figure 2A.3** shows. **Figure 2A.3** shows the pattern of income inequality and per capita income of ASEAN countries, China, India and a few Latin American and African countries. The inverse U or Kuznets curve relationship is apparent from the figure. At the same time, the figure shows that income inequality in Latin America tends to be significantly higher than Asian (and a few African) countries; only Malaysia seems to be somewhat closer to the Latin American experience. It is likely that there are structural reasons for the relatively high income inequality in these countries.

Figure 2A.3: Per capita Household Income – GINI Index Nexus: ASEAN, China, India, Latin America, and North Africa Countries (By Countries)



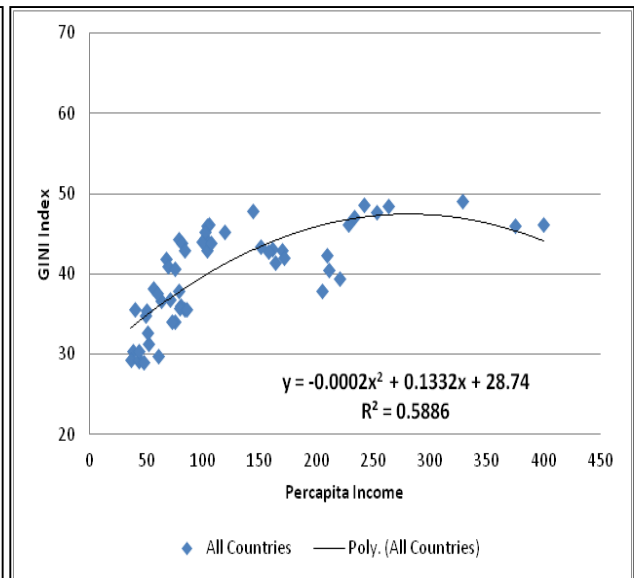
Source of Basic Data: Povcal Net, World Bank (2013) Note: The per capita income is the average monthly per capita income/consumption expenditure (depends on available data in each country) from survey in 2005 PPP dollar

Figure 2A.4.a: GINI-Income per capita Nexus: ASEAN, China, India, Latin America, and North Africa Countries



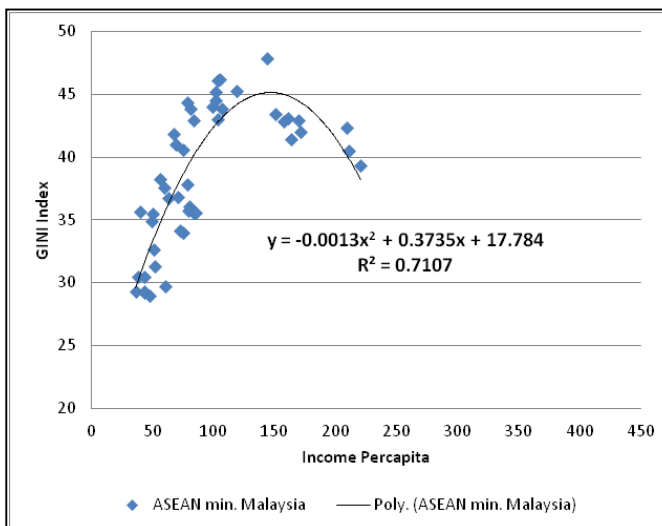
Threshold inflection Per capita Income required to start lowering inequality:
USD 260.4 (Monthly per capita) / **USD 3124.5** (annual per capita)

Figure 2A.4.b: GINI-Income per capita Nexus: ASEAN Countries



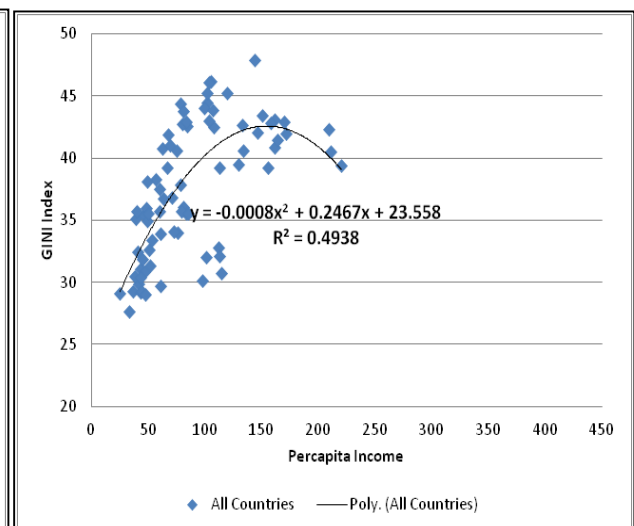
Threshold inflection Per capita Income required to start lowering inequality:
USD 333 (Monthly per capita) / **USD 3996** (annual per capita)

Figure 2A.4.c: GINI-Income per capita Nexus: ASEAN Countries (Malaysia Excluded)



Threshold inflection Per capita Income required to start lowering inequality:
USD 143.65 (Monthly per capita) / **USD 1723** (annual per capita)

Figure 2A.4.d: GINI-Income per capita Nexus: ASEAN Countries (Malaysia Excluded), Egypt, Ghana, Morocco, China, India



Threshold inflection Per capita Income required to start lowering inequality:
USD 154.19 (Monthly per capita) / **USD 1850.3** (annual per capita)

Source: Povcalnet, World Bank (2013)

Figures 2A.4a, 2A.4b, 2A.4c. and 2A.4d present alternative Kuznets curves depending on the sample or reference countries used, with correspondingly different inflection per capita income (with highest income inequality and after which there would be secular reduction in income inequality). The figures show that the inflection per capita income is highest based on ASEAN experience, including Malaysia (**Figure 2A.4b**), even higher than the estimate based on the more global experience that includes selected Latin American and African countries plus China and India. At the same time, the figures also show that the lowest inflection per capita income is the one based on ASEAN experience excluding Malaysia. That is, the structural factors and the growth process in ASEAN countries, excluding Malaysia, appears to have been comparatively more equitable than other regions such as Latin America.

Based on **Figure 2A.4c**, both Malaysia and Thailand have per capita incomes that are higher than the inflection per capita income; and both countries are now experiencing secular decline in income inequality. The Philippines also seems to be starting to have some reduction in income inequality but so far, only modestly. Viet Nam has a remarkably equitable growth experience so far. It is Indonesia and Lao PDR where the trajectory is still for greater inequality, albeit from a base of relative equality.

The challenge for ASEAN and AMSs is to engender or sustain a more equitable growth process. A reasonably good indicative outcome supporting equitable growth is to have the GINI INDEX of less than or equal to 40 (out of 100, with 100 as the most inequitable). This means that:

- Malaysia and the Philippines will have to do more to ensure greater income equality and reduce their GINI index to 40 and below
- Thailand sustains its trajectory towards a GINI index lower than 40
- Cambodia, Indonesia and Lao PDR ensure that they undertake more equitable growth path in order that their GINI indices would not rise to more than 40
- Viet Nam sustains its relatively equitable growth path

A more equitable growth path generally engenders higher farm and rural incomes relative to national average (for countries with an agricultural and rural hinterland), higher employment especially in better paying jobs, and raising real wages consistent with productivity growth. On the supply side, this also entails greater investment in worker skills and for more educated and healthy populace and workforce.

4. Raise the intra-ASEAN trade share to total ASEAN trade, from the current 25 percent, to say 30 percent, in 2030.

“We commit ourselves to moving towards closer cohesion and economic integration...” **1997 ASEAN vision 2020**, p. 3

“.... We reaffirm our commitment to accelerating the establishment of the ASEAN Community....” **Cha-Am Hua Hin Declaration on the Roadmap for the ASEAN Community (2009-2015)**, p.1

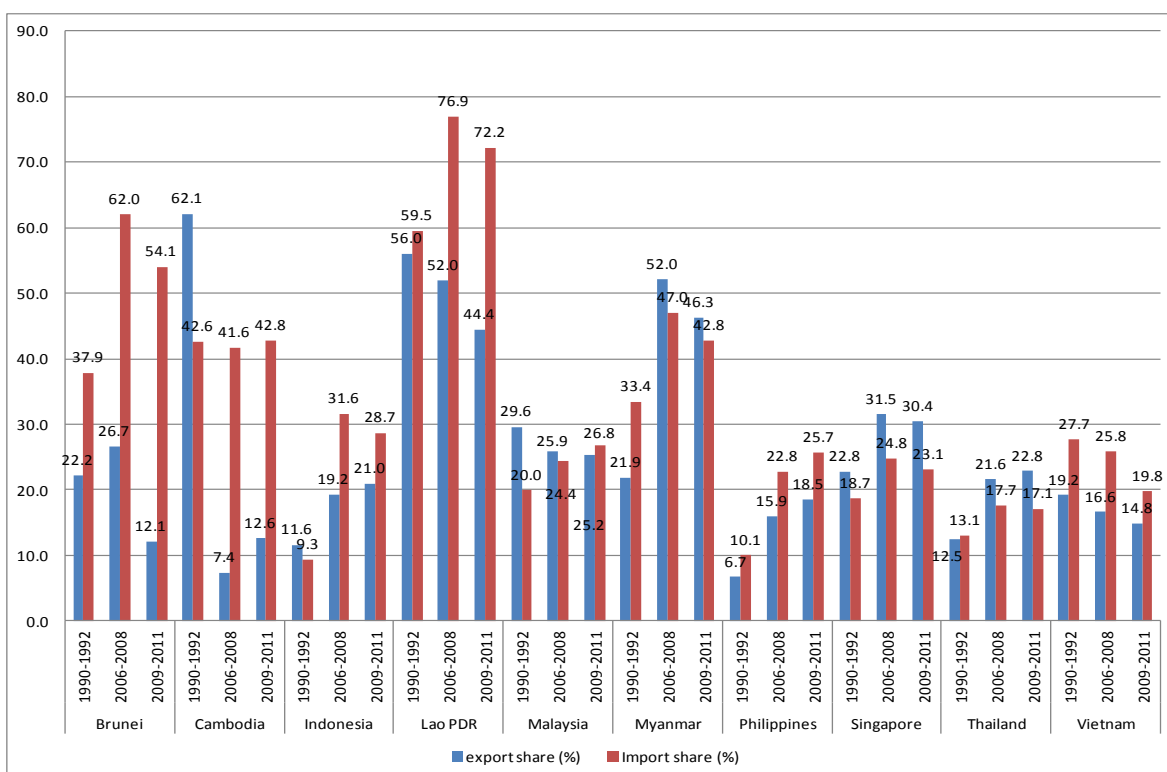
The share of intra-ASEAN to total ASEAN trade was 25.1 percent in 1993, 24.5 percent in 2003 and 25 percent in 2011 (ASEAN Economic Community *Chart book 2012*, p.20). Thus, the intra-ASEAN trade share has been largely constant at around 25 percent of total ASEAN trade during the past two decades. Considering that the past two decades have seen the marked expansion of regional integration initiatives in the ASEAN, including the elimination of intra-ASEAN tariffs for the early ASEAN 6 countries, the virtual constancy of the intra-ASEAN trade share seems to suggest that regional integration initiatives in ASEAN have been largely ineffective so far.

However, this is a misleading interpretation. The underlying developments lead to a much more nuanced and, indeed positive, interpretation. **Figure 2A. 5** shows the direction of trade of each of the AMSs since the early 1990s. Three AMSs that were once very heavily dependent on ASEAN for their trade have significantly reduced their reliance as non-ASEAN export markets opened up, especially for Cambodia and to a less extent Lao PDR, and will most likely be the case for Myanmar in the future as the sanctions against it have been effectively lifted. Viet Nam has also substantially diversified from ASEAN

given that some of its main exports are geared more for regions outside ASEAN (e.g., garments, shoes).

In contrast to the CLMV countries, Indonesia, the Philippines and, to a large extent, Thailand increased their ASEAN linkages in both exports and imports. Malaysia and Singapore, which dominated intra-ASEAN trade in the early 1990s, also expanded their ASEAN share in imports (Malaysia) and exports (Singapore). As will be apparent later in the Integrative Report, the underlying changes in the ASEAN shares of AMSs trade reflect the redirection of trade according to each AMS' comparative advantage that was facilitated in part by improved market access within ASEAN, within East Asia, and in the rest of the world (mainly the developed Western countries).

Figure 2A.5: Share of ASEAN Trade (Export and Import) to Total Trade in Each ASEAN Member Country



Source of basic data: ARIC ADB Indicator (2013)

Be that as it may, it is nonetheless reasonable to aim for a higher intra-ASEAN share to the total ASEAN trade in the future, **from the current 25 percent to say around 30 percent by 2030**, as an important manifestation of the deepening economic integration within ASEAN under the ASEAN Economic

Community. However, the increase by 20 percent of the percentage share of intra-ASEAN trade to total ASEAN trade within one and a half decades will **not** be **easy** because the implementation of the ASEAN + 1 FTAs and of the Regional Comprehensive Economic Partnership (RCEP) during the period would mean that there is virtually little margin of tariff preference for ASEAN products relative to the products from the rest of East Asia. As such, there will be very little incentive for ASEAN firms to divert import sources or export destinations to ASEAN from the rest of East Asia.⁶

Thus, the increase of the intra-ASEAN trade share would have to come primarily from expanded linkages in regional production and distribution networks within ASEAN, creation of new supply chains within the region, and the substantial increase in intra-industry trade even in final goods arising from the diversifying consumption patterns of an increasingly middle class population. Such developments would require efficient movement of goods within the region, much improved connectivity, more harmonized standards and technical regulations and/or much improved and efficient conformance assessment procedures, and much greater information and acceptance by ASEAN consumers of the various products and brands from other ASEAN member states.

5. Raise significantly the share of ASEAN to total trade, GDP, and FDI of all developing economies and of the world by 2030.

“We will create ahighly competitive ASEAN Economic Region”

1997 ASEAN Vision 2020, p.3

The share of ASEAN to total trade, GDP and FDI of all developing economies and of the whole world can be considered as reasonably good indicators of the impact, and therefore suggestive, of ASEAN relative to competing major

⁶ The baseline simulation results of Itakura (2013) show that the share of intra-ASEAN trade to total ASEAN trade would NOT increase to 30 percent by 2030 assuming that tariffs in RCEP region go down to zero and services trade barriers and trade costs are reduced significantly. This can be attributed to the elimination of trade diversion effect from AEC given the implementation of RCEP. Nonetheless, Itakura’s assumptions do not include the possible intra-ASEAN trade creation effect of improved intra-ASEAN connectivity, more facilitative standards and conformance, regulatory coherence, etc. that deeper AEC aims to achieve.

producing, exporting and FDI destination countries and regions in the developing world.

Table 2A.3 presents the ASEAN shares and compares them with other competing regions and countries like China, India, Black Sea Economic Cooperation (BSEC) region, and the Latin American Integration Area (LAIA).

Table 2A.3: The Share to GDP, Trade, and FDI of All Developing Economies and the World: ASEAN and Selected Partners

Indicator	Country/ Grouping	Share to All Developing Economies (in %)			Share to the World (in %)		
		1990-1992	1999-2001	2009-2011	1990-1992	1999-2001	2009-2011
Real GDP Share	ASEAN	8.6	8.6	8.1	1.5	1.8	2.3
	China	10.7	17.2	26.5	1.9	3.6	7.6
	India	6.5	7.2	8.4	1.2	1.5	2.4
	ROK	7.1	8.0	6.9	1.3	1.7	2.0
	BSEC	14.6	15.7	14.0	2.6	3.3	4.0
	LAIA	30.9	26.4	20.8	5.5	5.6	6.0
Trade Share	ASEAN	19.3	20.2	15.9	4.7	5.9	6.4
	China	7.7	12.2	23.6	1.9	3.6	9.4
	India	2.3	2.5	4.7	0.6	0.7	1.9
	ROK	8.3	8.1	7.1	2.0	2.4	2.9
	BSEC	6.8	9.0	11.5	1.7	2.7	4.6
	LAIA	14.3	17.1	13.2	3.5	5.0	5.3
FDI Inflow Share	ASEAN	31.8	10.6	13.1	7.6	2.4	5.8
	China	13.9	17.9	17.6	3.7	4.1	7.8
	India	0.4	1.6	5.0	0.1	0.4	2.2
	ROK	2.2	3.0	1.6	0.5	0.6	0.7
	BSEC	5.5	3.8	11.9	1.4	0.9	5.3
	LAIA	25.6	31.9	17.7	6.5	7.1	7.9
FDI Inward Stock share	ASEAN	13.0	14.6	17.0	3.2	3.4	5.3
	China	4.8	11.2	9.4	1.2	2.6	3.0
	India	0.3	1.0	3.1	0.1	0.2	1.0
	ROK	1.1	2.7	2.1	0.3	0.6	0.7
	BSEC	3.4	5.0	14.0	0.8	1.2	4.4
	LAIA	20.7	24.2	21.8	5.1	5.7	6.8

Source: UNCTAD Stat (2013)

On foreign trade, the share of ASEAN to total trade of all developing economies declined from around 19.3 percent in the early 1990s to an average

of **15.9 percent during 2009-2011**. This decline is primarily due to the surge in the contribution of China to the total trade of developing economies to nearly a quarter by the late 2000s as compared to only an average of 7.7 percent in the early 1990s. The shares of India and BSEC increased secularly during the period, albeit from relatively low base in the early 1990s.

Can ASEAN aim for the turnaround in fortunes and **raise its share** of the total trade of the developing economies, by say 20 percent **to an average ASEAN share of about 19 percent by 2030**? This effectively means that ASEAN recovers its lost share of the total trade of all developing economies in the early 1900s. This is quite a challenge because it would mean that ASEAN international trade may have to grow faster than China's and much of the developing world. There may, however, be some possibility for this because of the rising cost in China and the growing emphasis on the domestic market in the country. It can also be expected that the greater economic integration within ASEAN would raise the region's share to total trade of the developing economies.

Nonetheless, returning to its old glory when the region had the largest share among the major integration areas and countries in the developing world would indeed be a tough one to accomplish, requiring substantial improvement in the region's competitiveness in the international arena. A **moderate indicative outcome** would be an increase in the share of ASEAN to total trade of the developing economies by about 10 percent (instead of 20 percent) to about **17.5 percent by 2030** from the current 15.9 percent.

On output, ASEAN share to the total GDP of all developing economies declined from about 8.6 percent in the early 1990s to about **8.1 percent during 2009-2011**. Can ASEAN aim to raise its share by 10 percent to **8.9 percent** in 2030, surpassing the share in the early 1990s? This is probably a very tall order given that China's growth remains virtually the highest in the region, India would likely be gaining more share, as well as probably Africa. Nonetheless, as China's growth decelerates further, it may be that the indicative target growth rates for the AMSs in **Table 2A.3** would lead to the increased share of ASEAN to the total GDP of all developing economies.

Given the indicative outcome of significantly higher share of ASEAN to the total trade and output of all developing economies (and therefore of the whole world given the rising share of developing economies to total global trade and output), it is imperative that ASEAN endeavours to substantially increase its share to the total FDI inflow to all the developing economies. The past two decades have in fact seen a marked decline in the share of ASEAN from a lofty **31.8 percent** in the early 1990s to about **13 percent** during 2009-2011. It may be unrealistic to go back to the early 1990s performance when China and India were not yet very much in the picture.

What may be more realistic is to raise the share by about 20 percent to about **15.6 percent** by the late 2020s or 2030. This share would still be lower than China's performance in the 2000s, as other regions like Africa would become major competitors for FDI. Perhaps, what is more important here is the share of ASEAN to global FDI inflow. Recovering its **global share of 7.6 percent** in the 1990s would necessitate that the current developed countries would have significantly lower share of FDI inflows in favor of the emerging markets or the developing economies.

The ambitious goal on the FDI above must mean that ASEAN needs to be a markedly attractive investment destination, to which we turn next below.

6. Raise dramatically the international standing (scoring and ranking) of the (lagging) ASEAN member states in ease of doing business, logistics performance, and global competitiveness indices: aim for all AMSs belonging to the top half, and most of the AMSs belonging to the top third by the early 2020s.

Raise substantially AMSs ranking and scoring in the global innovation index: aim for most AMSs to be in the top half of the global rankings by the latter 2020s.

“Sustained inflows of new investments and reinvestments will promote and ensure dynamic development of ASEAN economies”

Roadmap for an ASEAN Community, 2009-2015,
p. 27.

The business environment for both investment and operations is an important factor for firms, especially transnational firms, in deciding where to locate their operations. This is a key reason for the growing popularity of indices and indicators on the business environment of countries such as Ease of Doing Business, Logistics Performance Index, and Global Competitiveness Index. Not surprisingly, many countries have used these indices to improve their business environments and thereby help them generate foreign investment, among others.

Table 2A.4 presents the rating and ranking of the AMSs in the abovementioned indicators. It is apparent from the table that there is an extremely wide dispersion among the AMSs, from virtually the world's best to among the lowest ranking. The challenge for the lagging AMSs is to improve much further their ratings and rankings. As the table shows, Singapore is either the first or the second highest in the world. Both Malaysia and Thailand also count among the top 20 percent in the world. Both Lao PDR and Myanmar tend to belong to the bottom third in the world. AMSs tend to rank better in Logistics Performance Index than in Ease of Doing Business. Indeed, both Indonesia and the Philippines rank poorly in ease of doing business ranking as compared to their much better performance on logistics performance and global competitiveness indices. At the same time, Indonesia, the Philippines and Cambodia have been among the largest advancers in the world in their rankings in global competitiveness.

Despite the imperfections of the indices, **Table 2A.4** suggests that there is much to be done in order to improve the ease of doing business environment in a number of AMSs. At the same time, considering that most of the measures in the AEC Blueprint and other initiatives of the ASEAN do not only facilitate economic integration but also improve the business environment in the region, the objective of improving ratings and rankings would not be empty and without basis.

Table 2A.4: ASEAN Member States Ranking and Score in Business Environment Indices

Country	Logistics Performance Index				Global Competitiveness Index				Doing Business Indicator: Rank	
	2007		2012		2006		2013		2006	2013
	Rank	Score	Rank	Score	Rank	Score	Rank	Score		
Brunei*	N/A	N/A	N/A	N/A	39	4.54	26	4.95	78	79
Cambodia	81	2.5	101	2.56	105	3.44	88	4.01	133	133
Indonesia	43	3.01	59	2.94	54	4.18	38	4.53	115	128
Lao PDR	117	2.25	109	2.5	N/A	N/A	81	4.08	147	163
Malaysia	27	3.48	29	3.49	19	5.15	24	5.03	21	12
Myanmar	147	1.86	129	2.37	N/A	N/A	139	3.23	N/A	N/A
Philippines	65	2.69	52	3.02	75	3.98	59	4.29	113	138
Singapore	1	4.19	1	4.13	8	5.46	2	5.61	2	1
Thailand	31	3.31	38	3.18	28	4.76	37	4.54	20	18
Viet Nam	53	2.89	53	3	64	4.09	70	4.18	99	99
China	30	3.32	26	3.52	34	4.55	29	4.84	91	91
India	39	3.07	46	3.08	42	4.47	60	4.28	116	132
Total Countries	150		155		2006: 122/ 2008: 134		148		2006: 155/ 2008: 178	185

Notes: * = The Data for Brunei for Global Competitiveness Index and Doing Business Indicator are only available from 2008.

Source: The World Bank (2013)

Thus, it is proposed that the **indicative outcome for AMSs** is that **all** of the AMSs need to be at the **top half of the rankings** in those indicators. In addition, given that 3 AMSs already belong to the top third, it is better **if most, if not all**, of the AMSs would belong to the **top third** among all countries in the world by the early 2020s. Note that the target date is in the early 2020s because sustained high growth calls for high investment rate which in turn would require a much improved business environment. Hence, there is the need to improve the business environment appreciably early on, especially in the lagging AMSs.

As technology adaptation and diffusion and innovation are important for productivity growth and long term dynamism of AMSs, it is important

that AMSs take a concerted effort to improve their technological and innovation capability. It is proposed that most, if not all, AMSs belong to the top half of the global innovation index by the latter 2020s. AMSs have been in fact improving in their global rankings in the global innovation index but much more needs to be done.

7. Ensure robust system for food security outlook in ASEAN:

- a. reduce prevalence of undernourishment to less than 5 percent by 2030*
- b. increase AMSs Rice Bowl Index to at least 60 (out of 100) by 2030;*

“We envisionASEAN where hunger, malnutrition, deprivation and poverty are no longer basic problems....”

1997 ASEAN Vision 2020, p.5

Food security is most salient in the face of hunger and undernourishment because the poor and the malnourished are the most vulnerable to food supply and food price shocks. At the same time, food shortages and significant price hikes especially of basic food commodities like rice affect virtually everybody and, as experiences during the past decade show, can have substantial socio-political ramifications. Thus, food security is of particular concern for ASEAN Leaders. It is also an important indicator of the resiliency of ASEAN.

Food security is a multi-dimensional concept wherein “...all people, at all times, have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (FAO). There are four main dimensions of food security, all of them needed to be fulfilled simultaneously; i.e., physical availability of food, economic and physical access to food, food utilization, and stability of the previously mentioned three dimensions over time. Food insecurity can be either chronic or transitory, each of which calls for different approaches to address the insecurity.

We propose two indicators that would help AMSs guide their efforts to engender food security in the region. The first indicator, **Rice Bowl index**, is like a capability indicator that measures the robustness of a country’s system to ensure food security. The second one, **prevalence of undernourishment**,

measures the key challenge of food security which at the household level is starkly brought out by the extent of the problem of hunger and malnutrition. Prevalence of undernourishment is the United Nations' Food and Agricultural Organization (UN-FAO) indicator for "hunger" in the Millennium Development Goals.

There are three more indicators that are also important but which quantitative targets are difficult to make. Two of them, *relative price of food to the general price level*, and *the variability of that relative price of food*, can be expected to be especially important to the already dire poor and malnourished as rising food prices and price hikes have large adverse impact on their well-being. The third is an indicator that provides information on the availability of national and regional safety net arrangements, e.g., APTERR, to address transitory food insecurity. So far, there is yet no adequate measure, say *food safety net index* that captures all the needed information for the third indicator.

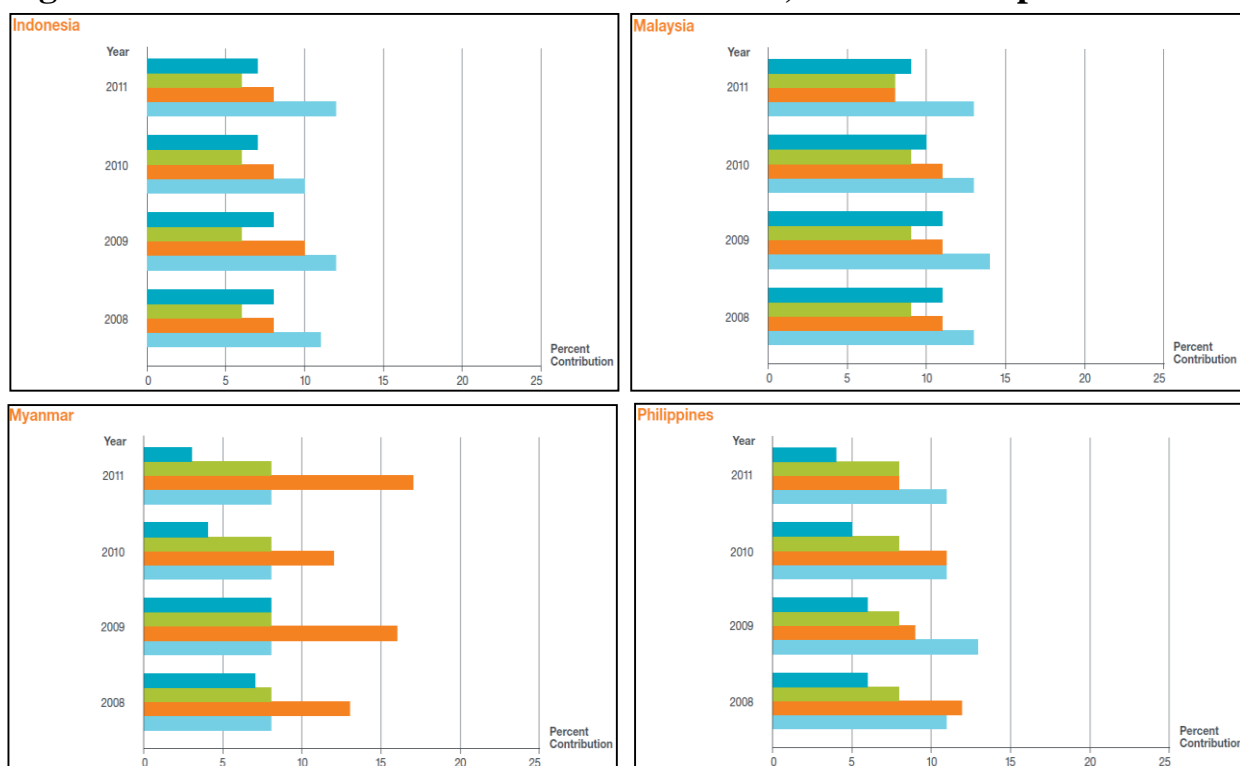
a. Rice bowl index. This is an index developed by Syngenta as an indicator of how robust a country's system is to ensure food security. The index captures four sets of factors, with their own weighted set of indicators (each factor accounts for 25 percent) and with each factor addressing well defined questions (Rice Bowl Index, 2012, pp. 16, 26). The statements below are direct quotations from the Report :

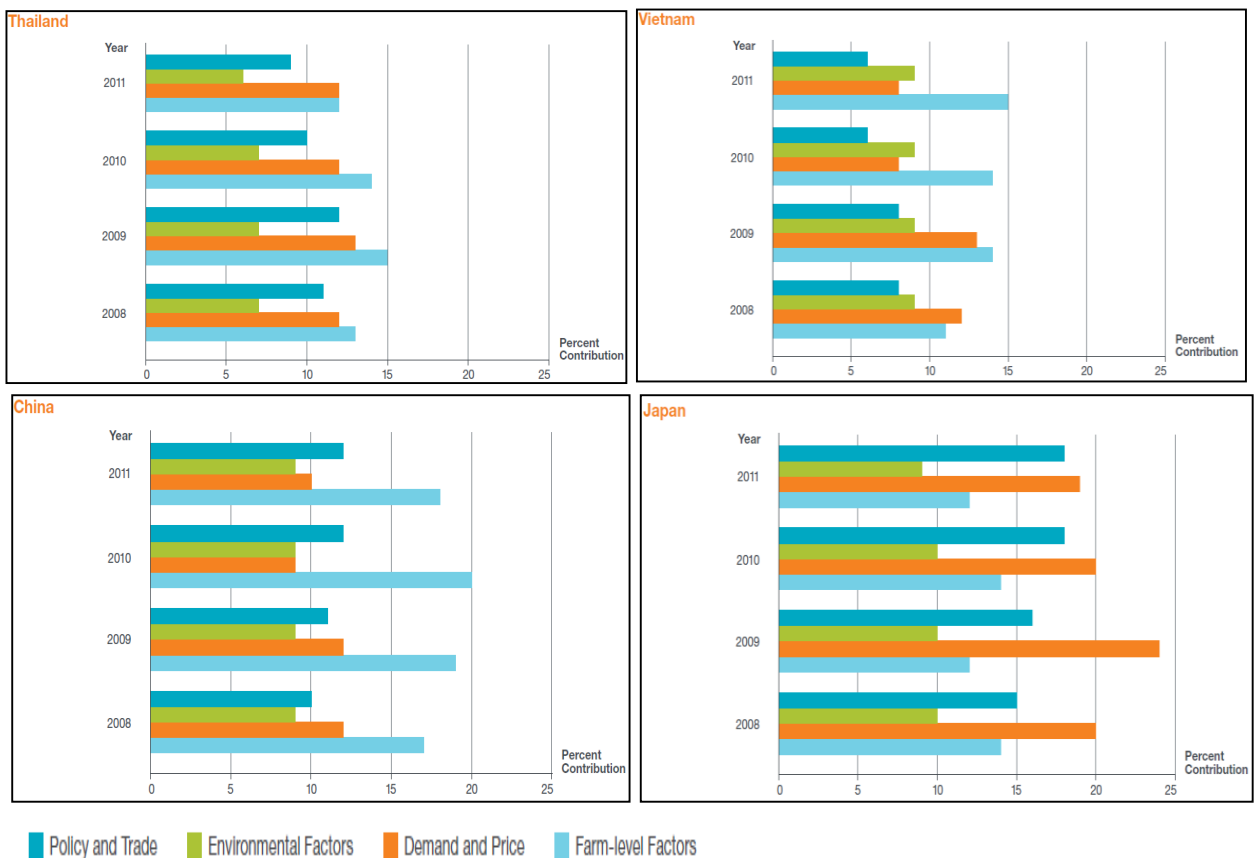
- **Farm level factors (30%):** *Do farmers have the capacity and means to be productive over the long term?* A high score is an indication that the farmers have the capacity and means to be productive.
- **Policy and trade factors (25%):** *Does the trade and policy environment encourage open markets, investment and innovation on an on-going basis?* A high score indicates that the trade and policy environment encourages open markets, investment and innovation in support of food security.
- **Environmental factors (15%):** *Does the environment capacity in the country provide for long-term agricultural productivity and sustainability?* A high score indicates that the environmental capacity in the country is favorable to provide long term agricultural productivity and stability.

- Demand and price factors (30%):** *How are food security needs in the country likely to evolve in terms of quantity, affordability, access?*
 A high score indicates a comparatively low food security pressure resulting from demand and price drivers.

Figure 2A.5 presents the yearly Rice Bowl Indices for selected AMSs, China and Japan for the period 2008-2011. The figure indicates that farm level factors improved while policy and trade factors worsened a little bit in Viet Nam during 2008-2011. For Myanmar, it was demand and price factors that improved while policy and trade factors deteriorated. For the other AMSs, there was no clear pattern of movement among the factors. Nonetheless, it is worth noting that Myanmar and the Philippines have particularly low rating on policy and trade factors, suggesting relatively more protectionist stance on trade and investment in the two countries. Virtually all of the AMSs in the sample have scores that are still very far from the best score; indeed, China and Japan beat AMSs in most of the factors, especially on farm factors and on policy and trade factors (see Syngenta, 2012 for the detailed methodology and results).

Figure 2A.5: Rice Bowl Index for selected AMSs, China and Japan





Source: Syngenta, The Rice Bowl Index Report (2012)

b. Prevalence of undernourishment. Prevalence of undernourishment is the percentage of population estimated to be at risk of caloric inadequacy. It is also the traditional indicator of hunger used by the UN FAO.

As **Table 2A.5** shows, the percentage of undernourishment is still very high in Lao PDR, Cambodia and the Philippines, which are all higher than the world average and the average for all developing countries. The table also shows the remarkable progress in the reduction of undernourishment in Viet Nam, Thailand, and even Lao PDR and Cambodia. Both Brunei and Malaysia have rates of undernourishment that are below 5 percent.

Table 2A.5: ASEAN Member States Ranking and Score in Food Security Indicators

Country	Prevalence of undernourishment (in %)			Domestic Food Price Level Index Volatility (Index)		Food Price Level Index (Index)		Vulnerability Index (Index)*	
	1990-92	2000-02	2010-12	2000-02	2010-12	2000-02	2010-12	2000-02	2010-12
Brunei	< 5	< 5	< 5	11.9	14.1	1.5	1.6	7.7	8.7
Cambodia	39.9	32.8	17.1	28.2	446.3	1.7	1.2	16.7	363.1
Indonesia	19.9	17.4	8.6	165.2	41.2	1.7	1.9	95.1	21.7
Lao PDR	44.6	38.4	27.8	64.6	23.7	2.0	2.2	32.7	10.9
Malaysia	< 5	< 5	< 5	22.6	9.9	1.5	1.6	15.1	6.2
Myanmar	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Philippines	24.2	21.0	17.0	17.1	21.3	1.6	1.6	10.4	13.5
Singapore	N/A	N/A	N/A	6.7	6.8	1.4	1.3	5.0	5.1
Thailand	43.8	17.4	7.3	20.5	16.9	1.6	1.9	13.0	9.0
Viet Nam	46.9	20.9	9.0	30.7	59.0	1.7	N/A	18.4	N/A
China	21.4	14.3	11.5	56.8	41.6	1.5	2.0	38.9	20.9
India	26.9	21.6	17.5	17.3	21.3	1.6	1.6	10.8	13.3
World	18.6	14.9	12.5	11.5	11.9	1.3	1.4	8.8	8.3
All Developing countries	23.2	18.2	14.9	23.7	22.0	1.5	1.7	15.7	12.7

Source: FAO Food Security Indicators (2013)

The other two indicators relate to the price of food and the variability of the price of food, both of which are of particular importance especially to the poor and the undernourished. The table indicates that food prices in AMSs have been rising relative to the general price level, which other things being equal, would make it more difficult for the poor to cope. In addition, in some AMSs, especially Cambodia, Indonesia and the Philippines, food prices relative to the general price level have been comparatively more variable, thereby creating more unexpected shocks to poor households. It is more difficult to have specific targets on the two indicators because they are substantially affected by what would be the state of affairs in the next decade or two. Nonetheless, it is expected that *AMSs would aim to temper the secular rise in food prices and to reduce the variability of the price of food.*

The food safety net set of indicators is yet to be put together. Nonetheless, the major regional food security initiative in the ASEAN, the ASEAN Plus Three Emergency Rice Reserve (APTERR) is already operational. At the national level, the popular food safety net measures involve buffer stocks and emergency reserves. Food for work programs are geared more to address chronic food insecurity, but they can also be used to address transitory food insecurity especially after disasters or in cases of seasonal food insecurity.

8. ASEAN shall aim high to cut energy demand by 10 percent in 2030 and 15 percent in 2035 from energy efficiency improvement.

The Cebu Declaration adopted on the occasion of the Second East Asian Summit on 15 January 2007 in Cebu, Philippines includes:

“WE, the Heads of State/Government of the Member Countries of the Association of Southeast Asian Nations (ASEAN), Australia, People's Republic of China, Republic of India, Japan, Republic of Korea and New Zealand..., declare to work closely together towards the following goals: (1) Improve the efficiency and environmental performance of fossil fuel use; (2) Reduce dependence on conventional fuels through intensified energy efficiency and conservation programmes, hydropower, expansion of renewable energy systems and biofuel production/utilisation, and for interested parties, civilian nuclear power; (3) Encourage the open and competitive regional and international markets geared towards providing affordable energy at all economic levels...”

ERIA and the International Energy Agency (IEA) conducted the special study on energy outlook for Southeast Asia until 2035. The results show that ASEAN has huge potential for energy savings through efficiency improvement. ERIA & IEA (2013) found that ***ASEAN's energy demand could be cut by 10 percent by 2030 and 15 percent in 2035 under an alternative policy scenario relative to the business-as-usual scenario.*** See **Table 2A.6**. The sources of energy saving include the use of more efficient industrial equipment, more efficient power plant, more efficient appliances, and more energy efficient vehicles. To realize the above energy saving

potentials, ASEAN countries would need huge amounts of EEC and LC investments. Thus, policy will and appropriate investment regime are important. Lowering the upfront cost of investments through appropriate financial and support framework at the international level would also help ASEAN countries gain greater access to efficient technologies.

Table 2A.6: Energy demand under Business as Usual (BAU) and Alternative Policy Scenario (APS)

	Energy Demand under BAU Million tonnes of oil equivalent (Mtoe)						Energy Demand under APS (Mtoe)			
	2011	2015	2020	2025	2030	2035	2020	2025	2030	2035
TPED	549	629	718	804	897	1,004	692	753	807	870
Coal	90	118	156	192	232	279	141	163	184	210
Oil	208	230	255	274	293	313	249	263	272	281
Gas	117	136	151	168	186	208	146	158	169	185
Nuclear	-	-	-	4	6	8	-	4	6	8
Hydro	6	9	10	13	16	18	10	13	15	17
Bioenergy	103	108	111	114	117	120	110	112	114	116
Other renewables	25	28	34	40	48	57	34	40	46	53

Source: IEA & ERIA, 2013.

Chapter 2B

Framework towards Sustained High and Equitable Growth in ASEAN

The Report proposes a framework of four key pillars and one strong foundation towards sustained high and equitable growth in ASEAN which thereby allows the region to further move up economically and step up regionally and globally. The four pillars are mutually reinforcing, and the foundational element accentuates the mutual reinforcement among the four pillars. Note that the four pillars deepen, amplify and/or temper the four pillars in the AEC Blueprint 2009-2015.

Framework

To achieve the ASEAN Leaders' vision and the indicative outcomes discussed in Chapter 2A, this Integrative Report proposes a framework consisting of four pillars and a foundation towards the attainment of the "ASEAN Miracle" of ASEAN RISING. The four pillars are similar to, evolved from, and deepen the four pillars of the AEC Blueprint. In addition, the proposed framework includes "Responsive ASEAN" as the strong foundation of the four pillars. To a large extent, this Integrative Report's proposed framework builds on and deepens the *Jakarta Framework on Moving ASEAN and AEC Forward Beyond 2015* that ERIA presented, together with the ASEAN Secretary General, to ASEAN Leaders through H.E. President Yudhoyono during the ASEAN Summit in Bali in November 2011.

Figure 2B.1 summarises the four pillars and one foundation for ASEAN moving forward beyond 2015. The four pillars are:

- Integrated and highly contestable ASEAN
- Competitive and dynamic ASEAN
- Inclusive, resilient and green ASEAN
- Global ASEAN: RCEP and ASEAN voice

The strong foundation supporting the abovementioned four pillars is:

- Responsive ASEAN

Figure 2B.1: Four Key Pillars and One Strong Foundation for ASEAN Moving Forward Beyond 2015



The rest of the section elaborates on the framework which is underpinned by the following key premises:

1. Competitive industries and private sector dynamism are the core of ASEAN economic development.
2. It is best to pursue inclusive and balanced growth through greater reliance on dynamic economic forces tempered by prudent safety net programs, rather than on activist and fiscally unsustainable subsidisation policies and income redistribution programs.
3. The pursuit of sustainable development brings out the complementarity among green growth, energy security and food security.
4. Keep ASEAN centrality in a dynamic pro-active diplomacy.

Note that the four pillars are not independent of each other; in fact, they are highly interrelated. Thus, a key challenge for AMSs and ASEAN is to find that

balance and virtuous cycle among them, given that the measures needed to realize the four pillars are not easy at all. And precisely because the measures are tough, each AMS and ASEAN need to be responsive, bringing in the various stakeholders in the process of regulatory improvement and institution building needed to effect the ASEAN Miracle.

An integrated and highly contestable region (Pillar 1) with robustly growing, expanding and increasingly innovative industrial clusters (Pillar 2) linked more to a vast and robustly growing East Asia arising from a successful RCEP (Pillar 4) and operating under much more improved investment climate and responsive regulatory regime (Responsive ASEAN) can be expected to entice a much larger investment response and engender greater competitiveness in both domestic and foreign markets. This would lead to a markedly higher foreign trade, and ultimately, to higher economic growth and eventual elimination of poverty. Robust agricultural productivity growth, growing SMEs, greater physical connectivity between peripheries and growth centres, the drive for energy efficiency and green development, and greater disaster resiliency (which are all part of Pillar 3) also contribute to greater competitiveness, investment attractiveness, and dynamism of ASEAN (Pillar 2). Such greater competitiveness and dynamism is quantitatively expressed in terms of the increased share of ASEAN to the total FDI, trade and GDP envisioned in the previous sub-section. Thus, the implementation of the four pillars and foundation that comprise the proposed framework can be expected to lead to the attainment of the proposed desired indicative outcomes presented in the previous section.

Pillar One: Integrated and highly contestable ASEAN

“ASEAN Economic Community (AEC): a potential game changer for ASEAN Economies”

S. Hansakul and W. Keng, DB Research, Deutsche Bank, 14 June 2013, p.1

“Catching the ASEAN wave”

T.L. Lim, G.D. Powell and A. Chng, Outlook, 2012 No.1, Accenture

The titles of the two articles in the house publications of two well-known multinationals quoted above probably best sum up the palpable anticipation in the air about AEC and the prospects of ASEAN, dubbed as the “newest hot spot in today’s global business” (Lim, Powell and Chng, 2012, p.7). The reason for the anticipation and optimism is simple: ASEAN is the third largest economy in Asia after China and Japan; ASEAN has the world’s third largest population after China and India; ASEAN has a larger middle class than India; and ASEAN is one of the most robustly growing regions in the world. In short, ASEAN is a large and robustly growing market, offering a large potential for business growth which interestingly is the most important reason for US firms’ expansion in the region as the results of the ASEAN Business Outlook Survey 2014 show.

The challenge is to make ASEAN more of an integrated, nearly single, economy rather than a collection of 10 economies. The reality on the ground at present is more prosaic. Results of the 2009 ERIA survey of firms—both locally owned and foreign owned—show that access to the ASEAN market differs in importance in the firms’ decision to invest and current or future operations. Thus, for example, while the Cambodian firm respondents consider access to the ASEAN market as a marginal factor in their investment decisions and current operations (as Cambodia’s export market shifted to the West), firms in Indonesia and the Philippines consider access to the ASEAN market as a significant factor in their current and future operations. In the case of Singapore firms, access to the ASEAN market was a significant factor in their decision to invest in Singapore as well as in their current and future operations. Similarly, Vietnamese firms are considering ASEAN in their future operations even if it is a minor factor in their current operations. Perhaps, it is the Thai private sector that is most animated by the prospects of an integrated ASEAN as indicated by the conferences and seminars on AEC 2015 being held in the country.

An integrated ASEAN is important to firms in the region. The ASEAN Business Outlook Survey 2014 of the US Chambers of Commerce in the ASEAN reports that about three fourths of their respondents from US companies operating in ASEAN consider ASEAN integration as important to their companies’ business in ASEAN. Similarly, the regular review of the AEC and the list of recommendations of the federation of Japan chambers of commerce and industry in the ASEAN on AEC underscores the fact that the

operations and expansion of production networks by Japanese and other multinationals would be better served by an integrated ASEAN. Indeed, a key strategy for a more competitive ASEAN in this Integrative Report is the deepening of the production networks within ASEAN and with the rest of East Asia.

An ASEAN single market?

Establishing an integrated ASEAN is of course at the heart of the AEC Blueprint for 2009-2015. Indeed, the Blueprint's aim is even more ambitious, i.e., a "single market and production base", the Pillar 1 of the AEC Blueprint. The key strategies under Pillar 1 of the AEC Blueprint reflect ASEAN's ambition, i.e., free flow of goods, free flow of services; free flow of investment; free flow of skilled labour; and freer flow of capital.

What is a single market? What does it entail? There are essentially two ways of assessing what a single market is and what it entails, i.e., either as **process** of economic integration or as the **outcome** of economic integration. As *process* of economic integration, the focus is on the degree of mobility of goods and services as well as factors of production; *a single market means that goods, services and factors of production can move across countries as easily as within countries*. As *outcome* of economic integration, the focus is on the degree of divergence of prices of goods, services and factors of production across boundaries; a single market means the prices of goods, services and factors of production are virtually equalised across countries adjusted for transport cost. Clearly, the idealised conception of single market presented above can only be approximated in reality. The idealised conception in terms of single price from economic integration is virtually impossible to obtain since there are very large gaps in the levels of development among member states in the case of ASEAN. The challenge is how to be as close to the idealised conception as possible because there are significant policy and institutional implications in moving closer to the idealised state.

Single market is usually couched in terms of the process of economic integration; this is the focus of the discussion in the rest of this section. ASEAN implicitly defines "single market and production base" in terms of five core elements, namely, (1) free flow of goods; (2) free flow of services; (3) free

flow of investment; (4) freer flow of capital; and (5) free flow of skilled labour. The ASEAN core elements bring out the core essence of a single market; that is, the movement of goods, services, and factors of production (capital and labour) between member states of a trade bloc is as easy as within the member states themselves. In effect, there are virtually no barriers (especially policy or regulatory based) in the movement of goods, services and factors of production. In so doing, the differences in prices, wages and rates of return would eventually be narrowed as much as possible assuming no changes in technology and comparatively common preferences in the member states.

Thus, to a large extent, the key strategies under Pillar 1 of the AEC Blueprint are consistent with the critical anchors of a single market. Nonetheless, it is in the contents of what the freedoms stated above entail that really define a single market. Here, the European Union (EU) and Caribbean Single Market and Economy (CSME) cases are instructive because, especially with respect to EU, the measures in the AEC Blueprint 2009-2015 fall significantly short of what would be required to have something close to a single market indeed. In this sense, it can be viewed that the measures in the AEC Blueprint 2009-2015 are **measures “towards a single market and production base”**.

The EU single market or *internal market* is the closest to the fundamental essence of a single market. Thus, for example, to ensure free movement of goods, member countries are prohibited not only from levying customs duties but also from imposing import charges that have equivalent effect to customs duties, discriminatory taxation, and quantitative restrictions as well as directly and indirectly discriminatory rules that have the equivalent effect of quantitative restrictions. Member states can only restrict movement of goods on exceptional cases such as risk related to public health, environment, or consumer protection. Similarly, the free movement of services and freedom of establishment means any national or company of a member state can take up any activity in any member state and cannot be discriminated against based on nationality or manner of incorporation.

Additionally, free movement of workers means that workers can move to any other member state and be employed under the same conditions as the nationals of that member state. There is free movement of people wherein EU citizens can live, work, study or retire in any EU member state they so desire. And for the Schengen area, there are no border controls and therefore no physical

barriers to movement within the Schengen area. Note that EU itself considers that the road to a single market is not yet complete, with gaps such as missing legislative pieces, administrative obstacles and enforcement issues still to address. (See the EU Single Market website for an extended discussion of the EU internal market.)

The CARICOM Single Market and Economy (CSME) of Caribbean countries regional integration also aims for a very close approximation of a single market and economy. It includes elements such as right of establishment wherein any CARICOM firm can be established in any other CARICOM member state without restrictions, free movement of labour where all obstacles to intra-regional movement of skills, labour and travel are abolished, social services (e.g., education, health) are harmonised, social security benefits are transferable, and common standards and measures for accreditation and equivalency are established. CSME also has a common external tariff which allows for free circulation within CARICOM of externally sourced goods after proper duties are paid for in the country of first entry. For free movement of goods and services, all barriers are eliminated and standards are harmonised to ensure acceptability of goods and services traded. There are other elements in the CSME including harmonisation of company, intellectual property and other laws, coordination on indirect taxes and budget deficits, harmonisation of foreign investment policies, etc. A number of the key elements have been implemented or partly implemented (see the Caribbean Community Secretariat website for details).

Clearly, based on the above, CARICOM and, of course, EU are much closer to the fundamental essence of a single market than ASEAN is, per the measures included in the AEC Blueprint for 2009-2015. Among others, the current AEC Blueprint is definitely less ambitious than either CARICOM or EU on the mobility of labour as well as on the right of establishment. Similarly, it is also more cautious with respect to standards and conformance, and likely, on non-tariff measures. It is therefore best to view the implementation of the measures included in the AEC Blueprint for AEC 2015 *as the first milestone (or first stage)* on the road to ASEAN's ultimate goal of an ASEAN single market (and production base).

Integrated and highly contestable ASEAN

What then is the **second stage** of ASEAN's road to a single market and production base post 2015? This Integrative Report considers that the second stage is the deepening of ASEAN integration towards an integrated and highly contestable ASEAN but not yet a single market. As the EU and CARICOM cases suggest, there are a number of major policy and institutional changes needed to be done in ASEAN in order to get very close to a single market. These changes include, among others, the right to reside and work anywhere in ASEAN for the eligible skilled workers, the right to provide services temporarily or permanently anywhere in ASEAN for firms and self-employed persons, the establishment of a regional institution to oversee standards harmonisation and conformance assessments (CARICOM), legislated harmonisation on essential requirements where member countries must accept products proven to meet the essential requirements (EU) , harmonisation of social policies or transportability of social security benefits, and the removal of legally binding restrictions to any discriminatory duty, fee, tax or requirement directly or indirectly against imports or provider from another member state.

It is not clear if ASEAN would want to go as deep in economic integration as is demanded by the essence of a single market with the implied major policy and institutional changes needed as discussed above. *ASEAN differs substantially from EU or CARICOM*, making it much more difficult to go completely on single market so soon. The levels of development differ so much among AMSs than among the original EU members which also had much greater impetus for political integration. AMSs are so much bigger compared to the small island nations of the Caribbean where integration into a single market and economy is almost an imperative.

Indeed, it is apparent that at present, there is great hesitancy in ASEAN to go all the way. *Pending clear political decisions in ASEAN to go for a truly single market, the phrase "single market and production base" is really, at least for now, essentially one of "integrated and highly contestable ASEAN"*¹. As will be pointed out in the Report later, ensuring "integrated ASEAN as a production base" would be a productive way towards the eventual

¹ In effect, given the popular usage of "single market and production base", it can still be used in official announcements but liberally interpreted as "integrated and highly contestable" in the transition.

establishment of a “single market” in outcome as well as likely in process. And a “highly contestable ASEAN” is an important support to an “integrated ASEAN as a production base”. Contestability is the ease of entry to and exit from an industry or activity either through market competition or through the prudent application of competition policy in the face of sunk costs and network costs.

Many of the elements towards an “integrated and highly contestable ASEAN” are familiar in the AEC Blueprint; as follows:

- streamlined and non-protective non-tariff measures (NTMs);
- standards and conformance regime that is facilitative of trade;
- greater contestability (and liberalisation) of the services sector and of investments;
- more efficient trade, investment and transport facilitation;
- competition policy;
- greater infrastructure connectivity; and
- greater mobility of skilled labour

Most of the above are in Pillar 1 of the AEC Blueprint 2009-2015. Indeed, most of the suggested actions beyond 2015 are further deepening of the initiatives that are in the AEC Blueprint, on the presumption that it would be unrealistic to expect full implementation of the measures by 2015. Moreover, there is a need to widen the industry reach or deepen the degree of facilitation towards deeper economic integration than what is expected in the AEC Blueprint. The details are discussed in **Chapter 3** of the Report.

An integrated ASEAN as a production base necessitates greater infrastructure connectivity in terms of roads, bridges, seaports and airports, telecommunication facilities, etc. It also calls for more efficient transport and logistics services as well as transport facilitation policies. Hence, the critical importance of contestability and a pro-competitive policy on logistics and transport-related services. Although Pillar 2 of the AEC Blueprint has infrastructural connectivity measures, it is the *Master Plan on ASEAN Connectivity (MPAC)* that presents the more cohesive and compelling strategy of ASEAN to deepen connectivity within the region.

The importance of the complementarity among physical infrastructure, contestable markets (including those of transport and logistics services), and of efficient and coherent regulations and procedures in ensuring an integrated ASEAN as a production base is perhaps best expressed by Indonesia's Ambassador to ASEAN H.E. Ngurah Swajaya's keynote address during the EAS Regulatory Roundtable in Bangkok on 18 July 2013, when he said:

“Good physical infrastructure does not guarantee seamless connectivity if they are not supported by good institutional and people-to-people connectivity...”

The good physical infrastructure combined with regulatory policy coherence has enabled the EU to establish seamless connectivity, effective Single Market and a more competitive production base”.

Chapter 3 discusses in greater detail the key elements needed to have an integrated and highly contestable ASEAN beyond 2015.

Pillar Two: Competitive and Dynamic ASEAN

The fundamental strategy for ASEAN to become a globally competitive region relies on deepening and expanding the network of industrial clusters locally and regionally facilitated by regional connectivity and by ASEAN becoming a major cog of East Asia and global production networks of goods and services. In the forefront would have to be ASEAN-based firms, both local and multinationals, that are increasingly relying on innovation and creativity to become and remain internationally competitive. Ensuring a dynamic and competitive ASEAN involves pushing the frontier of production networks forward, both outward through increased linkages globally as well as inward through the development of industrial clusters and SMEs.

Much remains to be done in the area of innovation as most AMSs, with the exception of Singapore, fall far short of countries like China in investments in research and development. Nonetheless, there are already successes in the region as best exemplified by Singapore, with the apparent model of targeted investment facilitation for innovative multinationals, relatively liberal immigration rules for highly skilled technical personnel, together with the

strengthening of domestic R & D capacity in terms of human resources and infrastructures. Singapore could serve as a possible model for the rest of the region. Similarly, much remains to be done in the ASEAN to develop much more industrial clusters with SMEs in a larger number of commodities.

Dynamic shifts in comparative advantage in the region arising from significant changes in relative wages (in efficiency terms or adjusted for labor productivity) over time allow for ever increasing range of products of, and widening areas in the ASEAN engaged in, exports. Also facilitating the dynamic shifts in comparative advantage in the region is the easy movement of goods, services, people, and capital that an integrated and highly contestable ASEAN entails. This will also allow for the adoption of leapfrogging development strategies by the lagging regions, thereby accelerating further the shifts in comparative advantage in the region. Finally, connectivity, both institutional and physical, towards a seamless ASEAN is an important component of the drive towards a dynamic and competitive ASEAN Economic Community.

Chapter 4 elaborates on the regional production networks under the so-called 2nd unbundling as well as on industrial clusters and how ASEAN can get more integrated in it. The chapter also discusses the dynamics of technology transfer and innovation and the concomitant human capital development that are so central to ASEAN moving up the value chain and maintaining its competitiveness and dynamism. In short, at the core of the challenge towards ASEAN's competitiveness and dynamism is how ASEAN can get firmly plugged into the networked and innovative future that the world would be in.

Pillar Three: Inclusive, Resilient and Green ASEAN

One major characteristic of ASEAN relative to other regions is the very wide gap in the levels of development among the members as compared to, say, EU or even the Latin American Integration Area (LAIA). In some AMSs, income inequality is also large even if it is not as serious as in a few Latin American countries as **Chapter 1** showed. Thus, ASEAN needs to give special attention to inclusiveness in its regional integration program, as evidenced in Pillar 3 of the AEC Blueprint 2009-2015.

Engendering inclusiveness. At the same time, the wide gap in development levels can be used by itself as a growth opportunity since there is a corresponding wide difference in wages across countries. Specifically, the wide gap in wages allows for the expansion and deepening within ASEAN of regional production networks which have been a central feature of industrialisation and economic transformation of a number of East Asian countries, most notably China. Indeed, the opportunity for ASEAN given the diversity of levels of development of the members is that deeper economic integration allows for strengthening synergies among AMSs and East Asian countries, “...bringing the capital and know-how of the more mature economies together with the competitive costs and abundant labor and resources of the less-developed member countries” (Hansakul and Keng, 2013, p.1). The drive towards inclusive growth or equitable development in this Report is biased precisely towards the harnessing of dynamic economic forces rather than through heavy dependence on direct income distribution mechanism based on social considerations.

There are three aspects of inclusiveness for ASEAN; namely, geographic, industrial and societal. There remain significant development gaps in these three aspects of inclusiveness in many AMSs. The more important geographic development gaps involve those between the richer AMSs and the poorer AMSs as well as the richer regions and poorer regions in most AMSs. Industrial inclusiveness concerns multinationals vs. local firms, large firms vs. SMEs, manufacturing vs. agriculture, and others. Societal gaps, meanwhile, pertain mainly to rich vs. poor households as well as differential treatments by age, gender, ethnicity, and others. Note however that engendering geographic inclusiveness and industrial inclusiveness would actually also contribute to societal inclusiveness because the poor tends to be in the rural areas and places with poor physical and institutional connectivity with the growth centers in the countries and region. Moreover, one of the best ways of reducing poverty and income inequality is by raising employment---better still, better paying employment—primarily in the non-agricultural sector, and most of the employers in the non-agricultural sector would be small and medium scale enterprises (SMEs).

Engendering geographic and industrial inclusiveness would largely involve addressing structural problems, policy issues and market failures that lead to

segmented markets geographically, sectorally, and technologically. Thus, for example, an integrated and highly contestable ASEAN would encourage the expansion of regional production networks to the less developed areas as it becomes easier to invest and move goods, on the one hand, and accentuate the potential benefits of lower labour costs and natural resources to investors, on the other hand. This surge in regional production networks-related production in the poorer areas engenders geographic inclusiveness. Similarly, by improving SMEs' access to finance, technology and market information, SMEs would grow, become more linked to production networks and lead to denser industrial clusters that add further avenues for productivity growth. The result is greater industrial inclusiveness, higher employment, and greater domestic production capability to meet market demands from home and abroad.

The pursuit of industrial inclusiveness in the ASEAN will be mainly through the robust growth of SMEs in the region. The robust growth of SMEs is due to two important channels; namely, the expansion in the participation of SMEs in the growth and increase in number of industrial clusters and production networks in the region, and the robust growth of domestic and regional markets themselves that are mainly serviced by SMEs. At the same time, the robust growth of SMEs is in itself an important vehicle for the growth of the middle class in the region, thereby raising domestic and regional demand that further feeds the growth of the region's SMEs.

For the ASEAN latecomers as well as Indonesia and the Philippines which still have large agricultural population, the pursuit of industrial inclusive growth includes not only robust growth of SMEs but also the robust growth and productivity of agriculture. Given that most AMSs have comparative advantage in agriculture and natural resources, the robust growth of agriculture reduces poverty and increases the middle class, thereby contributing further to the growth of domestic and regional demand and therefore to the growth of SMEs (as well as agriculture and farmers' incomes). The robust growth of SMEs and agricultural productivity contributes significantly to high economic growth rate needed to reach at least an upper middle income status and thereby narrow the development gap in the region.

As noted earlier, there is quite a bit of complementarity and overlap in the main strategies to address industrial, geographic and societal inclusiveness gaps.

Thus, for example, the robust growth of SMEs does not only engender industrial inclusiveness but also societal inclusiveness. This is because employment and enhanced labour income flow, mainly from the non-agricultural sector, is one key means of moving out of poverty. And much of the additional employment in the non-agricultural sector comes from robust growth of SMEs. Similarly, agricultural development also engenders geographic inclusiveness as well as societal inclusiveness since the poverty incidence in the rural areas and among agricultural-based households tends to be substantially higher than the national averages and the urban households in many AMSs.

Nonetheless, economic processes would not all address poverty and income inequity. Income mobility requires employability and the latter invariably requires access to good education. Health emergencies can lead to poverty while serious malnutrition adversely affects education capability and therefore hurts inter-temporal income mobility. Thus, there is also scope for targeted basic safety nets that allow the poor to gain greater opportunities for employment and profitable livelihood.

In summary, the four key strategies towards an inclusive ASEAN are the following:

- deeply link peripheries to growth centers;
- raise agricultural productivity and support rural industries; deeply integrate SMEs with other SMEs, large enterprises and multinational firms in domestic industrial clusters and regional production networks; and
- ensure that targeted safety nets are consistent with fiscal capacity (at the national level).

More discussion on engendering inclusiveness in ASEAN is found in **Chapter 5A** of this Report.

Towards resilient and green ASEAN. The first element of enhancing resiliency is energy, food, and resource security. With growing population, expanding industrial sector, advancing urbanisation, and rising standard of living, the demand for energy, food, and resources will surely increase so that stable and ample supply must be secured. In addition, unstable markets of

energy, food, and resources have recently been experienced, and more turbulence is expected in the medium and long run. These shocks are aggravated partially by insufficiently harmonised policies of exporting and importing countries, unwarranted speculation, and insufficient research and development to enhance productivity and develop alternative sources.

There is thus ample room for regional and global cooperation. Such effort may include the following: to secure ample and stable supplies with enhancing efficiency and productivity to meet demand; to keep healthy market mechanism work against speculation; to develop regional inventory stock system for emergency; and to promote regional and global cooperation among exporting and importing countries.

Food security has been a particularly important concern for ASEAN. ASEAN has in fact built one key mechanism for emergency food reserve, i.e., the *ASEAN Plus Three Emergency Rice Reserve* (APTERR). ASEAN has also crafted the ASEAN Integrated Food Security (AIFS) Framework and the Strategic Plan of Action on Food Security (SPA-FS). ASEAN also has the ASEAN Food Security Information System (AFSIS). Nonetheless, it is important for ASEAN to craft an integrated approach to food security, addressing farm-level factors, demand and price factors, policy and trade factors, as well as environmental factors. All of the abovementioned factors constitute the so-called *Rice Bowl Index*. These factors, the index and the framework for food security in ASEAN beyond 2015 are discussed in **Chapter 5A** of this Report.

On energy security, urgent and bold policy measures are required both at the national level and at the regional cooperation aspect. On the supply side, ASEAN should diversify sources of energy and origins of imports and encourage investment in domestic exploration, production, and infrastructure for both fossil energy and alternative energy such as biomass. On the demand side, the efficiency of energy use should drastically be improved. The efficacy of domestic and regional energy markets by removing inappropriate government intervention is also important to improve energy security. There is ample room for reinforcing mechanism to counter emergency situations as well as for keeping sea-lane security. The existing energy cooperation forums under ASEAN, ASEAN+3, and EAS should be strengthened to invigorate

dialogue and cooperation. It is worth noting that the results of ERIA project simulations on the impact of energy conservation on economic growth show that improving energy efficiency in East Asia would raise the economic growth rate of many of the ASEAN member states. The issue of energy for ASEAN and East Asia is tackled in greater detail in **Chapter 5B** of this Report.

Effective disaster management is also important for a resilient ASEAN. ASEAN and Asia as a whole are particularly prone to various kinds of disasters such as typhoon, earthquake, tsunami, drought, flood, volcano activities, and others. Not only natural factors but also human factors affect the frequency and seriousness of damages. Better organisation is required for disaster management in terms of risk identification, emergency preparedness, institutional capacity building, risk mitigation, and catastrophe risk financing. Such effort may include developing a regional cooperation scheme for quick and effective action, exploring a possibility of regional insurance mechanism against disasters, and establishing a comprehensive inter-disciplinary laboratory for disaster management.

The last element of resilient ASEAN is safety nets and social protection. This is also related to inclusiveness pathway. The fruit of economic growth should reach all parts of the society. As economic growth pushes up income and urbanisation proceeds, shifts from traditional types of social protection to modern formal types of social protection are inevitable. Formal social protection becomes essential even for political stability along the path of economic development; otherwise, economic development would not be sustainable. At the same time, because social protection is often accompanied by huge fiscal burden, the development of an efficient system with proper prioritisation and scheduling is needed. This is discussed further in **Chapter 5A** of the Report.

Global warming and other environmental problems have become a big concern shared by a wide range of people in the world, including ASEAN citizens. But because developing countries, including ASEAN, naturally have a strong wish to grow more, there may be a tradeoff with the protection of the environment, particularly in terms of CO₂ emission. Economic growth, industrialisation, and urbanisation, however, have to be prioritised at least in the coming decade in ASEAN. A comprehensive, consistent scenario of how economic growth can

reconcile environment is not well established yet. This is the reason why developing countries, including ASEAN, have only taken a relatively passive stance in promoting green development. However, beyond 2015, ASEAN would have to be an active player in promoting green development by establishing a solid and convincing strategy of reconciling green development with economic growth, industrialisation, and urbanisation.

In the coming decade, CO₂ emission seems to inevitably increase with our strong economic growth. Nonetheless, there are many things that can still be done for better environment without sacrificing economic growth. Some measures would even strengthen competitiveness by enhancing efficiency and responding to a surge of resource costs. As the world increasingly emphasises environmental sustainability, thinking green and sustainability can be an economic opportunity for ASEAN to capitalise on. Examples of likely win-win areas for ASEAN include the promotion of green industries such as renewable energy industries and recycling industries, greening existing industries with better process technologies, promoting energy efficient products, and establishing energy market integration in the region. In the long run, harnessing further technological progress would also be of help. A number of these energy-related initiatives are discussed in **Chapter 5B** of the Report.

Pillar Four: Global ASEAN

Pillar 4 of the AEC Blueprint, *Towards Full Integration into the Global Economy*, is a reflection of ASEAN's deep appreciation that it must be well integrated with the rest of the world just as it works towards a fully integrated and competitive economic region. This is because most of the ASEAN member states trade more with the rest of the world than with the rest of the ASEAN region. Simulation results using a dynamic GTAP model suggest that the benefits to AMSs from economic integration within East Asia are greater than the benefits from economic integration within ASEAN alone (Itakura, 2012).

Of course, ASEAN has been the facilitator and hub of East Asian economic integration as best exemplified by the ASEAN + 1 FTAs that ASEAN has with Australia and New Zealand, China, India, Japan and South Korea. That ASEAN is the facilitator and fulcrum of such economic integration initiatives in the region is remarkable in itself since in the EU and NAFTA, the dominant

economic powers were the ones that led and drove the regional integration processes (see Fukunaga, *et al.*, 2013).

Moving forward, the Regional Comprehensive Economic Partnership (RCEP) is ASEAN's most important initiative in stepping up further regional integration in East Asia as well as ASEAN's major expression of a global ASEAN. RCEP is also the critical complement to ASEAN's efforts to create a well performing ASEAN Economic Community. Especially in the light of the Trans-Pacific Partnership (TPP), a successful conclusion of the RCEP negotiations that effectively raises the regional integration initiatives in East Asia to a higher level while at the same time taking great consideration of the inclusiveness of RCEP in view of the wide gap in development levels of AMSs will be a major challenge for ASEAN. **Chapter 6** of the Report examines a number of issues and explores ways forward towards a credible and successful RCEP. It is important for ASEAN to utilise its strategic location at the geographic heart of the fast-growing developing Asia.

As ASEAN moves up economically, ASEAN may need to step up in the global community of nations, accelerating cooperative relationships with interested dialogue and non-dialogue countries and international organisations. This can foster greater mutual understanding on issues that will influence the region's stability, security and prosperity. By maintaining open and equal relations with various partners, ASEAN can bring in various resources and solidify its position as a leading growth center of the world. ASEAN can also provide inputs to international forums based on its experiences and lessons gained in the process of the AEC establishment and deepening. Based on its issue-oriented approach, especially in the promotion of wider regional FTAs and EPAs, ASEAN can be a central building block for other wider cooperation schemes and can establish balanced relations with other parts of the world.

The challenge is for ASEAN to have a common and artful stance on issues common to the region, when ASEAN itself consists of 10 countries of widely varying levels of development and interests. As Tay (2013) points out, this is not easy but there have been some successful cases for ASEAN. Growing ASEAN voice in the international arena is discussed further in **Chapter 6** of the report.

ASEAN stepping up and raising its voice internationally as well as managing well the challenges of deeper integration post 2015 may call for the peoples of ASEAN to gain a deeper sense of community among themselves in the region. Moreover, it may call for the strengthening of the ASEAN regional architecture in order to facilitate cohesiveness. As the ASEAN Leaders voiced out in the 1997 ASEAN vision 2020 (p. 5):

“We resolve to develop and strengthen ASEAN’s institutions and mechanisms to enable ASEAN to realize its vision and respond to the challenges of the coming century. We also see the need for a strengthened ASEAN Secretariat with an enhanced role to support the realization of our vision.”

Chapter 6 discusses the imperatives for further institutional changes in ASEAN beyond 2015. The chapter also highlights the role that the Track 2 and Track 1.5 mechanisms can play towards the more effective management of the integration process in ASEAN.

Foundation: Responsive ASEAN

In addition to the four pillars articulated above, the framework put forth in **Figure 2B.1** indicates that the four pillars need to stand on a strong foundation of a **responsive ASEAN**. There are two elements of a responsive ASEAN that are of particular interest for ASEAN moving forward beyond 2015.

The first element is something prosaic; e.g., the individual ASEAN member states and ASEAN itself being responsive to the concerns of the business sector, for the simple reason that it is the private sector which is the key motor of a sustained high and equitable growth in ASEAN. The private sector is not monolithic and various segments have different interests. Nonetheless, there are likely areas of commonality among them primarily with respect to issues of corruption, bureaucratic inefficiency, the need for greater inter-agency coordination and policy consistency, and the quality of infrastructure and human capital. In many ways, being responsive to their general concerns involves working closely with them to improve economic governance and to

create a conducive and attractive business and investment environment in the region.

The second element, although related to the first one, is less prosaic and more elemental; i.e., *responsive regulations and regulatory regime*. Regional economic integration necessitates policy and regulatory changes and refinements in most, if not all, AMSs. Indeed, in many ways, the ASEAN Economic Community is a concerted regulatory and institutional improvement process for AMSs. Responsive regulations and regulatory regime involve active listening and engagement of the government with various stakeholders, giving them voice, fair hearing of the dissenters, and building commitments from them. It would involve informed regulatory conversations with the stakeholders that encourage the identification of better solutions to regulatory problems as well as engender the building of coalitions for regulatory improvement and reform.

Responsive regulatory regime involves the design of regulations that are “... responsive to the moves [that] regulated actors make, [and] to industry context and to the environment...” (Braithwaite, 2011, p.475). As such, the challenge is to develop partnerships with stakeholders that engender collaborative capacity building as well as agreements on the pyramid of sanctions in tandem with the pyramid of support that shape the regulatory regime. The end result of all these is supportive in building a high quality regulatory environment wherein the concepts of non-discrimination, transparency and accountability are embedded in the regulatory cultures of ASEAN, similar to the goals of the APEC Leaders when they signed the Implementation of Good Regulatory Practices across APEC Countries (APEC, 2011).

Responsive regulatory regime contributes to efficient regulations and regulatory coherence within a country. “Efficient regulation is no more burdensome than it needs to be to achieve its desired objective. Coherence means that different regulations and procedures do not duplicate each other or work at cross purposes” (Dee, 2013b, p.2).

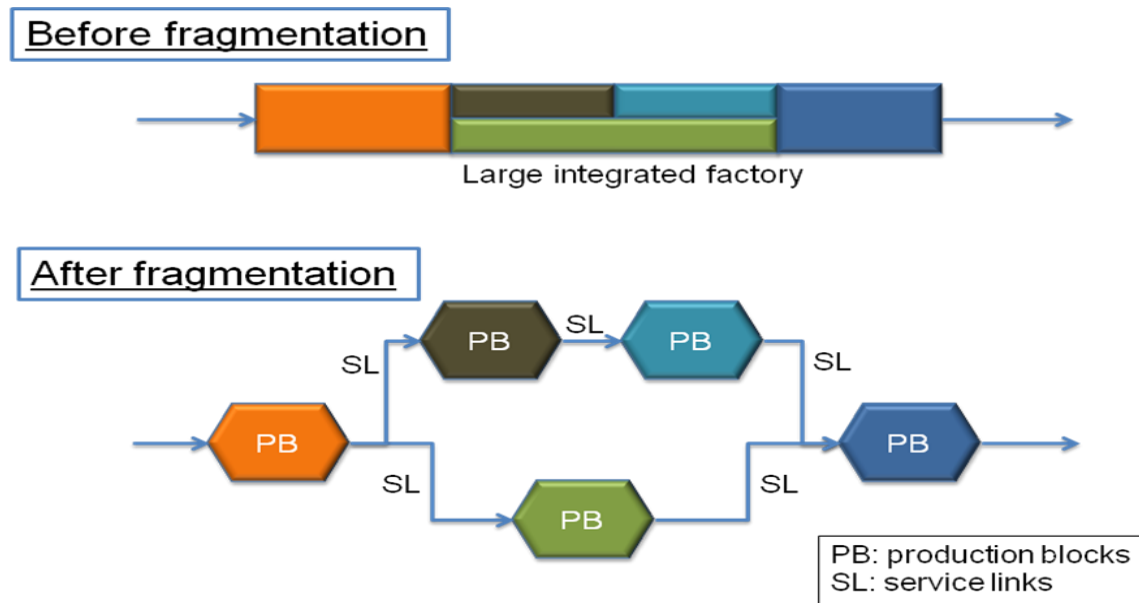
The nature and importance of responsive regulations and regulatory regime, and the corollary initiative of informed regulatory conversations and regulatory coherence are discussed further in **Chapter 7** of the report.

AEC and the Model of Regional Integration and Development in ASEAN

The ASEAN Economic Community is best seen not solely as a regional integration initiative per se but also as a critical cog of a novel East Asian model of development and integration in which ASEAN has been playing a significant role. This model of integration and development is anchored on the formation, expansion and deepening of regional production networks in East Asia driven by flows of direct investment, technology diffusion and trade, and facilitated by more open economic policies in much of the region. At base, this model is anchored on the cost reduction and flexibility and productivity increasing potentials of fragmented production, agglomeration, and firms' decisions in finding the balance between internalisation of production activities and outsourcing them from affiliates and subsidiaries or as arms-length transactions. (See e.g., Ando and Kimura, 2005; Ando and Kimura, 2009; and ERIA, 2010a.)

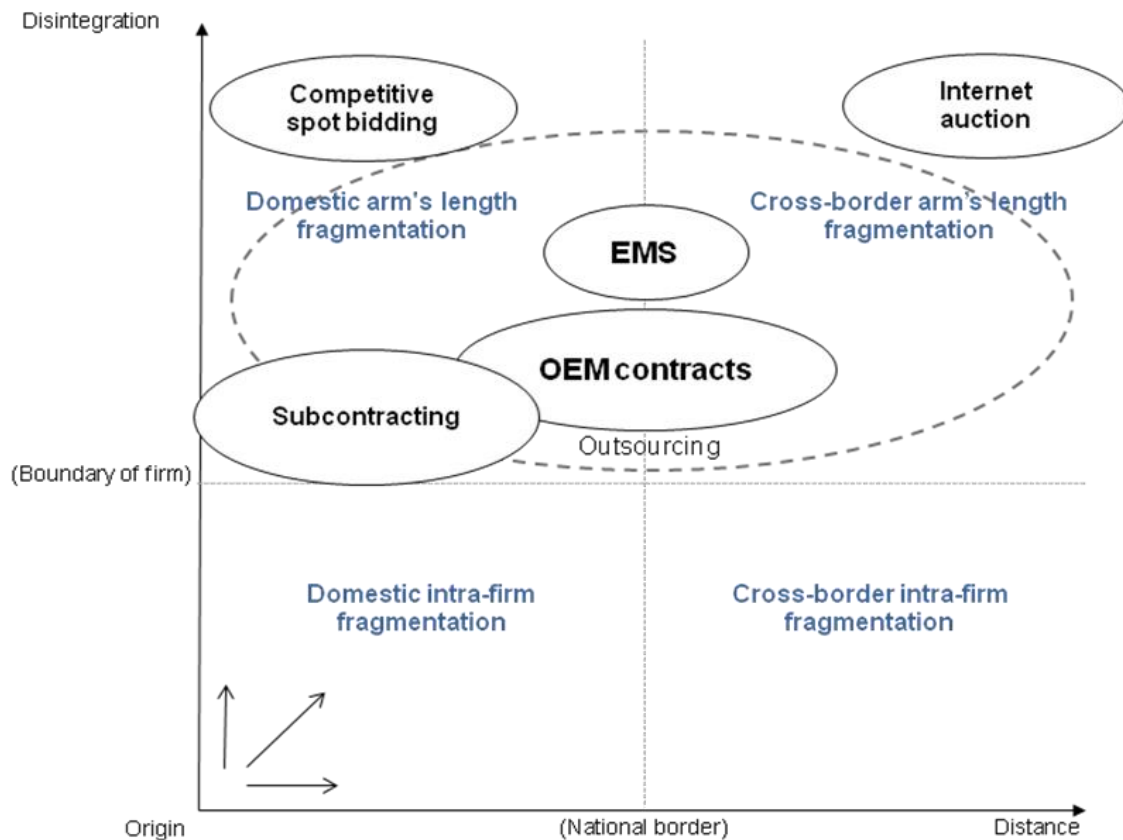
The formation of regional production networks starts with the replacement of vertically integrated production with production fragmented into “production blocs” which are tied together by “service links” provided by the private sector and the government (see **Figure 2B.2**). When the cost saving from lower production costs in the production blocs are large and the service link costs are small, then production fragmentation is viable and can occur if the production processes could be separated technically (ERIA, 2010a). (The separability of processes is a major reason for the popularity of fragmented production in, say, machinery industries but not in, say, chemical industries.) Service link costs are affected by coordination costs, transport costs and trade barriers, including the efficacy of customs and import/export clearances.

Figure 2B.2: The fragmentation theory: Production blocks and service links



The fragmentation into blocs allows for the differentiation in the location of the production blocs to different countries, for instance, based in part on significant differences in factor costs, efficiencies and capabilities. Fragmentation does not only have a geographic or spatial dimension but also an intra-firm/inter-firm dimension; that is, the firm decides which activities it will undertake itself and which activities it will rely on arms-length transactions with other firms located either nearby or in other countries.

Figure 2B.3: Two-dimensional fragmentation: An illustration



Source: Kimura and Ando (2005), reprinted from ERIA (2010a)

The geographic or spatial dimension and the intra-/inter-firm dimension leads to four sets of fragmentation and relationships as seen in **Figure 2B.3** taken from ERIA 2010c. They include:

- Domestic intra-firm fragmentation, e.g., two plants instead of one integrated plant
- Cross-border intra-firm fragmentation, e.g., foreign subsidiary plants
- Domestic arms-length fragmentation that can rely, for example, on domestic subcontracts or competitive bidding. Cross-border arms-length fragmentation, e.g., foreign subcontracts

Just-in-time operations or operations that require high level of supervision by scarce highly trained personnel would likely call for clustering of plants and firms, including firms in arm's-length transactions, within a reasonable short distance from one another. Activities that are not needed for just-in-time operations or are much more standardised could be located in geographically far countries with lower labour costs, the plants being either foreign subsidiaries or third party providers.

The fragmentation of production provides an avenue for developmental or growth strategies. Because firms have some flexibility on how to cut out their production blocs so as to exploit differences in location advantages in various areas, host countries may seek niches of location advantages for each production bloc. Note that the location decisions of the firms have corresponding implications on foreign direct investment as well as the potential for technology transfer and spillovers. The degree of technology spillover is affected by the technology absorption capability of host countries and their firms. It is this dynamic of investment-technology flow-trade nexus embedded in production fragmentation and regional production networks that has given East Asia a tremendous growth and industrialisation boost during the past three decades. In effect, this is the new developmental model spearheaded in East Asia.

There is a concomitant geographic layering in the involvement of various countries and areas because service link costs are sensitive to geographic distance. The CADP (ERIA, 2010a, p. 12) provides a three-tier classification of areas and countries in terms of their participation in regional production networks, vis:

- ***Tier 1 areas/countries:*** those that are very much in the production networks and where there are already industrial clusters that allow for high frequency production linkages (i.e., just-in-time operations).
- ***Tier 2 areas/countries:*** those that are not yet fully integrated in the production networks and domestic industry clusters are still nascent.
- ***Tier 3 areas/countries:*** those that will likely not participate in high frequency production networks linkages but where production networks can provide a basis for industrial development albeit of low-frequency linkages.

East Asia has the most sophisticated regional production networks in the world because the networks tend to cover a large number of countries involving both intra-firm and arms-length transactions, in contrast to the typical “back and forth, closed loop, intra-firm” (ERIA, 2010a, p.6) transactions in NAFTA between headquarters in, say, the US and its plant (s) in Mexico. The significant differences in factor prices in the different countries in East Asia (as compared

to NAFTA) allow for the finer fragmentation that effectively utilises the differences in factor prices and productivities as well as location advantages.

What has given the regional production networks a development and growth significance is that economic activity involving regional production networks has been a significant segment of the economies of a number of East Asian countries. Equally important is that these countries have aggressively encouraged investment of firms, including SMEs, engaged in regional production networks.

What can facilitate the joining, expansion and deepening of a country's participation in regional production networks? **Table 2B.1** presents a matrix of policies supporting both fragmentation and agglomeration (Ando, 2013; ERIA, 2010a):

The policies in support of production fragmentation across firms and therefore encourage industrial agglomeration include:

- Reduce investment costs such as investment facilitation, easier start-up of firms, address corruption
- Overcome geographic distance and border effects, e.g., elimination of tariff and non-tariff barriers; improved trade and transport facilitation; improved physical connectivity; competition policy; standards and conformance
- Raise location advantages, e.g., upgrading of infrastructure and logistics services; liberalisation of production-supporting services

The policies in support of production fragmentation across countries are the policies that:

- Reduce network set-up costs of arm's length linkages: e.g., business matching between MNCs and local firms
- Reduce the cost of implementing arm's length transactions, e.g., strong legal protection of contracts, dispute settlement mechanism
- Strengthen the competitiveness of potential business partners, e.g., SME development; strengthening of innovation capacity and environment, including Intellectual Property Rights (IPR).

Table 2B.1: The 2x3 policy matrix fragmentation and agglomeration

	Reduction in fixed costs to develop production/distribution networks	Reduction in service link costs connecting production blocks	Further costs reduction in production cost per se in production blocks
Fragmentation along the distance axis	Policies to reduce investment costs	Policies to overcome geographical distance and border effects	Policies to strengthen location advantages
	<ol style="list-style-type: none"> 1) improvement in stability, transparency, and predictability of investment-related policies; 2) investment facilitation in FDI-hosting agencies and industrial estates; and 3) liberalisation and development in financial services related to capital investment. 	<ol style="list-style-type: none"> 1) reduction/removal of trade barriers such as tariffs; 2) trade facilitation including simplification and improved efficiency in custom clearance/procedures; 3) development of transport infrastructure and improved efficiency in transport and distribution services; 4) development of telecommunication and ICT infrastructure; 5) improved efficiency in financial services related to operation and capital movements; and 6) Reduction in costs of coordination between remote places by facilitation of the movement of natural persons. 	<ol style="list-style-type: none"> 1) establishment of educational/occupational institutions for personnel training to secure various types of human resources 2) establishment of stable and elastic labour-related laws and institutions; 3) establishment of efficient international and domestic financial services; 4) reduction in costs of infrastructure services such as electricity and other energy, industrial estates services; 5) development of agglomeration to facilitate vertical production chains; 6) establishment of economic institutions such as investment rule and intellectual property rights; and 7) Various trade and investment facilitation.
	Reduction in fixed costs to develop production/distribution networks	Reduction in service link costs connecting production blocks	Further costs reduction in production cost per se in production blocks

Fragmentation along the disintegration axis	Establishment of economic environment to reduce set-up costs of arm's length transactions	Development of institutional environment to reduce the cost of implementing arm's length transactions	Policies to strengthen competitiveness of potential business partners
	<ol style="list-style-type: none"> 1) establishment of economic system to allow co-existence of various business partners as well as making various types of contracts; 2) various policies to reduce costs of information gathering on potential business partners; 3) securing fairness, stability, and efficiency in contract; and 4) establishment of stable and effective institutions to secure intellectual property rights. 	<ol style="list-style-type: none"> 1) policies to reduce monitoring cost of business partners; 2) improvement in legal system and economic institutions to activate dispute settlement mechanism; and 3) policies to promote technical innovations in modulation to further facilitate outsourcing 	<ol style="list-style-type: none"> 1) hosting and fostering various types of business partners including foreign and indigenous firms; 2) strengthening supporting industries; and 3) Various policies to promote the formation of agglomeration.

Source: ERIA, 2010a.

The list of policies above clearly indicates how important the ASEAN Economic Community and its measures are for the full blossoming of regional production networks in ASEAN as a growth and development engine for the region. Virtually all the key measures in the AEC Blueprint are meant to reduce network set-up costs, reduce service link costs, improve location advantages, and encourage more arm's length transactions among multinationals, between multinationals and local firms, and among local firms. It is also apparent from the list that there are policy areas that are not yet well captured or articulated in the current AEC Blueprint, 2009-2015. These are some of the unfinished business for AEC beyond 2015.

In short, there is congruence between the drive towards AEC and the new development and integration model discussed above. This synergy can be expected to catapult **RISING ASEAN** to further heights of development and international credence.

Chapter 3

Integrated and Highly Contestable ASEAN Towards a Single ASEAN Market and Production Base

The previous chapter brought out that it is best to view the next decade and a half post 2015 as the next stage, after AEC 2015, of ASEAN's drive towards an eventual single market and production base, considering that there are tremendous policy and institutional changes among the AMSs and ASEAN that need to be done to become a truly single market indeed. This next stage is for ASEAN to become an integrated production base and a highly contestable market. This is consistent with the gradual and evolving approach of ASEAN to deeper economic integration in the region.

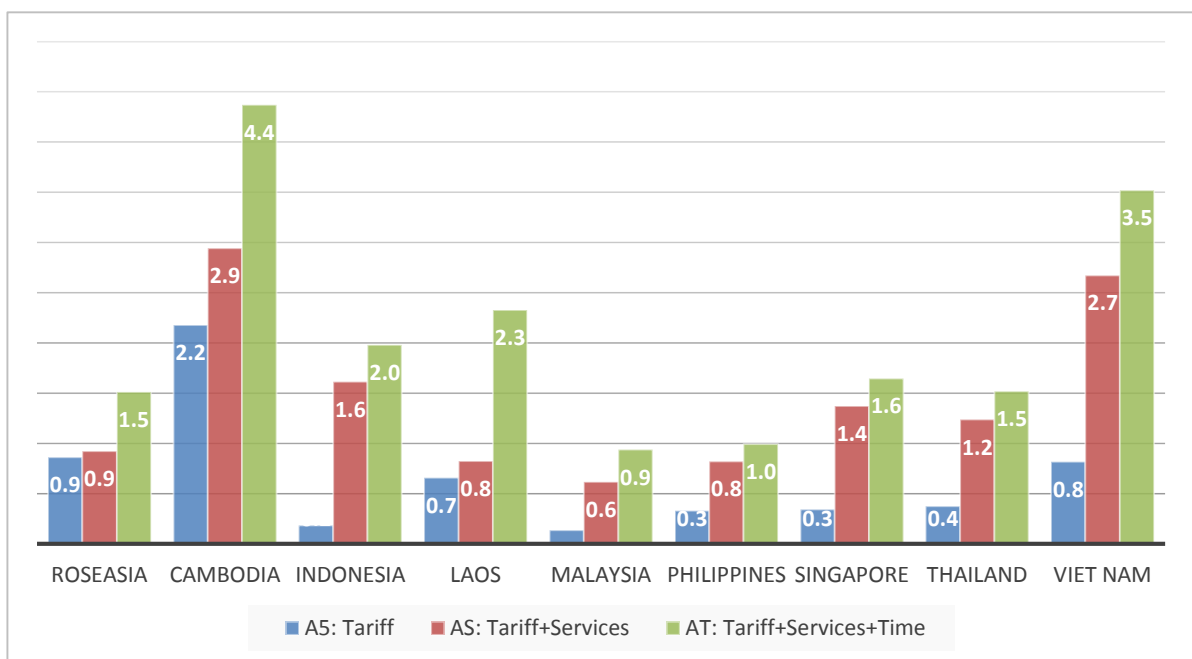
The second stage of ASEAN economic integration, post 2015, is consistent with the new model of economic integration and development that has been actually evolving in, and driving to a large extent, the robust economies of developing East Asia. This new model is anchored on production networks and the accompanying dynamic of investment, technology diffusion, spatial linkages, and international trade. To a great extent, the imperatives for an integrated and highly contestable ASEAN provide the platform for the expected flowering of local clusters and regional production networks in ASEAN and thereby help propel the region to sustained high and relatively equitable growth.

This chapter discusses the key elements, and the corresponding ways forward, towards an integrated and highly contestable ASEAN.

Simulation results of the economy wide impact of ASEAN economic integration under AEC, using a dynamic GTAP model, indicate that there is substantial economic benefit to all the ASEAN member states from the

elimination of intra-ASEAN tariffs on goods and even more from the reduction in barriers to intra-ASEAN services trade and from much improved efficiency in trade facilitation within the region (Itakura, 2012). The potential benefits are largest in the new and less developed ASEAN members because they have the highest average tariff rates, higher implied barriers in services, and more constrained facilities for trade facilitation in the early 2000s which was the base period of the simulation exercises (see **Figure 3.1**). These simulation results are likely conservative estimates as most computable general equilibrium results tend to be because they do not adequately capture substantial changes in investor expectations as well as productivity improvements that an integrated production base brings. And if the statements of the private sector that the “AEC is a game changer” and that investors need to “catch the ASEAN wave” (as highlighted in the previous chapter) are any indication, then it is likely that the potential benefits of deeper economic integration in the region could be larger than what the simulation results suggest.

Figure 3.1: Impact on GDP (Cumulative Percentage Increase over Baseline 2011-2015 in 2015)



Source: Itakura (2012)

Thus, the drive towards an integrated and highly contestable ASEAN, as a major stepping stone to an eventual ASEAN single market and production base in the future, is worth undertaking. Indeed, this net beneficial effect is the implicit promise of the ASEAN Economic Community Blueprint. As indicated

in the ASEAN Economic Community Blueprint, there are many things that need to be worked on towards an integrated and highly contestable ASEAN economy. This chapter discusses them and provides recommendations for the way forward.

Tariffs

The elimination of tariffs is the basic requirement of any regional economic integration initiative. This is almost fulfilled in ASEAN. The average intra-ASEAN tariff for ASEAN-6 countries has barely been 0.05 percent since 2010. The average intra-ASEAN tariff for CLMV countries in 2012 was 1.69 percent and is expected to decline further going into 2015 and, for Cambodia, into 2017 for its imports of unprocessed agricultural products as listed in Schedule D of ATIGA. The list of excluded commodities under Schedule H of ATIGA is tiny and tends to be marginally traded and highly controlled commodities for security or religious reasons. The significant deviation from the total elimination of tariffs is the list of unprocessed agricultural commodities in Schedules D and E of ATIGA, perhaps best exemplified by the politically sensitive rice and sugar. Nonetheless, most of them would be within the 0-5 percent tariff range. Thus, on the whole, ASEAN has essentially succeeded in fulfilling the tariff elimination basic requirement of an integrated regional economy.

Non-Tariff Measures/Non-Tariff Barriers

With the virtual elimination of tariffs, it is non-tariff measures (NTMs) that are of growing policy concern. This is because they have the potential to be measures for trade protection (and hence non-tariff barriers) but are much less transparent and more complex. NTMs cover a wide range of regulations that can have impact on the volume or pricing of international trade in goods, either intentionally (hence called non-tariff barriers) or, in most cases, unintentionally or indirectly. Indeed, most NTMs have primary objectives that are different from trade protection, e.g., for health or food safety or environment reasons. Given such legitimate objective, the challenge is to ensure that such NTMs do not unnecessarily affect international trade adversely. However, the line between NTM and an NTB is not always clear-cut as in the case of a deliberately discriminatory standard because different stakeholders may have

different views on the appropriate level of safety standard (Cadot, Munadi and Ing, 2013, p.5).

Because of the diversity and complexity of NTMs, there is yet no comprehensive and comparable data set on NTMs, unlike tariffs. NTMs are the mandate of many government agencies without a coordination mechanism for effective data collection (Cadot, Munadi and Ing, 2013, p.8). Moreover, the international classification system of NTMs has been changed recently, with so many countries still not having been transliterated to the new classification. Moreover, the current system of voluntary official reporting of new NTMs is weakened by an incentive problem, resulting further in the substantial uncertainty on the universe of NTMs operative in the world, and by extension, also in the ASEAN.

Using the old UNCTAD classification system, the current publicly available ASEAN database on NTMs (2009 database) shows that Indonesia and Malaysia have the largest number of NTMs while Singapore and Cambodia have the fewest. Moreover, the results of the analysis of the Mid-Term Review of the AEC Blueprint (ERIA, 2012a) show that the two countries have the highest incidence of “core NTMs”, the measures that are likely more prone to their use for trade protection, e.g., non-automatic import licensing, quotas, prohibitions and monopolistic measures. There is a marked use of non-automatic import licensing in a number of AMSs, with the exception of the Philippines (which has largely technical measures), Thailand (automatic licensing and wide range of technical measures) and Viet Nam (which uses mainly prohibitions of sensitive products). A few AMSs also tend to use not just one NTM in a sector but two or three or more NTMs. Among the more “sensitive” sectors because of the multiple use of NTMs are agriculture products (especially in Indonesia, Thailand, Malaysia and Singapore), as expected, chemicals and allied industries (especially Malaysia and Indonesia), machinery and electrical machinery (especially Indonesia, Singapore and Viet Nam) and transport (especially Viet Nam).

Cambodia and Indonesia were covered in a recent multilateral survey of NTMs using the new classification system. The results of the multilateral survey show that (a) there is widespread use of NTMs globally, (b) Indonesia and especially Cambodia have moderate incidence of NTMs as compared to many low income

countries, Japan and especially the EU , (c) sanitary and phytosanitary (SPS) measures and technical barriers to trade (TBT) are heavily used, with the former primarily on agricultural products and the latter, on agricultural-based products, textile and clothing, footwear as well as beverages and tobacco (Cadot, Munadi and Ing, 2013), and (d) NTM incidence tends to be heavier on sectors that are also more protected by tariffs (Gourdon and Nicita, 2012,p.77). The last result becomes salient for policy with tariffs declining, as the protective use of NTMs becomes more apparent.

Cadot, Munadi and Ing explored the severity of the price-raising effect of NTMs imposed by a number of ASEAN countries with data that are classifiable under the new multilateral NTM classification system, i.e., Cambodia, Indonesia, Lao PDR and the Philippines (see **Tables 3.1a** and **3.1b**). The results suggest that the NTMs have substantial price raising effects in a number of sectors such as foodstuffs, textile and clothing, footwear as well as chemicals and machinery. The authors caution that the results are *very preliminary* and need to be interpreted with *utmost caution*. Nonetheless, the results do indicate the following:

- The statistical results for those sectors with large price raising effects would call for case studies to validate the statistical results;
- It is useful to collect data on NTMs consistent with the new multilateral classification system; and
- The statistical results show one way to determine the severity of the NTMs and therefore provide a basis for the prioritisation of NTMs for review and streamlining.

Indeed, in view of the significance of NTMs as potential major constraints to an integrated ASEAN Economic Community, addressing and streamlining NTMs is of primary importance.

Table 3.1.a: Price-based Estimates of AVEs: Indonesia and the Philippines

Sector	SPS (A)		TBT (B)		Procedures (C)		Price measures (D)		QRs (E)	
	ID	PH	ID	PH	ID	PH	ID	PH	ID	PH
Animals	27.8	14.7	19.5	13.9	15.4	14.9	10.6	11.9	17	17
Vegetables	29.9	16.5	10.4	7.5	9.9	9.3	15	15.1	10.8	11.3
Fat & oils	11.2	7.3	10.9	2.6	9.7	17.6	16.3	16.7	5.5	5.5
Beverages & tobacco	9	8.7	17.1	8.3	9.5	6.3	13	14.1	11	11.3
Minerals	12.4	13	27.4	18.7	17.5	14.4	21.2	19.1	6.8	6.8
Chemicals	14.7	14.9	16.6	12.3	8.5	7.2	9.4	9.9	9.7	11
Plastics	18.5	17.7	14.6	12.8	7.6	9.3	10.7	10.2	6	7.7
Leather	24.6	20.4	12.2	19.9	32.9	35.1	12.7	14.9	7.9	8.1
Wood products	27.4	24.3	5.7	6	9.1	12	7.6	11.9	14	14.3
Paper	17.1	17	15.8	9.1	7.5	6.2	24.6	25.2	11.2	9.7
Textile and clothing	33.8	33.5	8.5	5.4	26.9	18.3	10	10.5	15.2	14.4
Footwear	47.1	48.5	21	15.7	23.7	24	16.7	9.5	10	14.6
Stone & glass			21.9	19.2	21.1	14.1	17.9	18.6	18.1	18.6
Pearls			24.4	30.7	16.3	28.2	-	2.6	15	14.7
Metals			22.3	8.8	11.4	10.7	8.3	8.6	6.7	6.7
Machinery			15.7	15.3	14.2	13.6	5.2	5.2	23.2	22.8
Vehicles			18.6	15.6	16.8	18.3	8.3	9.5	24	28.1
Optical & med. Instr.			21.6	19.8	18.5	19.4	2	2	19.9	16.4
Arms			38.3	19.9	4.9	14	-	-	6.3	5.9
Miscellaneous			21.3	18.5	8.8	9	14.4	13.5	14	13.5

Note: AVEs are in percent. Negative AVEs have not been taken into account in calculating section averages. Results are not altered drastically if they are included.

Source: Cadot, *et.al.* (2013).

Table 3.1.b: Price-based Estimates of AVEs: Cambodia and Lao PDR

Sector	SPS (A)		TBT (B)		Procedures (C)		Price measures (D)		QRs (E)	
	KH	LA	KH	LA	KH	LA	KH	LA	KH	LA
Animals	23.1	26.8	17.7	17.2	15.1	14	9.8	9.6	16.6	16.6
Vegetables	19.4	22.4	8.9	9.5	10.3	9.8	15.3	13.7	10.6	10.2
Fat & oils	11.3	7.8	2.4	3.2	11.3	12.6	16.5	16.5	6	5.5
Beverages & tobacco	13.4	38.7	14.8	15.2	7.7	7.8	13.2	12.7	12.7	10.7
Minerals	13.7	14.8	22.3	23	16.1	18.4	18.9	19	6	6.4
Chemicals	15.7	15.9	13.5	13.6	15.8	9.5	9.8	9.9	10.5	10.3
Plastics	18.5	18.4	14.8	14.9	7.5	7.7	10.7	10.2	7.1	6.7
Leather	21	20.9	18.8	18.2	33.9	34.3	15.1	15	7.9	7.9
Wood products	25.9	25.9	6.7	6.7	12.4	14.7	7.7	9.7	12.3	14.1
Paper	18.3	18.3	13.1	14.1	6.9	35.9	31.2	24.3	9.7	9.4
Textile and clothing	34.1	33	5.5	5.5	19.1	35.8	10.3	10.2	14.1	13.5
Footwear	47.4	47.6	15.6	14.6	22.9	42.7	13.4	15.6	14.7	12.7
Stone & glass			22.3	22.9	16.4	17.4	17	17	17.5	16.3
Pearls			24.8	26.8	19.3	32.2	2.6	2.6	15.2	15.1
Metals			10.2	10.7	12	45.7	8.2	8.2	6.8	6.4
Machinery			19.5	15.9	13.8	43.1	5.2	5.1	23.1	21.9
Vehicles			17.2	17.6	34.9	36.8	6.3	9.3	33.6	21.5
Optical & med. Instr.			20.3	19.9	18.9	21.9	2	2	16	16.6
Arms			19.1	19.1	12.1	20	-	-	6.7	6.7
Miscellaneous			21.4	21.5	10.8	16.9	15.7	14.4	14.2	11.5

Note: Negative AVEs have not been taken into account in calculating section averages. Results are not altered drastically if they are included.

Source: Cadot, *et.al.* (2013).

Addressing and streamlining NTMs: Ways forward.

ASEAN economic officials have been cognisant of the potential of NTMs as serious impediments to the success of the ASEAN Economic Community. ATIGA article 40 ensures transparency of NTMs such that new measures or modification to existing measures need to be duly notified in accordance with the ATIGA agreement on notification (Article 11). ATIGA Article 41 calls for the general elimination of quantitative restrictions vis-a-vis other AMSs except in accordance with WTO rights and obligations and/or other provisions of ATIGA. ATIGA Article 42 endeavours AMSs to review NTMs in the database to identify NTBs for elimination.

Given the wide range of NTMs, ASEAN assigns various classes of NTMs to different ASEAN committees and working groups, as follows:

- Technical barriers to trade: ASEAN Consultative Committee on Standards and Quality (ACCSQ)
- Sanitary and phytosanitary (SPS) measures; ASEAN Committee on Sanitary and Phytosanitary (AC-SPS)
- Import/export and customs related: ASEAN Directors-General of Customs
- Overall: Coordinating Committee for the Implementation of ATIGA (CCA)

Despite the clear vision in the AEC Blueprint, addressing and streamlining NTMs is easier said than done. Thus, for example, addressing technical measures and regulations like TBTs involves a complex set of regional mutual recognition agreements, corresponding regulatory changes at the national level, and improvements in conformity assessment capabilities and credibility.

Nonetheless, ASEAN has been continuing its efforts to address and minimise the NTB effects of NTMs. The challenge is to strengthen further the efforts to streamline NTMs. The following are the five major areas of intervention:

1. ***Institutionalised consultation mechanism.*** Currently, ASEAN has a G-to-G consultation mechanism under the so-called “Matrix of Cases” where an AMS or a group of AMSs can raise issues or concerns about government measures or regulations by another AMS (or AMSs) because they have adverse (actual or expected) effects on their (mainly) exporters. This mechanism has had a measure of success in terms of better information and understanding of the concerned measures or regulations, refinement or revision in a few of the measures or regulations, and eventual resolution in a significant number of the cases. While the venue of airing of the concerns is a regional body, cases are resolved bilaterally among AMSs.

The publicly available matrix lists 65 cases. The cases center around certification and import permits requirements and processes, length involved in import, SPS or permits processing as well as testing and verification, standards, documentary requirements, and designation of import entry ports. To some extent, they validate the findings of the

recent multinational study on NTMs which show the high incidence of SPSs and TBTs globally. The 65 cases also tend to be operational and nitty gritty issues, rather than policy issues per se.

As economic integration and trade linkages deepen further in ASEAN, there is a great likelihood of even much larger number of trade cases that wait to be resolved. As such, *ASEAN may need to establish a more continuing body under CCA* to be able to effectively handle such issues that involve NTMs in the region, or to *fully operationalise the ASEAN Consultation to Solve Trade and Investment Issues (ACT)*.

2. *Effective Monitoring and Transparency Mechanism on NTMs.*

ASEAN can use the drive towards the global implementation of the new multilateral classification of NTMs as a springboard for an *exhaustive inventory of NTMs in the region* following the new classification system. Note that NTMs are the purview of many and disparate government agencies in most of the AMSs. It would not be surprising if previously, there was incomplete listing of all the NTMs especially by the newer and poorer AMSs because of the lack of a coordinating body that has a comprehensive data base of regulations and policies of many agencies and which would have trade implications. The exhaustive inventory of NTMs using the new classification system can then form part of the *ASEAN Trade Repository (ATR) as well as the National Trade Repository in each AMS*. The inventory and the ATR form as important building blocks of an effective NTM monitoring mechanism in the ASEAN. The Common Market for Eastern and Southern Africa (COMESA) has set up an *NTB monitoring mechanism that relies on the private sector for feedback* on issues and measures with NTBs instead of the member countries (Cadot, Munadi and Ing, 2012) as is used in ASEAN's "matrix of actual cases". ASEAN may like to explore this mechanism in addition to the inventory of NTMs stated above, either as a complement to ACT or as part of the work of ACT.

3. *Analysis of NTMs for Streamlining Prioritisation.* Given the inventory of NTMs discussed above, it is worthwhile to have a review of NTMs for possible prioritised streamlining. The matrix of cases and the NTB

monitoring based on private sector feedback are possible approaches at prioritisation of NTMs for streamlining. However, a more systematic approach at prioritisation is the statistical analysis-cum-case study on key industries. The statistical analysis similar to the one undertaken by Cadot, Manudi and Ing (2013) will provide indications on what NTMs have serious price increasing impact in which industry. The results of the statistical analysis, together with consultation with the private sector and case studies, will thus provide some basis for determining which industries and which NTMs need to be given priority for possible streamlining. This industry approach provides a more systematic review of NTMs and can be added to the current “matrix of cases” approach for an effective program of streamlining NTMs in the region, focusing on NTMs with revealed large trade barrier and price raising effects.

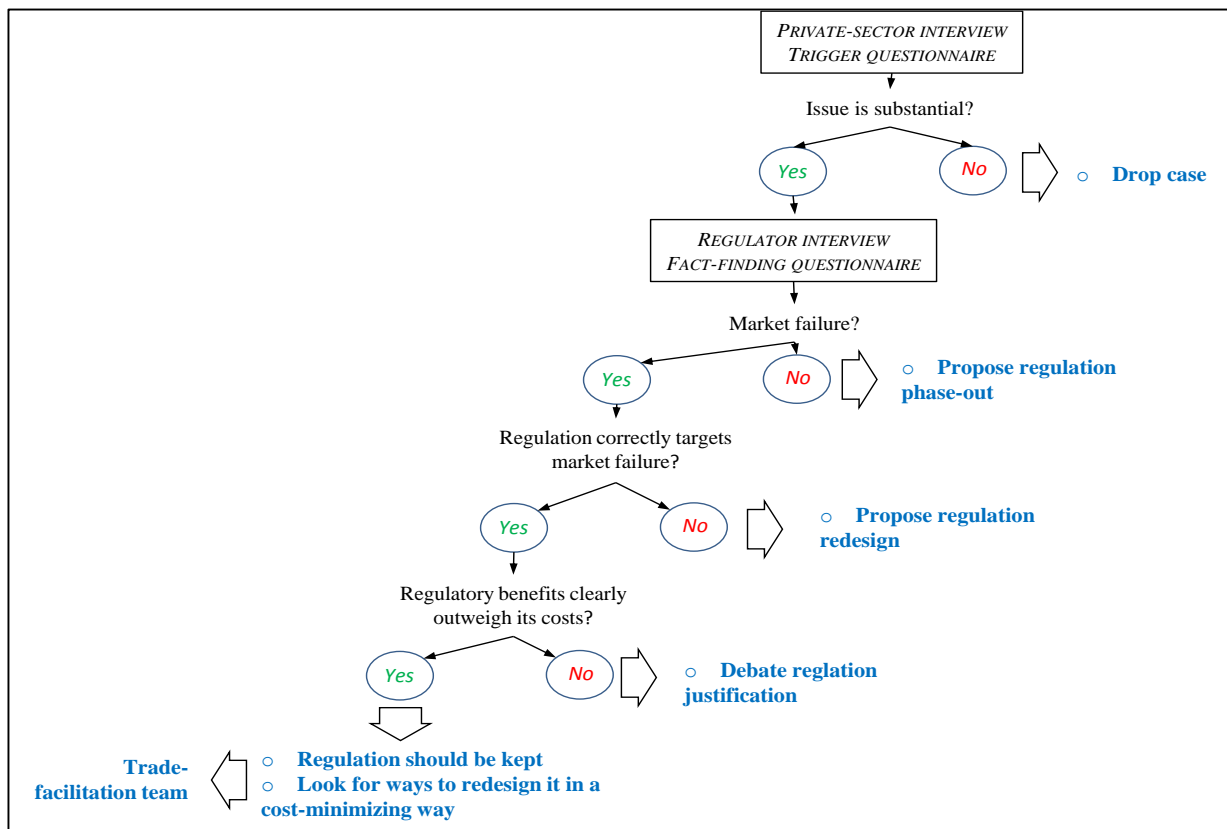
4. ***Address TBTs and SPSs.*** ASEAN’s program to address TBTs is the ASEAN standards and conformance program. Indeed, ASEAN has been cognisant of the importance of addressing issues related to standards, technical regulations and conformance assessment early on, such that it established the ASEAN Consultative Committee on Standards and Quality (ACCSQ). The AEC Blueprint 2009-2015 has a major program on standards and conformance in priority areas. The ASEAN standards and conformance program into 2015 and beyond is discussed later in the chapter.
5. ***NTM streamlining as concerted domestic regulatory reform.*** The initiatives discussed above are all regional initiatives. At the national level, Cadot, Munadi and Ing (2013) argue that it is best to view NTMs not from a trade negotiations point of view but from a better regulation point of view. While NTBs need be eliminated, the challenge for the rest of NTMs is to improve them in order to minimise the cost to the private sector. Poorly designed or poorly administered NTMs, especially on intermediate goods, can hurt exporters and the country’s national competitiveness as much as they are meant to restrict market access.

Streamlining NTMs therefore is really about minimising the cost of compliance by the private sector while the benefits from the NTMs are achieved. Equivalently, streamlining NTMs as better regulation is really

about ensuring the objectives of the NTMs with the minimum possible cost to the private sector and the country. Thus, the review of NTMs involves looking at the balance of benefits from the NTMs and the costs of complying with and administering the NTMs. **Figure 3.2**, taken from Cadot, Munadi and Ing (2013), presents the logical framework of an NTM review as advocated by the World Bank. As noted by the authors, the regulatory review structure set out in **Figure 3.2** is fully consonant with the necessity and proportionality tests principles of WTO disciplines.

The regulatory review presented in the figure has one important underlying assumption: that there is sufficient analytic capability in each AMS and the region to provide the analytic support in undertaking the review. However, this is clearly inadequate in a number of AMSs especially in the CLM countries. Thus, there is a ***need for capacity building and technical training*** to develop the analytic capability to undertake robust review and streamlining of NTMs in each AMS and in the region as a whole. ASEAN's dialogue partners and multilateral institutions like the World Bank are possible partners of ASEAN and AMSs in this capacity building and technical training initiative.

Figure 3.2: The Logical Flowchart of an NTM Review



Source: World Bank (2011).

Given the growing importance of NTMs as a potential bottleneck to deeper economic integration in ASEAN, investing in the human and institutional capacity to review the NTM regulations for streamlining is a worthwhile undertaking for the region beyond 2015

Trade Facilitation and Logistics

Efficient trade facilitation and logistics is absolutely necessary for a seamless production base and integrated ASEAN. It is critical for competitive and well performing regional production networks. The AEC Blueprint 2009-2015 (p.23) presents the importance of trade facilitation clearly as thus:

Simple, harmonised and standardised trade and customs, processes, procedures and related information flows are expected to reduce transactions costs in ASEAN which will enhance export competitiveness and facilitate the integration of ASEAN into a single market for goods, services and investments and a single production base.

Trade facilitation and logistics is the revealed premier concern of the private sector in the region. The results of the ERIA survey in 2011 point to the following two trade facilitation measures as the top two most important concerns of the ASEAN private sector for implementation under AEC 2015 (Intal, Narjoko and Simorangkir, 2011, pp. 45-46):

- Improve import and customs administration efficiency and integrity (e.g., greater use of ICT, linked clearance systems, etc.)
- Streamline and expedite import and customs procedures, documents, etc.

The results of the 2012 Survey of Japanese-affiliated firms in Asia and Oceania (see Sukegawa, 2013, p.13) show that the top four problems in the trade system in ASEAN are (1) “complicated customs clearance procedures”, (2) “time consuming customs procedures”, (3) “lack of thorough information of trade rules and regulations”, and (4) “unclear methods for assessing customs duties”. The third and fourth problems listed above bring out the importance of transparency in addition to streamlined procedures and greater use of electronic means in order to improve much further the trade system in the region. Similarly, the results of the ASEAN Business Outlook Survey for 2014 of American firms in ASEAN show that “ease of moving your products through customs” is a major concern of most respondents in a number of AMSs (AmCham Singapore, 2013, p.26).

The private sector's emphasis on trade facilitation and logistics reflects the importance of efficient and timely movement of goods to the efficient operation of their businesses. At the same time, the private sector also experiences the very wide gap in the quality of trade facilitation and logistics between the region's best performers and poor performers, which serves as a deterrent to deeper economic linkages among AMSs. Herein lies one of the biggest challenges of ASEAN as an integrated and seamless production base beyond 2015. At the same time, herein lies one of the potential success stories of ASEAN given the strong policy emphasis by ASEAN and AMSs officials on trade facilitation under AEC.

Benefits of efficient trade facilitation and logistics. Studies show that there are substantial benefits from efficient trade facilitation and logistics. With faster, more predictable and cost competitive trade logistics, ASEAN countries can export and import more competitively and thereby become more competitive players in both regional and global trade. Studies also show that improved trade facilitation raises the productivity of firms, a key determinant of long term competitiveness. Of course, an integrated ASEAN as a production base necessitates efficient trade facilitation and logistics within the region in order to mimic as much as possible the benefits of a large single economy like China or India.

Djankov, Freund and Pham (2006) indicate that a 10 percent reduction in time to export increases exports by about 4 percent globally or about 8-12 percent for developing countries. Moreover, they highlighted that countries with more efficient trade logistics have higher share of time sensitive exports to their total exports. It is worthwhile to note that time sensitive exports tend to be high value exports as well as fast growing exports. In effect, improved trade facilitation and logistics enables countries to participate more in the high value and fast growing (although volatile) commodity trade internationally. A study on the impact of trade facilitation in APEC (APEC, 2004) shows that improved customs procedures, increased use of information and communication technology, business mobility, and especially standards and conformance all contribute positively to increased bilateral trade among APEC member economies.

Okabe and Urata (2013) used gravity modelling to examine the impact of time and cost on importing and exporting agricultural products within ASEAN; their results indicate that indeed, reducing the time and cost of exporting and importing within ASEAN would increase intra-ASEAN trade in agricultural and agri-based products at the aggregate level as well as in a number of individual commodity groups like vegetable oils and fats (HS 15), coffee, tea, etc, (HS 9), and cocoa and cocoa preparations (HS 18). The authors also found that transparency of border administration, efficiency of import and export procedures, availability and quality of transport services and infrastructure as well as of ICT, and the quality of regulatory environment, among others, have significant impact on the time or cost to export and import. A similar econometric work by Narjoko (as cited in Dee, Narjoko and Fukunaga, 2013), focusing on aggregate trade within ASEAN, gives comparable results as Okabe and Urata. He also found that improved trade facilitation and greater domestic competitive environment leads to higher intra-ASEAN trade.

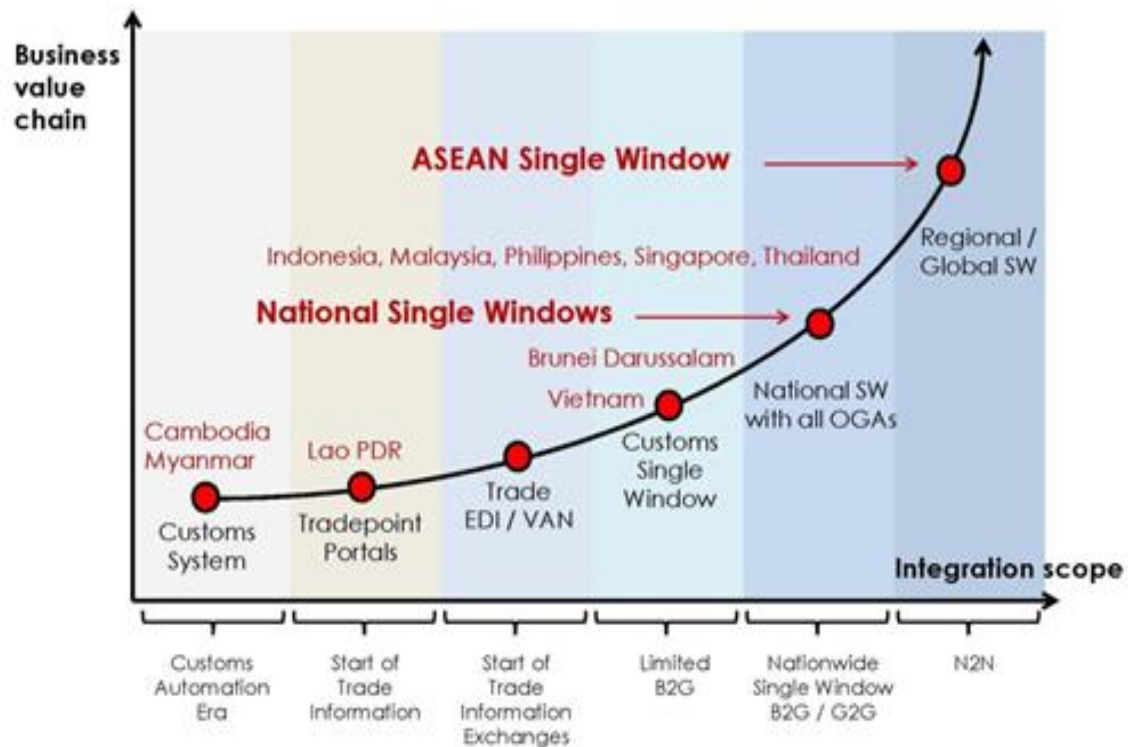
Subramanian (2012) reported an APEC study that shows that a reduction of 5 percent in trade costs over 5 years increases GDP by nearly 1 percent; she also reported another study that shows that a 1 percent reduction in trade costs would increase the GDP of non-OECD Asia Pacific by 0.25 percent. A study by Subramanian, Anderson and Lee (2005) shows that a reduction in export clearance by one day would lead to increased total factor productivity in China's manufacturing industries by 2.1 percent for Apparel, 5.4 percent in electronic equipment and 5.8 percent in consumer goods. The impact of the one day reduction in export clearance on total factor productivity of Brazil's manufacturing sector is, however, much less, at between 1.3 to 1.5 percent for electronics and apparel industries, respectively. Thus, improved trade facilitation and logistics raises national output and therefore national income. Equally important, there are indications that improved trade facilitation also contributes to higher productivity of domestic industries albeit differently by industry and also by country.

The trade facilitation agenda in ASEAN: status. ASEAN has a comprehensive trade facilitation program but the two key components are the establishment of the ASEAN Trade Facilitation Repository and, more importantly, the ASEAN Single Window (ASW). Both regional initiatives call for corresponding national level initiatives, i.e., the National Trade Repository

and the National Single Window (NSW) in each AMS. The trade repositories, important for transparency, contribute to the effective operationalisation of the national single windows. The regional repository and single window are not yet implemented but member states have been working at the national end albeit at different speed and success.

The progress of the National Single Windows is best seen in **Figure 3.3** which shows AMSs along the path of evolution of single windows. On the one hand are AMSs where there is live implementation of the NSWs (i.e., Indonesia, Malaysia, the Philippines, Thailand and most especially Singapore which is a global pacesetter in single windows). On the other hand are the CLM countries which are still in the early stages of customs modernisation and establishment of national single window. In between are Brunei Darussalam and Viet Nam which have built their Customs Single Window but thus far do not include the integration of other technical control agencies to the platform designed (Koh and Mowerman, 2013). Not all the countries with live implementation of NSWs have fully functioning single windows yet in terms of interface of the systems with customs nor involve most, if not all, of the trade relevant government agencies nor cover at least all the major ports and airports in the countries. Thus, there is quite a distance to be traversed before there is fully functional NSW in most of the AMSs and eventually, a fully functional region-wide ASW since the latter is anchored on the NSWs.

Figure 3.3: Evolution of Single Windows



Source: Koh and Hogg (2012)

The ASW simply provides the environment for the NSWs to operate and integrate. With the support primarily of the United States Agency for International Development (USAID), ASEAN is in the process of setting up the building blocks for its implementation, including the establishment of the network architecture and the setting up of the infrastructure for the ASW albeit on a limited pilot basis. The scaled up pilot has not yet been implemented. The legal foundation to allow for ASW implementation in a number of AMSs is not yet in place. Thus, there remain substantial financial and human resources needed to effectively implement the ASW (Koh and Mowerman, 2013).

Trade facilitation in ASEAN: way forward.¹ Given the huge difference in the stage of single window development among AMSs, the country-level ways forward could differ. Thus, for example, for the AMSs with live implementation of NSW allowing for B2G and G2G communication, the challenge would be in “...designing and testing quality standards and characteristics to be able to expand the usage of the platform to B2B activities,

¹ This is largely taken from Koh and Mowerman (2013)

as well as invest their efforts in the reduction of documents needed to trade” (Koh and Mowerman, p. 18).

On a region-wide basis, the recommendations for the way forward are best phased into short term (2016-2020) and long term (after 2016). The short term recommendations are high-impact improvements that can generate tangible results in the short run.

Short run recommendations:

- 1. Private sector involvement:** Given the important role of the private sector in providing input for business process analysis, data standardisation and harmonisation, consultation with the industry/private sector is crucial. Thus, a regular forum for public-private sector engagement should be held both at the regional and national levels for ASW and NSWs, respectively. This can be via the creation of Steering and Technical Committees for the Single Windows. In addition to the feedback that can be provided by the private sector, the effort to incorporate the private sector is the means to have the private sector fully informed and engaged with regards to the change in the customs that will take place with the implementation of the ASW.
- 2. Standardisation of procedures:** An effective ASW depends on effective and inclusive NSWs. Thus, it is necessary to strengthen and standardise the existing NSWs that are at different levels of development, and expedite their development. Finally, National Trade Repositories (NTRs), where traders and government agencies can check tariffs and trade related regulations, should be set up as this would generate greater legal security for traders and better understanding with government agencies.
- 3. Online payments:** The implementation of online payment mechanisms via the usage of debit cards, credit cards or giro should ideally be extended not only for Customs and the payment of taxes and tariffs but should also include technical control government agencies that issue licenses and any agency that interacts in trade transactions involving any kind of collection and payment fees for inspection.

- 4. Back-office/support documentation digitalisation:** It is not sufficient to build an online documentary repository or single window. What is really necessary is the digitalisation of technical control agency back-offices. The efforts invested in creating facilitation tools may be diminished if government agencies continue to keep documents in physical form in various places in the country. Time to issue licenses will not decrease if all support information are not available in a handy manner. Real efficiencies from ICT tools come from automating the entire process.

- 5. Digitalisation of support documents:** Documents should be digitalised and shared in a digital form, as Certificates of Origin are shared amongst Colombia, Chile and Mexico, and where the reduction in transaction costs was dramatic. The pilot in the ASEAN region can take the international best practice presented in Latin America, and/or can choose to share other cargo support documents in digital form such as phyto or zoosanitary certificates, technical standards certificates, etc.

Medium and Long Term – year 2020 and beyond

Should ASEAN governments succeed in the implementation of the short term recommendations detailed above, they should move forward in implementing these deeper reforms that will finalise the possibility of accomplishing trade transactions in a seamless manner. These more complex processes can begin to take place in the year 2020, at the latest, when all NSWs are up to date, functional and under the same standard.

- 1. Physical infrastructure readiness:** All ICT related efforts, be it NSW, ASW or Customs systems, will be diminished if road, air and port infrastructure is not readily available for the expedited movement of cargo. Licenses can be issued in one day, but if cargo takes days to move, the efforts go unnoticed.

- 2. E-commerce legislation:** Having e-commerce legislation readily issued will allow the reaping of the full benefits of the ICT efforts invested by the ASEAN countries. This legislation has to include digital signature,

digital documentary proof, and clear liabilities regarding the proper way to handle electronic documents. Likewise, legislation has to be issued at a local and regional level so information can be shared at a regional level. Disparities can result in trade taking place in a physical manner.

- 3. Adoption of integrated risk management border controls to ensure cross border compliance:** Implementing integrated risk management within the ASW will allow for detailed controls of types of cargo and traders mobilising cargo in the region. All technical control agencies involved in trade transactions should be able to include their missionary risk criteria within the system in such a way that all possible risks inherent to a shipment can be analysed to be able to determine its selectivity. Furthermore, ex-post controls should be implemented so as not to leave any trace of doubt of lack of compliance.
- 4. Encourage the usage of pre-clearance and pre-certification programs:** The aim of this initiative is to decrease congestion in wet and dry ports and allow for a more expedited physical movement of cargo, thus decreasing costs for the private sector. Additionally, granting local authorities the possibility to have information submitted to them prior to the arrival of cargo generates a better risk assessment and compliance with further security measures.

In conclusion, the ideal scenario for the year 2020 would be full integration of technical control agencies' processes for obtaining all cargo support documents. This would be done via the implementation of digital signatures and online payment systems in such a way that no person to person interaction takes place. Ultimately, via the implementation of the ASW, the governments where the cargo is originated will be able to submit original copies of the support documentation (ideally a Single Administrative Document) to the countries of destination of the cargo in a seamless digital manner prior to the arrival of the cargo, in such a way that risks can be assessed ex-ante and no tie-ups take place in the port or warehouses.

Regarding customs transactions, traders should be able to file and submit all import and export declarations (regardless of the modality being used), and this will include the processing of information on the usage of quotas, subsidies or

drawbacks. Likewise, via the usage of this system, traders should be able to pay all fees and duties related to an export or import transaction via an online payment button. Lastly, given that Customs is the government agency that effectively controls the entry and exit of cargo to a country, it should be the agency in charge of hosting the integrated risk management system, which includes the specific risks of the technical control agencies interacting in trade transactions. These agencies will either introduce themselves or send to Customs the information regarding the origin of their cargo related risk, so it can be inputted into the Customs hosted system and be a part of the security risks analysed.

The end result is a seamless single window and trade facilitation regime that will tremendously contribute to an integrated production base and a more unified market.

Addressing Technical Barriers to Trade in ASEAN: Standards and Conformance

In the ERIA survey as part of the Mid-Term Review of the Implementation of the AEC Blueprint, about four-fifths of the private sector respondents in all of the AMSs view diverse technical regulations and product standards in ASEAN to be serious barriers to intra-ASEAN trade. Consistent with this view, more than four-fifths of the private sector consider the harmonisation of national and regional standards to international standards to further enhance competitiveness in global trade to be both beneficial and urgent for the region. Similarly, virtually all of the private sector respondents consider beneficial to them the acceleration of mutual recognition of conformity assessment results, strengthening of institutional capacities and streamlining of conformity assessment processes. Indeed, in their prioritisation of AEC measures that should be implemented for AEC 2015, the private sector respondents consider standards and conformance as the second most important area after trade facilitation.

ASEAN is fully cognisant of the critical importance of standards and conformance for a well performing ASEAN Economic Community, as best reflected in the following passages in the AEC Blueprint 2009-2015 (p. 25), to wit:

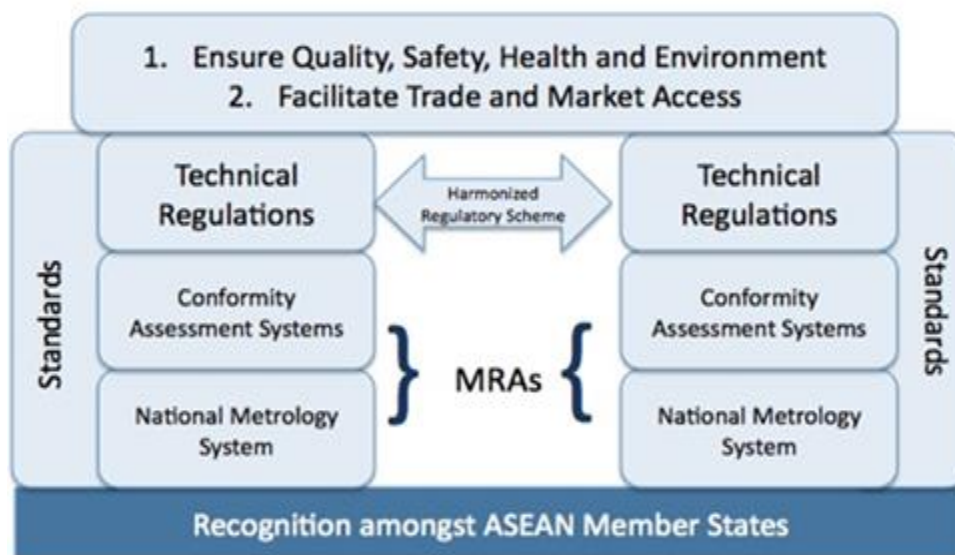
Systems of standards, quality assurance, accreditation, and measurement are crucial to promote greater efficiency and enhance cost effectiveness of production of intra-regional imports/exports. Standards, technical regulations and conformity assessment procedures will be harmonised through the implementation of the ASEAN Policy Guidelines on Standards and Conformance, with greater transparency, improved quality of conformity assessment and active participation of the private sector.

The ASEAN standards and conformance framework is summarised in **Figure 3.4** which highlights the twin goals of (1) ensuring quality and safety and protecting health and the environment, and at the same time (2) facilitating trade and market access. The focus is on the harmonisation of standards to international standards, the development of harmonised regulatory schemes for technical regulations, and the development of Mutual Recognition Agreements (MRAs) to connect the conformity assessment systems and national metrology systems of AMSs.

Through the ASEAN Consultative Committee for Standards and Quality (ACCSQ) and its various horizontal and product working groups and a joint sectoral committee, ASEAN has made significant progress in the harmonisation of standards and conformance assessment measures, the development of Mutual Recognition Agreements (MRAs) in regulated areas, and the harmonisation of technical regulations. On harmonisation of standards, 58 standards have been harmonised in electrical appliances, 81 standards harmonised in electrical safety and electromagnetic components, 3 standards harmonised in rubber-based products, and for pharmaceuticals, the ASEAN Technical Dossiers (ACTD) and ASEAN Common Technical Requirement (ACTR) have been completed. The harmonisation of standards is on-going. ASEAN has signed a few MRAs, most notably in electrical and electronics, cosmetics, GMP for manufacturers of medicinal plants, and telecommunications (the latter in conjunction with APEC Telecommunications Working Group). Other MRAs are being developed. The challenge for ACCSQ is to ensure that the MRAs are implemented well to achieve its goal of “One Standard, One Test, Accepted everywhere” (see Pettman, 2013; ERIA, 2012a).

Despite the progress achieved, much remains to be done and the efforts on standards harmonisation, MRAs and harmonised regulatory schemes will be a continuing major challenge for the region, given new products and technologies, changing societal priorities, and the fact that there are a lot more sectors than the ones currently prioritised by ACCSQ. Even in the European Union where the Single European Market with 1992 as target date, work in standards and conformance is continuing today to overcome barriers to trade and achieve regulatory integration (Pettman, 2013, p.10).

Figure 3.4: ASEAN Standards and Conformance Framework



Reprinted from Pettman (2013)

Way forward beyond 2015². Moving forward, Pettman (2013) recommends the following to strengthen ASEAN’s efforts on standards and conformance:

- 1. Define and communicate the benefits from AEC.** As the process of deepening economic integration under AEC calls for more difficult policy and regulatory choices, it is important that the benefits from AEC are defined clearly and communicated to people widely and consistently in order to galvanize efforts towards the future. Such definition of benefits need not only be aggregative but also sector or industry or area-wide. It is useful to have a common methodology for comparability.

² This subsection is largely taken from Pettman (2013).

Thus, in addition to defining the benefits from AEC overall, it is useful to define the benefits from standards and conformance initiatives that lead to regulatory convergence and alignment of regulations and standards across ASEAN.

- 2. Identify and address the priority barriers.** At this juncture, it would be useful to have an *external review* of the barriers and the potential economic benefits on addressing those barriers, and thereby be able to determine what the barriers that need to be prioritised are. The external review is worthwhile given that the general tendency is to focus first on the less difficult although not necessarily most economically important for ASEAN. The review may need to look into the questions raised typically in an impact assessment in standards area such as what are the benefits from the intervention, who are the beneficiaries from such intervention, and how would regulatory bodies be affected by the intervention (or the elimination of the intervention). By using a common methodology, the external review could be a mechanism of engaging the private sector in the process and thereby provide inputs and insights on the priorities and future activities in the standards and conformance area.
- 3. Maximise benefits of engagement with the private sector.** The results of private sector engagement in the AEC process are mixed. In the standards and conformance area, the private sector is actively involved in some product working groups but not in others; moreover, SMEs tend to be underrepresented. Given the critical importance of the private sector to the success of the AEC, it is important to give more emphasis to greater engagement with the private sector in terms of information exchange, developing mechanisms for feedback and support for the process, including expertise provision.

In order to create a level playing field among the private sector for engagement in the ASEAN process, the following may need to be considered.

- Set up common minimum standards for all the private sectors that wish to engage with the regional grouping.

- Criteria should be established for ongoing private sector involvement, including the provision of an annual report by each sector based on a common template. This report should include identification of the following: representation of the organisation; the value that the organisation has brought over the previous year and intends to deliver in the coming year; and measures that have been taken to involve small and medium sized companies, which form the backbone of the ASEAN economy.
 - Rules and processes should be established for engagement with Product Working Groups and other bodies, which are common across ASEAN.
 - A clear commitment from ASEAN to the private sector should be made on the minimum that they can expect from engagement if carried out according to the rules.
 - There is a need to focus implementation and feedback in the engagement with the private sector. It is recommended that small delegations of the private sector groups meet at least once a year with the representatives of the High Level Task Force on Economic Integration (or the SEOM), ACCSQ, and ASEC to deliberate on the achievements and challenges, and identify where possible, solutions to issues which run across the product working groups.
 - The private sector organisations should be asked to develop and present during the yearly meeting with the ASEAN officials (e.g., HLTF EI officials) their own **scorecard of progress** achieved based on a survey method to be determined either centrally or by each industry sector.
4. **Add resources to deliver results.** Given the vital importance of standards and conformance (S & C) for the creation of AEC, it is important to put more resources to deliver results. For example, the ASEAN Secretariat (ASEC) is clearly understaffed in the S & C area and there is a huge reliance on member state experts to deliver consistently high time inputs to deliver on goals.

- With the need for even greater engagement of the private sector and as the process of regulatory convergence consistent with the effective implementation on standards and conformance becomes more difficult, it is necessary to *beef up the ASEC staff in S & C*.
- A *High Level Task Force on Standards and Conformance* is proposed to help develop a vision and strategies for standards harmonisation to support the free flow of goods under the eventual single market of the AEC. The High Level Task Force on S & C could be aligned with the High Level Task Force on Economic Integration.
- The Legal Service of ASEAN needs to have focused contact point for the Chairs of the Product Working Groups (PWGs) in order to provide timely legal opinion on the frameworks and technical documents that the PWGs are developing, and which would likely need legal clearance before finalised and agreed upon by AMSs.
- One of the most valuable contributions of the private sector to the PWGs is the provision of technical and scientific expertise, often from outside the region. Such expertise helps speed up the process towards agreement. It is proposed that this role should be identified and clarified in the context of the rules of engagement of the private sector and that an operational guide for this should be established, including case studies on good practices.

5. Completing S & C in, and broaden out from, the Priority Integration Sectors. ASEAN's decision to focus first on the Priority Integration Sectors is an inspired one because it permitted more effective utilisation of limited resources and it is delivering results. However, much work remains to be done in order to fully implement the S & C programs in the priority integration sectors. It is indeed important that the priority sectors find the S & C differences and bottlenecks addressed, which can then be the basis for broadening the S & C initiatives beyond the priority integration sectors.

In broadening out from the priority integration sectors, one key consideration is whether to expand to other sectors similar to the

approach being undertaken for the priority integration sectors or whether it is better to bring forward more “horizontal measures” in the standards and conformance area. The implementation of “horizontal measures” has had considerable success in the EU and it had bypassed the need to create many specific measures for individual product sectors. One possible horizontal initiative is the creation of an *ASEAN product safety regulatory framework*.

6. **Strengthen cooperation in capacity building.** The more developed member states need to help, in some capacity or the other, the less developed ASEAN member states such that they can come to grips with standards and conformance and so that they can monitor products they manufacture. The more developed economies have to make attempts to bring the lesser developed economies on board the whole process in order for the divide between them and the late developers not to deepen.

Standards and conformance measures are difficult to harmonise, often because of different objectives of different governments, and sometimes also because the true benefits of standardisation and conformance are not viewed in the same light by all the members. Budgets need to be increased and clearer guidelines need to be laid out to make the whole process smooth and free of delays. More information is needed as well, particularly to convince manufacturers and suppliers of the benefits of adhering to standards and conformance initiatives. This will require investment in research, collection of data and dissemination of information.

Most importantly, in order to achieve its standards and conformance targets such that they do not hinder the region’s progress towards the AEC, ASEAN needs strong leadership and political will at the national and regional levels. Member states themselves have to be convinced that the implementation of these measures, while appearing to be possibly cumbersome and expensive at present, will eventually enhance trade and will benefit their respective economies in due course. That is, the short-term challenges will be mitigated by the medium to longer-term prospects that the harmonisation of standards will bring about.

The ASEAN Secretariat, supported by the various Dialogue Partners, has to play a critical role in driving towards standards and conformance in the region. This will include promoting awareness about the benefits of harmonised standards and conformance measures and encouraging all the 10 ASEAN member states to contribute to the whole process. It also needs to promote greater communication and coordination between agencies that are involved such that the harmonisation of standards and conformance can be attained more easily.

Highly Contestable Markets: Services, Investment and Competition Policy

Markets that are highly contestable are expected to breed efficiency and innovation, the two anchors of competitive and dynamic economies. Highly contestable markets are those where there is relative ease in the entry and exit of goods and services (in the product market) and/or entry and exit of firms (for investments and operations in goods and services industries). Tariff elimination, non-protective NTMs, efficient trade facilitation, and facilitative standards and conformance all contribute to greater contestability in the product market for goods. The discussion and recommendations so far in the chapter are all in support of tariff elimination, non-protective NTMs, efficient trade facilitation, and facilitative standards and conformance regimes, and are therefore in support of greater contestability in the goods markets. They are all under the rubric of “towards free flow of goods “in the ASEAN.

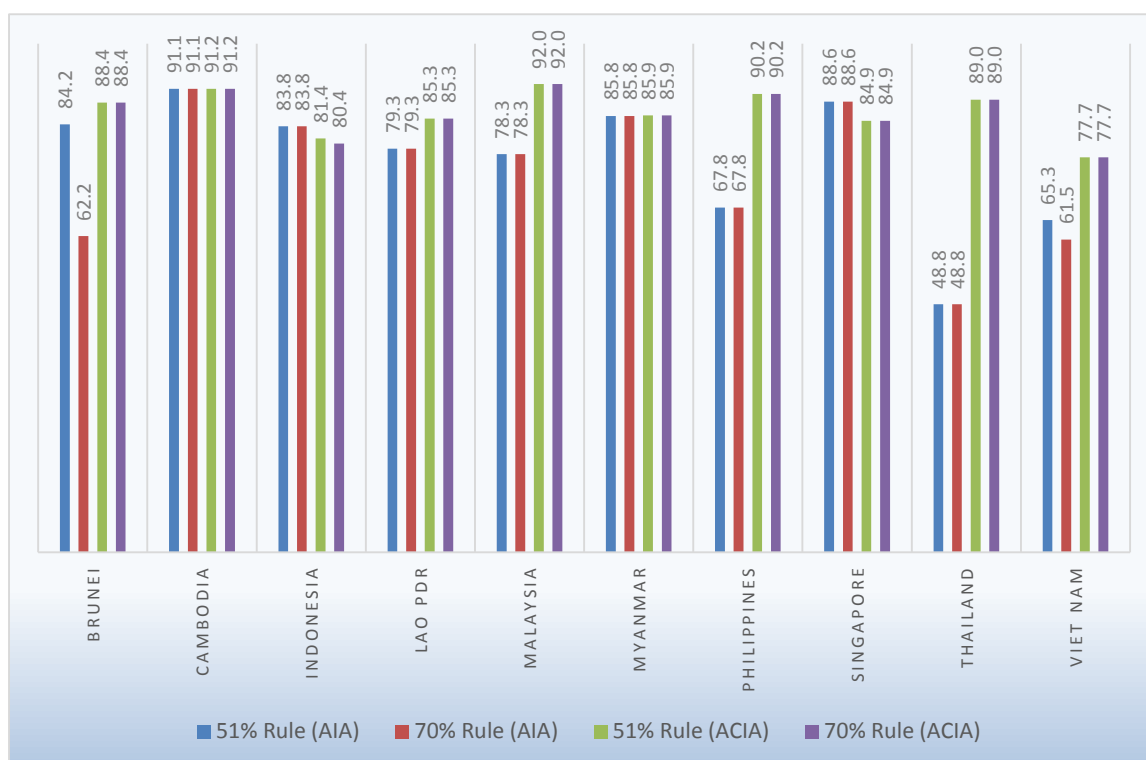
The challenge in the ASEAN is greater with respect to engendering greater contestability in terms of the relative ease of entry and exit of firms in both the goods sectors, and more especially the services sectors because most service provision would call for commercial presence (and therefore investment) in the market of interest. Entry and exit of firms is fundamentally linked to investments and disinvestments; hence, high contestability means essentially a liberal and non-discriminatory regime for investments, whether domestic or foreign. Highly contestable markets in investment and services are the important big steps towards the full realisation of the goals of “free flow of services” and “free flow of investment” under the AEC Blueprint.

Under the AEC Blueprint, the liberalisation program of foreign entry into the goods sectors (and services incidental to the goods sectors) is captured at present under the ASEAN Comprehensive Investment Agreement (ACIA), while that for services sectors (except financial services and air transport services) are captured under the ASEAN Framework Agreement on Services (AFAS). ACIA follows a negative list approach to liberalisation (and hence, AMSs need to submit the Reservations List of sectors where there are foreign investment restrictions among others) while AFAS follows a positive list approach to liberalisation (and as such, AMSs would need to stipulate their list of commitments as per agreed formula under AFAS). Both ACIA and AFAS aim for nearly fully liberalised regimes, either through progressive elimination of sectors in the Reservation List in the ACIA or through the expansion of sectors and deepening of commitments in each of the sectors following an agreed-upon formula of liberalisation process under AFAS.

Liberalisation rates under ACIA and AFAS. The results of the estimation of the liberalisation rates under ACIA, taking note of the Reservation Lists of AMSs, show relatively liberal investment regimes for foreign investors albeit sometimes under some conditional liberalisation schemes as in the Philippines (see **Figure 3.5**).

The figure shows that Cambodia is the most open AMS to foreign investment in terms of allowable foreign equity, followed by Singapore, and interestingly, Myanmar. Brunei Darussalam and Indonesia are also relatively open to foreign equity of at least 70 percent. The Philippines and Thailand are the least open on paper, but when certain conditions are met, e.g., export firms in export zones can have 100 percent foreign ownership, then the liberalisation of the two countries zoom up to among the highest liberalisation rates among the AMSs. Many of the AMSs are much less liberal on foreign equity in agriculture and mining sectors and more liberal in manufacturing.

Figure 3.5: Overall Foreign Investment Liberalisation Rate



Source: Intal, *et al.* (2011) as revised by Intal and Panggabean in 2012.

On services, the results of the estimation of the liberalisation rates of AMSs in Modes 1 and 2 under AFAS 8 Package show nearly 100 percent liberalisation rates when “unbound” is viewed as “not a limitation” but dropping substantially lower in most AMSs, most especially the Philippines and Viet Nam, if “unbound” is viewed as “limitation” (see **Table 3.2**). In effect, most of the AMSs have not bound their liberal commitments (and likely practice) with respect to Mode 1 service transactions. Modes 1 and 2 in services are the closest to the goods markets; hence, AFAS 8 shows AMSs have committed to highly contestable services markets in terms of Modes 1 and 2 in ASEAN.

Table 3.2: Mode 1 Liberalisation Rates, AFAS 7th and AFAS 8th Commitments, ‘Unbound’ Defined ‘as Restrictions’ or ‘Not as Restrictions’ (in Percent)

COUNTRY	MODE 1			
	AFAS 7		AFAS 8	
	(a)	(b)	(a)	(b)
1 - Brunei	67.9	96.7	71.4	97.2
2 - Cambodia	70.7	97.7	75.1	99.1
3 - Indonesia	74.2	99.4	74.3	99.7
4 - Lao PDR	98.7	100	95.2	100
5 - Malaysia	62.8	98.1	67.5	98.3
6 - Myanmar	85.1	100	87.3	100
7 - Philippines	50	94.6	51.0	94.1
8 - Singapore	91.1	96.3	90.9	96.4
9 - Thailand	61	95.3	65.2	94.9
10 - Viet Nam	49.5	94.6	50.3	94.7
Average	71.1	97.3	72.8	97.4

Note: (a) = computation of the scores assumes an 'Unbound' commitment as a limitation. (b) = computation of the scores assumes an 'Unbound' commitment not as a limitation.

Source: Narjoko and Herdiyanto (2012).

While the investment regime is more liberal for foreign investors in the goods sectors, especially in manufacturing, the liberalisation process in terms of Mode 3 (commercial presence) is getting harder and harder in the services sectors under AFAS. **Table 3.3** presents the *preliminary* estimates of liberalisation rates for Mode 3 for the priority integration sectors, the logistics sectors, other sectors and for all the sectors under AFAS 7 and 8. There is a noticeable decline in the estimated liberalisation rates for a number of AMSs under AFAS 8. This reflects the higher allowable foreign equity thresholds under AFAS 8 as compared to AFAS 7 for priority integration services, logistics services, and other services as well as a larger number of other services that were needed to be scheduled and under higher allowable foreign equity thresholds. Nonetheless, it is worth noting that two of the poorest AMSs (Myanmar and Lao PDR) have actually the highest liberalisation rates, followed by Viet Nam.

Table 3.3: Mode 3 Liberalisation Rates, AFAS 5th, AFAS 7th and AFAS 8th Commitments, by Group of Sectors (in Percent)

COUNTRY	Mode 3							
	PIS		LOG		OTHERS		All Sectors	
	AFAS 7	AFAS 8	AFAS 7	AFAS 8	AFAS 7	AFAS 8	AFAS 7	AFAS 8
1 - Brunei	21.6	30.3	63.9	72.5	60.2	58.0	49.6	50.2
2 - Cambodia	46.9	34.1	88.1	37.1	91.9	38.0	78.9	37.0
3 - Indonesia	49.4	52.0	89.2	52.6	79.7	63.7	70.6	59.1
4 - Lao PDR	78.6	86.8	87.2	86.4	80.9	78.1	80.7	80.5
5 - Malaysia	55.9	56.4	82.6	70.5	57.5	66.8	58.3	64.8
6 - Myanmar	81.3	84.3	80.2	86.3	80.2	84.6	80.6	84.5
7 - Philippines	39.2	41.3	66.1	38.2	45.9	39.5	45.8	39.8
8 - Singapore	44.9	35.8	55.5	38.4	77.8	32.9	68.2	34.0
9 - Thailand	25.8	52.2	56.8	51.0	68.5	44.5	58.4	46.3
10 - Viet Nam	91.3	67.3	90.7	29.1	86.2	85.9	87.8	77.4
Average	53.5	54.1	76.0	56.2	72.9	59.2	67.9	57.4

Source: Narjoko and Herdiyanto, (2012).

The later packages of AFAS (i.e., AFAS 9 to AFAS 12) target even higher allowable foreign equity in more sectors until all services sectors, except those included in the AFAS flexibility rule for sensitive industries, are covered and with allowable foreign equity of at least 70 percent. As initially programmed under the AEC Blueprint 2009-2015, all the packages were to be accomplished by 2015. This is extremely unlikely however if AFAS 8 is any guide. It is more likely that the liberalisation program under AFAS would slide into beyond 2015.

Way forward for services and investment liberalisation. The way forward for services and investment liberalisation is relatively straightforward; that is, to continue the phased liberalisation process in both the services sectors under AFAS and the investment regime for goods sectors under ACIA.

- Under ACIA, this means the process of progressive reduction in the list of industries under Component 2 (i.e., industries subject to liberalisation or diminution of applicability of restriction) continues.
- Similar to the recommendation of MTR on AEC Blueprint implementation (ERIA, 2012a, p. VIII-31-32), it would be useful to set guidelines on what could be included in the minimum investment

restrictions/impediments under Component 2 so that the flexibility included in Component 2 is not abused.

- Under AFAS, this means continuing further the phased liberalisation in the phases of AFAS that would not be implemented by 2015, together with further refinements of the flexibility rule and a reduction in the flexibility rate.

What is a more difficult issue is to determine the pace of the liberalisation process, post 2015. Will the process need to end by 2020? Or 2025? Almost implicit in the title of the chapter is that it is recommended to have a deliberate and well thought out pacing and phasing of further liberalisation of services and investment post 2015. The simulation results of Itakura (2013) and Dee (2012) suggest that there are indeed significant potential benefits from service liberalisation especially of logistics, transport and finance related services. Efficient services sectors are also important for AMSs moving up the global value chain and production networks (Damuri, 2013). There are political economy issues however especially for the more sensitive services sectors. Thus, there is a need for a more deliberate approach in determining the pace and phasing of further services liberalisation.

What would be more worthwhile for ASEAN is to give more priority to establishing an integrated production base in ASEAN in tandem with a highly contestable ASEAN market, rather than push headlong on liberalisation towards free movement of services and investment and less emphasis on establishing an integrated production base. AMSs and ASEAN need to give more focus on much improved facilitation measures which all involve difficult policy decisions and require larger amount of resources in order to be well performing.

Arguably, it is by giving more emphasis on having an integrated production base upon which regional production networks, and less developed regions engaged in them more deeply, that the road towards a single market in the region becomes more workable, investment climate correspondingly improved, and more robust economic growth attained. This is because a single market that is beneficial to most, if not all, peoples in the region is the one where the current

huge development gaps in the region are narrowed very substantially, and as such, price differentials across AMSs also correspondingly narrow.

Contestability in financial services, financial integration, and macroeconomic policy coordination. Contestability in financial services and financial integration pose significant challenges for ASEAN. On the one hand, contestable financial markets and more integrated financial markets within the region engender efficiency and innovation in the provision of financial services within a country, provide greater venue for better allocation of investment resources within the region, and would likely entice more investment funds into the region. All the above would be supportive of the drive towards sustained high growth in the region. On the other hand, there is a wide range of prudential regulatory capability and regimes among the AMSs; in addition, the region's financial stability infrastructure remains inadequate. Moreover, analysis of transmission of shocks by Majuca (2013) shows that ASEAN's macroeconomic variables like GDP are most influenced by shocks within ASEAN itself, in the same way that the macroeconomic variables of a given country are affected most by domestic shocks, followed by shocks from China and Japan. Thus, given the significant risks, a more measured and cautious approach to financial integration is warranted, especially in the light of the EU experience in recent years.

Financial services liberalisation in ASEAN is carried through the Financial Services Commitment packages, the latest being the 5th Package. The results of the analysis of the 5th Package under the ERIA Mid-Term Review of the Implementation of the AEC Blueprint (see ERIA, 2012a) show low liberalisation rates, especially with respect to Mode 3 (commercial presence). Similar to the case of AFAS, the challenge is in deepening the liberalisation rate in terms of higher allowable foreign equity especially moving from minority to majority equity position.

The ASEAN Central Bank Governors endorsed the ASEAN Banking Integration Framework (ABIF), which is the key to the region's financial integration plan considering that the region's financial sector is bank-dominated. ABIF sets four preconditions to the success of the banking integration in the region, which is targeted in 2020. The four preconditions, and for which there is a Working Group set up for each, are the following:

harmonisation of principles of prudential regulations; building of financial stability infrastructure; provision of capacity building for BCLMV; and setting up of agreed criteria for ASEAN Qualified Banks (QAB) to operate in any ASEAN country with a single “passport”. Banking integration from the perspective of ABIF is the commercial presence of ASEAN QABs in the AMSs. (See Wihardja, 2013.)

Way forward.³ Much of ABIF is for years beyond 2015. The results of the stock-taking show that there are huge challenges with respect to the harmonisation of prudential regulations and large inadequacies with respect to financial stability architecture in BCLMV countries. There appears to be a lot of political challenges towards banking integration, so much so that the target year 2020 may be not quite realistic.

Nonetheless, the stock-taking brings out the priorities for the way forward:

- **Build the financial stability infrastructure to contain systemic risk and contagion effects after integration.** This includes regional macro-prudential monitoring and surveillance (under AMRO), regional crisis management protocol, regional payment and settlement system, regional financial safety net (under CMIM now), legal system to protect property rights, and possible automatic exchanges of tax information among the AMSs.
- **Harmonise prudential regulations among AMSs.** This may increase regulatory and prudential barriers to banking entry, which would be in contradiction with AFAS. However, strong prudentials are a *sine qua non* to a robust and open financial sector. Hence, the trade-off would be worth it.
- **Capacity building is very important.** This is especially the case for BCLMV countries, where regulatory gaps are substantial.
- **Intensive research and study on various aspects of ABIF and regional financial integration is needed.** This includes, among others, examining the benefits, opportunities, costs and risks of ABIF; mapping

³ This subsection is taken from Wihardja (2013).

the networks and degree of integration of the regional banking systems, and determining the differential impacts of ABIF on BLCMV and the ASEAN 5.

- **Move towards greater macroeconomic coordination not only within ASEAN but also with ASEAN + 3 (China, Japan and Korea).**

As the results of Majuca (2013) show, the magnitude of impact of shocks from Northeast Asian countries on individual AMSs is second only to the contribution of domestic shocks.

Competition policy. Competition policy is an important complement to the liberalisation and facilitation initiatives discussed earlier in fostering competition in the domestic and regional markets in ASEAN towards an eventual single market and production base in the region. Since competition policy deals with anti-competitive behaviour of firms, competition policy becomes more salient in an increasingly integrated ASEAN not just with respect to practices in the domestic market but also practices that are transnational within the region, e.g., mergers or vertical outsourcing agreements.

The fundamental goal of competition is to ensure a level playing field for all firms, whether local or foreign as well as domestically or regionally. Thus, competition policy need not only focus on the anti-competitive behaviours of firms domestically and regionally but also need to tackle difficult policy issues related to the regulatory environment facing state-owned enterprises and government-linked firms vis-a-vis the rest of the firms (i.e., the notion of competitive neutrality). It should also look into issues like anti-dumping which, although essentially a trade policy issue, does have some implications on the scope of competition policy. In the case of the European Union, there is primacy of competition policy over anti-dumping (Lee and Fukunaga, 2013, p.18).

ASEAN's main initiatives related to competition policy under the AEC Blueprint have focused on competition law implementation, establishment of network of competition, authorities, capacity building, and a regional guideline on competition law. ASEAN has accomplished virtually all of the measures

before 2015, except that not all AMSs have competition laws at present (Lee and Fukunaga, 2013, p.19).

*Way forward in competition policy beyond 2015.*⁴ Lee and Fukunaga (2013) propose that, post 2015, ASEAN focuses on the implementation and enforcement of competition laws and the broadening of coverage of competition policy beyond competition law:

- **Implementation of competition law.** AMSs without competition laws by 2015 would need to be encouraged and provided technical support, including further sharing of implementation experiences of the AMSs with competition laws.
- **Capacity building.** More formal and institutionalised approach to capacity building needs to be considered. One possibility is to establish a network of training programs on competition policy, possibly along the lines of the ASEAN Universities Network.
- **Peer review of competition policy.** Given fairly uneven enforcement performance of competition authorities in ASEAN, it is worthwhile to undertake peer review of the competition law and policy in order to improve them further, possibly on a regular 5-year cycle among AMSs for further improvement and reforms.
- **Enforcement cooperation arrangements.** With deeper economic integration, it is important to further strengthen cooperation on enforcement including general information exchange, case handling guidelines, and joint investigations.
- **Competitive neutrality review and implementation.** It is proposed that ASEAN undertakes or commissions a study towards competitive neutrality on issues like government issued financial guarantees and state aid/state subsidy to firms (SOEs/GLCs) as well as government procurement.

⁴ This subsection draws heavily on Lee and Fukunaga (2013).

- **Anti-dumping and regulatory governance.** A review of the anti-dumping cases in ASEAN and the potential conflict between competition policy (which focuses on consumer welfare) and anti-dumping policy (which focuses on firms) may need to be undertaken. There is also a need to study the impact on competition of government regulations like entry restrictions and price controls.

Connected ASEAN

Connectivity is central to an integrated and competitive ASEAN as a production base and to a more unified ASEAN market. Cognisant of this, ASEAN has developed the Master Plan on ASEAN Connectivity (MPAC) that has a three pronged strategy of “...enhanced physical infrastructure development (physical connectivity), effective institutions, mechanisms and processes (institutional connectivity) and empowered people (people-to-people connectivity)” (ASEC, 2011, p.i). The discussion earlier in the chapter on trade facilitation, streamlining non-tariff measures and engendering more facilitative standards and conformance regime enhance institutional connectivity within the region. This section discusses other important means towards greater connectivity in ASEAN; namely, physical infrastructure for physical connectivity, air and maritime transport services for transport facilitation, and movement of skilled labour within the region.

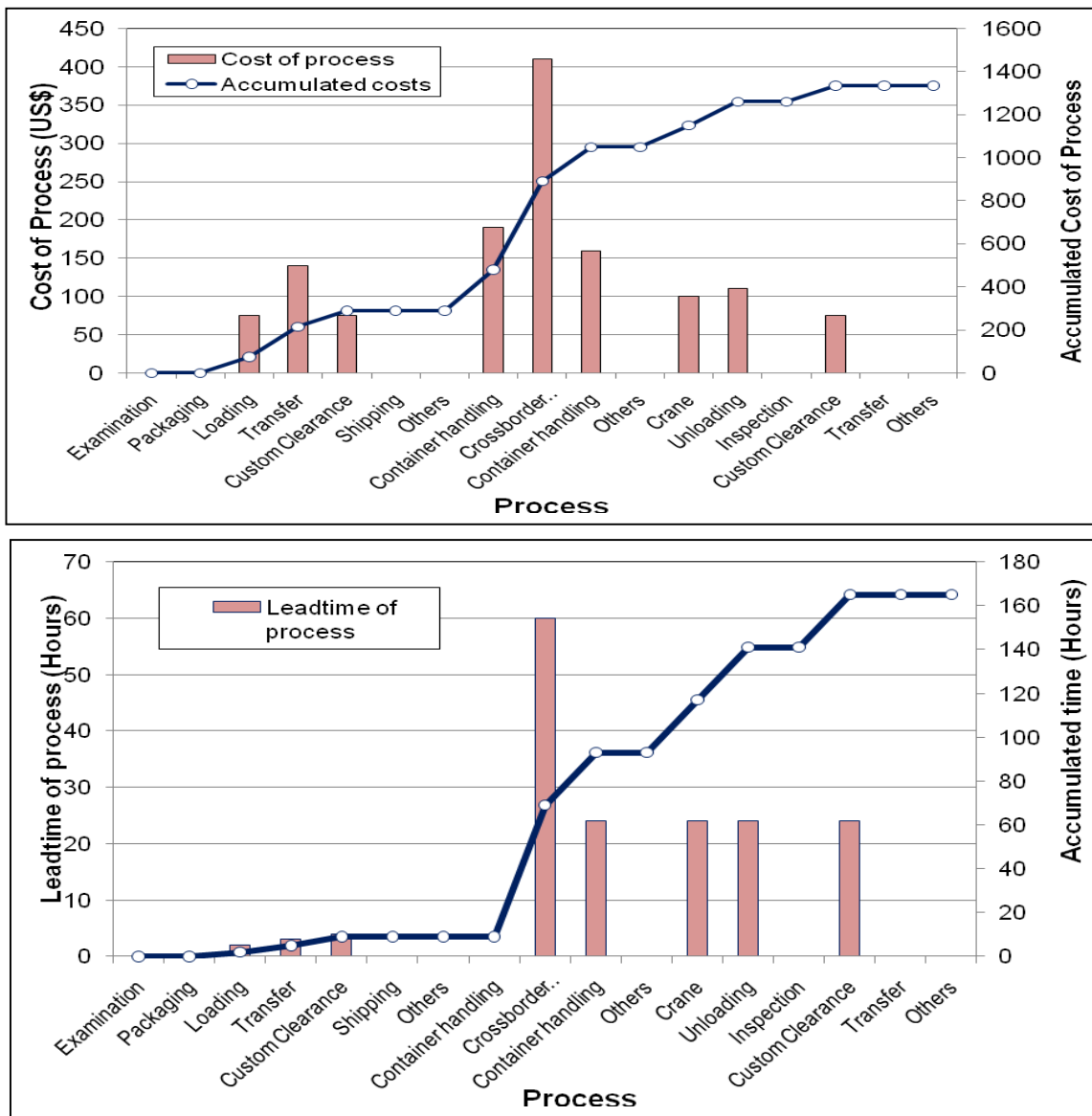
Physical connectivity. ERIA worked together with the ASEAN STOM in developing the ASEAN Strategic Transport Plan (ASTP) 2011-2015. The Plan provides a comprehensive framework and detailed plan towards seamless physical and transport connectivity into 2015 as well as the key strategies beyond 2015. (See ERIA, 2010b.) The Plan underpins the priorities on physical connectivity that are in MPAC. As ASTP emphasized, ASEAN’s supply chain network is only as strong as its weakest link, and hence, it needs to eliminate missing links and improve the quality of weak links.

On land transport, this means the focus into 2015 and some years beyond is to complete and upgrade ASEAN Highways, complete the Singapore-Kunming Railway Link (SKRL), and implement the transport facilitation agreements, i.e., ASEAN Framework Agreement on the Facilitation of Goods in Transit (AFAFGIT), ASEAN Framework Agreement on the Facilitation of Inter-State

Transport (AFAFIST), and ASEAN Framework on Multimodal Transport (AFAMT). The abovementioned transport facilitation agreements are very important for seamless transport connectivity because the results of logistics flow studies in ASEAN indicate that the costs and time for border-crossing for trucks in ASEAN are very substantial (see **Figure 3.6**). While there is substantial progress on the transport facilitation agreements above, the two most important protocols of AFAFGIT (Protocol 2 and Protocol 7) need to be finalised and/or still be operationalised (ERIA, 2012a, p. X-27).

Moving forward beyond 2015, the completion of the missing links and upgrading of “below class 3” roads of the ASEAN Highway will likely go beyond 2015, primarily in Myanmar and the upgrading of class 2 and 3 roads with high traffic volume in the ASEAN Highway system would have to be done in AMSs. Similarly, there remain segments in the SKRL which would likely be completed well beyond 2015 yet. The completed ASEAN Highways and SKRL network will be the main skeleton of land transport for ASEAN. For greater accessibility of the hinterlands and to engender further inclusiveness, it is important to develop at the national level feeder and distribution networks linked to the ASEAN Highway (ERIA, 2010b). Additionally, AFAFGIT, AFAFIST, and AFAMT would need to be fully functioning in order for all the investments in physical infrastructure to lead to significant benefits to firms and people. Finally, ASEAN aims to establish itself as the transport hub of the world’s growth corridor from India through ASEAN thence to Northeast Asia or to Australia-New Zealand (MPAC strategy 5). This is through the development of “land bridges” or corridors like the Mekong-India Economic Corridor or East West Economic Corridor.

Figure 3.6: Cost and time for cross border transportation by trucks



Source: JETRO, ASEAN Logistic Network Map (2008) as reprinted in ERIA (2012a), p.X-16.

In depth studies may need to be done to determine how ASEAN can maximise the potentials of being at the geographic heart of East Asia growth corridor.

Air transport⁵

In a region as geographically spread out as ASEAN and with members that are in continental Asia and others in large archipelagos, a connected ASEAN would require very good air connectivity. ASEAN does aim for that and more, with the ultimate goal of setting up an ASEAN Single Aviation Market (ASAM). ASEAN has the Roadmap for Integration of Air Travel Sector (RIATS) which has spawned three major formal Agreements and

⁵ This subsection draws heavily on Tan (2013).

their implementing protocols. They are the Multilateral Agreement on Air Services (MAAS), Multilateral Agreement for Full Liberalisation of Passenger Air Services (MAFLPAS), and the Multilateral Agreement for Full Liberalisation of Air Freight Services (MAFLAFS). Because of the ASEAN – X principle, all of the three multilateral agreements are in force but only among the state parties to the agreements. ASAM will remain elusive into 2015 and beyond without significant change of heart in the most important non-state party, i.e., Indonesia.

The most notable non-state party is Indonesia for Protocols 5 and 6 of MAAS and all the protocols of MAFLPAS and MAFLAFS. Given that it has the largest population and economy in ASEAN with a large air travel market, Indonesia's absence throws a big dent in the single aviation market aspiration of ASEAN. Underlying the hesitation in Indonesia is the threat of loss of market in international travel directly and in domestic travel indirectly (if foreign carriers have unlimited access to secondary airports) due to the perceived huge disparity in airline size and competitiveness between the large foreign carriers like Singapore Airlines, Malaysian Airlines and Thai Airways (for both passengers and freight), on the one hand, and the Indonesian carriers like Garuda and Lion, on the other hand.

Moving forward beyond 2015, the following provide some hopeful signs that there could be some ways forward towards a more integrated ASEAN air travel sector:

- Growing confidence of Indonesian carriers which are expanding aggressively (e.g. Lion, Garuda). As the limits of bilateral treaties get reached with their expansions and they become confident that they could compete well in a freer market, it is hoped that the current objections of Indonesian air carriers to the relevant protocols of the multilateral agreements in ASEAN would subside substantially and shift towards support for them.
- Pressure from provincial and local governments, tourism authorities, and business community to open up air travel since the opportunity cost to the country from restricted air travel is growing with the fast growing

tourism and business travels in the region. The partial open skies policy in the Philippines is a product of such pressure to a large extent.

- Pressure from increased competition from carriers outside the region that benefit more from ASEAN's agreements with larger countries like China.
- Innovations of market players such as in cross-border joint ventures/subsidiary model of AirAsia as a means of getting around "seventh freedom" or cabotage restrictions in some AMSs like Indonesia and the Philippines.

In short, the movement forward beyond 2015 rests primarily on market forces forcing recalcitrant stakeholders to open up and governments to rethink policies towards greater competitive environment and thereby paving the way towards a more integrated air travel sector in ASEAN.

Maritime Transport. ASEAN contains two of the world's largest archipelagos in the world. It also includes one of the most important sea ways in the world, i. e., the Malacca Straits. Thus, maritime transport is a core element of ASEAN connectivity. Indeed, ASEAN aims to establish an integrated, efficient, competitive, and safe maritime transport system (MPAC Strategy 4). It also aims to promote the progressive liberalisation of maritime transport services in the region, as embodied in the "Roadmap towards an Integrated and Competitive Maritime Transport in ASEAN" adopted in 2008.

Virtually all the planned actions on maritime transport in MPAC and ASTP can be expected to be implemented mainly beyond 2015. These include the enhancement of the performance and capacity of the 47 designated ports in ASEAN maritime integration program, establishment of efficient and reliable shipping routes, including RORO connections between mainland and archipelagic ASEAN, enhancing search and rescue (SAR) capacity and capability, the development of human resources to strengthen port and shipping operations, and realise an ASEAN Single Shipping Market (ERIA, 2010b). Note however that ASEAN's single shipping market does not address cabotage; yet, good economic access of the periphery islands in a country would call for efficient and competitive shipping services. Thus, some AMSs

may need to address the issue of cabotage as inefficient domestic shipping could make farmers and firms from the domestic hinterlands less competitive vis-a-vis ASEAN exporters in the country's capital city and likely major domestic market.

ASTP and MPAC have clear strategic actions to develop ASEAN connectivity. The challenge into 2015 and beyond is essentially one of implementation.

Intra-ASEAN Mobility of Skilled Labour. The AEC Blueprint 2009-2015 includes “Free Flow of Skilled Labour” as among the five core elements of Pillar One “Single Market and Production Base”, together with the “free flow of goods”, “free flow of services”, “free flow of investment” and “freer flow of capital”. However, in contrast to the free flows of goods, services and investments where there are stated targets to minimize barriers to their flows, the action points for “free flow of skilled labour” pertain mainly to “managed mobility or facilitated entry for the movement of natural persons...” (ASEC, 2009, p.29). The ASEAN Agreement on the Movement of Natural Persons, signed in Cambodia last year, applies primarily to entry of business visitors, intra-corporate transferees, and contractual service suppliers for limited stay. It does not apply to people seeking employment, citizenship, residence, or permanent residence in another member state. ASEAN has been developing and negotiating Mutual Recognition Arrangements (MRAs) in selected professional services, albeit under “free flow of services”. ASEAN also aims to develop core competencies and qualifications as well as enhance cooperation among the members of the ASEAN University Network (AUN) to increase mobility for both students and staff within the region.

The fair reading of the actions stated above is that ASEAN is really aiming for “**freer flow of labour**” and **not “free flow of labour”**. The logical effect of a “free flow of labour” is a single labour market as in EU where a citizen can move, reside freely and seek employment in any EU state subject to some limitations and conditions of public security, public health and public policy (Chia, 2013, p.14). CARICOM's measures are also relatively close to EU but only for selected professions so far. ASEAN's measures related to mobility of skilled labour are far away from the demands of “free flow of labour”.

There is some internal logic for “free flow of labour” in the case of EU and “freer flow of labour” as seems to be the case for ASEAN. In the case of EU, adherence to a single currency requires that adjustment to imbalances or shocks should not only be through fiscal and monetary means and capital flows but also through labour flows to minimize the adverse social effects of adjustment. In the case of ASEAN where countries have individual currencies and separate exchange rate policies, a “free flow of labour” is not absolutely necessary for smoother economic adjustment to external imbalances since exchange rate adjustment is the direct and potent policy measure to address such external imbalances. Note that in EU, despite the pro-single labour market policies, the actual labour mobility within EU is rather low because of many costs, e.g., financial, social, cultural, information, etc., involved (Chia, 2013, p.14).

Thus, it is best to view the “free flow of skilled labour” measures in the AEC Blueprint in terms more of in support of greater connectivity within ASEAN and less as an important feature of a drive towards a single market. This is consistent with the Master Plan on ASEAN Connectivity. In addition, “freer” or “managed” flow of skilled worker is also important for increased competitiveness of ASEAN, as suggested by the importance of face-to-face contacts among engineers for effective transmission of new technologies and of a liberal R & D environment for a more innovative ASEAN as discussed in the next chapter on Competitive and Dynamic ASEAN.

On the measures towards freer flow of skilled labour in ASEAN, there has been mixed progress on the implementation of MRAs in professional services, especially in engineering and architecture. However, the corresponding changes in national laws and regulations to allow ASEAN certified professionals to practice their professions in another AMS have not yet been fully accomplished in virtually all the AMSs. The ASEAN University Network (AUN) has been progressing well with a significant number of initiatives, including the ASEAN Credit Transfer System (ACTS), AUN-Quality Assurance, etc. The “...increased mobility for both students and staff within the region” (ASEC, 2009, p. 29), however, appears to be still wanting. This reflects to some extent the sharp differences in curricula and standards among the institutions, limited financial resources for student and staff exchange, and language differences (Chia, 2013, p.23).

Moving forward beyond 2015, Chia (2013) recommends the following⁶:

- **More effective cooperation among tertiary institutions and facilitation of exchange of students and staff.** The greater use of English as a medium of instruction in ASEAN could facilitate student and staff exchanges. ASEAN may also consider two successful European programs, namely, the *Erasmus Programme* and the **Bologna Process**, for adaptation and implementation in ASEAN. The Erasmus Programme promotes tertiary students to spend 3-12 months in another European country with transferability of course credits, waiver of tuition fees in the host institution, and an Erasmus grant to cover living costs. The Bologna Process adopts a system of comparable degree and system of credits to promote easier process of qualifications recognition and European cooperation in quality assurance.

- **Liberalisation and facilitation of entry and employment of ASEAN professionals and skilled workers.** Measures include:
 - facilitation in the issuance of visas and employment permits for professionals and skilled works engaged in cross border trade and investment, including the availability of forms in English on government websites;
 - need for transparency and information on the legal and policy restrictions governing employment of foreign professionals and skilled workers (e.g., work visas, labour market tests, opportunities for contract extension and permanent residence; taxation; etc.);
 - acceleration of development of core competencies for job/occupational skills especially in services.
 - creation of an ASEAN skills recognition framework. ASEAN countries still use very different systems and standards for labour skills regulations and certification. Harmonisation and mutual recognition is a time-consuming process.
 - improvement of the information network on employment opportunities and employment conditions in ASEAN countries.
 - ensurance of the portability of social security benefits.

⁶ The lists and discussion below is taken from Chia (2013).

- **Build ASEAN centres of excellence.** With mutual recognition of qualifications and freer movement of professionals and skilled labour, ASEAN should look into developing centres of excellence and hubs for various services and sub-sectors in different countries in the region. Collaborations and partnerships among ASEAN professionals could lead to the emergence of the ASEAN equivalents of Price Waterhouse Coopers, Ernst & Young, McKinsey, etc.
- **More effective implementation of MRAs.** ASEAN could explore the ASEAN equivalence of the EU Professional Card for some ASEAN professions. The EU Professional Card facilitates the recognition of professional qualifications in all EU member states.
- **Need to change mindset about skilled labour mobility.** That it is not a zero sum game. That skilled labour mobility can have synergistic effect on domestic talents and improve domestic consumer choice of service providers. That cultural diversity and international work experience is a competitive edge in the era of globalisation. That mobility of people for employment is an important element of community building in ASEAN.

To sum up, fostering an integrated and highly contestable ASEAN towards an eventual single ASEAN market and production base entails not only the elimination of tariff barriers but also streamlined and non-protectionist non-tariff measures (NTMs), seamless single windows and trade facilitation, facilitative standards and conformance, highly contestable services and investment regimes, prudently managed and deeper financial markets, much greater infrastructure connectivity, seamless air, maritime and multimodal connectivity, and freer flow of skilled labour in the region.

Chapter 4

Competitive and Dynamic ASEAN

Introduction

In addition to deeper economic integration within ASEAN and with rest of East Asia and the world, ASEAN Rising post 2015 demands engendering a globally competitive and dynamic ASEAN. This chapter emphasises that plugging ASEAN deeply into the networked and innovation world future is the core of ASEAN's drive to be competitive and dynamic. In the process, ASEAN Rising is embodied in an "ASEAN Miracle" albeit not spectacular as the "China Miracle" but nonetheless still a remarkable one.

To a large extent, some ASEAN member states are already plugged in the networked world future embodied in production networks or supply chains or vertical trade unleashed by the *2nd unbundling*. ASEAN, along with China, is right in there in the *2nd unbundling* wave, involved in what is the world's most elaborate regional production networks in contrast to the more hub-and-spoke pattern of trade linkages in NAFTA [around the United States (US)]. The *2nd unbundling* has transformed the process of industrialisation in the world, arguably best exemplified by China, but also illustrated by the unfolding "Rising ASEAN" where economic policy is increasingly shaped significantly by the demands of and the opportunities provided by the *2nd unbundling*. This chapter highlights that the key to greater competitiveness of ASEAN is to push the production networks forward, both outward through deeper engagement in regional production networks in East Asia and the world as well as inward domestically and regionally through industrial clusters. It is this outward and inward push that would plug ASEAN firmly and deeply in the networked and "*2nd unbundling*" world.

In order for ASEAN to be fully engaged in the virtuous dynamic of deepening regional production networks and rising market demand within East Asia that becomes an important pillar of ASEAN's further industrialisation and economic transformation, ASEAN needs to be more competitive that is anchored on sustained robust productivity growth over time. Indeed, it is robust productivity growth that is the central determinant of competitiveness of ASEAN and each AMS. However, as the recent Conference Board (2013) estimates of total factor productivity growth show, the productivity growth performance of many AMSs falls far short of those of China, Korea and Taiwan during the past decade.

However, ASEAN is not firmly, and therefore not deeply, plugged into the innovation world future, except for Singapore. Yet technology diffusion and innovation are the major engines of productivity growth and therefore of long term competitiveness. Indeed, what would allow AMSs to move up the value chain, prevent the occurrence of "enclave industrialisation", and avoid the middle income trap is for AMSs to invest for improved policy and institutional environment and capacity for enhanced technology diffusion and innovation. The good news is that most AMSs included in the Global Innovation Index are among the top ranking in their income groupings, best exemplified by Malaysia leading the upper middle income countries, Singapore being the 8th best globally, and even Cambodia ranking fifth among the low income economies (see Dutta and Lanvin, 2013--Global Innovation Index 2013, pp. 19-39). The challenge is to push the process further towards a more innovative ASEAN in terms of investments in research and development, investments in human capital, and the strengthening of the policy and institutional environment (e.g., IPR regime) for quality assurance, technology diffusion and innovation.

Innovation does not exist in a vacuum; instead, innovative activities tend to occur in industrial clusters that are likely plugged to regional and global production networks. Additionally, effective innovation needs appropriate financing, availability of specialised skills and services, and large integrated markets; conditions that are the purview of the ASEAN Economic Community Blueprint. Technology diffusion and innovation benefit from investments and from the trade-investment-technology nexus of production networks. There is thus a substantial complementarity among the components of an integrated and

highly contestable ASEAN (discussed in previous chapter) and a competitive and dynamic ASEAN (discussed in this chapter).

As ASEAN strengthens its linkages in regional (and global) production networks and supply chains, deepens its industrial base through clusters that are increasingly innovative, invests strongly in human capital and R & D, becomes more deeply integrated, highly contestable, and more welcoming to foreign (including from other AMSs) investors and expertise, and strengthens cooperation towards greater resiliency and regulatory coherence, then during the next decade and a half, the unfolding *ASEAN Rising* is best exemplified by an *ASEAN Miracle*. As such, ASEAN becomes the poster region of the new model of regional integration and development, deeply shaped by the *2nd unbundling and production networks*, as discussed earlier in Chapter 2 of this report.

2nd Unbundling, Production Networks and ASEAN

2nd unbundling and industrialisation. Richard Baldwin (2011) most cogently described globalisation as two unbundlings that were the product of two of the most important connective technological revolutions ever; i.e., transport revolution that ushered the *1st unbundling* and the ICT revolution which ushered the *2nd unbundling*.

The *1st unbundling* is the spatial separation of production and consumption, brought about initially by steamships and railroads that reduced substantially transport and trade costs and allowed economies of scale in production and the benefits of comparative advantage; this transport revolution in tandem with lowered trade barriers gave rise to the global economy. In the *1st unbundling*, the production processes or tasks needed to produce a commodity are done within factories or production areas (or industrial districts) situated in various parts of a country. International trade consisted mainly of exchanging products of one industry in one country with the products of another industry in another country or among differentiated products of a given industry in two or more countries. Thus, the 20th century international trade that was shaped by the *1st unbundling* is essentially about selling things. That production is mainly in industrial districts and not spread out randomly in a country reflects the fact

that cheap transport enables large scale production, large scale industrial production is complex, and proximity lowers the cost of coordinating complexity. Coordination is a continuing two-way flow of goods, people, training, investment and information (Baldwin, 2011, pp. 11-13).

The 2nd *unbundling*, ushered in primarily by the marked reduction in cost of and great improvement in the quality of information and communication technologies, enabled the coordination of the complex production process undertaken over a very wide geographic space. The ICT revolution provided the opportunity to fragment the production process into clearly definable tasks or stages, modularise them with corresponding outputs, and situate the undertaking of the various tasks with corresponding outputs in different places and countries in order to reduce cost and improve efficiencies; i.e., “unbundle the factories” to maximise the benefits from scale economies and comparative advantage (Baldwin, 2011, p. 12). The modularisation of the production process allows both off-shoring of some tasks to affiliates in other countries and outsourcing of certain tasks to other firms located nearby or even far afield in a country or other countries depending on the various decision considerations of a given firm. The marked reduction in ICT cost and marked increase in ICT quality allows the coordination of such a geographically spread out production process. The result is a production network or a supply chain.

Nonetheless, face to face consultation and coordination remains important for effective coordination of the various tasks. Moreover, the increasing emphasis on just-in-time operations meant that the production flow needs to be tightly controlled, such that parts that are required often or are particularly critical requiring specialised skills need to be produced at or near the main plant while other tasks and parts could be farther afield to benefit from lower production costs. Thus, good infrastructure, efficient logistics, and fast import/export and customs clearance are critical requirements in support of well-functioning production networks.

Note that availability and cost of skills, related support services and specialised inputs are also important in the determination of the appropriate spatial dimension of the dicing of the production process and value chain of a firm. Thus, there are sometimes broad classification of countries into headquarter countries where headquarter functions and key research and development

activities are undertaken and the factory countries where much of the production takes place. Nonetheless, even R & D functions as well as a substantial portion of management and administration functions could be fragmented and undertaken in different locations or countries taking into account both the benefits and costs of such fragmentation. Thus, the surge in knowledge process outsourcing and business process outsourcing, of which India and the Philippines are global leaders. But because of the importance of face to face coordination and just-in-time production operations, production networks across countries are usually regional rather than global, e.g., “Factory East Asia”.

Arndt (2002) highlighted that the effects of relocating the labour intensive components to low labour cost countries are similar to the effects of technical progress and the resulting higher productivity would lead to higher economy wide wages. This is the crux of the incentive of firms to fragment their operations to reduce cost as well as the benefits to the society.

The description above of the 2nd unbundling presents one key defining difference between 20th century trade and 21st century trade, emphasised by Baldwin, which is that the latter is also as much, if not more, of trade involved in *making things*, and not only in *selling things* (as it was in the 20th century trade). This is reflected in the surge of trade in parts and components that for the most part are related to production networks.

One key element of the 2nd unbundling and the accompanying production networks is that the geographic dispersion of the production necessitated the internalisation of the coordination of the production stages. This means that the offshoring of stages of the production demands that the complementary advanced country technology, management, skills training, quality control, etc. need to be brought in together with the new factory in the destination country (primarily a developing country). In a sense, the foreign direct investment into the developing country comes with a package of not just funds but also technology, management, etc. as well as long term business relationship (i.e., assured export market). At the same time, the foreign firm investing in the developing country needs good infrastructures and logistics-related services such as telecommunications, internet, express parcel delivery, air cargo, trade related finance, customs clearance, etc. in order to operate well and seamlessly

with its other production stages in other countries. This is the trade-investment-services-intellectual property nexus that embodies the 2nd unbundling and the corresponding 21st century trade (Baldwin, 2011).

In effect, whereas “20th century trade is the selling of goods made in factories in one country to customers in another... (and therefore) goods are ‘packages’ of a single nation’s productive factors, technology, social capital, governance capacity, etc.” (Baldwin, 2011, p.13), 21st century trade involves “...continuous, two-way flows of things, people, training, investment, and information that used to take place within factories and offices...” (*Ibid*), and as such, 21st century trade is not only about selling things (the focus of 20th century trade) but also about making things (via production networks).

At the same time, the 2nd *unbundling* provides a new major and faster mechanism for the host developing countries to get on the road to substantial industrialisation as manifested in the ability to export of industrialised products. In the 1st unbundling and 20th century trade, successful export of industrialised products necessitates that a developing country must have developed the competencies in most of the stages to produce the whole product as competitively as advanced industrialised countries. This in turn almost requires that the country has successful import substitution of hitherto industrialised products similar to the case of South Korea. In contrast, the 2nd unbundling allows developing countries to focus first on the production stage (s) where they have comparative advantage and be able to join the regional production networks.

In the case of ASEAN, this is best exemplified in recent years by Viet Nam’s dramatic rise of electronics related exports accompanied by equally dramatic rise in imports of electronic related products that were used for the assembly of electronics products for eventual exports. This is also the case to a large extent for Thailand and Malaysia albeit over a wider range of products and in some cases with deepening domestic local value added. This is also the case for the Philippines but over a much narrower range of intermediate goods products.

Off-shored production in developing countries involve “...very firm specific slices of the parent company’s know-how” (*Ibid*, p.26) and the factories tend to be fully owned or controlled by the parent company; as such, there is less

technology dissemination to the rest of the economy. Thus, while there is industrialisation as indicated by the export of industrial products, this is not the same as the successful import substitution policies of Korea or Taiwan; the effect could be one of “enclave industrialisation” (Baldwin, 2011, p.26).

The challenge therefore in the *21st century unbundling* and production networks is how to use it as a catalyst for industrialisation and higher growth path but without succumbing to “enclave industrialisation”. This calls for, among others, (a) developing more of the export oriented industrial clusters (of both foreign- owned and locally owned firms) because the thicker and more widespread the clusters are, the greater are the potentials for greater economies of scale and larger technology spill-over; (b) developing mechanisms that encourage firms to deepen local support firms and industries through technology transfer and long term business relationships; (c) deepening capacities of local firms and institutions to absorb, modify and innovate on new technologies and practices; and (d) investing in human capital to strengthen absorptive capacity for new technologies and practices. All the above call for an enabling policy, regulatory and institutional environment that is open to foreign investment, technology and talent, more uniform trade and regulatory regimes between the export-oriented industrial clusters and the rest of the economy, and improved physical and institutional connectivity between clusters, regions in a country, and countries.

To a large extent, the road to robust industrialisation in Thailand and Malaysia (in electronics and electrical machinery and parts) is anchored on the deepening and widening of the industrial clusters linked to regional production networks together with the strengthening capacities of local firms, institutions and people to absorb and adapt technologies and production systems over time. The Philippines has been less successful so far in deepening its footprints in regional production networks in part because of the relatively less attractive investment climate relative to other AMSs as well as because the production stage for the Philippines tends to be in the assembly and testing of highly technology intensive parts where there is little domestic market and where the domestic firms do not have the technological capability to participate; hence, to some extent, this was a case of ‘enclave industrialisation’. It has been in the outsourcing of business related services where the country has experienced

spectacular success, a reflection of the latent comparative advantage of the country.

The most successful in leapfrogging the value chain in the production networks is of course Singapore where it is essentially in the innovation frontier but still linked tremendously to production networks. Indeed, Singapore had been an artful implementer of production networks or production sharing during the past three decades or so with its cross-border production sharing with Riau and Johor for the more labour intensive operations as a competitiveness tool vis-a-vis competition from cheaper emerging countries while exporting more technology intensive and specialised products.

For AMSs that have not yet been integrated into the regional production networks; e.g., Myanmar, joining the production networks entails largely having a relatively favourable investment climate for multinationals which are the drivers of regional production networks, good connectivity and infrastructure near seaport and/or airport, and comparatively low labour costs. To a large extent, implementing the relevant policy measures and regional initiatives in the AEC Blueprint would address these prerequisites. After the success of Viet Nam and progress in Cambodia, it is likely that it would just be a matter of time for countries like Myanmar to be able to join the regional production networks.

The discussion above suggests that the industrialisation process in a number of ASEAN countries has a lot to do with production networks and increasingly deepened and widened by complementary domestic policies. This is not quite surprising since it is ASEAN countries and China that have been part and parcel of the regional production networks in East Asia alongside Korea and Taiwan and to a large extent led by Japan. The resulting industrial transformation in a number of AMSs, while less spectacular and much more gradual than China, is nonetheless remarkable as well. It is worth noting that Baldwin (2011) put the ushering of the 2nd unbundling during 1985-1995, precisely the decade of high inflows of foreign direct investment especially from Japan in the aftermath of the Plaza Accord, surging manufactured exports, and high economic growth for Indonesia, Malaysia, Singapore and Thailand; i.e., “ASEAN’s golden decade”. Moving forward, deepening the industrialisation process involves

moving the production networks forward both domestically as well as regionally, primarily through the ASEAN Economic Community.

The discussion above also suggests that the facilitative environment at the regional level for regional production networks does not only call for trade liberalisation but also for much deeper regional integration that deals with quite a bit of behind the border policy and regulatory areas. This is partly because production fragmentation across countries amplifies the trade costs in view of the larger number of cross-country flow of inputs in order to complete a final product Yi, 2003 as referenced in Koopmans, et.al, 2010, p.6). At the same time, the discussion above suggests that to a large extent, many of the measures towards an enabling policy, regulatory and institutional environment for the robust growth of, and industrialisation arising from, industrial clusters and regional production networks are captured in the AEC Blueprint. ***Thus, the AEC Blueprint is not just an enabler of regional economic integration but also a facilitator of economic development and industrialisation of AMSs. As such, the effective implementation of the measures for AEC post 2015 would help bring forth the full flowering beyond 2015 of the “ASEAN Miracle”.***

Global value chains, regional production networks and ASEAN.

In view of the prevalence nowadays of fragmented production with different stages of production being undertaken in different countries, it is worthwhile to trace the value added of exports and imports by country, and in effect allow for a snap shot of the global value chain. Koopman, Powers, Wang and Wei (2010) did just that by marrying international trade data and input-output tables around the world. They decomposed gross exports into (a) domestic value added, foreign value and with domestic value added returned from abroad; (b) domestic value added further decomposed into that portion that was absorbed by the direct importer as final goods or as intermediate inputs or that portion that was processed and exported to third countries either as final goods or intermediate inputs; and (c) similarly, foreign value added further decomposed into final goods and intermediate inputs. The authors also estimated the Global Value Chain (GVC) participation rate. The GVC participation rate of a country is the sum of the percent share of a country's intermediate exports used in other countries' exports and the percent share of imported intermediates in its own production.

The results of Koopman, *et al.* for Emerging Asia, Asian NICs and Japan are presented in **Table 4.1** based on 2004 data. The decomposition of gross exports in **Table 4.1** as well as the GVC participation rates give some interesting results. Note that the decomposition is for all commodity exports, and not just on machinery products which are the usual focus of empirical analyses on regional production networks. Nonetheless, the results in **Table 4.1** are suggestive.

Table 4.1: Decomposition of Gross Export

Country	Basic Decomposition						GVC Participation (Vertical trade, OECD)
	DVA in direct exports of final goods	DVA in intermediates absorbed by direct importer	Indirect DVA exports to third countries	Returned DVA	Foreign value added	Total	
<i>Advanced economies</i>							
Australia, New Zealand	27	33.6	27.4	0.6	11.5	100	39.4
Canada	23.5	36.2	10.9	1.3	28.1	100	40.4
EFTA	23	36.3	14.7	0.8	25.2	100	40.8
Western EU	38.1	29.6	13.5	7.4	11.4	100	32.3
Japan	38.4	18.5	28	2.9	12.2	100	43.1
United States	32.5	27.6	14.6	12.4	12.9	100	39.9
<i>Asian NICs</i>							
Hong Kong	27.2	25.8	18.9	0.6	27.5	100	47
Korea	29.5	13.5	22.3	0.9	33.9	100	57
Taiwan	19.2	12.6	26.4	0.8	41.1	100	68.2
Singapore	11	13.1	12.2	0.6	63.2	100	76
<i>Emerging Asia</i>							
China Normal	44.2	20.3	19.7	1.2	14.6	100	35.5
China Processing	28.8	10.2	4.1	0.3	56.6	100	61
Indonesia	20	28.1	28.4	0.6	22.9	100	51.9
Malaysia	16.7	17.7	24.1	0.9	40.5	100	65.5
Philippines	17.6	11.1	29	0.4	41.9	100	71.2
Thailand	27.9	14	18.1	0.3	39.7	100	58.1
Viet Nam	32.9	15.3	14.4	0.4	37	100	51.8
Rest of East Asia	35.3	26.9	16.1	0.1	21.7	100	37.9
India	30.2	30.8	18.6	0.4	20.1	100	39
Rest of South Asia	48.8	19.2	10.6	0.1	21.3	100	32

<i>Other emerging</i>							
Brazil	27.4	40.7	19	0.3	12.7	100	31.9
EU accession countries	28.7	29.2	10.4	1	30.8	100	42.1
Mexico Normal	23.5	41.1	17.4	0.6	17.3	100	35.3
Mexico Processing	20.6	10.1	5.6	0.3	63.4	100	69.3
Rest of Americas	23.8	40.6	20.4	0.7	14.4	100	35.6
Russian Federation	9.5	49.1	30.5	0.7	10.2	100	41.4
South Africa	23.1	34.5	24	0.2	18.2	100	42.4
Rest of the world	15	45.6	22.4	2.5	14.6	100	39.5
<i>World average</i>	29.2	27.7	17.5	4	21.5	100	43

Notes: All Columns are expressed as a share of total gross exports. DVA refers to domestic value added. Country groupings follow IMF regions.

Source: Koopman, *et al.* (2010).

The table shows that Indonesia has the highest share of domestic value added to total value of gross exports among AMSs in the table, a reflection of its comparatively heavier dependence on natural resource based products. Of the AMSs in the table, Indonesia is the least dependent on production networks for its exports; the share of foreign value added to the gross value of exports of around 23 percent is the lowest among AMSs. India is almost similar to Indonesia; it too is not yet well integrated in regional production networks; indeed, its participation rate in the global value chains is much lower than Indonesia's. In contrast, Singapore is very heavily dependent on foreign value added for its exports at 63 percent, and at the same time, its GVC participation rate is the highest among the AMSs. This reflects the sheer lack of production space in the city state so much so that it has to rely heavily on imported components for its exports of intermediate products.

The Philippines and Malaysia have the second and third lowest shares of domestic value added to gross exports, a reflection of the heavy reliance of both countries on electronics and electrical machinery parts and components exports. It is also worth noting that most of their exports are used as intermediate inputs by the direct importing countries or processed further and exported to other countries either as final products or intermediate inputs. In effect, the commodity composition of Philippine and Malaysian exports is mainly for parts and components and other intermediate inputs; not

surprisingly, much of the foreign value added into the Philippine and Malaysia exports is for intermediate inputs. This is reflected in the GVC participation rates of the two countries, with the Philippines second to Singapore among all the countries in the sample of Koopmans, et al. Note how similar is the structure of exports of Malaysia and the Philippines to that of Taiwan, which also relies on imported inputs to be processed for export as mainly intermediate inputs. The three countries are well integrated in regional production networks, specialising in the intermediate goods segments of the supply chain.

Thailand and Viet Nam are somewhat similar in their composition of exports. Both countries rely somewhat lesser than the other AMSs on foreign value added for their exports; moreover, a larger proportion of their exports is for final goods. This reflects the heavier reliance of the two countries on processed and unprocessed agriculture food products and on downstream manufacturing for final goods (e.g., cars and trucks for Thailand, garments for both). Viet Nam shares with Indonesia in having the lowest GVC participation rates among AMSs. Thailand's aggregate numbers belie the fact that the country is very much tightly linked with East Asia's regional networks primarily in machinery goods, best exemplified by the automotive and hard disk drive industries. Similarly, Viet Nam has increasingly been wedded into the regional production networks in recent years (not quite captured yet in 2004) as the discussion below shows.

It is worth noting the "dualistic" nature of China's exporting system, similar to that of Mexico. China and Mexico are the world's top two users of processing trade, the latter characterised by the famous "maquiladoras" in Mexico's border cities with the US and the former exemplified by the spectacular success of the special economic zones. Arguably, China's processing trade is a critical component of East Asia's regional production networks, heavily dependent on foreign inputs and with exports that are primarily of the downstream assembly products (as of 2004). The GVC participation rate of China processing is correspondingly very high, in sharp contrast with China's normal trade with is almost similar to that of India with a much lower reliance on imported inputs and much lower GVC participation rate.

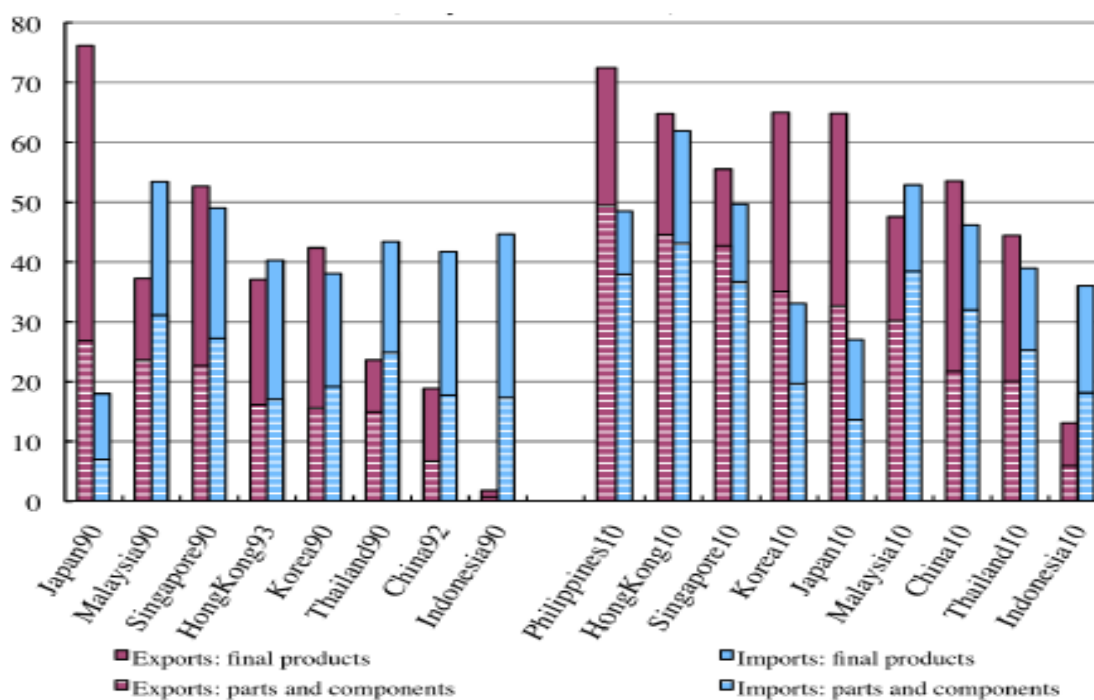
Koopman, *et al.* (2010) describes the value added of international trade and indicated countries' participation in the global value chain. Global value chains

are not quite the same as regional production networks, however, as the latter presumes high frequency back and forth interactions among the network players within a tight production flow. The machinery goods trade provides a much better indication of the evolution of regional production networks because machinery goods industries are parts intensive.

Mitsuyo Ando and Fukunari Kimura have been at the forefront of studies on regional production networks in East Asia drawing from detailed analyses of machinery goods trade in the region. **Figure 4.1**, taken from Ando and Kimura (2013), shows the marked rise in the share of import and export of machinery parts and components and final products from the early 1990s to 2010. The most dramatic has been the case of the Philippines where machinery trade was relatively minor to figure at all in the tabulation to become the most important component of the country's exports and imports by 2010. Malaysia, Thailand and to a less extent Indonesia experienced significant increase in the share of machinery exports to total exports. Moreover, there is a significant shift from an apparent net importing position to an apparent net exporting position in machinery trade for Malaysia and Thailand during the period. Singapore's reliance on machinery trade also increased during the period. Singapore and the Philippines are the AMSs where there is heavy concentration on machinery parts and components for their exports and imports, while Thailand has a larger share of final goods. The picture coming out of **Figure 4.1** is consistent with the decomposition of aggregate exports of AMSs discussed above.

Figure 4.1: Machinery Trade in East Asia: Shares in Total Exports / Imports

(Early 1990s and 2010)



Source: Ando and Kimura (2013).

The figure also shows the marked increase in the share of machinery trade in China's exports. Moreover, considering that China has an aggregate net trade surplus position, the figure indicates that China has turned from being a net importer in machinery trade to being a net exporter in machinery trade. Indeed, although it is not clear from the figure, considering that China has become the world's number one trading nation, the significant increase in the share to total exports and the marked shift in the net trade position in machinery is emblematic of one of the major developments in the global trade in parts and components during the past two decades. Specifically, China successfully joined the US, Germany and Japan as the dominant foursome in global supply chains. Indeed, China has become the biggest supplier of intermediate products globally together with the US at the same time that it has become the world's largest buyer of intermediate products which it needs to support its role as the world's key provider of manufactured final goods (see Baldwin, 2013). The surge of China into a dominant manufacturing nation with extensive import and export of manufactures is indicative of its dominant role in East Asia's production networks in part through the extensive use of processing trade as indicated in **Table 4.1** earlier.

Ando's and Kimura's (2013) analysis of the machinery trade data for 2007-2011 during and after the global financial crisis point to the further evolution and restructuring of the machinery sector and trade in the region. Specifically, machinery trade within East Asia recovered more quickly than the rest of the world; it is increasingly more focused on East Asia as a market; and is increasingly bringing in the CLMV region (essentially Viet Nam at the moment) into the regional production networks (see **Table 4.2**). **Table 4.2** shows the increase in the global shares of China and CLMV (Viet Nam) to both exports and imports of machinery parts, components and final products during 2007-2011; in contrast, the global shares of ASEAN 4 (Indonesia, Malaysia, Philippines and Thailand) decreased for machinery parts and components but increased in machinery final goods.

Ando and Kimura (2013), in examining the evolution of a number of product-country pairs intra-regionally and with the world, found that despite the decline in the number of machinery products exported to the world after the global financial crisis, the number of product-country pairs within East Asia increased, suggesting the more robust trading and likely deepening and widening production and trading relationships within the region on machinery parts, components and final goods. Much of this widening and deepening appears to be driven primarily by the product expansion of China exports of final goods with ASEAN in part from its imports of parts and components from ASEAN, the deepening linkages of South Korea in regional production networks, and the strengthening of links between Viet Nam with the ASEAN 4 as well as with China.

In short, Ando's and Kimura's (2013) paper points to the further strengthening of intra-regional trade in machinery products in East Asia and to the further restructuring of the regional production networks in East Asia in recent years. The paper also brought out that the regional production networks in East Asia are increasingly producing goods for the growing East Asia market. In effect, East Asia is moving from mainly "Factory East Asia" to increasingly "Market East Asia" driven by comparatively more robust economic growth and the consequent rise of the middle class in the most populous continent on earth. It is this internal virtuous dynamic of deepening and widening production networks and robustly growing regional markets that offer substantial opportunities to ASEAN to becoming an even more important cog and player

in the region's production networks. In the process, ASEAN's industrialisation and economic transformation process accelerates and deepens.

Table 4.2: Intra-Regional Trade of East Asia 9: Value and Share

Destination/ Origin	Exports					Imports				
	2007	2008	2009	2010	2011	2007	2008	2009	2010	2011
a) All Products										
Value (nominal): 2007=1										
World	1	1.13	0.93	1.21	1.35	1	1.03	0.83	1.1	1.35
East Asia 15	1	1.12	0.95	1.26	1.4	1	1.12	0.93	1.23	1.42
Share: World=100										
World	100	100	100	100	100	100	100	100	100	100
East Asia 15	48.1	47.6	49.1	50	50.1	53.4	50.2	51.5	51.6	48.7
China	12.6	12.3	13.6	13.9	13.9	14.8	13.9	14.5	13.8	13.2
CLMV	1.5	1.7	1.9	2	2.2	0.8	0.9	1	0.9	1.1
ASEAN 4	7.9	8.2	8	8.5	8.6	10.6	10.2	10.2	10.6	10.1
ASEAN 5	9.1	9.6	9.5	10	10.3	11.3	10.9	11	11.3	11
ASEAN 10	12.9	13.4	13.5	13.8	13.9	14.8	14.5	14.6	14.9	14.4
NIEs 4	19.6	18.9	19.2	19.4	19.1	16.6	15.2	15.7	15.9	15
Japan	6.5	6.5	6.3	6.1	6.1	10.4	9.9	9.9	10.2	9.1
b) Machinery Parts and Components										
Value (nominal): 2007=1										
World	1	1.06	0.94	1.19	1.31	1	1.05	0.91	1.19	1.27
East Asia 15	1	1.04	0.95	1.19	1.3	1	1.04	0.9	1.22	1.28
Share: World=100										
World	100	100	100	100	100	100	100	100	100	100
East Asia 15	63.9	62.4	65.1	64	63.5	69.9	69.3	69.3	71.3	70.7
China	20.9	20.9	23.6	22	22.8	14.2	15.1	15.3	15.1	15.7
CLMV	0.7	0.9	1.1	1.1	1.3	0.3	0.4	0.4	0.5	0.6
ASEAN 4	10.5	10.3	9.7	9.8	9.3	12.5	11.7	11.1	11.9	11.2
ASEAN 5	11.1	11.1	10.6	10.8	10.5	12.8	12.1	11.5	12.4	11.8
ASEAN 10	15.7	15.1	14.8	15	14.1	17.2	16.7	16.4	17.1	16.4
NIEs 4	26.2	24.7	25.6	26.3	25.2	28.2	27	27.9	28.7	28.2
Japan	5.7	5.6	5.1	4.8	4.8	14.7	15.1	14.6	15.1	15

c) Machinery Final Products										
Value (nominal): 2007=1										
World	1	1.11	0.91	1.16	1.29	1	1.11	0.99	1.28	1.54
East Asia 15	1	1.12	0.99	1.32	1.52	1	1.12	0.97	1.29	1.51
Share: World=100										
World	100	100	100	100	100	100	100	100	100	100
East Asia 15	30.4	30.6	33.3	34.7	35.8	58.7	59	57.2	59	57.8
China	6.2	6.2	6.6	7.4	7.5	23.4	23.1	24.5	25.3	25.5
CLMV	0.9	1.1	1.3	1.3	1.5	0.3	1.3	0.5	0.5	0.7
ASEAN 4	4.6	5	5.1	5.5	5.7	9.9	10.2	9.9	10	9.1
ASEAN 5	5.2	5.8	6.1	6.4	6.7	10.2	10.6	10.4	10.5	9.7
ASEAN 10	8.4	9.1	9.9	9.6	10.2	13.3	14.5	13.8	13.2	12.6
NIEs 4	14.6	14.3	15.6	15.8	16.2	11.4	10.7	10.4	10	10.6
Japan	4.2	4.1	4.7	4.7	4.8	13.6	13.7	11.8	13.2	12

Source: Ando and Kimura (2013).

Dynamic and Competitive Industrial Clusters

The chapter highlights that in addition to being more integrated and contestable, it is important for AMSs and ASEAN to engender industrial clusters that are both integrated domestically and regionally as well as to invest more to upgrade AMSs' technological capabilities and be more innovative. Two corollary policy imperatives are worth noting, i.e., the need to invest in, retain or attract human capital and the need to ensure favourable environment for private investment both local and foreign.

ASEAN success stories in industrial clusters. ASEAN already has success stories of globally competitive large industrial clusters that have substantially shaped industrial development in the countries concerned. Perhaps the one most prominent at the moment is **Thailand's automotive industry** cluster based around Bangkok, the Eastern Seaboard provinces (especially Chonburi and Rayong) and the Northern provinces of Patumthani and to a less extent Ayutthaya. Thailand's automotive cluster is now the Detroit of Southeast Asia, the only ASEAN country with a trade surplus in automotive products and accounting for about 1.1 percent of global exports in 2008 as against only 0.3 per cent in 1996 (Techakanont, 2012). Thailand has a trade surplus on

automotive products and a trade deficit on automotive parts vis-a-vis the rest of AMSs, an indication of the regional production network in the automotive industry in the ASEAN. The automotive industry is an ideal industry for production networks and industrial clusters because a vehicle requires hundreds if not thousands of parts and components and some parts are bulky so much so that assembly operations is more cost effective if parts suppliers, especially the critical and bulkier ones like engines, are sourced near the assembly plants.

One critical distinguishing characteristic of Thailand's automotive industry is the dominant role of leading MNCs in the industry, especially the Japanese car companies led by Toyota and also by Western car companies like Ford and GM. The leading automotive MNCs brought in a number of their suppliers to Thailand to be near their assembly plants in Thailand. They also provided technical advice and support to local parts makers in part because of Thailand's localisation policy until the 1990s and because of the logic of greater cost efficiencies from transport costs and inventory costs (with just-in-time operations) with the presence of capable parts suppliers near their assembly plants. The elimination of the local content requirement in 2000 and the corresponding liberalisation of the automotive parts industry provided further impetus for local parts makers to be globally competitive or else they would be replaced by imports in the MNCs' supply chain. The end result is an increasingly robust and thick network of primary (Tier 1) and secondary (Tier 2) suppliers to the assemblers in Thailand's automotive cluster. The global competitiveness of Thailand's automotive industry is perhaps best captured not by its share to global exports but by the fact that the leading MNC car assemblers started launching new models for the whole world in Thailand, especially of pickup trucks where Thailand is the global leader in the 1-ton pickup truck category (Techakanont, 2011, p.208).

The rise of Thailand's eastern seaboard at the centre of Thailand's automotive industry is the result of Thailand's government plan initiated in the mid-1980s to establish an industrial cluster in three eastern provinces (Chachoengsao, Chonburi and Rayong) (Techakanont, 2011, p.200). The Eastern Seaboard Development (ESB) Plan, opposed at its start by the World Bank, is in fact a grandiose program that featured 16 major infrastructure projects like deep seaports (especially Laem Chabang), highways (e.g., Bangkok-Chonburi

Highway, Outer Bangkok Ring Road, Chonburi-Pattaya New Highway), railways, water pipelines, reservoirs and heavy industry complexes. It is worth noting that Japan virtually financed all the 16 major infrastructure projects over a span of about 20 years through low interest loans from its Overseas Economic Cooperation Fund. (See Hill and Fujita, 2007, pp. 22-25.) The success of the ESB Plan is that the region is the second most important manufacturing region in the country (after the Central Region) with a diversified base; i.e., refined petroleum, automotive, petrochemical and machinery sub-sectors (Techakanont, 2011, p.201).

In addition to the infrastructure investments, the industrial estates in the region and the rest of the country "...compete with one another to entice foreign direct investment but under national guidance and monitoring" (Hill and Fujita, 2007, p.26). They provide "one stop" service to clients, assisting newcomers on all required permits and in securing government subsidies, bank loans, etc. Hill and Fujita (2007) also present cases where the industrial estate, a public-private partnership, facilitates exchange of information and learnings on compensation and training programs, changes in government regulations including labour regulations, safety issues, etc.; the estate also has a training centre. Moreover, because the estate is large, it contains a wide range of private and government services including customs house, hospital, banks, accounting and consulting firms, international schools, etc. (Hill and Fujita, 2007, pp. 25-26).

Penang electronics cluster and the **Singapore-Johor electronics cluster** are the other two well-known globally significant industry clusters in ASEAN. Like Thailand's automotive industry, the **Penang cluster** is MNC-driven, perhaps more overwhelmingly so, with about 83 percent of all fixed assets of the electronics industry in 1998 in Malaysia's key electronics clusters being foreign owned (Rasiah, 2002a). Leading MNCs like Intel and Dell have led the growth and deepening of the electronics industry in Penang since the 1970s from assembly initially to packaging and testing of semiconductors, to high volume production of electronic components, thence hard disk drives, then personal computer and the like (Best, 1999). Penang is a major component of the global production networks of many of the world's leading electronics firms. "Penang offers capabilities for state-of-the-art manufacturing and rapid ramp-up to high performance standards to market-led or design-led companies from anywhere in the world" (Best, 1999, p.17).

The global electronics industry is innovation driven with short product cycle; thus, having the leading electronics firms in Penang (and other electronics clusters in Malaysia such as the Klang Valley) provides a key motor of the dynamism of the electronics cluster in Penang. For while product innovation occurs mainly outside of the country such as the Silicon Valley, Penang's capacity as a high volume manufacturing cluster means that the cluster continues to evolve.

Equally important, Penang's strong systemic synergies, inter-firm linkages, and "open integrated business networks" (Rasiah, 2002, p.28) have been very important in deepening Penang's capability in electronics related manufacturing over the years, with a higher level of technology diffusion and local sourcing, thereby resulting in more flexible manufacturing operations in Penang which is an important consideration in an industry that is more prone to greater swings in market demand. The Penang Development Corporation (PDC), a government entity, and the Penang state government actively wooed the world's leading firms in semiconductors and components initially in the 1970s, then in disk drives in the later 1980s, followed by computers in the 1990s and opto-electronics in the early 2000s.

The diversification helped Penang sustain growth and acceleration of inter-firm linkages as well as deepen further tacit knowledge in the region. MNCs in Penang actively supported the development of local supplier base; indeed, many of the notable local suppliers are owned, managed and/or operated by former MNC employees or managers. In effect, the leading MNCs were important training ground for the development of local entrepreneurship. And a few of the local supplier firms have grown substantially to have branches in other countries in the region. The Penang Development Corporation (PDC) actively facilitated the business matching between potentially capable local firms and the innovative MNCs. PDC established the Penang Skills Development Center (PSDC) and later the Penang Design Center and worked with the MNCs in ensuring that the worker skills needed by the firms are provided effectively

Nonetheless, it is ultimately the inadequacy of highly skilled talents, primarily graduates of tertiary and post graduate educational institutions, and not much the purview of the PSDC, which constrains Penang and the other electronics clusters in Malaysia to move even further in the value chain, which is in the

frontier of product innovation and development (Rasiah, 2002; Best, 1999). The issue of human capital development is discussed in the succeeding section.

The Singapore-Johor electronics cluster started in Singapore, where the electronics industry in ASEAN began in the late 1960s, initially as a semiconductor assembly plant of simple integrated circuits for re-export to the United States. Like in Penang, Singapore's electronics industry is preponderantly foreign MNCs. The electronics industry is one of the most important manufacturing industries in Singapore.

As wages in Singapore, with its very small labour pool, rose substantially, labour intensive factory operations were relocated to Johor (mainly) but with Singapore focusing on the more engineering intensive activities like automation, product redesign, etc. and service related activities such as logistics functions in regional procurement (e.g., logistics, procurement, financial and business services). Given its limited labour base, Singapore could not compete on mass manufacturing production; instead, it developed high value regional SME supply base of machine tooling, metal working, plastic processing, die and mould making, instrument making, and related specialist inputs into manufacturing. It focused on delivering low cost, high quality production engineering inputs and services. It became a "packager and integrator" like Hong Kong, embodying a complex of activities to match demand and supply on local, regional and even global levels. The complex of activities include headquarters for management, financing, technology, design, prototyping, quality control, marketing, and distribution service between disperse assembly plants, etc. Underpinning this flexible niche manufacturing-services cluster are the ease of doing business (that allows for the ease of start-up and efficient operations) and the country's system of education with a heavy bias for engineering and technical skill formation, which includes the supplementation of formal education with training in specialist industrial training institutes for producing qualified craftsmen and technicians. (See Best, 1999.)

China's industrial clusters. China's experience is instructive. China's rapid rise to an export giant in the world economy owes a lot to the rapid growth of its industrial clusters; indeed, as Zeng (2011) avers, industrial clusters have been a competitive engine for China. The breadth and scale of China's

industrial clusters are awe inspiring. Thus, for example, China's Zhejiang province has more than 300 clusters that can enter into the world's top 10 in their sectors, and another 100 in second position. Wenzhou's footwear clusters account for one-eighth of the world's total, with more than 300,000 employees. Around 228 clusters in Guangdong, one of China's richest provinces, accounted for 25 percent of the total provincial GDP in 2007, effectively the main driver of the provincial economy. As an example of the importance of Guangdong's clusters, the textile cluster of Xiqiao (Guangdong) accounted for 30 percent of Guangdong's textile fabric market and 6 percent of the global market. (See Zeng, 2011.) The Pearl River Delta in Guangdong alongside the rest of China's coastal region especially Zhejiang, Fujian and Jiangsu provinces can be considered almost as the "factory of the world".

Most of the clusters in China grew spontaneously in response to market opportunities. However, the government, especially the local governments, gave "... all kinds of support to their development process" (Zeng, 2011, p.25). Zeng highlighted a number of reasons for the formation and growth of industrial clusters in China, including the economic reforms and opening up of China, the long history of production or business activities in a particular sector, entrepreneurs with tacit knowledge and skills in production and trading, and natural and human endowments including the abundance of low cost but relatively educated labour force. The abovementioned factors are likely present in most of the clusters in Indonesia and other parts of ASEAN.

Arguably, the seven factors that gave rise to the spectacular growth of the industry clusters in China during the past three decades are the following (see Zeng, 2011): (1) proximity to major local markets that are fast growing and are huge markets in their own right; (2) proximity to main roads, railways, highways and ports, with the latter especially important for the export oriented clusters; (3) foreign direct investment and the diaspora, with the implied access to new technology, management and export market; (4) effective local government support; (5) support from industrial associations and other intermediary organisations; (6) innovation and technology support from knowledge and public institutions; and (7) knowledge, technology and skill spillovers through inter-firm linkages.

Foreign investment and the Chinese diaspora, especially from Hong Kong and Taiwan, have been a very important factor for the formation of industrial clusters especially in China's coastal provinces like Guangdong and Fujian. The clusters like those in personal computer parts and products have benefited a lot from the technology and skills that were brought into the clusters, in large part considering that many of the Taiwanese firms are themselves at the forefront globally in the industries. The issue of technological transfer and firm linkages is discussed further in the succeeding section below.

Zeng (2011) emphasised that the success of the industrial clusters is inextricably linked with local governments' strong support and nurturing, mainly at the middle to later stages of the clusters when they have proven themselves and where the major focus of intervention is on addressing "market failure" or enhancing "externalities". Examples on support in infrastructures include building specialised markets or industrial parks to facilitate business activities and bring suppliers, producers, sellers and buyers together, thereby building forward and backward linkages to allow scaling up of the clusters. In "China's shoe capital", the city government built a large industrial complex that integrates technological training, trading, testing, production, information services, and shoe-related cultural exhibitions.

The responsiveness of the local governments is also manifested in the regulatory front. Thus, for example, when Wenzhou's reputation on shoe quality got a beating with the rapid expansion of the shoe industry, the local government issued strict regulations and quality standards for Wenzhou shoes and helped firms develop branded products. When stiff competition led to the lower quality textile products due to the use of cheap materials, the Puyuan Township issued decrees on the quality control and inspection system as well as product quality guarantee stipulation for cashmere which the township strictly enforced and ensured the quality of the products. (See Zeng, 2011.) It is worth noting that the quality control and guarantee system was decided and implemented at the township level and not even at the provincial level, reflecting a considerable degree of regulatory authority of local governments in the country.

China's local governments' technology, skills and innovation support are also worth mentioning. Zeng provides examples of this. Thus, the Xiqiao Township

established an innovation centre that provided new products and innovation services at below-market prices; such services include technology consulting, IPR protection, professional training, testing and certification. Wenzhou's local government encouraged entrepreneurs to establish learning centres, set up or introduced professional shoe leather majors in local colleges and schools to build up the local industry's professional talent, and even invited Italian shoe firms to establish a footwear design centre in Wenzhou.

China's local governments also provided fiscal incentives and financial support to qualified enterprises. This is similar to the policies of most countries in the world. Perhaps what is more noteworthy are the innovative means of providing such support. Thus, for example, Xiqiao's local government provided financing guarantee to assist SMEs get access to bank credit and thereby allow them to update their equipment. In the Puyuan sweater cluster, firms with famous brands locating in the cluster were provided preferential land, tax and credits. The Xiqiao town also set up an award to individuals who can bring qualified enterprises into the clusters (Zeng, 2011).

In addition to the strong support and nurturing of local governments, institutions like universities and research institutes provide support for innovation and technology upgrading in clusters. For example, Wenzhou University set up a production technology research centre in cooperation with several firms focusing on "green" product development, clean leather production technology, etc. The centre also established a laboratory for Zhejiang province which, together with the university, has made significant contributions to producing and testing leather chemicals, genuine leather processing technology and performance tests. Industrial associations and other intermediary associations have also been contributing to the robust growth of clusters in China. Thus, for example, the Wenzhou shoe industry's association contributed in introducing new technologies, helping firms enter domestic and foreign markets through marketing and branding services, providing training in partnership with national footwear associations and the Beijing Leather College, etc.. Similarly, the toy industry association in Yunhe wood cluster in Zhejiang helped establish a wood toy productivity centre, testing centre, information centre, and research institute in Yunhe (see Zeng, 2011).

The discussion above shows a highly supportive, responsive and virtually comprehensive institutional support system in China. Together with the favourable policy and incentive regime arising from the open door and the accompanying reforms, the heavy investments in infrastructure and trade facilitation, and the entrepreneurial spirit and business links of the Chinese people and diaspora, it is probably not surprising that China emerged as the global export powerhouse, driven to a large extent by its economic zones and numerous dynamic industry clusters.

Deepening industrial clusters: can clusters in traditional sectors in ASEAN be energised? The discussion so far revolved around successful, new, MNC driven clusters in ASEAN and the breadth and scale of China's clusters in traditional and new industries. Industrial clusters are also numerous in ASEAN, predominantly in traditional and not technology intensive industries. In contrast to China, however, most of the clusters are small, not dynamic and not competitive. Using Indonesia as illustrative case and comparing the results with China and the successful ASEAN industrial clusters can provide some insights.

Indonesia's clusters are numerous: Tambunan (2006) reported that the Indonesian government provided some support to 9,127 SME clusters in the whole country. Most grew largely autonomously over the years. That most of the clusters developed autonomously over time shows the benefits of geographic agglomeration of firms in a particular field or sector. However, clusters vary tremendously in their characteristics, from the "artisanal" clusters composed of low productivity - low wage - local market oriented micro and small firms, to the "active" clusters with firms using higher skilled workers and better technology serving the national market, to the "dynamic" clusters that are larger, where firms have extensive trade linkages abroad, and leading firms play dominant role, and ultimately "advanced" clusters where there is a high degree of inter-firm specialisation and cooperation, business networks of firms with input suppliers and providers of specialised services are well developed, linkages with associated institutions like universities and research institutes are good, and many of the firms are export-oriented (Sandee and ter Wingel as presented in Tambunan, 2006, p.8).

Tambunan (2006) avers that artisanal clusters dominate Indonesia's clusters; nonetheless, there are also many "active" clusters (e.g., roof tiles industry clusters, shuttle-cock industry clusters, metal casting industry clusters) and a number of "dynamic" clusters (e.g., textile weaving clusters in Majalaya and Pekalongan, wig and hair accessories industry cluster in Purbalingga, clove cigarette cluster in Kudus, handicraft cluster in Kasongan). The furniture industry in Jepara is classified either as a "dynamic" cluster or an "advanced" export oriented cluster similar to shoe manufacturing in Brazil, India and Mexico (Tambunan, 2006).

The structure of most Indonesia's clusters that are preponderantly craft-based domestic oriented clusters of microenterprises and SMEs is probably typical of most of the clusters in AMSs. The challenge for AMSs and ASEAN is how to engender more of the "dynamic" and "advanced" clusters as perhaps best exemplified by the electronics cluster in Penang, Malaysia, the automotive cluster in Thailand's eastern seaboard, and the numerous globally competitive industrial clusters in China.

Can there be more competitive and dynamic industrial clusters in Indonesia, and by extension, much of the rest of ASEAN? Can the more numerous but less dynamic clusters be energised? A comparison between China's and the successful ASEAN industry clusters, on the one hand, and Indonesia's predominant clusters, on the other, is instructive:

- First, China's major industrial clusters are strongly export-oriented while most of Indonesia's are not. In effect, China's firms are more attuned to the more demanding quality demands of the export market as well as tougher competition in the export markets. Penang's electronics cluster, Singapore-Jojor cluster and Thailand's automotive cluster are strongly export oriented.
- Second, China's government officials and clusters were aggressively courting foreign direct investments, with the attendant benefits on technology, skills and export market information and access. Penang, Singapore and Thailand were similarly aggressive in attracting FDI; indeed, they focused on the leading global players to invest in their clusters. In contrast, most of the clusters in Indonesia have virtually no

foreign equity presence. It is worth noting that the most successful clusters in Indonesia, i.e., furniture cluster in Jepara and handicraft cluster in Kasongan, have considerable direct investments from foreign immigrants (Tambunan, 2006, p.9).

- Third, basing on Tambunan's (2006) table listing Indonesia's assistance programs to (mainly SME) clusters, the Indonesian government provides a wide range of assistance programs to the clusters. However, Tambunan avers that in general, cluster development policies in Indonesia have not been successful. China's interventions have been much more successful.

A possible reason is that the scope and scale of government support appears to be very different. In the case of Indonesia, the common service facilities (CSFs) are likely the major facilities provided by the government in support of clusters. The CSFs include technical service units and provide extension and technical services and training courses, and serve as focal point for members to engender cooperative spirit and learning. However, the evaluation results indicate that the CSFs have largely done poorly and, at least until the early 2000s, most of the machines and equipments were outdated and therefore no longer very effective (Tambunan, 2006, p.15).

This contrasts sharply to the case of Wenzhou's complex that integrates technological training, testing, information services and shoe-related cultural exhibitions. Or the case of the Puyuan cashmere sweater cluster where the city government helped build a logistics business centre, loading dock, warehouse, and parking lot. Or the case of Thailand's Eastern Seaboard Development Plan with its 16 major infrastructure projects including two deep seaports. As Zeng (2011) emphasised, the success of the industrial clusters in China is inextricably linked with local governments' strong support and nurturing. That is also evident in the case of Thailand and Penang.

- Fourth, there is an apparent strong focus on ensuring quality and supporting innovation even if China had low labour costs before. The successful Penang and Singapore experiences also highlight the

importance of skill formation. Examples include Xiqiao's strict enforcement of quality control and product quality guarantee stipulation, or the city's investment in a company meant to develop new fabrics, new dyeing processes, and new printing formulas, or Wenzhou's setting up of college courses on professional shoe leather. This focus on technology development and innovation is shared by the other support institutions like universities and even industry associations as Zeng's paper brings out. The contribution of the Penang Skills Development Centre is also emphasised in studies on the Penang story; e.g., Best, 1999. Singapore's education system has historically been overwhelmingly focused on engineering and technical areas and formal education supplemented by training in specialised industrial training institutes, thereby providing a pool of skilled workers and professionals that the manufacturing and service sectors need. It is likely that none of these is undertaken by Indonesian local governments or the national government on a sufficient scale.

Way forward. Thus, to some extent, behind the apparent conflicting results on the impact of cluster development policies of China and the successful ASEAN clusters, on the one hand, and Indonesia (or a number of other AMSs), on the other hand, is the apparent difference in mindset, perspective, scale and approach to cluster development. What the comparison highlights is for Indonesia, and for that matter most of the other AMSs, to scale up substantially industrial clusters, encourage foreign participation, deepen them and strengthen their linkages internationally as much as domestically, correspondingly undertake more encompassing government interventions, and institute a more supportive business environment in order for industrial clusters to become a significant competitive engine for AMSs and ASEAN.

The World Bank (2009) provides a practical guide to develop a cluster-based competitiveness initiative. Given the resources needed to have effective support and nurturing in the scaling up of industrial clusters, it is clear that there is a need for prioritisation of what sectors and industries AMSs would focus on. The prioritisation and development of strategies for the sectors and location are best undertaken after (a) a careful contextualisation is made of how specific clusters of economic activities impact on the overall economy in terms of such variables as their relative importance to the economy, specialisation, linkages,

etc., and (b) examining how strongly each cluster is organised around related aspects such as suppliers, service providers, associated institutions, regulatory bodies, etc.. and (c) undertaking careful cluster analyses that include those on product and market segmentation, SWOT (strengths, weaknesses, opportunities and threats), and others. All these should be made with the aim of determining each cluster's competitive position and developing collective strategies with stakeholders. The description above brings out the importance of understanding the actual dynamics of the clusters and having deep engagements with cluster stakeholders.

It is apparent from the discussion that the scaling up of selected clusters is in effect a cluster-based competitiveness strategy and to a large extent a cluster-based industrial development strategy (or at least the contribution of the identified clusters to the overall industrial development strategy). Because a cluster-based strategy entails greater understanding of the spatial, inter-cluster, inter-industry, and inter-firm linkages, it can provide a more realistic and specific way to identify policy and institutional impediments to competitiveness and robust industrial development as well as a more fruitful way of engaging and partnering with various stakeholders of each of the selected clusters. These would include the specific ways forward such as policy, regulatory and institutional issues, workforce development, supply chain improvements, quality standards and branding, areas related to the development of specialised services and infrastructures, research and development aspects, and others. If well designed and implemented, an outward oriented cluster based approach in an integrated ASEAN has the potential of helping firms make full use of the opportunities and thereby encourage them to be supportive of reform efforts domestically for greater competitiveness in an integrated and highly contestable ASEAN.

As a summary note, it is worth noting the critical factors considered in the design and implementation of cluster policy in Viet Nam as they are of general relevance (taken largely from Vo, 2013):

- Policy targets should be properly selected and reasonably justified, focusing on some clusters only.
- The design and implementation of cluster policy should avoid too much institutional complexity.

- The promotion of clusters should be closely associated with the development of supporting industries.
- Reinforcing the innovation system and educational infrastructure is critical to the viable development of industrial clusters.
- One should refrain from thinking that Silicon Valley serves as the only model for cluster development. As the China examples show, cluster development is viable in industries other than the high technology ones.
- Cluster policy should incorporate consultations and partnerships with the business sector, addressing their concerns while harmonising their micro interests with the broader objectives of cluster development.
- Improving the business environment should be considered as a pillar for cluster development.

Towards Innovative ASEAN

Wide disparity in innovation capability and technological development in ASEAN. There is wide disparity in innovation capability among AMSs. One indicator of this is the filing of patents by domestic residents in the AMSs and in the US, which has a stringent filing system. **Table 4.3a** presents the data for the period 2006-2012 for patents filing in the US, taken from Rasiah (2013). Singapore dwarfs everybody in the ASEAN, followed by Malaysia. The gap between the two and the rest is very wide indeed. There are no patents filed by Cambodia, Lao PDR and Myanmar, virtually zero by Brunei Darussalam and Viet Nam, and extremely few by Indonesia. The table suggests that significant innovation activity is done essentially in two AMSs, i.e., Singapore and Malaysia. **Table 4.3b** gives the patent applications by residents for the period 2006-2011. The table shows much larger number of patent applications across the board for the AMSs: nonetheless, the disparity in innovation capability as measured by patents application is still large, with Singapore having a much higher number of patents filed per million people, followed by distant second, Malaysia, and then by Thailand.

Arguably the assumption of innovation as essentially R & D based technological product innovation implicit in the focus on patents is a restrictive definition of innovation. Increasingly, innovation is being viewed broadly to mean “The implementation of a new or significantly improved product (good or service), a new process, a new marketing method or a new organisational

method in business practice, workplace organisation, or external relations” (OECD in WIPO-INSEAD, 2013, Annex 1, p.37). Innovation capability is the “...ability to exploit technological combinations and embraces the notion of incremental innovation and ‘innovation without research’” (*Ibid.*).

Given this broad definitions of innovation and innovation capability, INSEAD and WIPO developed the Global Innovation Index (GII). The GII is the simple average of two sub-indices (i.e., Innovation Input Sub-index and the Innovation Output Sub-index) and each is built around pillars with each pillar further subdivided into sub-pillar that is composed of individual indicators. The pillars under the Innovation Input Sub-index are institutions, human capital and research, infrastructure, market sophistication and business sophistication. The two pillars under the Innovation Output Sub-index are knowledge and technology outputs and creative outputs.

Table 4.3.a: Filing of Patents in the United States, ASEAN, 2006-2012

Countries	2006	2007	2008	2009	2010	2011	2012
Malaysia	113	158	152	158	202	161	210
Singapore	412	393	399	436	603	647	810
Thailand	31	11	22	23	46	53	36
Philippines	35	20	16	23	37	27	40
Viet Nam	0	0	0	2	2	0	2
Indonesia	3	5	5	3	6	7	8
Brunei	0	0	0	1	0	1	0
Cambodia	0	0	0	0	0	0	0
Lao PDR	0	0	0	0	0	0	0
Myanmar	0	0	0	0	0	0	0

Source: Rasiah (2013)

Table 4.3.b: Number of Patent: Direct applications (per Million Population)

Origin	Country / Office	2006	2007	2008	2009	2010	2011
Resident	Indonesia	0.12	0.00	0.00	0.17	0.21	0.22
	Malaysia	2.02	2.50	2.95	4.44	4.25	3.64
	Philippines	0.25	0.25	0.24	0.19	0.18	0.20
	Singapore	8.76	9.62	11.03	10.27	11.77	14.33
	Thailand	1.58	1.43	1.36	1.55	1.81	1.36
	Viet Nam	0.23	0.39	0.37	0.44	0.34	0.33
	China	9.36	11.61	14.69	17.20	21.84	30.74
	India	0.47	0.52	0.53	0.59	0.72	0.71
	Japan	264.29	252.56	249.39	221.71	216.84	213.39
	Republic of Korea	264.84	269.98	264.67	263.65	271.31	282.50

Source: Patent: WIPO statistics database (2013). Population: UNCTAD Stat (2013)

The Innovation Input Sub-index and its five sub-pillars of the Global Innovation Index provide a good classification framework of the broad array of factors that influence technological development and innovation in a country. Sub-Pillar 1 on institutions includes political, regulatory and business environment. Sub-Pillar 2 on human capital and research includes education, tertiary education and research & development. Sub-Pillar 3 on infrastructure includes ICT, general infrastructure and ecological sustainability. Sub-Pillar 4 on market sophistication includes credit, investment and trade and competition. And Sub-Pillar 5 on business sophistication includes knowledge workers, innovation linkages, and knowledge absorption.

Table 4.4: Global Innovation Index 2013

Country	Global Innovation Index		Innovation Output Sub-index		Innovation input sub-index		Innovation Efficiency Ratio	
	Score	Rank	Score	Rank	Score	Rank	Score	Rank
Brunei Darussalam	35.5	74	28	89	43.1	54	0.6	119
Cambodia	28.1	110	26.1	101	30	120	0.9	39
Indonesia	32	85	32.6	62	31.3	115	1	6
Malaysia	46.9	32	42.1	30	51.7	32	0.8	52
Philippines	31.2	90	30	77	32.3	108	0.9	24
Singapore	59.4	8	46.6	18	72.3	1	0.6	121
Thailand	37.6	57	32.6	61	42.7	57	0.8	76
Viet Nam	34.8	76	34	54	35.6	89	1	17
China	44.7	35	44.1	25	45.2	46	1	14
India	36.2	66	36.6	42	35.8	87	1	11
Japan	52.2	22	41.6	33	62.8	14	0.7	112
Korea, Republic of	53.3	18	44.5	24	62.1	16	0.7	95

Source: Dutta and Lanvin (2013) - Global Innovation Index 2013

Table 4.4 presents the GII scores and ranking for ASEAN member states, India and the + 3 countries. The table shows the wide gap in the scores and ranking of AMSs, i.e., from Singapore's 8th rank to Cambodia's 110th rank (there are no scores and ranking for Lao PDR and Myanmar). There is a strong positive relationship between the GII scores/ ranking and level of development; thus, the wide gap in GII in view of the wide variation in level of development among AMSs. Note that the gap in scores in the Innovation Output Sub-index is narrower than in the Innovation Input Sub-index, reflecting that some AMSs

(especially Indonesia and the Philippines) have been more efficient in the utilisation of their innovation inputs. A look at the scores and ranking of the indicators and sub-pillars reveals significant comparative strengths in some areas such as percentage of graduates in science and engineering, percentage of creative goods exports, percentage of high and medium technology exports, and the state of cluster development. Nevertheless, the gap in innovation capability among AMSs as indicated by the GII scores and ranking is wide. In contrast, the gap among the + 3 countries is so much narrower.

The wide gap in innovation capability among AMSs reflects that AMSs are in different stages of technological development. Rasiah (2013) presents a typology of the phases or stages of technological development in terms of four key pillars of (a) basic infrastructure, (b) high technology infrastructure, (c) network cohesion, and (d) global integration. The first stage is initial conditions, followed by the learning phase, and then the catch up phase. The last two phases are the advanced phase and the frontier phase (see **Table 4.5.**). Rasiah puts the AMSs in the stages of technological development as thus:

- Cambodia, Lao PDR and Myanmar are in the first stage of Initial Conditions where the focus is on political stability and efficient basic infrastructure as well as integration into the global economy and where network cohesion is anchored on social bonds driven by the spirit to compete and achieve.
- Indonesia, Philippines, Thailand and Viet Nam are in the second stage of Learning Phase that is characterised by learning by doing and imitation, expansion of tacitly occurring social institutions to formal intermediary organisations for network cohesion, and integration in global value chains and regional production networks.
- Malaysia is in the Catch Up phase, where there is smooth integration with all institutions in the four pillars; developmental research and creative destruction become major sources of technological catch up thereby requiring greater focus on strengthening IPR mechanism, initiation of commercially viable R & D, access to foreign knowledge through licensing, acquisition of foreign companies and imitation, and the upgrading in global value chains.

- Singapore is in the Frontier stage with reliance on basic research and R & D laboratories to support creative accumulation activities, where intermediary organisations participate in two-way flows of knowledge between producers and users, and where the country is connected to frontier nodes of knowledge and has comparative advantage in high technology products.

Table 4.5: Typology of Policy Framework for ASEAN

Phases	Basic Infrastructure	High Tech Infrastructure	Network Cohesion	Global Integration
Initial Conditions (1) Cambodia, Lao PDR, Myanmar	Political stability and efficient basic infrastructure	Emergence of demand for technology	Social bonds driven by the spirit to compete and achieve	Linking with regional and global markets
Learning (2) Thailand, Philippines, Indonesia, Viet Nam	Strengthening of basic infrastructure with better customs and bureaucratic coordination	Learning by doing and imitation	Expansion of tacitly occurring social institutions to formal intermediary organisations to stimulate connections and coordination between economic agents	Access to foreign sources of knowledge, imports of material and capital goods, and FDI inflows. Integration in global value chain
Catch-up (3) Malaysia	Smooth links between economic agents	Creative destruction activities start here through imports of machinery and equipment, licensing and creative duplication	Participation of intermediary and government organisations in coordinating technology inflows, initiation of commercially viable R&D	Licensing and acquisition of foreign capabilities. Upgrading synergies through technology imports. Emergence of strong technology-based exports
Advanced (4)	Advanced infrastructure to support meet demands of economic agents	Developmental research to accelerate creative destruction activities. Strong filing of patents in the US starts here	Strong participation of intermediary and government organisations in coordinating technology inflows, initiation of commercially viable R&D	Access to foreign human capital, knowledge linkages and competitiveness in high tech products and collaboration with R&D institutions.
Frontier (5) Singapore	Novel infrastructure developed to save resource costs and stimulate short lead times	Basic research. R&D labs to support creative accumulation activities. Generating knowledge new to the universe. Technology shapers generate invention and design patents extensively here.	Participation of intermediary organisations in two-way flows of knowledge between producers and users	Connecting to frontier nodes of knowledge, and competitive export of high tech products

Source: Rasiah (2013).

Thus, ASEAN runs the entire range of technological development, from the basic initial conditions to the frontier of knowledge and technological development. This echoes the wide disparity in the patent filings and global innovation indices discussed earlier.

Technology transfer and the importance of inter-firm face to face contacts.

Drawing from the stages approach discussed above, technology development in the next decade and a half in lagging AMSs can be described to some extent as their moving up the technology ladder. This means CLM countries moving up to the Learner Stage initially, the Learner Stage countries (Indonesia, Philippines, Thailand and Viet Nam) moving up to the Catch Up phase and higher, and Malaysia moving up to the Advanced phase and eventually Frontier phase. It is apparent however from the characteristics of the stages of technological development that the prerequisites moving up the highest stage are particularly tough and therefore there is no certainty at all that countries can all eventually be at the frontier.

Strengthening technological development, value creation and innovation capabilities and performance in the region towards an Innovative ASEAN necessarily entails a wide range of policy, institutional, infrastructural and linkage initiatives as implied by the discussion above on the global innovation indicators and the typology of the trajectory of technological development. It includes, among others, (a) entering (for CLM countries) and deepening linkages (for the rest) in the regional production networks and value chains with a greater effort at enhancing technology spillover, transfer and diffusion, (b) facilitating greater investments in human capital and facilities, (c) stronger network cohesion for greater capacity for technology adaptation, absorption and innovation, (d) deepening domestic and international linkages in knowledge flows, and (e) a supportive policy, regulatory, and institutional environment for increased investments in value chain upgrading and for more technology and creativity intensive goods and services.

For most of the AMSs, accelerated technological development would entail accelerated technology transfer. Much of the technology transfer will be firm-to-firm. The results of the study of Machikita and Ueki (2013) on “who disseminates technology to whom, how and why” provide interesting insights on firm-to-firm technology transfer based on firm surveys in four ASEAN

countries; i.e., Indonesia, Philippines, Thailand and Viet Nam, which interestingly are also the AMSs in the Learner stage in the typology of technology development discussed earlier.

The study results show that MNCs and Joint Ventures (JV) are more likely to make product investments and had higher product development capacities; the exception is in the product improvements based on new technology. More interestingly, when the firm respondents were classified on whether or not they undertook research and development, it is to be noted that local firms that have R & D also tend to introduce new products based on new technology as compared to other local firms. In contrast, MNCs and JVs with R & D operations do not differ with their counterpart local firms that do not do R & D in their propensity to introduce new products based on new technology. This may suggest that affiliates in ASEAN of MNCs rely on the R & D work of their parent firms for new products involving new technology. The policy implication of these results is clear: **encouraging local firms to undertake R & D work, as well as JVs and MNCs (especially those that undertake R & D), could lead to product and process improvements or innovations, which can be expected to improve competitiveness.**

The results of the Machikita and Ueki study also present interesting insights on the interplay of the channels of technology transmission and firm behaviour. Among the authors' findings are as follows (Machikita and Ueki, 2013):

- A foreign main buyer is more likely than a local main buyer to transfer technology to the producing firm.
- There is greater probability of technology transfer to the producing firm if its main partners (either as buyers or sellers) are from abroad, are MNC or JV, undertake R & D, are large (with 200 employees and up), and/or have capital ties with the firm.
- Technology transfer tends to be through face-to-face interaction among engineers or through licensing agreements with main suppliers if the main partner has capital ties with the firm or is in intra-firm/business groups; in contrast, if partners do not have capital ties, the main channels of technology transfer are through dispatch of experts for inspection and collaboration for new product.

- Face-to-face contacts with suppliers and capital goods producers tend to increase the chance of introducing relatively complex new products.
- Producing firms with buyers conducting supplier audits tend to make a greater variety of process improvements.
- Firms are less likely to undertake higher levels of product development if intermediate input is bought from local firms or JVs than if bought from MNCs. They are also less likely to undertake a wide variety of process innovations if the main supplier is local than if it is an MNC.
- Higher level of product development is more likely with higher R & D intensity, accepting engineers from suppliers, and collaborating with capital goods producers.
- Process innovation is more likely with higher in-house R & D (but mainly those that improve quality of product service; e.g., fewer defective products shipped or reduced production cost), downstream buyer audits, and dispatch of engineers to buyers.
- MNC producers tend to have MNC suppliers if they have MNC buyers. On the other hand, local firms tend to seek out local suppliers if they have local buyers. Linkages between local producers and MNC buyers are thin and with JV buyers still few.

The results show the importance of face-to-face contacts among engineers of the firms, especially with MNCs, and collaboration with capital goods producers for effective technology transfer, especially with respect to product innovation and more complex products. The policy implication is that *there is social benefit, through technology transfer and innovation, to have greater ease in the mobility of engineers and other similar technical people and experts across countries*. At the same time, it is worth noting that the study also shows that face-to-face contacts among engineers is more likely if there is some capital tie up or it is within intra-firm or business group; or in effect, part of the business network or production network. Thus, *encouraging foreign direct investments and stronger ties with the MNCs would be important for facilitating an environment for greater face-to-face contacts*, which the study shows lead to greater potential for higher level of product innovation.

The Machikita and Ueki study brings out that accelerating technological transfer is by encouraging local firms to invest in R & D, with the implicit mindset that innovation is the way to go to grow, and through more and deeper face-to-face contacts and collaboration among the technical people of the local firms and those of the MNC or JVs or from abroad. However, bringing in MNCs is not sufficient to accelerate technological development because as the study indicates, MNCs tend to source from other MNCs if their buyers are MNCs, resulting in weak links between the local firm suppliers and the MNCs as buyers. This relatively “close loop” arrangements among MNCs, with the potential of creating an “industrial enclave”, would need to be encouraged to open up or to develop into a longer loop that involves local firms.

Knowledge flows and human capital development. Inherent in technology transfer, adaptation and innovation is knowledge flows; thus, the importance of human capital development and with that, the intermediation of both “invisible colleges” and “visible colleges” for skill formation. Moving up the technology ladder involves higher skill sets of the workforce; the success of the technology and industrial upgrading involves the successful and systemic melding of both the visible and invisible colleges of skill formation.

“Invisible college” involves the continuous investment of a company in shop-floor skills of its workforce; in many companies, this includes the learning from *kaizen* work system of promoting workforce engagement in incremental productivity through numerous small improvements. This tacit and experiential capital is an important aspect of human capital, in addition to formal education. The diffusion of such tacit and experiential capital is best achieved through the industrial cluster environment. Moreover, when the industrial cluster environment is an “open systems network” wherein “skilled, technical and managerial human capital interact and move freely between firms” (Rasiah, 2002a, p.12), there is greater likelihood of the cluster engendering entrepreneurship especially among the domestic populace. The experience of Penang, Malaysia exemplifies this, wherein the more successful Malaysian owned firms were established, staffed and/or managed by former employees and managers of MNCs in the city.

At the same time, the differing performance of Penang and Klang Valley, Malaysia’s two major electronics clusters, on the innovation and

entrepreneurship front brings out the importance of intermediary institutions (e.g., Penang Development Corporation) to help facilitate the creation of tight systemic network cohesion and open system networks that have proven to facilitate technology transmission and even local entrepreneurship which contributed to increased local sourcing of MNCs (Rasiah, 2002). Transmission of tacit knowledge and shop-floor skills can go beyond individual company training programs. The PSDC, for instance, an industry-led, company-state government partnership, is to some extent an institutionalised mechanism of shop-floor formation diffusion that enhances manufacturing and technician skills based on insights from the US' "Training Within Industry" program (Best, 1999). As Best (1999) emphasised "... regional advantage will depend not only on innovation but on the diffusion, successful application and improvement of proven technologies. SMEs the world over depend on skill formation agencies such as the PSDC for best practice methodologies and the improvement of capabilities." (p.29).

There are limits to what the intermediary institutions like PSDC can do in the technology development front, however. Moving further up the technology ladder necessitates that the formal education system, the '**visible colleges**', produces scientists and highly educated and skilled engineers and professionals in order to have the capacity to generate new knowledge capital. It involves establishing or strengthening research institutions and engendering strong linkages with industry and universities. Rasiah (2002) considers Malaysia's weak human capital endowments relative to countries like Japan, Korea, Singapore, and the US, measured by the number of R & D scientists and engineers per million people, as the factor that severely constrained firms in Malaysia to drive innovations in the 1990s.

Recent indicators, however, seem to suggest some narrowing of the high technology human capital gap for Malaysia in recent years. **Table 4.6** presents some indicators on tertiary education and innovation linkages in ASEAN countries, China, India, Japan and Korea. The table appears to indicate that the severe disadvantage of Malaysia vis-a-vis competitor countries in science and engineering human capital in the 1990s appears to have narrowed in the 2000s. This is reflected, for example, in the comparatively higher percentage of graduates in engineering, manufacturing and construction, higher percentage of foreign students studying in the country, higher percentage of nationals

studying at the tertiary level abroad, and degree of university/industry research collaboration as compared with countries like Japan and Korea. Where it appears to be lagging significantly behind is in the quality of its tertiary institutions as compared to institutions in China, Japan, Korea and even Singapore.

There are no in depth studies available on the nature and extent of network cohesion in major industrial clusters in many of the AMSs. Nonetheless, it is likely that the degree of such cohesion may not be as strong as in Penang, in part because the electronics industry is much more innovation driven and the leading MNCs are what Best (1999) calls the “development firms” that catalyse the formation of new firms because of their innovations and their embeddedness in the open system network in Penang. With the exception of Thailand’s scoring very high in the percentage of graduates in engineering, manufacturing and construction, **Table 4.6** also indicates that many of the AMSs have a long way to go in terms of high technology human capital development. This is one area that AMSs, especially those in the Learner Stage group, would need to give more focus on. (Given its limited population base, Singapore aggressively relied on in- migration of highly skilled professionals, engineers and scientists from abroad.)

Table 4.6: Country Score of Components in Global Innovation Index 2013

Code	Pillar/ Sub-Pillar/ Indicator Name	Brunei	Cambodia	Indonesia	Malaysia	Phillipines	Singapore	Thailand	Viet Nam	China	India	Japan	ROK
2	Human Capital and Research	31.9	12.5	24.3	39.7	18.1	63.2	37.2	24.7	40.6	21.7	57.2	64.8
2.1	Education	45.9	26.3	40	47.8	21.3	55.7	42.7	56.8	68.7	27.6	66.7	59
2.2	Tertiary Education	48	11.2	21	49.9	23	81.4	53.1	17.4	11.7	6.5	35	56
2.2.1	Tertiary enrolment, %gross	19.6	14.5	23.1	42.3	28.2		47.7	24.4	26.8	17.9	59.7	103.1
2.2.2	graduates in science and engineering, %	20.7	12.5	22.8	36.7	24.3		53.2	16.8			20.5	30.9
2.2.3	tertiary inbound mobility, %	5.6	0.1	0.1	6.1	0.1	20.2	0.8	0.2	0.3	0.1	3.7	1.8
2.2.4	gross tertiary outbound enrolment, %	9.6	0.3	0.2	2.2	0.1		0.5	0.5	0.5	0.2	0.6	4
2.3	Research and Development (R&D)	1.9		11.8	21.3	9.9	52.4	15.7		41.5	30.9	69.9	79.3
2.3.1	Researchers, headcounts/mn pop	685.5		173.3	715.4	129.6	7188	575		1303		7066	
2.3.2	Gross expenditure on R&D (GERD). %GDP	0		0.1	0.6	0.1	2.1	0.2		1.8	0.8	3.3	3.7
2.3.3	QS University ranking average score of top3 universities (index)	0	0	32.6	44.2	26.5	55	38.2	0	74.9	44.8	81.7	73.6
5.2	innovation linkages	29.6	36.3	29.5	30.9	21.4	49.8	22.3	27.4	27.9	30.9	42	38
5.2.1	University/Industry research collaboration, index	47.8	42	53	66.4	40.9	76.5	50.2	37.3	56.2	47.5	67.1	61.7
5.2.2	state of cluster development, index	48.9	50.4	54.4	66.1	50.4	69.1	52.4	54.5	59.7	54.9	69.4	58
5.2.3	GERD financed by abroad, %	6.6			0.2	4.1	4.9	1.8		1.3		0.4	0.2
5.2.4	joint venture/strategic alliance deals/ tr PPP\$ GDP	0.1	0	0	0.1	0	0.2	0.1	0	0	0	0	0

Source: Dutta and Lanvin (2013).

While much of the effort at improving the supply of engineers and other highly educated and skilled workforce would be at the national level, there is one major ASEAN initiative to help address the relative weakness of engineering education in many AMSs: the ASEAN University Network – Southeast Asia Engineering Education Development Network (AUN-SEED Net). An autonomous sub-network of AUN and operational since 2003, AUN SEED Net is a collaboration of ASEAN’s 19 leading universities with the support of 11 leading Japanese universities through JICA. With the goal of promoting human resource development in engineering in ASEAN, the network has, among others, produced as of 2012 over 795 master’s and doctorate scholarships, 426 collaborative research projects, 63 research grants for alumni, and 1,500 research publications (Tullao and Cabuay, 2013).

Given that enhancing the supply of high quality human capital can be expected to facilitate technology development, the issue of the capacity and quality of higher institutions of learning, and the corollary policy issue of liberalising education services in tertiary education comes to the fore. Liberalisation commitments in higher education services under the ASEAN Framework

Agreement on Services (AFAS) are not deep at the moment, with three countries not having any commitment at all. The country with the highest liberalisation commitment is Cambodia, followed at the significantly lower level by Indonesia, Myanmar and Thailand. Taking note that the quality of the tertiary institutions in many AMSs lags substantially behind those from Japan, Korea, China and Singapore, it would be advisable to *liberalise the education services sector* in AMSs especially at the tertiary level and specialised training institutes where there is greater tendency for individual financing of education.

Institutional and policy environment for technology transfer and innovation.

For most AMSs, moving up the technology ladder ultimately requires much higher rate of investment in research and development. **Table 4.7** shows the ratio of R & D expenditures to GDP and the number of researchers in R & D per million population from the mid-1990s to the late 2000s. The table shows extremely low ratios for all AMSs except for Singapore and to some extent Malaysia. The ratios pale in comparison with the ratios for China and let alone Japan and South Korea. Not surprisingly, the number of researchers per million people is substantially higher in those countries and Singapore as compared to most AMSs. Although most AMSs can be expected to prioritise effective technology transfer through foreign direct investments and greater integration in regional production networks, it is apparent from Malaysia's ratios that AMSs wanting to move up from the Learner stage to Catch Up stage would have to significantly raise their R & D ratios to GDP. Moreover, effective technology transfer may also call for adaptive research in the host country. What this implies is that **AMSs would have to have stronger commitment to R & D moving forward beyond 2015 through substantially higher (and better) investments in R & D.** Research and development, if well implemented, has large potential positive externalities and social benefits. Hence, the government plays a substantial role in investing in and facilitating research and development.

**Table 4.7: The R&D Situation in ASEAN, China, India, Japan, Korea:
R&D Expenditure and Number of Researchers**

Research and development expenditure (% of GDP)															
Country	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Brunei	-	-	-	-	-	-	0.02	0.02	0.04	-	-	-	-	-	-
Cambodia	-	-	-	-	-	-	0.05	-	-	-	-	-	-	-	-
Indonesia	-	-	-	-	0.07	0.05	-	-	-	-	-	-	-	0.08	-
Lao PDR	-	-	-	-	-	-	0.04	-	-	-	-	-	-	-	-
Malaysia	0.22	-	0.40	-	0.47	-	0.65	-	0.60	-	0.63	-	-	-	-
Myanmar	-	0.06	0.03	0.04	0.11	0.07	0.16	-	-	-	-	-	-	-	-
Philippines	-	-	-	-	-	-	0.14	0.13	-	0.11	-	0.11	-	-	-
Singapore	1.34	1.43	1.75	1.85	1.85	2.06	2.10	2.05	2.13	2.19	2.16	2.37	2.84	2.43	-
Thailand	0.12	0.10	-	0.26	0.25	0.26	0.24	0.26	0.26	0.23	0.25	0.21	-	-	-
Vietnam	-	-	-	-	-	-	0.19	-	-	-	-	-	-	-	-
Australia	1.65	-	1.51	-	1.57	-	1.74	-	1.85	-	2.17	-	2.37	-	-
China	0.57	0.64	0.65	0.76	0.90	0.95	1.07	1.13	1.23	1.32	1.39	1.40	1.47	1.70	-
India	0.63	0.67	0.69	0.72	0.75	0.73	0.71	0.71	0.74	0.78	0.77	0.76	-	-	-
Japan	2.77	2.83	2.96	2.98	3.00	3.07	3.12	3.14	3.13	3.31	3.41	3.46	3.47	3.36	-
Korea, Rep.	2.42	2.48	2.34	2.25	2.30	2.47	2.40	2.49	2.68	2.79	3.01	3.21	3.36	3.56	3.74
Researchers in R&D (per million people)															
Country	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Brunei	-	-	-	-	-	-	289.83	280.99	286.28	-	-	-	-	-	-
Cambodia	-	-	-	-	-	-	17.36	-	-	-	-	-	-	-	-
Indonesia	-	-	-	-	210.80	197.60	-	-	-	-	-	-	-	89.61	-
Lao PDR	-	-	-	-	-	-	15.83	-	-	-	-	-	-	-	-
Malaysia	89.14	-	153.03	-	274.31	-	291.94	-	495.09	-	364.64	-	-	-	-
Myanmar	-	7.59	7.64	11.46	-	12.66	18.35	-	-	-	-	-	-	-	-
Philippines	-	-	-	-	-	-	-	71.21	-	80.61	-	78.47	-	-	-
Singapore	2546.60	2643.67	3029.86	3276.83	4243.82	4205.13	4493.86	4900.54	5134.23	5576.49	5676.57	5954.64	5833.98	6173.16	-
Thailand	100.20	72.36	-	166.93	-	277.16	-	277.10	-	307.44	-	315.53	-	-	-
Vietnam	-	-	-	-	-	-	115.87	-	-	-	-	-	-	-	-
Australia	3331.99	-	3355.48	-	3443.97	-	3732.54	-	4038.61	-	4203.61	-	4293.93	-	-
China	446.93	475.58	388.70	421.68	547.67	581.21	630.30	666.55	712.20	855.54	930.91	1077.11	1198.86	863.21	-
India	151.98	-	115.40	-	110.01	-	-	-	-	135.81	-	-	-	-	-
Japan	4946.24	4999.87	5209.19	5248.96	5150.89	5187.09	4942.82	5169.98	5176.17	5385.04	5415.61	5408.91	5189.28	5179.94	-
Korea, Rep.	2212.10	2269.84	2034.08	2190.43	2356.50	2950.34	3057.18	3244.06	3335.84	3822.21	4231.01	4672.24	4946.94	5088.76	5481.49

Source: World Bank Data (2013).

The experience of Singapore provides some insights on strengthening the institutional support for technology development and innovation. In the early stage of Singapore's industrialisation drive, Singapore established institutions of technology in collaboration with foreign governments; i.e., Japan-Singapore Institute (JSI) for advanced information technology training, German-Singapore Institute (GSI) for training beyond Germany's master craftsman

level to ensure the application and adoption of advanced manufacturing technology, and the French-Singapore Institute (FSI) for training in specialised industrial electronics, factory automation, and industrial computing. The institutes acquired the latest equipment and technology, and the local instructors and technical staff received first hand training in the head offices of the companies in Japan, Germany and France. (See Lim, 2013, pp. 5-8.) What is noteworthy in the Singapore example is that the training is on the latest technology and with the latest equipment, thereby reducing the training cost to new private investors and, as in the case of FSI, helped French companies interested in setting up business in Singapore. Thus, this is technology transfer and investment attraction rolled into one. The three institutes were transferred to Nanyang Polytechnic in 1993 (Lim, 2013); arguably the institutes provided strong pillars to Nanyang to grow eventually into one of the highest ranking universities in Asia today.

Research and Development (R & D) is now a key part of Singapore's economic strategy as it aims to be a research-intensive, innovative and entrepreneurial economy in the future. The planned R & D budget is expectedly much higher. What is noteworthy is the strong link to private enterprise and entrepreneurship. Thus, for example, EDB's Research Incentive Scheme co-funds the establishment of corporate centres of R & D excellence in Singapore. Similarly, the Industry Alignment Fund supports collaboration between public and industry researchers in order to have greater alignment of government funded research with industry needs. There is also government funding to support researchers and entrepreneurs to bring research results to commercialisation by supporting entrepreneur's proto-type and test-build new products and services (see Lim, 2013). It is this keen sense of aligning research and enterprise that is of particular relevance to other AMSs as they ramp up their investments in research and development in the future post 2015. This helps ensure that research bears economic returns to the country.

Another important pillar in Singapore's success story is the protection of intellectual property rights (IPRs). IPRs are critical in stimulating innovation; protecting IPR is likely also an important consideration for firm holders of IPRs before they transfer their new technologies and production processes to developing country firms together with clear policy environment for technology trade. As the AMS in the frontier stage of technology ladder, it is

not surprising that Singapore has the most advanced IPR system in ASEAN. Malaysia, Thailand, Philippines, Indonesia, Brunei Darussalam, and Viet Nam have fairly developed IPR systems but enforcement is wanting compared to Singapore. Cambodia, Lao PDR and Myanmar lack the capacity and capabilities to implement and enforce IPR regulations consistent with the TRIPS agreement. The challenge for ASEAN is to how to harmonise IPR issues in the region in the light of the wide gap in development levels, balancing the need to stimulate innovation and ensuring it is for the interest of the wider society (Rasiah, 2013). Nonetheless, it is apparent that moving up the technology ladder has the corresponding requirement of greater reach and effectiveness of the protection of property rights. This is especially of great relevance to the AMSs in the Learner stage moving up to the Catch Up stage.

Finally, technological development is facilitated by a supportive business environment for investment and ease of doing business. In the end, much of the technological development is heavily shaped by private sector decisions in their investments, either embodied in capital goods or in R & D, and in their operations in terms of production linkages and arm's length transactions. Higher investments, greater linkage internationally, and accelerated technology development can be facilitated in a more open economy with less distorted and more transparent, coherent, and stable regulatory environment. Higher investment and accelerated technological development is likely with more efficient and coordinated institutions and government agencies as well as better infrastructure and more skilled work force. The issues of supportive business environment for investment and ease of doing business and of regulatory coherence are discussed further in **Chapter 7** of this report. Nonetheless, it is worth noting that many of the above issues are addressed in the AEC Blueprint and the Master Plan on ASEAN Connectivity (MPAC). Thus the AEC Blueprint and MPAC also facilitate technological development in ASEAN.

Accelerating technological development and engendering innovation in ASEAN: key recommendations on the way forward beyond 2015.

Expanding local firms' participation in the "innovation-friendly loop" involving MNCs, accelerating technology transfer, and engendering innovation in ASEAN entail the following, among other things:

1. Encourage more local firms to invest in R & D and raise substantially the investment rate in R & D nationally in most AMSs.
2. Develop government facilitation programs where MNCs transfer technologies to selected local firms as future suppliers or sub-contractors through fiscal incentives to the firms and co-financing cost of technical experts to help local firms upgrade and meet the MNCs quality standards and become innovative themselves. This is akin to Local Upgrading Programs such as Singapore's.
3. Strengthen "visible and invisible colleges" for skill formation, human capital, and entrepreneurship. This calls for strengthening the quality of, and university-industry collaboration on, formal education especially in the technical, engineering and science areas. It also calls for strengthening network cohesion, encouragement of greater "shop-floor" or company skill formation, and establishment of institutionalised mechanisms for human capital development based technology transfer such as the Penang Skills Development Center or the advanced technical training institutes that Singapore established with the cooperation of Japan, Germany and France in the 1980s.
4. Improve the policy and institutional environment for technology transfer, adaptation and innovation. This includes some government co-funding support (with the private sector) for the establishment of specialised research institutes and training programs. It also includes better intellectual property rights protection.
5. Strengthen supportive policy and institutional environment for investment and business operations. This includes a wide range of areas that are measures for an integrated and highly contestable ASEAN discussed in the previous chapter. This also implies greater ease of doing business and more responsive regulatory regime (discussed in **Chapter 7** of the Report).

Chapter 5A

Engendering Inclusive and Resilient ASEAN

Introduction

Equitable economic development and narrowing development gaps have been part and parcel of ASEAN lexicon in moving the region towards an integrated economic community. ASEAN Leaders have always been cognisant of the need for equitable development or inclusive growth in order for the benefits of regional integration to be fully realised and shared by virtually all the people in the region. Indeed, Pillar 3 of the AEC Blueprint, Towards a Region of Equitable Economic Development, clearly shows the high importance ASEAN Leaders put on equitable development or inclusive growth. ASEAN Leaders have also increasingly emphasised the importance of resiliency of ASEAN to both economic and non-economic shocks.

Chapter 1 of this Integrative Report shows that the case for inclusive growth in ASEAN remains compelling for the region post 2015. There is still a huge number of poor and marginally non-poor in most of ASEAN: in the late 2000s, about two-quarters of ASEAN population lived below \$ 2 PPP per day per capita, and of which about 100 million lived below the poverty line of \$1.25 PPP per day per capita. The poor and the marginally non-poor tend to be more vulnerable to significant price hikes and supply shocks of food products, to natural disasters, and even to energy shortages. In addition, AMSs have mixed records on income inequality, even if the record of ASEAN is decidedly better than China and major Latin American countries with respect to income inequality. Thus, engendering an inclusive and resilient ASEAN remains a major challenge for ASEAN moving forward beyond 2015.

Pillar 3 of the AEC Blueprint 2009-2015 focuses on two major measures, namely, SME development and the Initiative for ASEAN Integration (IAI). This chapter on engendering inclusive and resilient ASEAN expands the focus. In addition to SME development, the chapter discusses geographic inclusiveness and the importance of connectivity to geographic inclusiveness,

a special emphasis on Myanmar as a major means to narrow development gap in the region, the importance of agriculture to inclusive and robust growth as well as to food security, and disaster management and safety net issues as part of enhancing social inclusiveness and resiliency in the region. The next chapter, Chapter 5B, focuses on energy for a resilient and green ASEAN.

SME Development in ASEAN¹

Significance of, and importance of supportive policy environment for, SMEs in ASEAN.

Small and medium enterprises (SMEs) play an important role in ASEAN economic integration since between 95-99 percent of firms in the ASEAN Member States (AMSs) are SMEs. Together, they create between 43-97 percent of employment, contribute between 23-58 percent to the GDP, and 10-30 percent in total exports of AMSs (see **Table 5A.1**).

Table 5A.1 provides an indication of why development of SMEs would directly contribute towards achieving the implementation of the third pillar of the AEC Blueprint: they account for much of employment in AMSs, and employment creation is a key means of eradicating poverty. At the same time, because most firms are in fact SMEs, the dynamism of the economy is also dependent on the growth and dynamism of SMEs. That is, because the region's business players are preponderantly SMEs (including micro enterprises), the pursuit of SME development is in fact not just for equitable development in the region under the Third Pillar of the AEC Blueprint. The competitiveness and robustness of the region's economies depend to a large extent on the competitiveness and robustness of the region's small and medium enterprises.

¹ This section is largely contributed by Oum, ERIA.

Table 5A.1: Significance of SMEs in the Economy (Selected Years)

Country	Share of Total Establishment		Share of Total Employment		Share of GDP		Share of Total Exports	
	Share	Year	Share	Year	Share	Year	Share	Year
Brunei Darussalam	98.4%	2008	58.0%	2008	23.0%	2008	-	-
Cambodia	99.8%	2011	72.9%	2011	-	-	-	-
Indonesia	99.9%	2011	97.2%	2011	58.0%	2011	16.4%	2011
Lao PDR	99.0%*	2006	81.4%	2006	-	-	-	-
Malaysia	97.3%	2011	57.4%	2012	32.7%	2012	19.0%	2010
Myanmar	88.8%**	-	-	-	-	-	-	-
Philippines	99.6%	2011	61.0%	2011	36.0%	2006	10.0%	2010
Singapore	95.9%	2011	43.6%	2011	45%	2012	-	-
Thailand	99.8%	2012	76.7%	2011	37.0%	2011	29.9%	2011
Viet Nam	97.5%	2011	51.7%	2011	40.0%	-	20.0%	-

Note: * ADB (2013), ** Based on officially registered number of firms.

Source: Country's Reports, ERIA (2013c).

However, SMEs in the region are reported to face difficulties in access to finance, technology, and competitive markets. Entrepreneurship, compliance with standards, marketing and management are some of the other problems faced by SMEs in ASEAN. In addition, SMEs are in a much weaker position than large firms to deal with the vicissitudes of economic volatility. They will be forced to respond to these developments by implementing risk management strategies, speeding up customer payments, focusing on the retention of skilled staff where possible and critical for high tech SMEs, cutting costs, diversifying into new markets, and improving their corporate governance. However, this is unlikely to be an adequate response and will need to be supplemented by appropriate policies aimed at addressing these generated vulnerabilities.

Consequently, an appropriate SME policy framework is important to the growth of the private sector and development of SMEs, as is the need to ensure that the adverse consequences of external or exogenous disturbances emanating from regional trade partners have a minimal disruptive impact on domestic and regional economies. The policy regime for SMEs in the region is determined by both ASEAN initiatives and agreements as well as by national policies and programs. Towards this end, it is necessary to have a consistent SME policy framework in the ASEAN at both the national and regional levels. Additionally, there needs to be a comprehensive and effective monitoring tool

on whether the policies, programs and institutions are supportive of the development of SMEs in the region.

Strengthening of ASEAN SMEs requires improvement of human resources, provision of access to finance, technology and innovation, market internationalisation through policy support, measures, supplementary activities and appropriate communication. Providing access to finance for start-up SMEs is important in strengthening SME development in ASEAN.

ASEAN SME Initiatives and the ASEAN SME Policy Index. The AEC has focused on SME development through the ASEAN Policy Blueprint for SME Development (APBSD) 2004-2014 and the Strategic Action Plan for ASEAN SME Development (SAPASD) 2010-2015. The APBSD laid out strategic programs and policy measures that focus on five main priorities: (i) Human resource development and capacity building; (ii) Enhancing SME marketing capabilities; (iii) Access to financing; (iv) Access to technology; and (v) Creation of a conducive policy environment. Concrete and detailed policy measures, implementation time frame, and indicative outputs have been identified.

The APBSD was later replaced by the ASEAN Strategic Action Plan for SME Development (2010 – 2015) which outlines the framework for SME development as a key measure for equitable economic development in the ASEAN region. The Strategic Plan laid out policy measures to address: (i) Access to finance; (ii) Facilitation; (iii) Technology development; (iv) Promotion; and (v) Human resource development.

The APBSD and the Strategic Plan focus primarily on regional initiatives, with less emphasis given to consistent national SME policies. The development, however, of SMEs in the region is affected by both national and regional policy regimes and program initiatives. In addition, there seems to be no systematic mechanism to track the progress and effective implementation of the APBSD and the Strategic Plan. The results of the review of the APBSD implementation for the Mid-Term Review of the AEC Blueprint Implementation shows modest success at best based on the perception of key stakeholders on SME development in each AMS.

In order to contribute to the strengthening of policy and institutional environment for SMEs in ASEAN, the ASEAN SME Working Group and the Economic Research Institute for ASEAN and East Asia (ERIA) have been developing an SME Policy Index, inspired by the OECD SME Policy Index. The OECD SME Policy Index has been successfully used in the Western Balkans and Turkey as a monitoring tool as well as a tool for facilitating policy dialogue, program coordination and the promotion of good practices in the region.²

The ASEAN SME Policy Index would improve on the APBSD and the Strategic Plan by incorporating dimensions and initiatives at both regional and national levels. Drawing from the OECD SME Policy Index and insights from the studies done at APEC, the ASEAN SME Policy Index will have more policy dimensions than what are indicated in the APBSD and the Strategic Plan to attain the goals of ASEAN SME Development.

The ASEAN SME Policy Index can be expected to have useful functions to the ASEAN SME Working Group and the ASEAN member states, similar to the functions of the OECD SME Policy Index (OECD, 2009), which include:

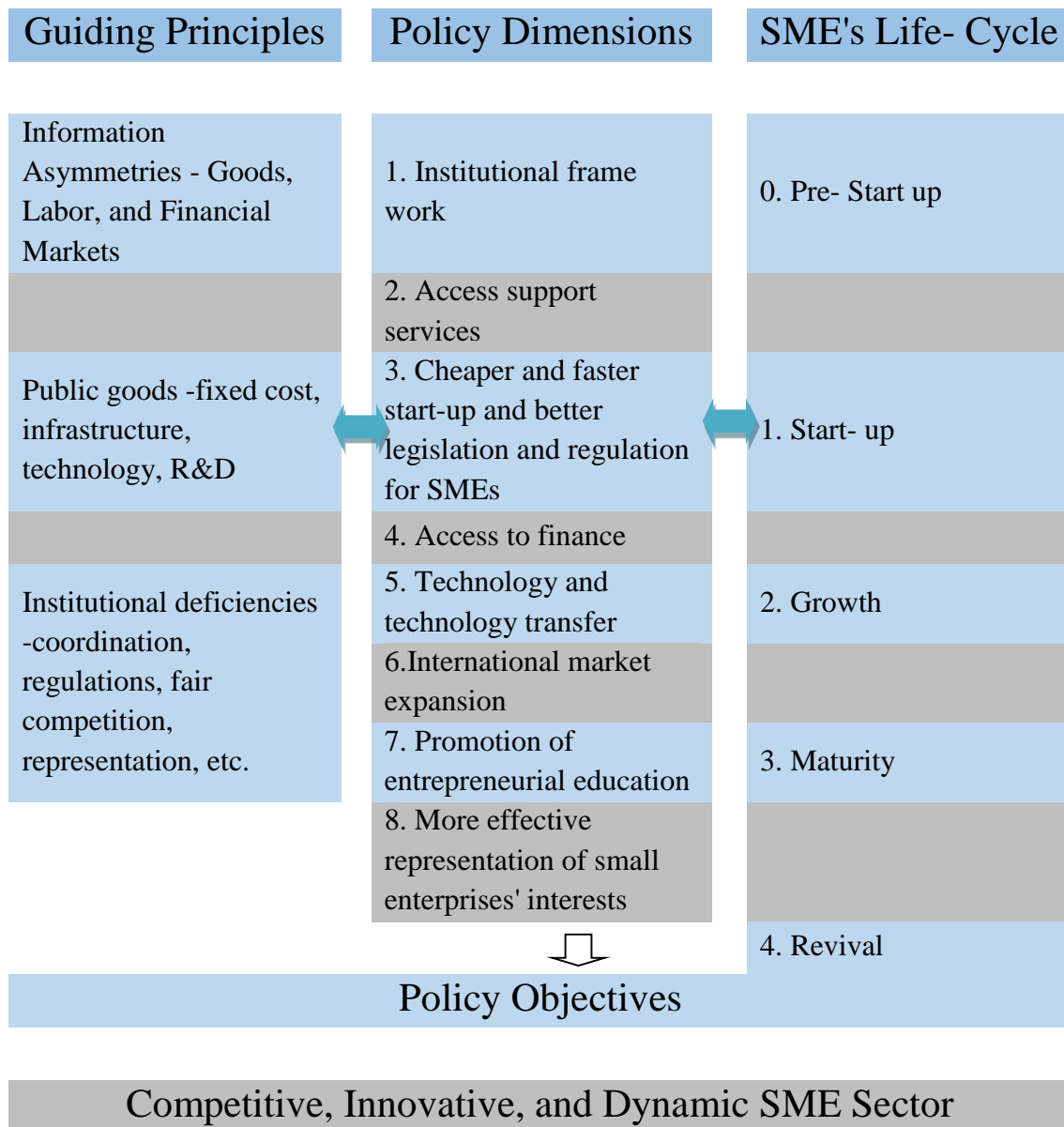
1. an analytical and dynamic tool to review SME policy developments on a number of policy dimension and across countries;
2. a process by which a group of countries sharing common policy goals agree on developing a joint framework for monitoring and comparing SME policy developments; and
3. a framework to exchange experiences, good practices and foster policy dialogue.

In order for SMEs to become more competitive, innovative, and dynamic, the ASEAN SME Policy Index is designed to improve the business environment that must be relevant to SMEs in any of the five stages of their life cycles (pre-start up, start-up, growth, maturity, and revival). The Policy Index is a comprehensive and effective monitoring tool. It also facilitates policy

² The OECD SME Policy Index has also been adapted and replicated in North Africa and the Middle East region, the Eastern Partnership countries of the EU (Armenia, Azerbaijan, Belarus, Georgia, Moldova and Ukraine) and country-specific assessments in Egypt, Morocco and Moldova.

dialogues and connects the regulatory and policy environment towards good practices (Figure 5A.1).

Figure 5A.1: SME Development Policy Framework and Firm Life-Cycle



Source: ERIA (2013c)

The Framework for ASEAN SME Policy Index follows the approach of the OECD SME Policy Index; that is, the Index is composed of a number of policy dimensions, each of which is subdivided into a number of sub-dimensions. Each sub-dimension is in turn composed of a number of indicators. Finally, each indicator will have a number of levels of policy reform or a set of policy reforms.

The following is a list of eight policy dimensions of the ASEAN Policy Index based on the ASEAN SME Blueprint, the Strategic Plan, and the OECD:

1. Institutional framework;
2. Access to support services;
3. Cheaper and faster start-up and better legislation and regulation for SMEs;
4. Access to finance;
5. Technology and technology transfer;
6. International market expansion;
7. Promotion of entrepreneurial education; and
8. More effective representation of SMEs' interests.

The ASEAN SME Policy Index is different from the OECD SME Policy Index in its policy dimensions, sub-dimensions, indicators, and levels of policy reform because its design needs to reflect more specific circumstances of the ASEAN region.

Each of the policy dimensions is further divided into sub-dimensions in each specific area. Furthermore, the sub-dimensions are broken down into indicators. Finally, the indicators are structured around six levels of policy reform, starting from 1 for no specific policy measure or institution (poor) to 6 for a well-functioning institution or effective implementation of each policy measure (best practice). For example, in order for business registration as one of the indicators in the policy sub-dimension 3 for cheaper and faster start-up to qualify as best practice, level 6, the registration process must take less than 5 working days, require only one administrative step, and cost less than US\$50.

The assessment of the ASEAN SME Policy Index was conducted by an independent research team from each AMS through a questionnaire survey and in-depth interviews. The assessment, in the process, draws inputs from government agencies, private sector and other SME stakeholders. The results of the assessment from each country are put together for consultations with

government agencies and are compared and discussed at the workshop for refinement. The results are then internally reviewed by the panel of experts from the OECD and ERIA to ensure their consistency between countries and across the region.

The process to come up with the SME Policy Index therefore is participatory in its nature. At the same time, it offers a fair evaluation of policy implementation through independent and peer-review process.

The method measuring policy implementation by means of the indicators offers flexibility for a country to choose policies that suit well with the country's situation. This flexibility also means that the SME Policy Index is adaptable to different policy processes and institutional settings, given a wide difference in development and political settings of the AMSs.

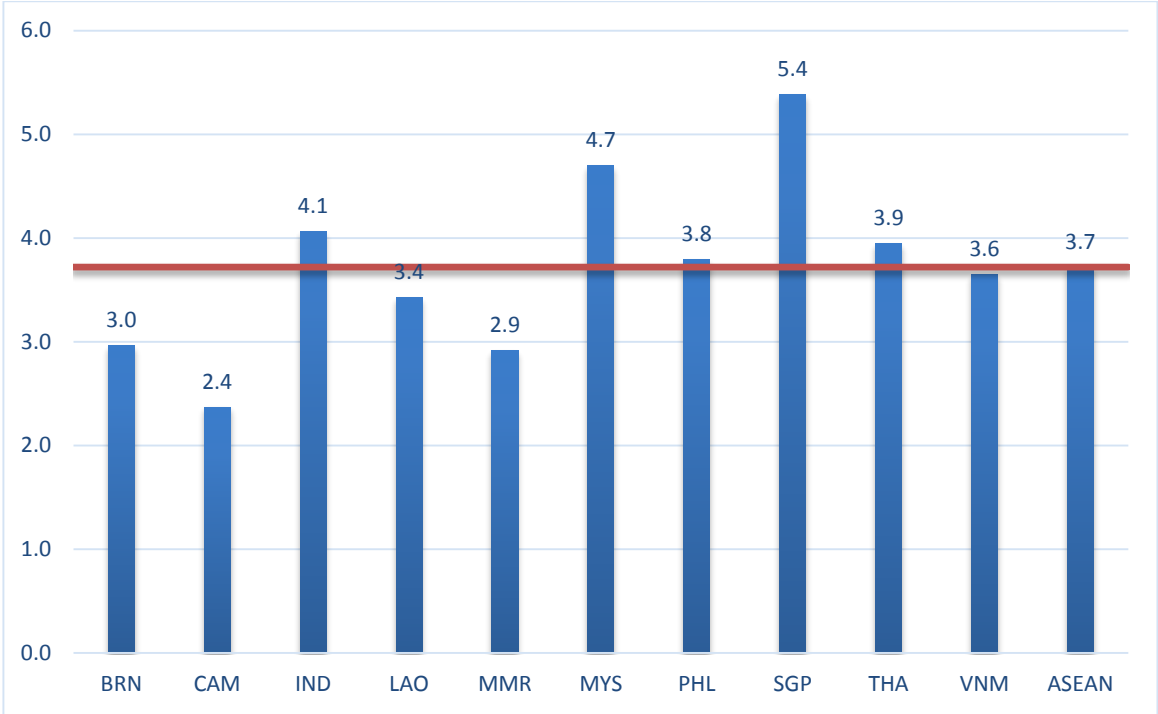
General Findings from the ASEAN SME Policy Index. The results from the Policy Index suggest an uneven level of performances in the implementation of SME development policy at the national level between the two traditional groups of the AMSs, namely, the less developed members (Cambodia, Lao PDR, Myanmar, and Viet Nam or the CLMV countries) and the more advanced members which include Brunei Darussalam, Indonesia, Malaysia, the Philippines, Thailand, and Singapore or the ASEAN-6, with the exception of Brunei Darussalam which has a relatively lower score compared with Viet Nam and Lao PDR (see **Figure 5A.2**).

On average, Singapore, Malaysia, Indonesia, Thailand, and the Philippines have aggregate index scores above the ASEAN average, followed by Viet Nam, Lao PDR, Brunei Darussalam, Myanmar, and Cambodia whose aggregate index scores are below the ASEAN average.

Across the eight policy dimensions, there are big gaps between the ASEAN average, ASEAN-6 and the CLMV countries. The most significant gaps and low regional standing are found in five policy dimensions. They are: (5) *Technology and technology transfer*, (4) *Access to finance*, (7) *Promotion of entrepreneurial education*, (3) *Cheaper, faster start-up and better regulations*, and (2) *Access to support services* (see **Figure 5A.3**). Underlying the gaps of performances between AMSs in these key policy dimensions would be

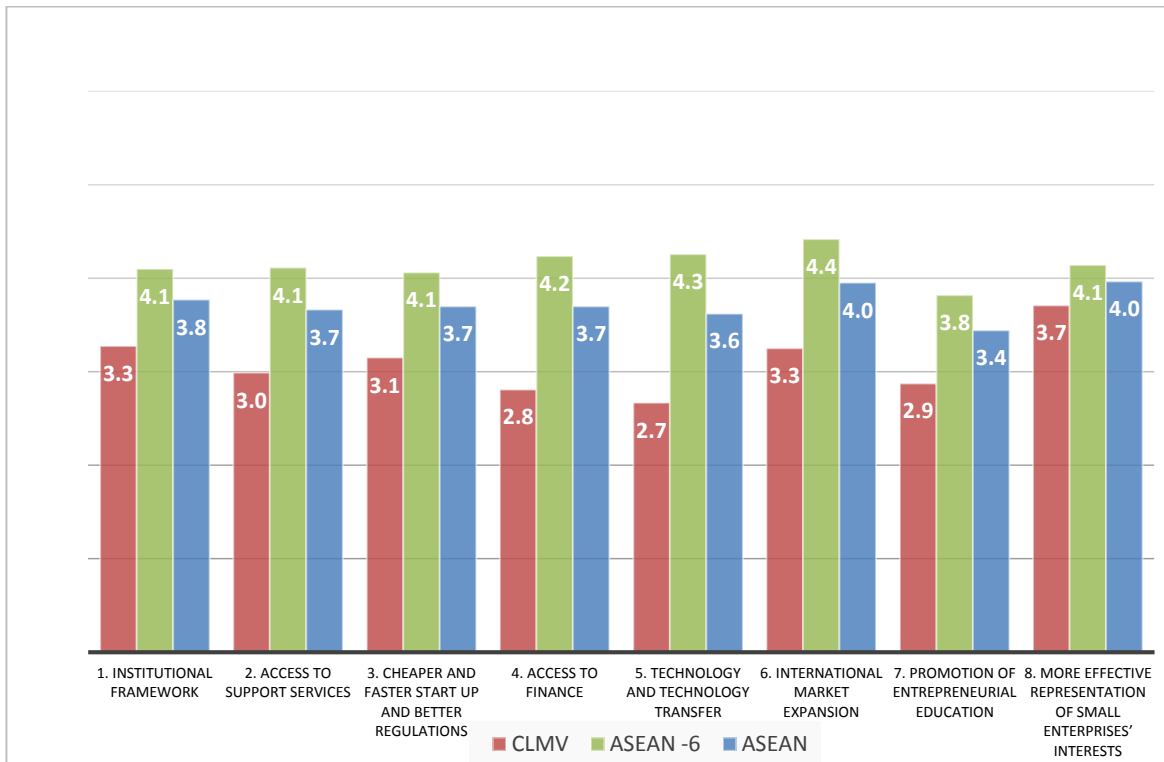
explained further by the status of legal frameworks, institutional arrangements, and the elaboration and implementation of specific policy measures in each AMS.

Figure 5A.2: ASEAN SME Policy Index - Average



Source: ERIA (2013c)

Figure 5A.3: ASEAN SME Policy Index - By Group of Countries and Policy Dimension



Source: ERIA (2013c).

The biggest gap is in the policy to promote *technology and technology transfer* due to the lack of strategic approach to innovation policy for SMEs, poor provision of information on innovation support services, limited access to standard certification services, lack of technology support in universities, and R&D labs and incubators with little linkages with SMEs. Other contributors to the large gap are poor protection and promotion of intellectual property rights (IPRs), lack of broadband infrastructure, underdeveloped science/industrial parks, less competitive clusters, and insufficient financial incentives in technology development and R&D activities.

The gap in *access to finance* is exacerbated by the poor functioning of the cadastre system, stringent collateral requirements and inadequate protection of creditor rights. In addition, credit risk guarantee schemes and central bureau for credit information, which are essential to promote collateral-free finance, are not well established. The legal framework/policy to promote alternative finances and diversified financial markets (ranging from microfinance to

leasing to factoring to venture capitals, equity funds, business angels, to stock markets) is inadequate or lacking in a number of AMSs.

Access to support services to SMEs is severely hampered in the CLMV countries by the lack of action plan for the provision of support services, poor services of business development centres (BDS), lack of legal framework, underutilisation of E-commerce and E-government services, and unreliable on-line portal for SMEs.

There are also variations between AMSs in making ***cheaper, easy start-up, and better legislation and regulations for SMEs***. Procedures for business registration and overall process for SMEs to entry into operation are, in general, simpler, faster, and cheaper in more advanced AMSs than in the CLMV countries. Most of the ASEAN-6 can provide online registration, one-stop-shop services, and varieties of financial support for start-ups.

The capability to provide ***facilitating support for international market expansion*** is relatively wide between the two groups of AMSs. It is because export promotion programs, provision of advice and high quality information are better structured in the ASEAN-6. They have also developed and run export capacity building programs nationwide in a well-coordinated manner. More financial facilities such as trade credits, grants, and insurance schemes are in place in the ASEAN-6 to encourage SMEs to expand their market overseas, with a faster and cheaper custom clearance.

Promotion of entrepreneurial education exhibits both gaps between AMSs and lowest standing at the ASEAN level because most AMSs have not clearly articulated entrepreneurial promotion policy and integrated it into their national development plans with adequate budget, monitoring and evaluation. Key competencies of entrepreneurship learning programs are not well introduced into the general and higher education system. There is also not much active collaboration with the private sector in curricular development, research, customised training, coaching, internship, business awards and scholarships. Non-formal education in entrepreneurship and management of SMEs is not well promoted.

The overall development of *institutional framework* is progressing relatively more evenly among AMSs. A common SME definition has been applied in relevant government agencies in the implementation of the SME development strategies in most of the ASEAN-6. In addition, AMSs tend to have a multi-year SME development strategy that is implemented by a single institution responsible for SME policy formulation and which is the executing agency with an effective coordinating role. The mechanism for review, monitoring, and evaluation of the strategy is clearly in place. Programs and measures are put in place to facilitate the movement of SMEs from the informal to the formal sector.

The gap in promoting an *effective representation of SMEs' interest* is the smallest in the region due to the active role of industrial, business or SME associations in setting up structured consultation mechanism with government agencies in policy formulation and advocacy process to represent SMEs' voice and interests domestically and internationally. However, most SME associations still lack resources as well as technical and research capacity to provide high quality services to help member firms gain access to regional and global production networks.

Way forward engendering supportive policy environment for SMEs. The results of the ASEAN SME Policy Index show that there is a lot to be done in order to go towards the best practice in each of the policy areas. At the same time, it is unrealistic to expect that the gaps can be addressed adequately soon. It is best to view the Index as a mechanism for a **step by step process** of improving the policy and institutional environment, and setting targets and time line. In addition, the detailed nature of the ASEAN SME Policy Index allows for a **participatory approach** to developing the way forward in each AMS involving important stakeholders. Although the Index implicitly presumes equal weighting of all the policy areas, it is likely that the areas of technology, access to finance and easier and faster start-ups would be especially important. Thus, for example, as the discussion in **Chapter 4** of this Report shows, support by China's local governments to industrial clusters (which are likely mainly SMEs) to strengthen their innovation capabilities has been an important reason for the dynamism and global competitiveness of many of China's industrial clusters.

At the same time, it is not efficient and effective to just focus on one or two for high scores; this is because the levels 5 and 6 in a number of the policy areas would likely need resources and skills and regulatory capability that would be difficult to obtain and develop soon, especially in the CLM countries. In the end, a **more balanced, gradual but consistently improving** approach may be the appropriate one to engender a supportive policy environment for SMEs, with the relative prioritisation among the policy areas and indicators to be dependent on the stakeholders' assessment and judgment in each AMS. Moreover, it is best that the exercise of **stakeholder participation, specific targets, time line, and action plans** is done in a concerted manner among all the AMSs in moving forward towards a more supportive policy and institutional environment for SMEs in the region. In this way, there would be greater coherence between the national SME policies and the ASEAN regional initiatives under SAPASD.

Narrowing Development Gaps within ASEAN: IAI and Myanmar

In addition to SME development, the Initiative for ASEAN Integration (IAI) is the other major measure under Pillar 3 of the AEC Blueprint. IAI is essentially a technical and development cooperation program to help the new and poorer members of ASEAN, i.e., CLMV countries, accelerate their economic integration and thereby share the expected benefits from ASEAN integration. The results of the survey of key stakeholders in the CLMV countries on the effectiveness of the IAI program as part of the Mid-Term Review of the implementation of the AEC Blueprint indicate that the majority of the respondents claim that (ERIA, MTR 2012):

- The IAI projects contributed moderately or substantially to narrowing the development gap with ASEAN-6 countries;
- The performance of the IAI projects has lived up to expectations;
- The IAI projects are relevant to the development needs and priorities of the CLMV countries, even if they are less relevant to the needs of the implementing agencies; and
- The funds allocated to the IAI program are not sufficient.

It must be noted that the CLMV countries have integrated well with the rest of ASEAN and the world during the past one and a half decades. The CLMV countries have in fact been more forthcoming in their liberalisation commitments in services and investment than a number of the ASEAN -6 countries, as the results of the ERIA AEC scorecard projects and the AEC Mid-Term Review show. Where the CLMV countries lag behind the ASEAN-6 countries has been primarily in the areas of facilitation where financial and technical resources are needed to implement the needed initiatives. Arguably, the accelerated opening up of CLMV countries is due to fundamental country level development strategy decisions and strong desire to integrate more with ASEAN and the rest of East Asia and the world. Providing them support for the integration process are the IAI program and the programs of the international donor community in the individual CLMV countries.

The CLMV region has in fact been the remarkable story of ASEAN during the past one and a half decades. As **Table 1.2** of Chapter 1 of this Report shows, Cambodia, Viet Nam and Lao PDR (especially during the past half-decade) have been the star growth performers in ASEAN during the past one and a half decades.³ Moreover, the drivers of such stellar growth performance are all related to the accelerated economic integration with the region and the world; that is, the sharp rise in foreign direct investment and international trade during the period. Thus, for example, the average share of foreign direct investment net inflow to GDP during 2006-2011 in Viet Nam, Cambodia and Lao PDR is substantially higher than the ASEAN average, and very much higher than in countries like Indonesia and the Philippines. Indeed, only Singapore, the ASEAN's perennial dominant FDI destination, has higher FDI share to GDP than the CLV countries (ASEC, 2013, p. 41).

Similarly, Cambodia and especially Viet Nam have seen dramatic increase in the share of exports and imports to GDP, an indication of the successful integration of the two countries (but most especially Viet Nam) into the regional production networks or (for Cambodia) global value chain mainly in the garment industry. In either case, it is a strong indication of the countries'

³ **Table 1.2** shows very high growth rates for Myanmar during the same period, in fact, the highest average growth rate among AMSs. However, the quality of national income accounts of Myanmar is highly suspect, and as such, it is not really clear what the true picture of the economic performance of Myanmar is. Nonetheless, it is likely that the country experienced very robust growth during much of the past decade in part because of the expansion in energy exports and the growth of agriculture.

greater economic integration with the rest of the world. As shown in Chapter 1 of this Report, the strong economic performance of the CLV countries is mirrored to a large extent in the marked reduction in poverty rate and significant rise of the middle class in the countries, most especially Viet Nam. Indeed, Viet Nam stands tall among the emerging economies because of its strong economic growth together with relatively equal distribution of income; in contrast, the high growth in China was accompanied by an apparent marked deterioration in the distribution of income.

The discussion above shows that ASEAN has seen some narrowing of the development gap between the ASEAN -6 and the newer CLMV countries, even if there remains a huge gap between the richest AMS, Singapore, and its poorest, Myanmar.

Making Myanmar a star growth and development performer in ASEAN⁴.

Based on Myanmar official statistics, Myanmar is already the growth performer in ASEAN during the past decade with an average growth rate in the double digits. However, the official growth performance is generally viewed to be a serious overestimate because the exchange rate is controlled with a huge divergence between the official rate and the “black market” rate. Adjusting for the currency overvaluation, the economy is estimated to have grown by about 2.3 times during the 2000s instead of 4.2 times. With poor statistics, it is difficult to determine what the true situation was in Myanmar until 2010.⁵ It is likely that the true picture is in between the two extremes stated above in part because a poor statistical system would likely underestimate the output of un-marketed output from agriculture and the informal manufacturing and services sectors which are very large segments of the economy in poor countries. Nonetheless, even at the overestimated official GDP per capita, Myanmar’s per capita GDP was only 0.2 percent of Singapore’s and 8.6 percent of Malaysia’s in 2010.

Thus, one element of narrowing the development gap in ASEAN is to pull up Myanmar to be the top performer in the growth arena during the next one and half decades in ASEAN, and thereby reduce the development gap in the region.

⁴ This subsection draws heavily from Kudo (2013) and Kudo, Kumagai and Umezaki (2013).

⁵ In view of the seriousness of the data problem, President Thein Sein included accurate and reliable statistics as one of the pillars of economic policies of the new Myanmar government (Kudo, Kumagai and Umezaki, 2013).

Myanmar has the potential to be the star performer in ASEAN given its resources, but more importantly, “there is a new dawn in the political and economic landscape of Myanmar, with the country moving toward political and civil reforms and economic growth” (Kudo, Kumagai and Umezaki, 2013, p.1).

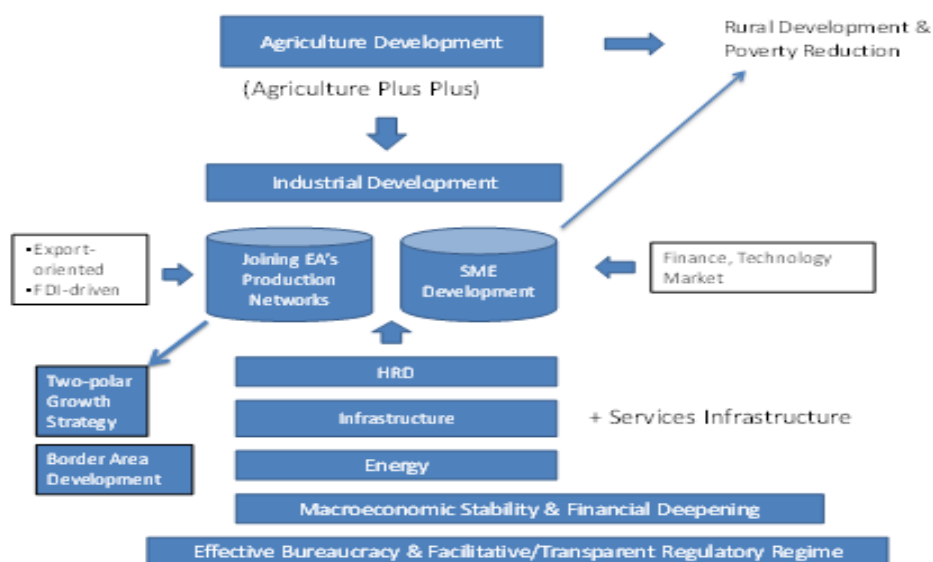
In support of the new dawn in Myanmar, the Economic Research Institute for ASEAN and East Asia (ERIA) worked with the Myanmar Ministry of National Planning and Economic Development (MNPED) in undertaking the Myanmar Comprehensive Development Vision (MCDV) to provide a framework and strategy for medium to long term development planning in the country. The MCDV project was headed by Dr. Toshihiro Kudo, Japan’s foremost expert on Myanmar.

Figure 5A.4 presents the overall framework of the MCDV Growth Strategy. It is anchored on the following (see Kudo, 2013):

- “Agriculture Plus Plus,” which is agriculture development focused on rising agriculture productivity (one plus) and growing value added activities in the agriculture-processed manufacturing value chain (another plus). The agriculture plus plus pillar is supplemented by a rural development strategy focused on poverty reduction and greater participation of stakeholders.
- “Industry Plus Plus,” which is industrial development that is anchored on Myanmar joining and embedding itself in East Asia’s production networks (one plus) and SME development (another plus). Myanmar’s success in joining and participating in East Asia’s regional production networks entails FDI-driven, export oriented and private sector led industrial development.
- Two-polar growth strategy plus border area development, to ensure balanced development. “Myanmar is composed of geographically and ecologically diversified regions with a number of ethnic groups. Therefore, growth should be inclusive for all people and balanced among every region and state” (Kudo, Kumagai and Umezaki, 2013, p.2).

- Development of domestic economic corridors to be linked with the East Asia regional economic corridors. This is to effect and benefit from the re-emergence of Myanmar from a “missing link” to being the “connecting node” of the regional economic corridors.
- Supporting the abovementioned major growth pillars are human resource development, infrastructure development including energy, macroeconomic stability and financial deepening, and an effective bureaucracy and facilitative and transparent regulatory regime.

Figure 5A.4: Growth Strategy for Myanmar



Source: Kudo, 2013.

Myanmar remains essentially agricultural at present and about 85 percent of the poor in Myanmar live in the rural areas. Thus, agricultural development is a critical pillar of any sustained economic growth in the country. It is also the most effective way of reducing poverty at the early stages of economic surge in the country as the experiences of countries like China and Viet Nam show. The country has huge potential in agriculture and agri-based processing because of its vast water resources in large rivers and underground water basins and because of its wide agro-ecological environments that allow the cultivation of temperate, sub-tropical and tropical agricultural crops. The challenges are equally huge, however, including inadequate infrastructure, uncertain land rights, poor varietal stock, weak agricultural research and extension system, and poor post-harvest and processing system. Finding the right balance and/or

synergy between empowering small farmers with clearer land tenure and much improved government support services including good seeds (which may take a long process) and the possibly quicker growth spurt from encouraging large plantations with private corporate support (but which is likely less inclusive) would possibly be another challenge for the country.

Myanmar needs a dynamic manufacturing sector in order to attain growth rates averaging about 7.5 percent per annum for the next two decades or so in order to transform Myanmar's economy dramatically. This requires an FDI-driven growth; the huge surge in foreign investors' interest on Myanmar -- in response to the ongoing reforms and opening up -- not only in resources-based industries but also in other industries especially manufacturing suggests that such FDI-driven growth is already emerging for the country. The relatively liberal investment regime as well as the effective lifting of the sanctions on the country can be expected to put Myanmar well into the global value chains in such labour intensive products like garments, and later with much better connectivity, and bring Myanmar into the regional production networks. For the latter to happen, however, Myanmar would need to markedly improve its connectivity and logistics performance. Myanmar's ranking of 129 in the World Bank's logistics performance index in 2012, which is way below Viet Nam's 53rd ranking or Indonesia's 59th ranking and significantly lower than the rankings of Cambodia and Lao PDR suggests the large challenge for Myanmar to have a well- functioning logistics system that is needed in order to participate actively in regional production networks.

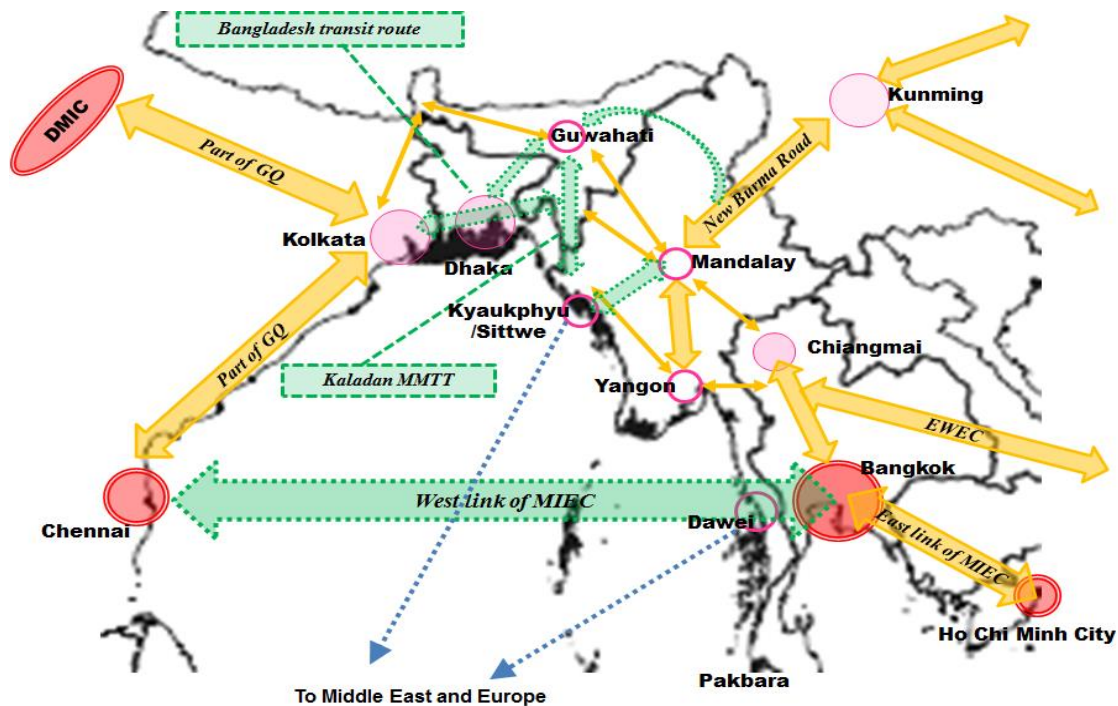
Managing a transition from a closed economy to a liberalised economy for the manufacturing sector has historically been difficult. It is worth noting that Myanmar does not appear to experience large industrial restructuring challenges in the face of the marked liberalisation of the Myanmar economy. This suggests that the hitherto supposed "closed economy" was possibly a heavily porous one because of porous borders with its neighbours like Thailand. This bodes well for Myanmar as it moves forward into and beyond 2015. Nonetheless, a proactive role in providing a more supportive environment for SMEs, as indicated by the significant rise in Myanmar's scoring in the ASEAN SME Policy Index, would help induce Myanmar's SMEs to adjust better to a more competitive investment and market environment in the country.

The proposed two growth poles are Yangon and Mandalay, the two main economic centres of Myanmar at present. Note that the capital Nay Pyi Taw is in between the two centres, so linking the two would ultimately create one big growth corridor for the country. Simulation results show that a two-polar growth strategy would result in higher national output than a growth strategy focused solely on Greater Yangon. Border area development is important for Myanmar for two reasons: (1) the border areas are populated mainly by ethnic groups other than the main ethnic group and thus neglecting them would create a serious socio-political problem; and (2) the border areas are nearest to robustly growing economies like Thailand and China, with the attendant economic opportunities that they offer to the border areas of Myanmar.

The MCDV framework does not explicitly consider tourism services. Yet Myanmar's cultural and natural assets for tourism are huge, and the country is a prime tourism destination hotspot in terms of tourism interest. It is best to embed the tourism element in the growth strategy in the two-polar cum border area development. This is because it would be Yangon and Mandalay that would likely be the country's gateways to the major tourism draws of the country, including the two cities themselves and places like Bagan.

Finally, the remarkable changes and economic opening up that is on-going in Myanmar have meant the "re-emergence of Myanmar from a missing link to a connecting node" (Kudo, Sumagai and Umezaki, 2013, p.49) in the expanding and deepening production networks in East Asia. This is because geographically, Myanmar strategically connects India, China and the rest of ASEAN, the three major growth regions in the developing world. The connecting node function of Myanmar can enable it to participate more actively in the production networks in the region (see **Figure 5A.5**).

Figure 5A.5: Myanmar as an Emerging Connecting Node



Source: Kimura, *et al.* (2011) reprinted in Kudo, Kumagai and Umezaki (2013)

Nonetheless, it requires much improved domestic infrastructure, development of domestic economic corridors, and much reduced logistics and other service link costs to link up Myanmar cities to the major regional corridors and benefit well from the connecting node function for the regional economic corridors. Given that there are binding resource constraints, it is indeed necessary to undertake some prioritisation of investment projects. As the simulation results suggest, it is best for Myanmar to prioritise the Yangon and Mandalay growth poles in the meantime (Kudo, Kumagai and Umezaki, 2013).

In summary, the MCDV presents a cohesive framework for Myanmar to consider in order for it to become the star growth and development performer in ASEAN in the next two decades. This will follow up the sterling growth performances of Cambodia and Lao PDR lately and Viet Nam early on. In the process, development gaps within the region between the ASEAN -6 and the CLMV countries can be expected to further narrow in the next two decades.

Connectivity, Geographic Inclusiveness and Infrastructure Investments

Inclusive growth includes a better spatial balance of economic activities within a country or across countries, that is, geographic inclusiveness. At the same time, because there are societal benefits from economies of scale and agglomeration economies, the complete equality across regions in a country is not optimal. Thus, for example, the simulation results in MCDV for a two-growth poles growth strategy in Myanmar give higher GDP than many more growth poles in the country. At the same time, inclusive growth cannot be achieved without thinking of interdependence between large cities and rural areas or advanced economy and lagging economy. And it is connectivity enhancement which is the key word for better balance between higher economic growth and inclusive development. Connectivity enhancement involves investment in infrastructure as well as improvement in trade facilitation and logistics system and services.

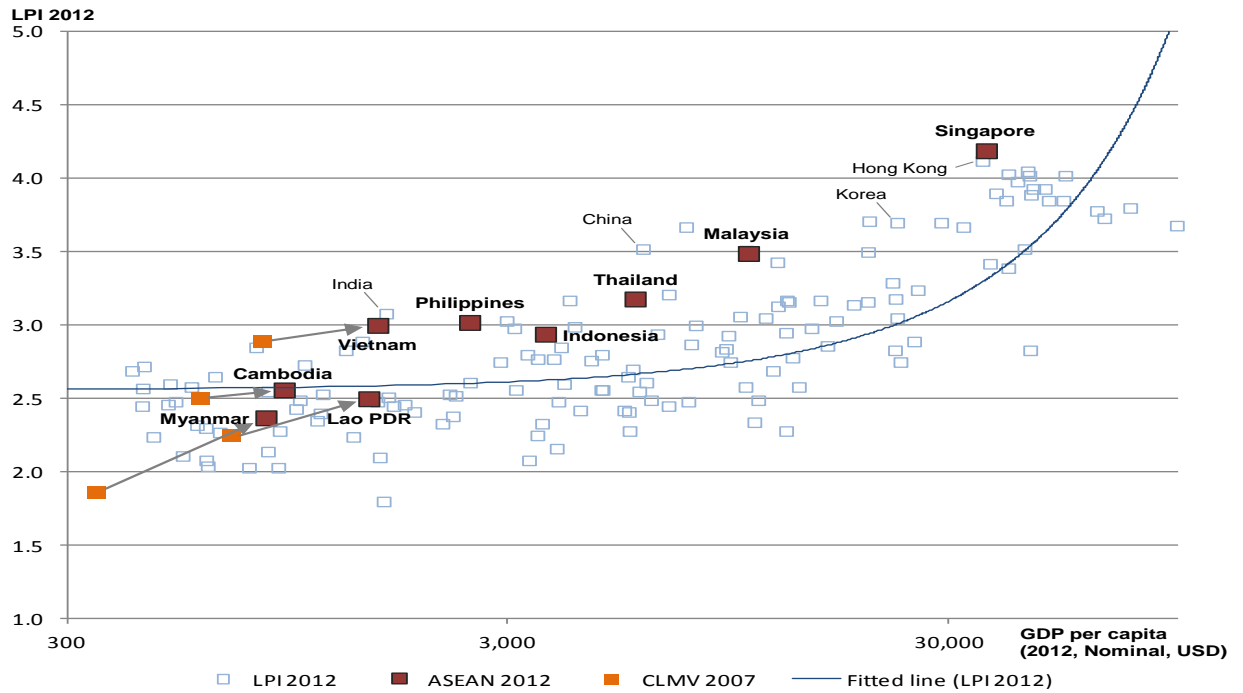
An indication of the importance of connectivity is in the working of regional production networks discussed earlier in Chapter 4. Better connectivity directly reduces service-link costs in production networks, thereby allowing the geographic expansion and deepening of the networks. Moreover, better connectivity induces agglomeration of some industries to bigger cities as well as dispersion of some labour-intensive industries to rural regions and/or ASEAN poorer countries (i.e., CLM countries). Narrowing development gaps between the ASEAN 6 and Viet Nam and the CLM countries includes better connectivity of the latter countries that would enable them to participate in the regional production networks.

The ASEAN-5 countries and Viet Nam initiated trade and FDI driven industrialisation from their primary cities. The fact can be supported by **Figure 5A.6**. The figure plots the correlation between international logistics performance index (LPI) and gross domestic products (GDP) per capita⁶. We find a high correlation between them, which is not very surprising. What is noteworthy about the figure is that the AMSs more deeply involved in regional production networks (i.e., Singapore, Malaysia, Thailand, Philippines, Viet

⁶ We use 2012 LPI data and 2012 GDP data. Data for Brunei are not available.

Nam and Indonesia) have LPs that are significantly higher than what is expected given their levels of per capita incomes. In contrast, Lao PDR, Cambodia and Myanmar are on the line or below the line. Considering that LPI is constructed based on the logistics performance data between primary cities and primary ports, we observe that ASEAN forerunners and Viet Nam have much better logistics performance between their primary cities and primary ports than the international average. In fact, they developed international standard ports, industrial zones and better access roads between them, substantially improved customs procedures (and in two AMSs, adopted state-of-the-art customs systems) and gave better incentives so that the countries could attract large MNEs, many parts and components suppliers, multinational logistics forwarders and world-class vessels. We can claim that there is a challenge of raising logistics performance in the CLM countries for them to attract production blocks and be firmly part of the regional production networks.

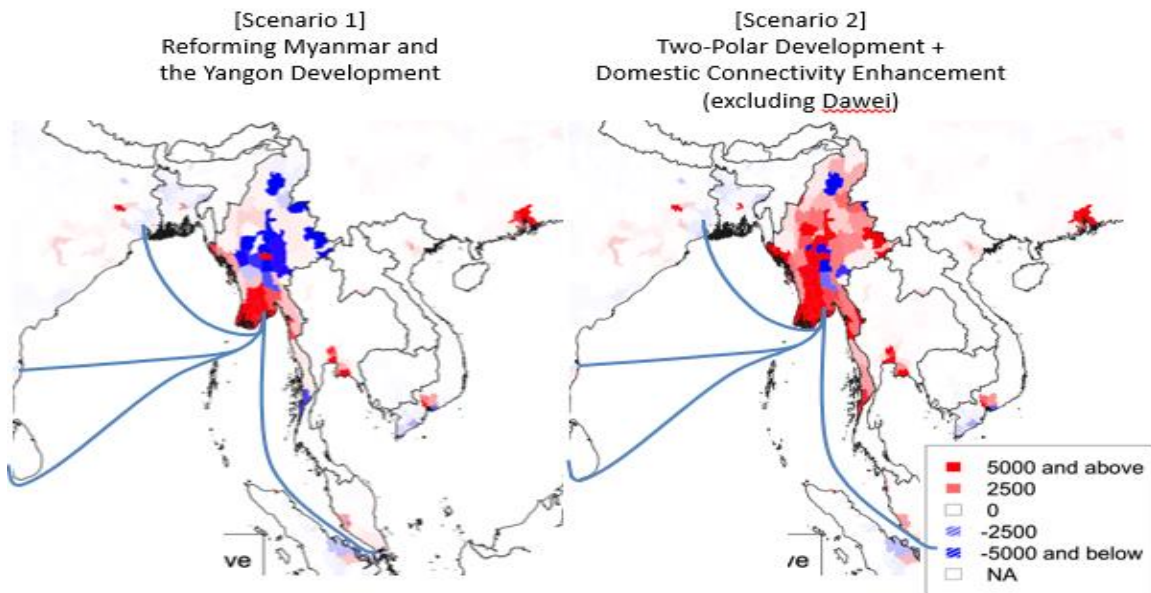
Figure 5A.6: Logistics Performance Index (LPI) and Gross Domestic Product (GDP) Per Capita



Source: Modified from ERIA (2010a).

Just as enhanced connectivity between countries allows for dispersion of economic activities to more countries under regional production networks, enhanced connectivity within a country disperses economic activity to wider geographical areas in a country. Isono and Kumagai (2013) discussed how domestic economic corridor development in Myanmar disperses the benefit of a rapidly opening economy to the northern areas. The left figure of **Figure 5A.7** depicts the on-going plan as of 2013 where Myanmar proceeds with all-round reforms. The simulation result of the scenario shows that reforming Myanmar and completing the Yangon/Thilawa development will stimulate the economic activities of Yangon and the Irrawaddy delta areas, and those areas will attract firms from other regions, especially from Northern Myanmar, to Yangon. The hard and soft infrastructure development in the scenario significantly increases Myanmar's net GDP. The impacts on other countries are relatively small because of the small economic size of Myanmar. However, the Yangon development and Myanmar reforms will generally induce the formation of a cluster in Yangon and lead to an outflow of firms/households from the northern areas of the country.

Figure 5A.7: Economic Impacts of Myanmar Development (Impact Density, USD per km², 2030)



Source: Isono and Kumagai (2012).

The simulation result implies that the Yangon development and Myanmar reform would lead to a higher level of economic growth in Myanmar but not enough to achieve the narrowing of development gaps. The alternative scenario (Scenario 2) that includes the development of Mandalay region in addition to Yangon, together with connectivity enhancement in the country and border facilitations at the main border crossings with surrounding countries, achieves high economic growth and inclusive development in Myanmar.

The importance of linking peripheries to growth centres is also indicated in **Table 5A.2**. For instance, we may consider an economic corridor connecting Hong Kong – Manila – Davao – Manado – Surabaya – Jakarta when we implement and utilize the Roll-on/Roll-off (RoRo) between Davao and Manado (Bitung). As shown in **Table 5A.2**, the Hong Kong – Manila – Davao – Manado – Surabaya – Jakarta corridor will bring much larger economic impacts on Indonesia and the Philippines and also increase the positive impacts of the RoRo project on Manado and Davao themselves, as compared to a Roll-on Roll-off between Davao and Manado alone.

Table 5A.2: Economic Impacts of RoRo between Davao and Manado and Hong Kong – Manila – Davao – Manado – Surabaya – Jakarta Link (Cumulative impacts of 2016-2025 compared with the GDP/GRDP of 2010)

	Indonesia		Philippines	
		Kota Manado		Region XI (Davao Region)
Roll-on/Roll-off (RoRo) between Davao and Manado	1.3%	94.6%	0.0%	0.4%
Hong Kong – Manila – Davao – Manado – Surabaya – Jakarta	18.1%	192.5%	11.2%	12.1%

Source: IDE/ERIA-GSM 5.0.

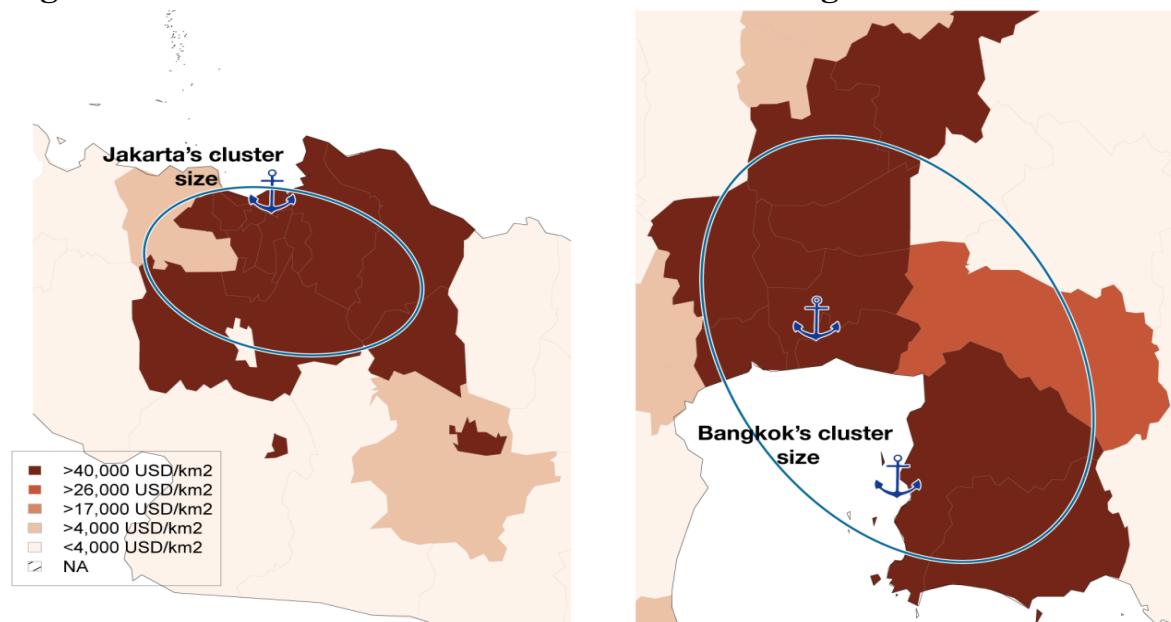
Interestingly, improving the connectivity around the primary city can also lead to inclusive growth. Thus, for example, the size of the clusters or dispersion of the industry depends on the quality of the infrastructure in the primary city. **Figure 5A.8** draws the cluster sizes of Jakarta and Bangkok in the same scale. In case of auto and E&E clusters, the east edge of Jakarta’s industrial cluster is Tangerang, south edge is Bogor and west edge is Cikampek and Purwakarta. Meanwhile, Bangkok has a much larger cluster in geographic size. Bangkok’s east edge is Samut Sakhon, the north edge reaches Ayutthaya, the east edge can include Prachin Buri, and the south edge is some part of Rayong province. Just-in-time production which is broadly adopted in auto and E&E industries can only be achieved with better infrastructure in the cluster. As discussed in **Figure 5A.4**, Bangkok has better LPI than Jakarta. Particularly, heavy traffic jams in Jakarta impede firms to operate just-in-time operations. Moreover, Jakarta has only one gateway port in the Jakarta cluster and it is too close to the city centre, while Bangkok has two gateway ports, i.e., Bangkok port and Laem Chabang port⁷.

The discussion above highlights the importance of connectivity in bringing

⁷ Isono and Kumagai (2012) showed that the proposed Cilamaya New International Port and an access road between Cikarang and Tanjung Priok in Jakarta will bring large economic impact not only on the industrial cluster in Jakarta but also on the Indonesian economy as a whole.

about inclusive growth. Much of that connectivity is linked to infrastructure. As **Table 5A.3** indicates, the CLM countries are comparatively more deficient in infrastructure than the rest of the AMSs. The same holds true with respect to ICT infrastructure and services, as **Figure 5A. 9** brings out.

Figure 5A.8: Cluster sizes of Jakarta and Bangkok



Note: Maps with GRDP density in automotive industry in 2005 are adopted from Kumagai *et al.* (2013) (USD per km²).

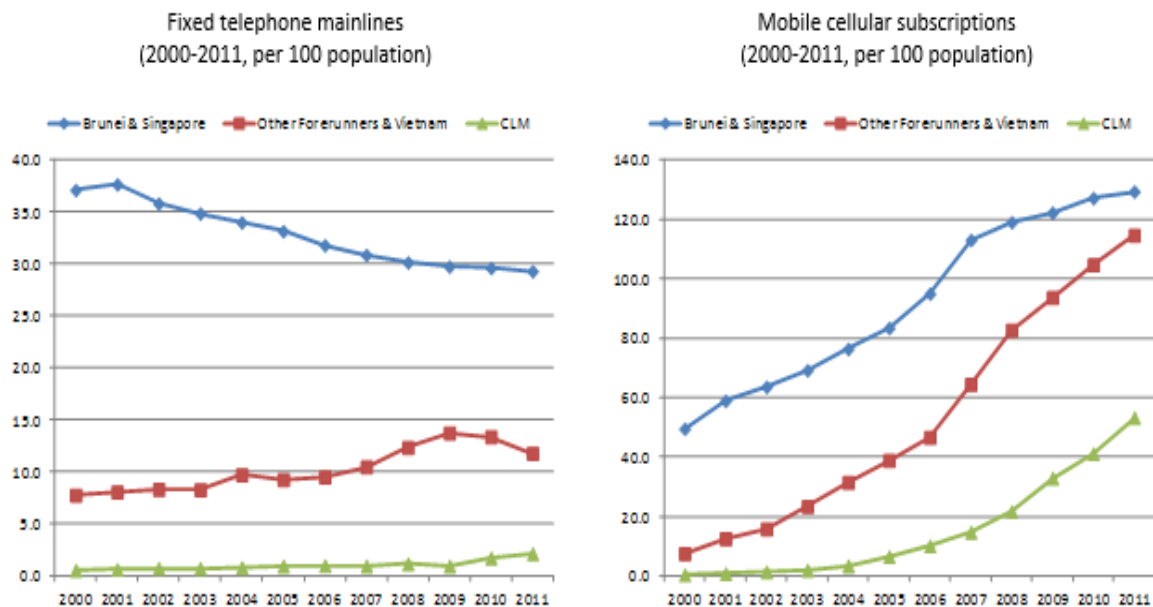
Source: Isono (2013).

Table 5A.3: Connectivity related indicators in ASEAN

	Railway density	Road density	Paved road	Passenger cars	Air passengers carried	Port container freight	Asian Highway	
							Total	Below class III
	(2010)	(2010)	(2010)	(2010)	(2010)	(2010)	(2010)	(2010)
Brunei	-	564.0	77.2	485	1,263	0.09	-	-
Cambodia	3.7	216.7	6.3	18	455	0.22	1,347	0
Indonesia	1.9	262.9	59.1	45	52,283	8.37	4,091	0
Lao PDR	n.a.	171.4	13.5	2	444	-	2,857	306
Malaysia	5.1	300.5	82.8	313	30,997	18.25	1,673	0
Myanmar	5.1	41.3	11.9	5	396	0.17	3,009	1,064
Philippines	1.6	670.9	9.9	8	21,024	4.95	3,367	451
Singapore	n.a.	4794.3	100.0	121	26,709	29.18	19	0
Thailand	8.7	352.4	98.5	57	27,162	6.65	5,111	2
Viet Nam	7.6	516.3	47.6	13	14,407	5.98	2,597	264
Unit	km per 1000 km ²	km per 1000 km ²	%	per 1,000 population	1,000	million TEU	km	km

Source: UNESCAP (2012).

Figure 5A.9: ICT related indicators in ASEAN (2000-2011)



Source: Kumagai, *et al.* (2013)

Investing in infrastructure and PPP. Infrastructure will likely be a major constraint to the realisation of an ASEAN Miracle in the next two decades. An integrated, connected and robustly growing ASEAN requires good quality infrastructure. Competitive industrial clusters require good quality infrastructure. And geographic inclusiveness requires good connectivity of the peripheries to the growth centres, which means good quality infrastructure. With the exception of Singapore, Malaysia, Brunei and Thailand, good quality infrastructure is particularly wanting in ASEAN. ASEAN compares less favourably than the average for Asia, Latin America and OECD in terms of coverage of infrastructure, i.e., roads, rail and phones per 1,000 people as well as in the percentage of electrification and clean water (Shishido, Sugiyama and Zen, 2013, p.2). Given the high growth targets set out in Chapter 2A of this Report, it is apparent that the infrastructure supply is far less than the infrastructure needs in the region.

Given the limited fiscal space that middle income AMSs have in the light of the demands for prudent macroeconomic management as well as their declining access to official development assistance, public private partnership (PPP) offers one major mechanism of addressing the large infrastructure gap

in the region. While PPP projects are not expeditious than ODA funded projects, PPP projects tend to be delivered more on time and more on budget. However, the actual use of PPP in ASEAN is low relative to the infrastructure needs of the region. A major reason for this limited use of PPPs in the region is that PPPs are not easy at all; indeed, they can be complex, requiring good institutional capability of governments to oversee and manage for the countries' benefit.

The following are major ingredients for successful PPPs (see Shishido, Sugiyama and Zen, 2013, pp. 11-14)⁸:

- Strong government commitment to PPP framework is needed given that PPP projects are by nature long term contracts. In many cases, the social benefits of PPP projects are substantially higher than the financial benefits. The concomitant calls for the provision of subsidies and guarantees for the PPP projects need to be balanced by the imperative of fiscal sustainability. It is for this reason that the more experienced AMSs on PPP tend to depend on quality feasibility analyses and high-calibre professional advice to help them on their decisions on PPP projects.
- The government sector needs to have the capacity to select, develop and manage PPP projects. Lack of appropriate skills has led to delays, inefficiencies and even failures in the past.
- The government needs to have an enabling environment for PPP with appropriate legal, regulatory and institutional frameworks. This would also call for the PPP units to have the necessary authority to move the PPP projects forward.
- The PPP project must have high socio-economic returns, and this is only determined after careful and good pre-feasibility studies and feasibility studies.
- The PPP projects need to be developed and structured well so that risks are allocated properly. The experience of AMSs with more extensive

⁸ The following is drawn from Shishido, Sugiyama and Zen (2013).

exposure to PPP is that the AMSs need high quality but expensive professional, financial, legal, and technical, transactions, and other advice. Though PPP is expensive and time consuming, it does not pay, however, to cut corners.

- Given the above, it is clear the PPP partners need to be capable.

The above list shows that PPPs are complex and sophisticated contracts. At the same time, in view of the huge infrastructure needs of many AMSs to support high target growth rates, it is apparent that AMSs need to invest in making the appropriate policy, institutional, and human resource foundations for the successful implementation of PPPs for the development of AMSs. And *when the PPP system is well performing, infrastructure as a constraint ends up becoming infrastructure as an investment opportunity*. Indeed, infrastructure investments become a growth driver for many AMSs in the years ahead.

Towards a well performing PPP system in AMSs and the region, Shishido, Sugiyama and Zen (2013) have the following recommendations:

- Given that proper project development is crucial for attracting private resources, AMSs need to **invest more funds for PPP project development**. Project development costs account for 5-10 percent of total project costs, much of it for expensive but necessary expert advice. In contrast, AMSs tend to spend only 1-2 percent of the total cost.
- For AMSs still learning the PPP ropes, **unbundle larger PPP projects** into smaller and simpler projects to allow AMSs with limited experience to understand the PPP structure and the underlying risks. This learning by doing would help AMS government units gain more experience in designing, implementing and managing PPP projects.
- Establish an **ASEAN Centre of PPP Excellence** at the regional level, staffed with high calibre experts in areas like finance, fiscal analysis, and others. The PPP Centre of Excellence can disseminate best practices and other lessons to AMSs, provide assistance to AMSs through advice on areas (e.g., risk analyses and allocation) that are important in project selection and development, and give advice to AMSs units on how to

enhance PPP-readiness (e.g., legal, regulatory, institutional) based in part on discussion with potential private partners on the constraints they face and their preferences. India's Infrastructure and Leasing and Financial Services (IL & FS) can be a model to consider for the ASEAN Centre of PPP Excellence.

- Engender a **robust and enabling legal, regulatory, and institutional environment** in developing and implementing efficient PPP infrastructure projects.
- Create financial instruments that could mitigate project risks in light of the changing capital markets in the aftermath of the global financial crisis. Example is the Project Bond Credit Enhancement (PBCE) of the European Investment Bank (EIB) for bond-financed projects. It is useful to explore such an enhancement scheme for loan financed projects.

Agricultural Development and Food Security

Agricultural development is critical for inclusive growth in many AMSs with a substantial rural sector. Rural poverty is significantly higher than urban poverty, and the rural poor accounts for the vast majority of the total number of poor in some AMSs. For Myanmar, Cambodia and Lao PDR where the agriculture sector constitutes a large share of national output, agricultural development is both a key growth driver for the whole economy and a powerful instrument of poverty reduction. Studies have shown that agricultural growth gives more poverty reduction bang than a corresponding percentage growth in manufacturing or services. The impressive pace of poverty reduction in China in the 1980s and in Viet Nam in the 1990s can be attributed mainly from the marked increase in agricultural output and incomes together with the marked increase in employment in labour intensive manufactures. The marked increase in agricultural output in both countries arose largely from substantial rise in agricultural productivity that ultimately allowed for a reduction in agricultural labour force for shifts in employment in the growing manufacturing and services sectors.

Although China and Viet Nam are highlighted above, the reduction in the absolute employment in the agriculture sector, facilitated by productivity

growth in the agricultural sector, is part of the structural transformation of the successful economies such as Thailand, albeit more gradually. Thus, agricultural development through productivity growth reduces poverty directly through the rise in incomes from farming (and fishing) and indirectly through the release of labour from the agricultural sector and rural areas to the growing non-agricultural sectors. Agricultural development through productivity growth has a third channel of reducing poverty, i.e., agricultural productivity growth tempers food prices and therefore pressures for wage increases which, without corresponding productivity growth, can hurt significantly the competitiveness of labour intensive manufactures and thereby of overall employment prospects.

Agriculture sector performance of AMSs has been remarkable during the past few decades, anchoring the region's overall robust economic performance. Agriculture GDP at constant 2000 prices grew in the 6.0 to 6.6 percent range on the average per year for Indonesia, Malaysia and Thailand from the 1960s up to 2010, an average of 6 percent per year for Cambodia during 1993-2010, an average of around 5.5 percent per year for Lao PDR during 1984-2010 and for the Philippines from the 1960s to 2010, and an average of 4.9 percent per year for Viet Nam from the mid- 1980s to the mid-2000s (World Bank as reported in Poapongsakorn and Nitthanprapas, 2013, p.3). Available data and estimates suggest that productivity growth has been an important driver of the robust growth of the agriculture sector in a number of AMSs (see **Table 5A.4**). The table shows the marked improvement in agricultural total productivity during the post reform period for the CLMV countries. Notice also the robust growth of total factor productivity in Indonesia and Thailand in the decades prior and during ASEAN's first "golden decade" of 1985-1995 when Indonesia and Thailand, together with Malaysia and Singapore, registered very high overall economic growth rates. The poor total factor productivity growth of Philippine agriculture underpinned to some extent the difficult economic adjustment and mediocre overall economic performance of the country during the 1980s through the 1990s and early 2000s. The Philippines had the slowest rate of poverty reduction among the AMS during the period.

Table 5A. 4: Total factor productivity growth of ASEAN agriculture and China (% per annum)

Country	1929-2004	Pre-reform	Post reform
1. Supawat (2009)			
Cambodia	0.446	-0.320	0.829
Laos	0.335	-0.559	0.558
Myanmar	0.988	0.199	1.383
Thailand	1.043	-	-
Viet Nam	0.969	-1.702	1.637
China	-	-	-
2. Mundlak, et.al.(2002)	(1961-98)	(1961-80)	(1980-98)
Indonesia	1.49	1.58	1.49
	(1971-98)	(1971-8)	(1981-98)
Philippines	0.25	0.98	0.13
	(1971-95)	(1971-81)	(1981-95)
Thailand	1.16	1.28	1.02
Share of growth			
Indonesia	43.9	42.9	48.8
Philippines	10.0	25.6	9.1
Thailand	47.7	47.3	45.5

Source: (1) Rungsuriyawiboon. (2) Mundlak, Poapongsakorn and Nitthanprapas, 2013, p.7

Moving forward beyond 2015, ASEAN agriculture continues its structural transformation because of (1) dietary transformation in the region leading to shifts in food demand away from cereals and towards animal products and more processed food, (2) food marketing transformation away from wet markets and towards supermarkets with greater assurance of food safety, thereby affecting the domestic supply chain in AMSs, and (3) agricultural production transformation towards greater mechanisation and, for countries like Thailand, greater land consolidation, as wages rise and labour shifts to industry and service sectors (see Poapongsakorn and Nitthanprapas, 2013). Such pressures for transformation provide impetus for the more agriculture-dependent AMSs at present to continue improving the policy and institutional regimes as well as increase productivity enhancing investments in the agriculture sector (e.g., R & D in CLM countries, irrigation especially in Cambodia, rural roads and rural education especially in Lao PDR) in order that the countries benefit more from the opportunities offered by the changing economic and demand landscape in ASEAN and East Asia.

In addition, improvements in trade facilitation and infrastructure (including modern wholesale markets and logistics facilities) as well as harmonisation of standards and more streamlined SPS procedures discussed earlier would encourage the further development of the agricultural supply chain not only domestically but also regionally within ASEAN. Using gravity model, Okabe and Urata (2013) show that intra-ASEAN agricultural trade would increase substantially if the time and cost to import and export would be reduced significantly (of which the latter is affected especially by the efficiency of customs procedures, transparency of border administration, availability and quality of transport services and infrastructure, and the quality of the regulatory environment). This process of growing modernisation and integration of ASEAN agriculture would help ensure that the region remains a competitive global agricultural producer and possibly remains a net exporter of agriculture products, unprocessed and processed.

The above implicitly assumes that the policy regime and incentive structure in AMSs would encourage the agricultural sector in each AMS to adjust according to each country's comparative advantage. This means that distortions within the agriculture sector are virtually eliminated. However, there are in fact some policy distortions within the agriculture sector in some AMSs, primarily through the protection from import competition of politically sensitive crops especially rice and sugar as well as through the subsidisation of the production of such politically sensitive crops. The effect of such distortion is that scarce land is not efficiently utilised, thereby leading to less than robust growth of the sector. In the more serious case, this leads to higher food costs that eventually get embedded in higher wages, which have adverse effects on the competitiveness of labour intensive manufactures in an open and integrated ASEAN region under AEC.

The key reason for the policy distortions within the agriculture sector is the political imperative of food security. This is most salient for countries like Indonesia and the Philippines which are both large producers and net importers of rice, arguably the most politically sensitive crop in the region. Thus, for example, Intal, Oum and Simorangkir (2011, p.35) present the food security conundrum for the Philippines as thus:

“The major challenge on food security for the Philippines is that the country has relatively low land-to-population ratio but high population growth. Moreover, it has low irrigation rate, but rice is a water-intensive crop. It has emerged as the world’s largest rice importer but the world rice trade is thin, resulting in highly variable price. The thinness of the global market ...is the result of government interventions to control the importation... (and exportation)...of a politically sensitive commodity like rice. The Philippines’ agricultural comparative advantage is in tropical fruits and vegetable oils...plus fishery... Reducing the trade—off between the political imperative of food security and the ...(potentials of)... exports would call for a greater focus on productivity enhancing investments (irrigation, roads, R & D...) and a substantial reduction of funds for price stabilisation.”

Addressing the food security conundrum. Can the concern for food security be reconciled with an open agriculture sector? Studies on the impact of the 2007-2008 global food price inflation show large negative impacts on poor households that led them to borrow, take their children out of school, or migrate out of their villages, among others (Reyes and Mandap, 2011). Agricultural food protection tends to temper the effect of sharp global price hikes on domestic food prices and their impact on households. However, such protectionist policy results in distorted allocation of resources in the agriculture sector which has adverse long run effects on the economy.

Simulations by Warr (2011), using a CGE model for Indonesia, suggest that the **long run** solution is to *gradually open up and eliminate the distortions in the agriculture sector while at the same time stimulating more productivity enhancing investments in agriculture*. This result is consistent with the quotation on the Philippine case presented above. The challenge is with respect to the **short run** solution, of which the most important is how to strengthen confidence on the international market. One of the major policy actions undertaken during the 2007-2008 food price crisis was the imposition of export restrictions, which exacerbated the global price rise, and likely encouraged the net importing countries to import more, thereby further fuelling the global price hikes. Thus, the important regional cooperation challenge is to have a **regional agreement on policy rules or rules of behaviour** among AMSs (and other East Asian countries including India) to prevent volatility-enhancing policies

by net exporting countries (e.g., export restrictions, export taxes) and to encourage volatility-reducing policies by net importing countries (e.g., reduction in taxes) during food price inflation periods (see Intal, Oum and Simorangkir, 2011, pp. 39-43).

Food security remains a significant concern in ASEAN. Using prevalence of undernourishment as a key indicator of food insecurity as used by the Food and Agriculture Organization (FAO), a number of AMSs (e.g., Lao PDR, Cambodia, the Philippines) are seriously food insecure (see **Table 2A.5** in Chapter 2A of this Report) even if national food availability is adequate.

The 2007-2008 food crisis brought to the fore the urgency of concerted regional initiatives on food security in the region. ASEAN crafted the ASEAN Integrated Food Security (AIFS) Framework and the Strategic Plan of Action on Food Security (SPA-FS). There are four components; namely, (1) emergency/shortage relief, (2) sustainable food trade development, (3) integrated food security information system, and (4) agri-innovation for sustainable food production. The framework is comprehensive, addressing both long run dimensions (component 4) and the short run (component 1). It also highlights the role of conducive market and trade policies (component 2) and effective information system (component 3) in order to ensure a food secure ASEAN.

Component 3 is implemented with the establishment of the ASEAN Food Security Information System (AFSIS) in 2002. On component 1, as a result of the 2007-2008 global food crisis, ASEAN and the Plus Three countries (China, Japan, and Korea) intensified efforts towards the establishment and operationalisation of an emergency rice reserve in the region. The agreement to establish the ASEAN Plus Three Emergency Rice Reserve (APTERR) was signed in 2011 and it was entered into force in 2012. APTERR is meant to enhance food security in the region as it can potentially be tapped by concerned AMSs during emergencies and major shocks. Component 4 is addressed in continuing ASEAN initiatives on R & D, climate change, while Component 2 is implemented primarily through AMSs' commitments under ATIGA and regional initiatives related to SPS. There is no regional agreement on policy rules or behaviour among net exporters and net importers to prevent exacerbation of price hikes during food shortages.

With the entry into force of the APTERR agreement, can there be another commodity or set of commodities where an emergency reserve agreement could also be signed and operationalised? Briones (2013) examined this issue, with the choice of the commodity based on importance in demand, contribution to livelihoods, storability, magnitude of price volatility, and viability of other instruments for price stabilisation. After examining a number of crops (e.g., maize, sugar, and vegetable oils) based on the above criteria, there is none that qualifies. This indicates that rice is indeed a unique commodity, making it politically salient and workable to have an emergency reserve agreement within the region. Given that an emergency reserve is compelling for rice only, the author recommends that AMSs explore other policy options to enhance food security, specifically (Briones, 2013):

- Government programs targeted to specific disadvantaged groups such as cash transfers to targeted poor households;
- Establishing market –based instruments to reduce price instability at the farmers level, e.g. commodity exchanges; and
- Developing market-based instruments that mitigate the effects of instability, e.g., options and futures.

Cash transfer to targeted poor households is already implemented in AMSs, perhaps most aggressively by the Philippines. Commodity exchanges can contribute to the modernisation of ASEAN agriculture as well as to the region’s food security goals. Experiences of the development of commodity exchanges in India, Brazil, Malaysia and South Africa indicate that commodity exchanges also facilitate the development of the physical infrastructure for physical trade. Thus, for example, the Multi commodity Exchange of India (MCX) contributed substantially to the growth of mentha oil, cardamom and other commodities through infrastructure development (e.g., warehouses), expansion of warehouse-based financing, aggressive development of ICT technologies, development of national electronic spot exchange, etc.. Brazil’s Bolsa de Mercadores e Futuros (BM & F) facilitated trade in the secondary market of Cedula de Produto Rural (CPR) thereby facilitating rural finance, established an exporter call centre, developed links with China thereby helping in market development. .Bursa Malaysia Derivatives Berhad became a global price setter for FCPO as it focused on establishing a global price discovery platform and on developing long term pricing models to help in price risk

management. It did not need to focus on the facilitation of physical trade, finance and market development because Malaysia has a well-established, well developed, and well regulated and rapidly growing global physical market for palm oil. (See UNCTAD, 2009.) Thus, the development of commodity exchanges can facilitate the improvement of physical trade, finance and market development in addition to supporting food security goals.

While the discussion above focused primarily on the regional initiatives, much of the challenge of ensuring food security lies at the national level. As implied in the AIFS and SPA-FS, food security is now viewed more broadly than food availability only. The FAO definition of food security entails the simultaneous satisfaction of four basic dimensions: availability, physical access, economic access and utilisation. This broader and multi-dimensional definition of food security effectively expands the factors that impinge on food security. There is thus a need for an integrated approach to ensuring food security, where the interrelationships among the four dimensions of food security are acknowledged and laid out. One key question arises: how robust is a country's food and agricultural system to address the food security challenge? A corollary question is: which are the areas that need to be a focus for intervention? (Syngenta, 2012, p.16). Towards this end, the **Rice Bowl Index** provides a useful integrative framework and, being an index, a measuring tool on the robustness of a country's system for food security. The Rice Bowl Index measures the following set of enabling and disabling factors and the basic question that each set of factors addresses (Syngenta, 2012, pp.16-17):

- *Farm level factors:* Do the farmers have the capability and means to be productive?
- *Policy and Trade factors:* Does the trade and policy environment encourage open markets, investment and innovation?
- *Environmental factors:* Will the environmental capacity in the country provide for long-term agricultural productivity and sustainability?
- *Demand and price factors:* How will the food security needs in the country evolve in terms of quantity, affordability and access?

The findings from the Rice Bowl Index show that the countries with the most stable food security over a period of time have a balance of the four sets of factors, that farm level factors are the major contributors to the robustness of a country's food security system albeit also being the most volatile, that demand

and price factors have more impact during periods of greater price volatility, and that the other two factors shape the longer term robustness of a country's food security system (Desker, Caballero-Anthony and Teng, 2013).

A comparison of the results of the Rice Bowl Index for a number of AMSs with comparator countries in the East Asia Summit region shows that AMSs lag behind, with countries differing on their robustness among the enabling and disabling factors. In view of its potential usefulness as an organizing and measuring tool on the robustness of food security systems in AMSs and the region, it is worthwhile to have the Rice **Bowl Index refined further for ASEAN and then institutionalised in ASEAN.**

Disaster Management and Safety Net Design for ASEAN

*Disaster management*⁹. While the AMSs have been successful in achieving economic growth and poverty reduction, ASEAN cannot avoid exposure to a variety of disasters; in fact, ASEAN and East Asia is the most disaster-prone region in the world (Sawada and Oum, 2012). The region is exposed to almost all types of natural hazards, e.g., tsunamis, typhoons and cyclones, earthquakes, floods, volcanic eruptions, etc. Indeed, Asia accounted for about two-fifths of all natural disasters as well as the cost of the damages from the disasters in the world during 2001-2010 (Sawada and Zen, 2013). In addition, the number of reported disaster events more than doubled from the 1980s to the 2000s (Fargher, *et al.*, 2012, Box 1, p.4). The region has experienced major natural disasters including the 2004 Indian Ocean Tsunami, 2008 Cyclone Nargis, 2008 earthquake in Sichuan, China, 2009 earthquake in Padang, West Sumatra, 2011 earthquake and tsunami in Japan, and most recently, the 2013 Typhoon Haiyan that devastated Central Philippines.

The cost to lives and property have been large, most vividly illustrated by the over 250,000 deaths from the Indian Ocean tsunami, 69,000 deaths from the Sichuan earthquake, and most recently, the more than 6,000 deaths from Typhoon Haiyan. The economic cost has also been substantial stretching for a number of years, worsening poverty, and eroding development gains.

⁹ This subsection draws heavily from Sawada and Zen (2013).

Given the disaster-prone condition of the majority of ASEAN member states, ASEAN has been raising its collective efforts to cope with the challenges. Since its inception back in 1976, ASEAN has been recognising and adopting disaster management as one of its eight principles and objectives. A major step was the decision to establish the ASEAN Committee on Disaster Management in 2003, followed by the signing of the ASEAN Agreement on Disaster Management and Emergency Response in 2005, as well as the ARF Statement on Disaster Management and Emergency Response in 2006. The latest major manifestation of the high policy importance given to disaster management is the Cha-am Hua Hin Statement on EAS Disaster Management that was adopted by the East Asia Summit (EAS) Leaders during the 4th EAS in 2009. The Statement brings out forcefully that disaster management is not only an ASEAN concern but in fact a major concern of the wider EAS region, the world's most natural disaster-prone region as averred earlier.

Given that the region is disaster-prone, the fundamental challenge for the region is to make the region more disaster resilient and to substantially reduce disaster losses in terms of human lives and in the social, economic and environmental assets of communities and countries (UNISDR, 2005, p.3; AIFDR Design Document, 2009, p.4). The Hyogo Framework for Action 2005-2015, drawing from the earlier Yokohama Strategy for a Safer World, provides the five key strategies, and corresponding action points, towards greater disaster resiliency and reduced losses from disasters, namely (UNISDR, 2005, p.6):

- Ensure that disaster risk reduction is a national and a local priority with a strong institutional basis for implementation.
- Identify, assess and monitor disaster risks and enhance early warning.
- Use knowledge, innovation and education to build a culture of safety and resilience at all levels.
- Reduce the underlying risk factors.
- Strengthen disaster preparedness for effective response at all levels.

As the Hyogo Framework stated, disaster risk arises when hazards (which in the region is mainly hydrometeorological in origin) interact with physical, social, economic and environment vulnerabilities (Ibid, p. 1). It is apparent that one critical way forward towards disaster reduction is for countries, communities and people to understand better the various hazards and thereby build a culture of safety and resilience, in tandem with understanding the social, economic, and environmental vulnerabilities and their interaction with the various hazards. Early warning systems, embedding disaster resiliency in social and economic practices and policies in part as a means of reducing the underlying risk factors, capacity building, drawing up emergency plans, disseminating and teaching emergency knowledge, conducting emergency drills, constructing early warning systems, investing in sturdier infrastructure, and engaging communities combined together contribute to improved disaster resiliency. As the above Hyogo Framework implies, building sufficient capacities for disaster resiliency and preparedness needs to be the core foundation of disaster management. To a large extent, the Australia-Indonesia Facility for Disaster Reduction is primarily in support of this perspective of raising national capacities towards disaster resiliency and reduction of disaster losses.

Nonetheless, there is clear basis for strong regional and even international cooperation and partnerships in the various areas of action towards greater disaster resiliency and lower disaster losses in AMSs and the region. As the Typhoon Haiyan experience shows, international or regional surge capacity to respond in the immediate aftermath of a major disaster, especially when the disaster-stricken country is initially overwhelmed by the magnitude of the crisis, can play a major role in tempering the adverse consequences of disasters. Regional cooperation goes further than disaster response; indeed, in many areas of action under the Hyogo Framework and as articulated in the Cha-am Hua Hin Statement on EAS Disaster Management, regional cooperation and countries joining together can make a significant difference. Thus, for example, the ASEAN Regional Program on Disaster Management (ARPD) aims at enhancing cooperation among member countries, capacity building, sharing of information and resources, external partnerships, as well as public education and awareness raising. ARPD is coordinated under the ASEAN Agreement on Disaster Management and Emergency Response (AADMER), which is the first Hyogo Framework for Action-related binding instrument in the world. The operational body of AADMER is the ASEAN Coordinating

Centre for Humanitarian Assistance on Disaster Management (AHA Centre) based in Jakarta (Sawada and Zen, 2013, pp. 17-18).

In addition to strengthening national capacities and regional cooperation in disaster management, a creative use of market mechanisms can also contribute to greater disaster resiliency and risk reduction. Specifically, **ASEAN moving forward beyond 2015** may well examine and implement insurance mechanisms at the regional level to help address and manage the aftereffects of natural disasters. Munich Re's 2010 report shows that only 9 percent of property losses due to natural disasters in Asia was covered by private insurance as against about 75 percent coverage in the case of the Christchurch earthquake (Sawada and Zen, 2013, p.2).

Not surprisingly, an analysis by Sawada suggests that significant income shocks arising from natural disasters also translate to large consumption shocks, a reflection of the incomplete insurance mechanism in the region (Ibid, p. 14).

There is merit in strengthening the complementarities among market mechanisms like insurance systems, government enforcement mechanisms, and community social interactions and capital in order to improve disaster resiliency. For idiosyncratic risks that affect individuals or small groups of individuals, community-based mutual insurance mechanisms that tap a community's social capital can help weather losses from natural disasters. For aggregate shocks that cover a wide area (e.g., natural disasters), government enforcement mechanisms can contribute to increased participation rates, and thereby make private insurance workable. These risks should be covered by well-designed formal market or similar arrangements backed by the public enforcement mechanisms in which country-specific or region-specific risks are diversified away across countries or regions. There can also be regional insurance mechanisms similar to the Caribbean Catastrophic Risk Insurance Facility (CCRIF) which is a parametric, multinational hazard insurance fund for hurricanes and earthquakes that works with the international reinsurance market. The benefit of such funds as CCRIF was shown when the Haiti government received funds from CCRIF twenty times its premium about 2 weeks after the earthquake (Sawada and Zen, 2013, p.29). The CCRIF is an example of recent innovative ideas in insurance mechanisms against natural

disasters such as the “index insurance or parametric insurance contracts” which “...pay out on storms that exceed a pre-designated speed, rainfall that falls short of a threshold level, and earthquakes that exceed a certain seismic intensity” (Sawada and Zen, 2013, p. 22).

The World Bank and other institutions have been piloting weather-based index insurance contracts in Morocco, Mongolia, Peru, Viet Nam, Ethiopia, Guatemala, India, Mexico, Nicaragua, Romania, and Tunisia. However, the market for micro insurance is still underdeveloped in the South East Asian region. For disaster linked micro-insurance, only Indonesia, the Philippines, Thailand, and Viet Nam have developed small-scale or pilot projects, hence, the coverage areas are still limited and the programs are at an early stage of development.

Another creative use of market mechanism in tandem with government enforcement and policy intervention is by incentivising disaster risk reduction (DRR) policy. Thus, for example, countries could be constantly evaluated for their DRR policy and given “seals of approval” which would allow them to insure themselves explicitly with international re-insurers or implicitly by issuing Catastrophic Bonds (CAT bonds) that allow for multi-year insurance. The “seal of approval” would alleviate investors or insurers’ concerns about the moral hazard generated by the disaster-contingent financial support (Sawada and Zen, 2013, p. 27).

In summary, it is best to quote verbatim from the Hyogo Framework for Action 2005-2015, as thus:

“There is now international acknowledgement that efforts to reduce disaster risks must be systematically integrated into policies, plans and programmes for sustainable development and poverty reduction, and supported through bilateral, regional and international cooperation, including partnerships. Sustainable development, poverty reduction, good governance and disaster risk reduction are mutually supportive policies, and in order to meet the challenges ahead, accelerated efforts must be made to build the necessary capacities at the community and national levels to manage and reduce risk” (UNISDR, Hyogo Framework for Action, p. 1).

Thus, moving forward beyond 2015, it is recommended for ASEAN to:

- **Strengthen further the (a) operationalisation of regional cooperation in disaster reduction and emergency response in the region, (b) networking and sharing of best practices, experiences and operational manuals among specialists, responders and practitioners, and (c) operationalisation and enhancement of standard operating procedures for greater compatibility and effectiveness in disaster response.** This is in part through the main activities of the AHA Centre that include risk identification and monitoring in tandem with a national focal point in each AMS, facilitation of the establishment, maintenance, and periodic review of regional standby agreements for disaster relief and emergency response. This is in part through such mechanisms such as the ASEAN Regional Disaster Emergency Response Simulation Exercise (ARDEX) for capacity building and improved regional coordination.
- **Accelerate national efforts in ASEAN to integrate disaster risk reduction in national policies and programs and to strengthen national and local capacity in disaster management in AMSs** through better understanding of risk and vulnerability and their interaction in prioritised areas and regions of AMSs, better capability to reduce disaster risk in practice, and greater partnerships with regional and international institutions and organisations. This approach is similar to the strategies set out by the Australia-Indonesia Facility for Disaster Reduction.
- **Develop formal mechanisms to diversify aggregate disaster risks at national and regional levels** and to elaborate multi-country risk pooling schemes and sources, i.e., regional fund, to cover sovereign disaster risk. While regional index insurance schemes (such as the Pacific Catastrophe Risk Assessment and Financing Scheme) are supported by development partners, the microcredit and insurance programs are supported by informal community enforcement mechanisms. Hence, complementarities among the market, the state, and the community will be the key.

- Another policy to consider is to support the acquisition and public provision of hazard map and data. Rashky and Chantarat (2013) suggest the establishment of a **regional centre for disaster risk data, modelling and insurance**. Reliable spatiotemporal- rich data on exposures and disaster losses are largely unavailable in ASEAN countries. These necessary risk data and modelling are critical in enhancing risk-based pricing and supervision, in stimulating the development of new insurance products, and in helping the governments identify appropriate risk financing strategies for effective and timely disaster responses.

*Social protection*¹⁰.

One of the key premises of the framework in Chapter 2B is that the pursuit of inclusive and balanced growth in ASEAN is best pursued through greater reliance on dynamic economic forces tempered by prudent safety net programs, rather than on activist and fiscally unsustainable subsidisation policies and income redistribution programs. Much of Chapter 5A shows that the more critical strategies for greater inclusiveness also contribute to greater competitiveness, e.g., SME development, better infrastructure connectivity and institutional connectivity. Nonetheless, as ASEAN economies become more integrated with one another and with the rest of the world, AMSs and their households become more vulnerable to shocks coming from abroad. Moreover, a number of AMSs are facing increasingly the challenges of an aging population. Thus, AMSs need to have robust safety net and social protection programs, albeit more prudently than a number of advanced countries in view of the fiscal constraints in many AMSs.

At present, the nature and availability of social security programs varies considerably within the ASEAN region. In general, programs are skewed towards the formal sector, urban workers and government staff and are predominantly publicly managed. In terms of areas of coverage, all countries have programs for at least four of the eight branches that include sickness, maternity, old age, invalidity, survivors, family allowances, employment injury and unemployment. Thailand has the most comprehensive coverage. Nearly all countries provide pensions for old age, disability, survivorship and

¹⁰ This subsection draws heavily from Asher and Zen (2013).

work injury. Coverage of sickness, maternity benefits, unemployment benefits and family allowance is however limited, as is access to health care. While the scope of coverage is large, most countries perform poorly on legal coverage and effective population covered. Actual coverage may also be lower than legal coverage because of the large informal sector.

Rapid growth of the working age population in ASEAN means that ASEAN will have to deal with issues such as migration and informalisation of labour. At the same time, the region faces the challenge of aging at relatively low incomes, calling for serious attention and action from the policy makers. In addition, the region has to deal with the issues of covering special groups within the population like informal sector workers and migrants. Intra-ASEAN labour migration has been growing and is 32 percent of total outward migration and 60 percent of total inward migration but there is no social security agreement among ASEAN countries, resulting in no portability of benefits for 60 percent of intra-ASEAN labour migrants (Pasadilla, 2011). Other issues to be tackled on the social security are the effectiveness of service delivery and imbalance in supply and demand.

Social security systems have the functions of smoothing consumption over lifetime, insurance particularly against longevity and inflation risks, poverty relief and even income redistribution. The challenge for efficient and effective social security systems in AMSs is maintaining fairness and sustainability or in effect, have social security programs that are fiscally viable in the longer term and yet provide an adequate level of benefits to all, especially in the context of tight fiscal resources and many competing urgent expenditure needs (Asher and Zen, 2013, 4). As indicated earlier, coverage leaves much to be desired in many AMSs.

Can AMSs raise substantially coverage and provide adequate level of benefits while at the same time ensure fiscal viability? An examination of the experiences of some countries (e.g., Japan, Chile, and Brazil) provide some insights and **recommendations for the way forward for ASEAN beyond 2015:**

- **Prioritisation and tiering.** For example, Chile has a tax funded pension system called solidarity pillar to all citizens older than 65 years

belonging to the poorest 60 percent of the population, while the rest have a voluntary pillar where all workers contribute. Similarly, Brazil has the non-contributory second pillar, called social assistance, that ensures universal coverage of all Brazilians; the social assistance includes pension for the elderly and disabled with limited resources as well as income transfers to poor families, the best known of which is the cash transfer program called Bolsa Familia Programme. Brazil's first pillar for social insurance is contributory and also covers pension for old age. Japan also has a two-tier strategy for its social security system, with the upper layer for those with formal employment and the lower layer for the rest of the population who are excluded from the upper layer. The tax financed schemes for the lower layer are administered by local governments. Note that in both Chile and Brazil, the tax-financed pillar covers only the relatively poor segment of the population. This is perhaps the take away on prioritisation and tiering; that is, the non-contributory and tax financed pillar or tier is for the relatively poor population only. This is one way of reducing the fiscal cost of the social security system while at the same time expanding the coverage of the system.

- **Strong health insurance systems.** This is best exemplified by the case of Japan where the health system is organised to provide equal quality of medical service at equal cost to all and the patient can directly approach any hospital for treatment. While the provision of equal quality at equal cost for all is not realistic for many AMSs at the moment, it is likely that the quality of medical care can be expected to improve over time in AMSs as they develop. Nonetheless, the focus on health insurance systems reflects the fact that medical emergencies can set back families without insurance considerably financially, possibly forcing them into indebtedness and unplanned sale of productive assets and into poverty.
- **Controlling costs and modernising systems.** Administrative costs are likely to be high in ASEAN economies, and administrative capacities in the relatively poorer AMSs are not adequate. Decentralised implementation but with central government direction and supervision, involvement of non-government organisations with similar objectives

subject to stringent centrally defined criteria, stronger governance and administration of schemes, increased professionalism through evidence-based policy making, and (for low income AMSs) building administrative capacities of social security institutions are all possible means, among others, of controlling costs and modernising systems in the face of higher coverage.

- **Developing effective transfer mechanism that does not rely on formal labour market relationships.** Perhaps the best example of this is Brazil's Bolsa Familia programme, which is a conditional cash transfer program for poor families. Analysts point that the Bolsa Familia accounted for only 3 percent of all social sector expenditures in Brazil, yet the program has been responsible for between 16 – 21 percent of the decline in Brazil's income inequality (arguably one of the worst in the world until the 1990s) since 2001. The conditionalities imposed on recipient families of the cash transfers are related to health and education, which themselves also contribute to improved human capital and competitiveness (or investment attractiveness) of the country. In ASEAN, the Philippines has probably the largest conditional cash transfer program in the region.
- **Integrated, systemic changes in systems under evidence-based policy making.** Improving the efficiency and effectiveness of the social security systems in a number of AMSs may call for systemic and integrated reform efforts. In the case of Chile, the social security reforms were in tandem with capital market reforms, creation of autonomous regulatory structures, and with a great focus on job creation. Such reforms would call for evidence-based policy making with strong reliance on good and transparent information that contributed to better product development and informed policy making.

CHAPTER 5B

Engendering Energy Resiliency and Security Towards a Resilient and Green ASEAN

Introduction

The continued increasing use of fossil fuels in ASEAN and East Asia has substantial impact on energy security and the rise in CO₂ emissions. ASEAN, China and India are already shifting the centre of gravity of the global energy demand towards Asia. In addition, the total population of about 3.3 billion in the 16 countries of ASEAN and East Asia puts pressure on future energy consumption and security in the region. ASEAN alone has about 600 million people; thus, there remains a great scope for ASEAN's energy consumption to rise in virtually all sectors especially industrial, transportation, residential and commercial.

The ASEAN and East Asia region relies heavily on imports of fossil fuel from the Middle East to fuel the region's economies. This puts the region in a vulnerable situation in case of disruption in the supply of oil and gas arising from the deterioration of political instability in the Middle East. Demand for fossil fuels in some major energy consumers within the region is growing faster than domestic production leading to greater import dependency particularly on oil and natural gas; thus, the growing concern on energy resiliency and security in the region.

To further energy security in the region, the heads of State of the Member Countries of the Association of Southeast Asian Nations (ASEAN), Australia, China, India, Japan, Republic of Korea and New Zealand adopted the Cebu Declaration on energy security during the Second East Asia Summit on 15 January 2007 in Cebu, Philippines. The Leaders agreed to promote Energy

Efficiency (EEC), New Renewable Energy (NRE) and clean use of coal, together with improved oil stockpiling, as the key means of engendering energy resiliency and security in the region.

The promotion of EEC, NRE, and clean use of coal also supports the drive towards a green ASEAN and East Asia. The pursuit of Green ASEAN growth will focus not only on reducing the dependence on fuel imports but also on fuel use efficiency and on the diversification of fuel sources, especially raising the share of renewable energy in the total energy consumption in the region. Thus, ASEAN's drive to improve its energy efficiency, tap renewable sources, and encourage more efficient use of coal for power and natural gas and bio-fuels for transportation will contribute not only to regional energy resiliency and security but also to a Green ASEAN.

Nonetheless, there is some trade-off between the pursuit of energy resiliency and of green development in ASEAN in the short term. For example, ASEAN is abundant in coal and the region is expected to rely more on coal for its power needs given the relatively lower price of coal. However, the upfront cost of clean coal technology is much higher than technologies that emit high carbon emission. Thus, ASEAN may need to voice common concern in the international arena to ensure greater affordability and access to clean technologies by developing countries like most AMSs.

This chapter focuses on the importance for ASEAN and East Asia to pursue Energy Resiliency and Green Development by looking into the region's resource potentials, the strategic use of those resources towards energy resiliency and security while at the same time being supportive of the long term goal of Green Development for more sustainable and equitable growth in the region.

Energy Consumption and the Economic Impact of Energy Conservation

Primary Energy Consumption

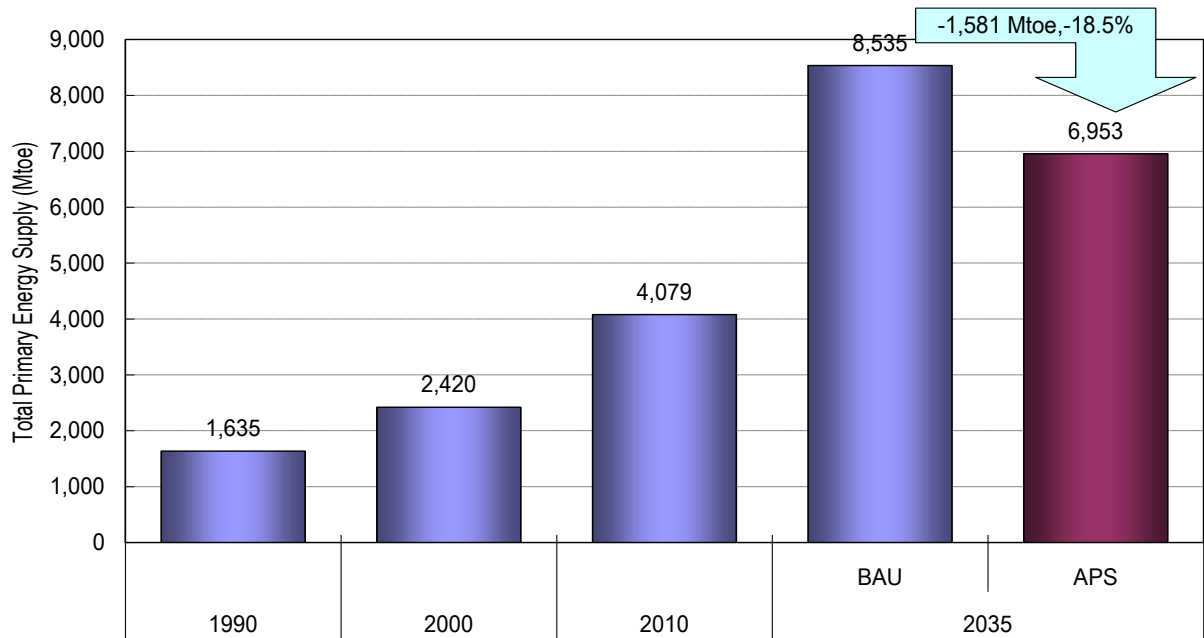
ERIA's Energy Efficiency and Saving Potentials project (ERIA, 2013) shows

that primary energy consumption until 2035 in EAS (East Asia Summit)¹ countries is projected to increase from 4079 Mtoe (million tons of oil equivalent) in 2010 to 8533 Mtoe in 2035 in the Business as Usual Scenario (BAU) case and to grow at 3.0 percent per year on average (see **Figure 5B.1**). The EAS primary energy consumption is projected to be 6953 Mtoe by 2035 under the Alternative Policy Scenario (APS) case, 18.5 percent lower than in the BAU case. Note that the 1,581 Mtoe reduction in 2035 in primary energy consumption in the APS case compared with the BAU case is three times bigger than ASEAN's primary energy consumption in 2010. The BAU scenario reflects each country's current goals, action plans and policies while the APS includes additional goals, action plans and policies as reported at the EAS-EMM6 held in September 2012 in Phnom Penh, Cambodia or those that are currently, or likely to be, under consideration.

In terms of the composition of primary energy consumption, **Figure 5B.2** shows that coal will still constitute the largest share of primary demand in the next two decades due to increased power generation. The share of coal in total primary energy consumption was 54.1 percent in 2010: its share is expected to decline to 48.3 percent in 2035.

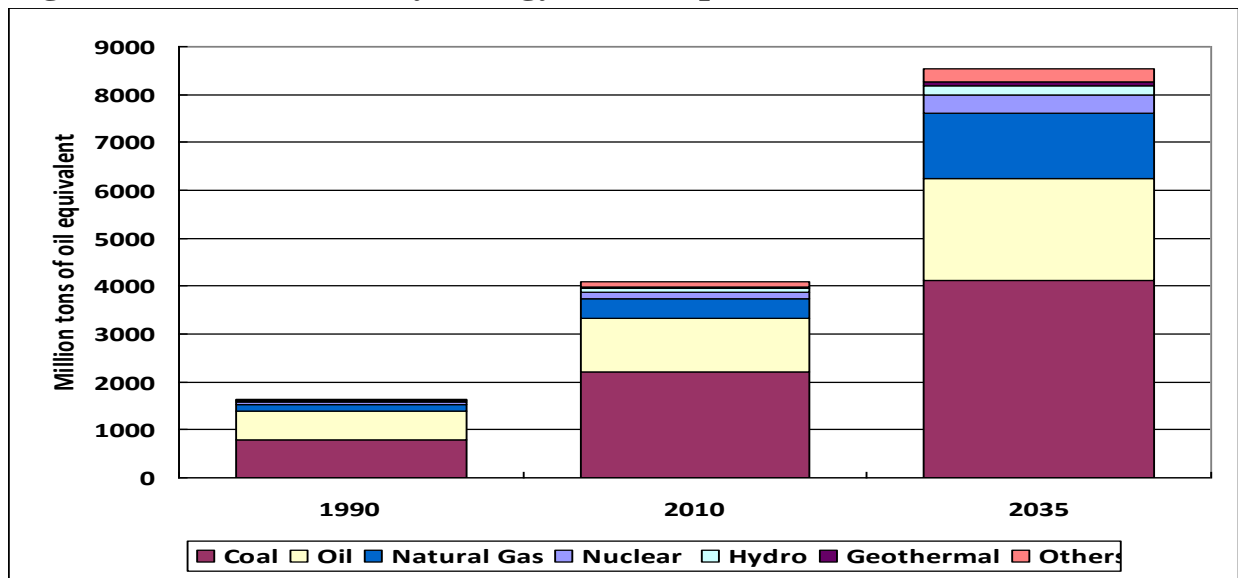
¹The East Asia Summit (EAS) is a collection of diverse countries. It is composed of the 10 member countries of the Association of Southeast Asian Nations (ASEAN) namely: Brunei Darussalam, Cambodia, Indonesia, Lao People's Democratic Republic (Lao PDR), Malaysia, Myanmar, the Philippines, Singapore, Thailand and Viet Nam, and 6 other countries, namely: Australia, China, India, Japan, Republic of Korea and New Zealand.

Figure 5B.1: Total Primary Energy Consumption



Source: Kimura, 2013.

Figure 5B.2: Primary Energy Consumption in EAS, 1990 to 2035

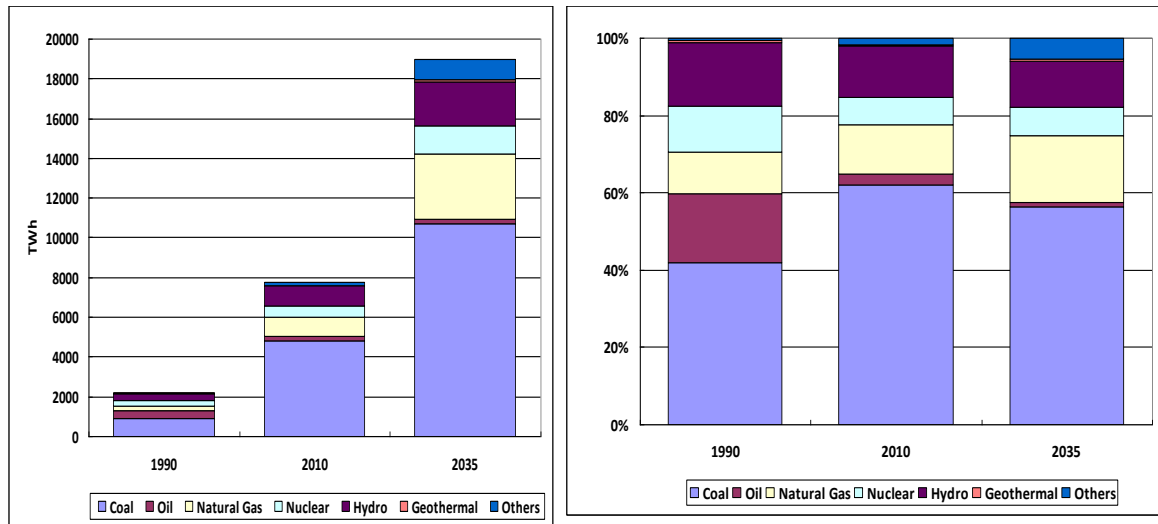


Source: Kimura, 2013.

The growth of power generation in EAS is projected to grow at 3.7 percent per year on average from 2010 (7740 TWh) to 2035 (18,999 TWh). The share of coal-fired generation is projected to continue to be the largest and will remain above 55 percent of the total until 2035. Natural gas share is projected to increase from 12.7 percent in 2010 to 17.3 percent in 2035 along with those of nuclear (6.9 percent in 2010 to 7.5 percent in 2035), geothermal (0.4 percent to

0.7 percent) and others (wind, solar, biomass at 1.7 percent to 5.4 percent). The shares of oil and hydro are projected to decrease slightly from 2.8 percent to 1.1 percent and 13.4 percent to 11.7 percent, respectively, during the same period. **Figures 5B.3 and 5B.4** show the shares of each energy source in electricity generation in 1990, 2010 and 2035.

Figure 5B.3: Power Generation in EAS **Figure 5B.4: Power Generation Share in EAS**



Source: Kimura, 2013.

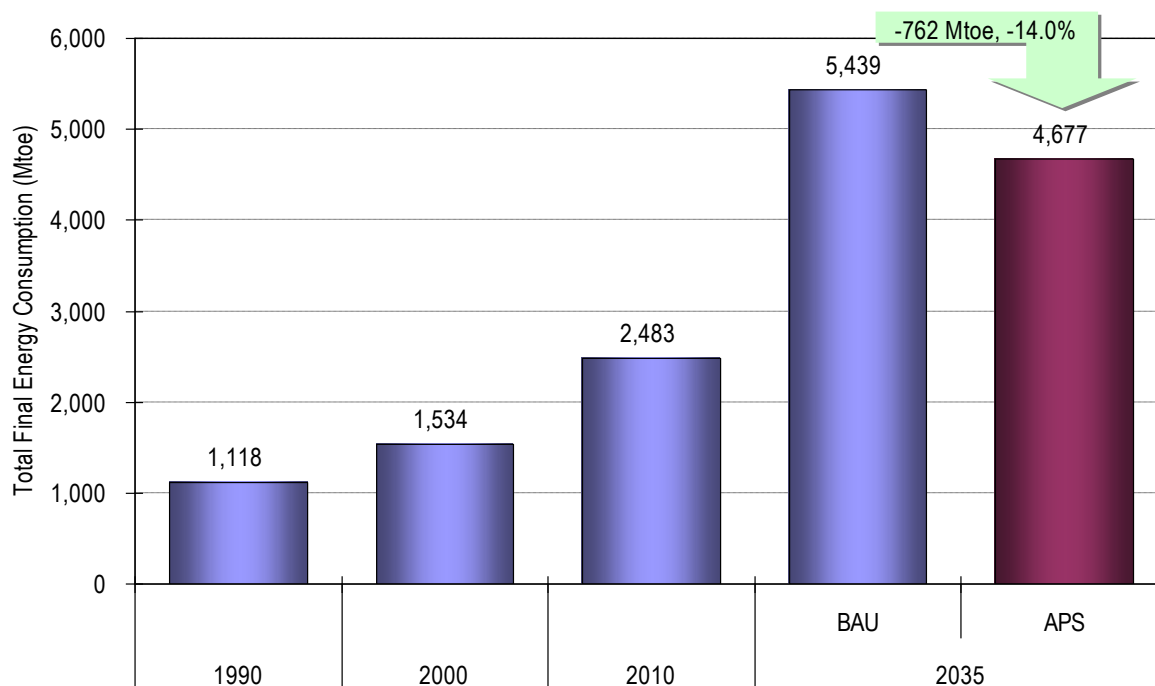
The result of the Southeast Asia Energy Outlook (IEA & ERIA, 2013) shows that electricity generation in ASEAN would grow by 4.2 percent per year on average, from 696 TWh or (176 GW) in 2011 to almost 1,900 TWh (460 GW) in 2035. Coal's share rises from 3 to 47 percent during the projection 2011-2035 period while gas' share shrinks from 44 to 29 percent. Coal-fired generation grows faster than every other source of generation.

The strong increase in coal demand is driven by its relative abundance in the region and low coal prices, which lead to coal being preferred over oil and natural gas, particularly in power generation where substantial new capacity is required. Many of the region's gas-producing basins are located far from demand centres, thus gas demand throughout the region will be met increasingly by LNG imports, which promise to be more expensive relative to coal.

Final Energy Consumption

The ERIA Energy Efficiency and Saving Potentials study (ERIA, 2013) shows that the final energy demand in the BAU scenario is projected to increase from 2483 Mtoe in 2010 to 5439 Mtoe in 2035 (see **Figure 5B.5**) at an average annual growth rate of 3.2 percent during the period. In the APS case, final energy consumption is projected to rise to 4677 Mtoe, which is 762 Mtoe or 14.0 percent lower than in the BAU case in 2035. This is due to the various energy efficiency plans and programs in both the supply and demand sides that are to be implemented by EAS countries. **Figure 5B.5** shows the evolution of final energy consumption from 1990 to 2035 in both the BAU and APS scenarios.

Figure 5B.5: Total Final Energy Consumption

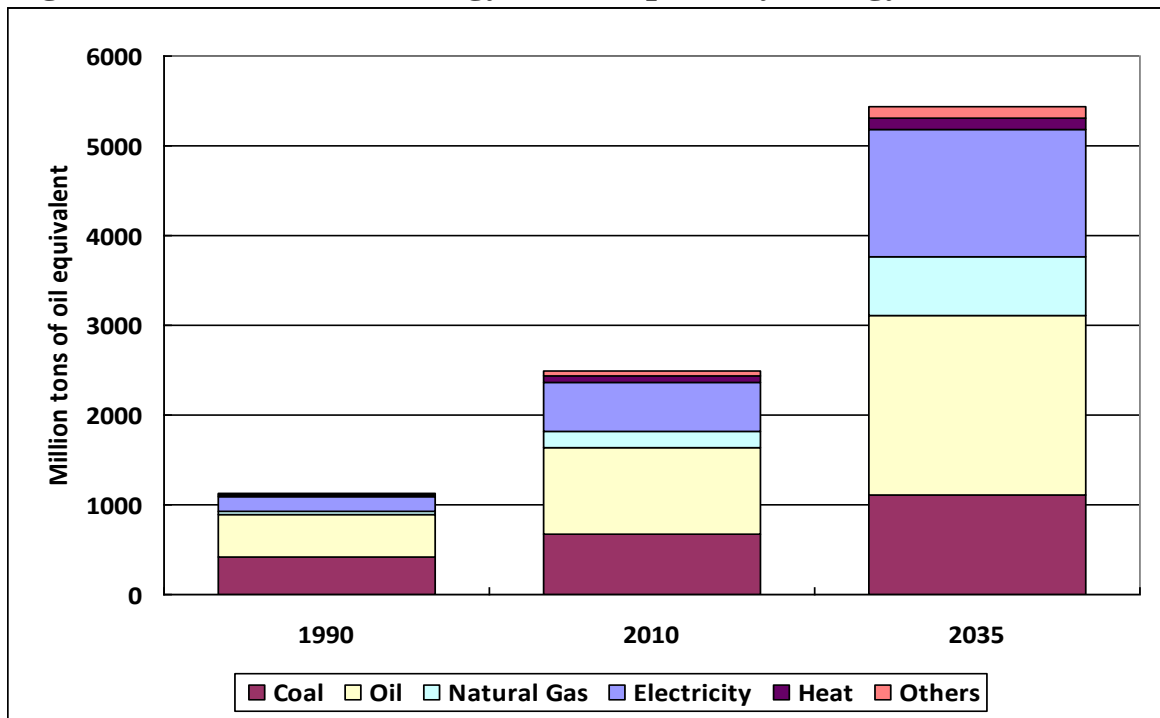


Source: Kimura, 2013

The natural gas demand in the BAU scenario is projected to exhibit the fastest growth, increasing by 5.3 percent per year, from 180 Mtoe in 2010 to 657 Mtoe in 2035 (see **Figure 5B.6**). Although oil will retain the largest share of total final energy demand followed by coal, it is projected to grow at a much lower rate of 2.9 percent per year, reaching 1999 Mtoe in 2035. Demand for electricity will grow at a relatively fast rate of 3.8 percent per annum. Its share will increase from 22.3 percent in 2010 to 25.9 percent in 2035.

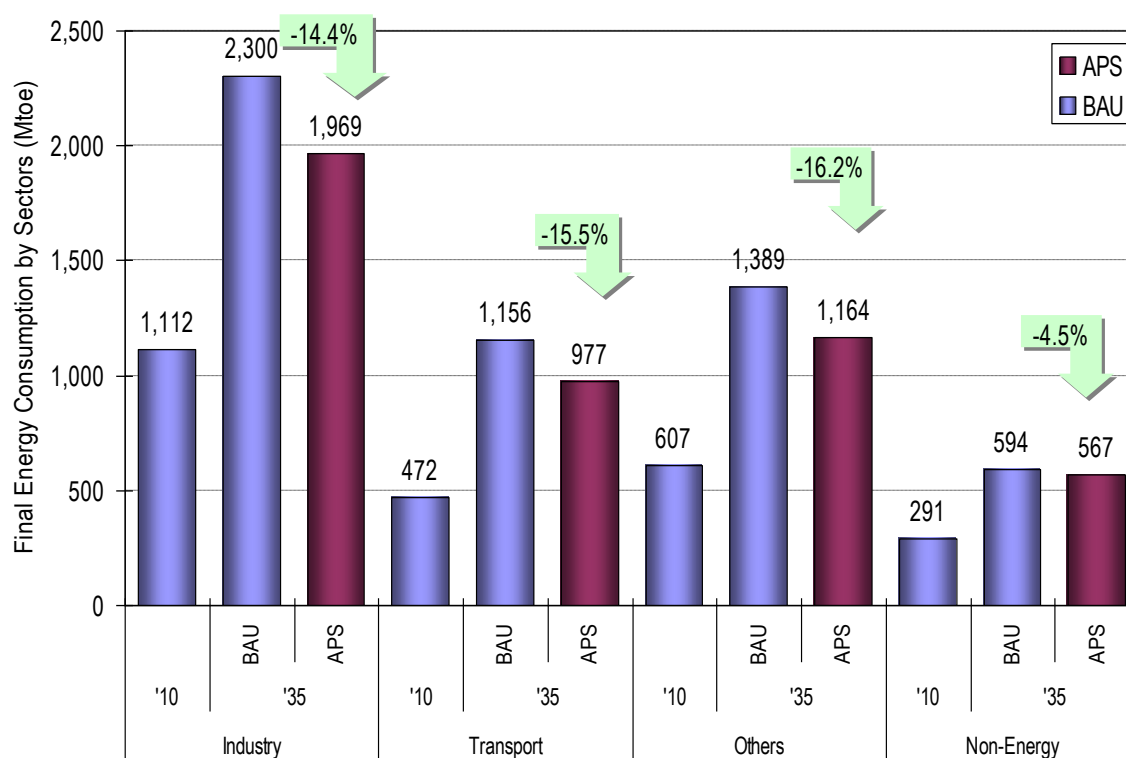
Final energy consumption in most sectors is significantly reduced in the APS case compared with the BAU case (see **Figure 5B. 7**). In percentage terms, the reduction is largest in the other sectors at 16.2 percent, followed by the transport sector at 15.5 percent and industry at 14.4 percent. Non-energy consumption will also be lower in the APS by 4.5 percent as compared to the BAU.

Figure 5B.6: Final Energy Consumption by Energy



Source: Kimura, 2013.

Figure 5B.7: Final Energy Consumption by Sector



Source: Kimura, 2013.

Economic Impacts from Investments on Energy Efficiency and Conservation

The results from ERIA's study on Economic Impact from Investments on Energy Efficiency and Saving (ERIA, 2013) found that additional investments on energy saving and low-carbon emitting technologies will significantly reduce energy demand, especially the coal demand in the EAS countries, and push down the prices of fossil fuel in both domestic and global markets.

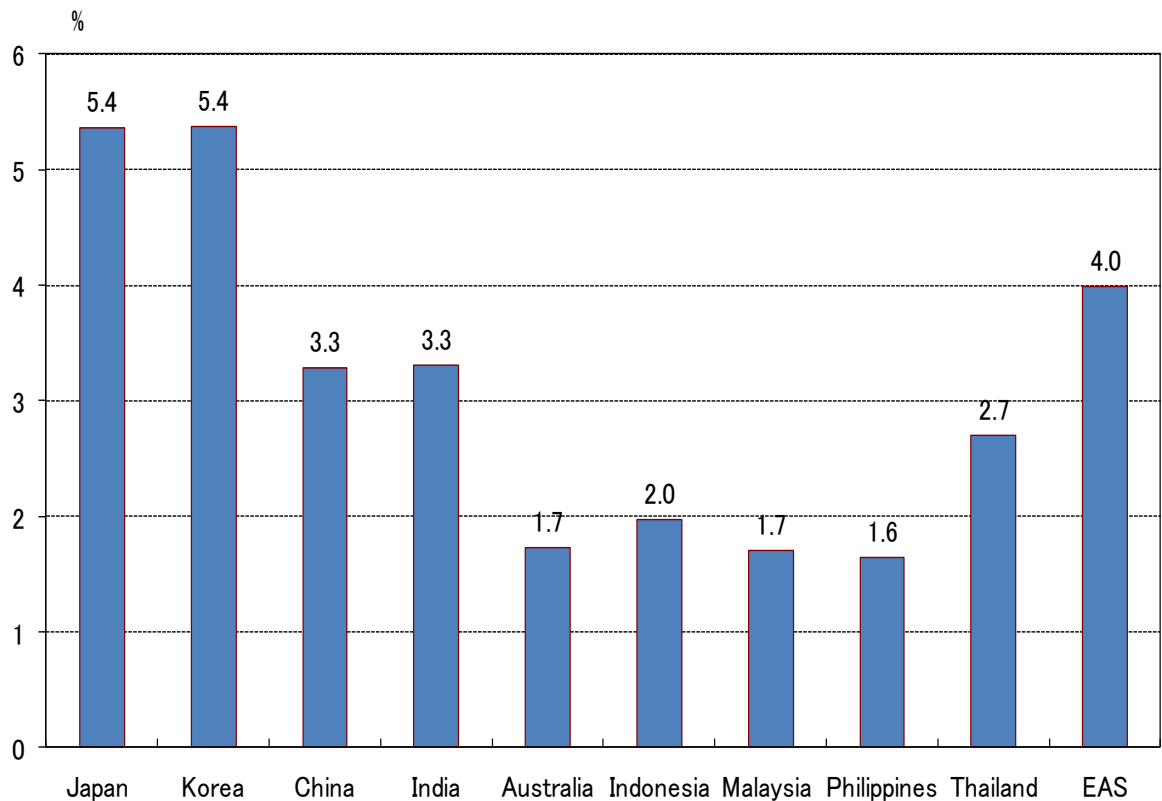
Most strikingly, the results found that in the case of implementing all of energy saving and low-carbon emitting measures in the whole EAS region, the total GDP of the EAS countries would increase at 4.0 percent under Alternative Technologies (ATS) scenario compared with that under the BAU scenario. With the comprehensive effect of additional energy investment, Japan and Korea will get the largest GDP growth rate at 5.4 percent; China and India at 3.3 percent; Thailand at 2.7 percent, Indonesia at 2.0 percent; Malaysia at 1.7

percent; the Philippines at 1.6 percent, and Australia at 1.7 percent (see **Figure 5B.8**).

Moreover, because of GDP increases in ASEAN and East Asia, the rest of the world also benefits; the GDP of the world would be 1.8 percent higher under the APS scenario compared with the BAU scenario.

At base, the cause for the positive output impact of energy efficiency and conservation is that, given that the EAS is a major market globally, the reduction in demand in EAS leads to lower global prices of fossil oil and energy, thereby beneficially feeding into the fabric of the EAS economies and the world.

Figure 5B.8: GDP change rates of major EAS countries



Source: Kimura, 2013.

Towards Energy Resiliency and Green Development in ASEAN

Stockpiling for energy security

The region in ASEAN and East Asia is diverse in terms of resources and potentials. According to the ERIA energy outlooks being used for the analysis of energy saving potentials in ASEAN and East Asia, oil and gas consumption will surely increase due to robust economic growth and rapid motorisation. Thus, getting away from fossil fuel dependency will not be easy. Hence, countries stockpile oil as part of their national energy security to deal with oil and gas disruption.

EAS countries differ in their stockpiling capability. Countries with strong economy like Japan, Republic of Korea, and China which are very dependent on oil for their energy have higher stockpiles. Thus, for example, Japan held some 591 million barrels (mb) of oil stocks at the end of January 2013, equivalent to 166 days of 2011 net-imports (92 days of government stocks and 74 days of industry stocks). Similarly, Korea meets its stockholding obligation to the International Energy Agency (IEA) by holding government stocks and by placing a minimum stockholding obligation on industry. In addition, diversification of energy fuel sources (energy mix), diversification of import sources of crude oil and LNG, further build-up of SPR (government stocks), expansion of storage capacity for oil and gas, and promotion of domestic and overseas E&P activities have been the main pillars in the energy security policy of Korea.

China imported over 5 mb/d of crude oil, accounting for about 54 percent of its total demand. More than 50 percent of the total crude oil imports came from Middle East countries. To prevent a potential shock to the economy caused by an oil supply disruption, the Chinese government has been steadily building an oil stock reserve system. China has completed four stockpiling facilities with a capacity of around 103 mb in the first phase of its Strategic Petroleum Reserve (SPR) plan, and has begun construction of its second phase, which comprises eight storage sites that will reportedly have a combined capacity of around 207 mb. The third phase is expected to boost total SPR capacity to approximately

500 mb by 2020. Stockholding obligations for industry may be considered, but are not now a formal part of the emergency response system, authorising legislation for which is still in preparation. Although China does not have government gas stocks or mandatory industry stocks, the government promotes the expansion of commercial inventories. So far, some storage facilities have been built for coping with seasonal demand fluctuations.

ASEAN countries do not meet the 90-day stockholding obligation of the IEA. Only Thailand and Singapore have done much better of having more than 70 days and 60 days, respectively, of oil stockpiling. The rest of the ASEAN have 30 days of oil stock pilings or little more or less than this.

In view of the comparatively low oil reserves at the national level and to help address energy security in ASEAN, ASEAN signed the new ASEAN Petroleum Security Agreement (APSA) which is a covenant among Member States that establishes a petroleum sharing scheme aimed at assisting Member State(s) in time of emergencies due to petroleum supply shortages. To date, APSA has already been fully ratified by ten Member States. Its aim is to enhance petroleum security among Member States by providing emergency petroleum sharing scheme through its Annex - Coordinated Emergency Response Mechanism (CERM) -- during times of critical supply shortages. Although APSA is in place, its implementation is constrained in terms of its operation guidelines. Furthermore, the region has not adequately experienced how APSA is going to work in practice. The idea to localise and apply APSA at the regional and national levels has been thought by ASCOPE in consultation with IEA and assisted by ERIA.

Cleaner Use of Coal in ASEAN Region

Coal outlook in ASEAN. The result of the Southeast Asia Energy Outlook (IEA and ERIA, 2013) shows that ASEAN coal demand triples from 2011 to 2035, growing at 4.7 percent per year on average. It overtakes natural gas after 2020 to become the second biggest component of Southeast Asia's energy mix, its share reaching 27 percent in 2035. While this counters the shift away from coal in most regions of the world, the trend is consistent with what was experienced during periods of rapid economic and energy demand growth in other major developing countries in Asia, notably China and India.

The strong increase in coal demand is driven by its relative abundance in the region and low coal prices, which lead to coal being favoured over oil and natural gas, particularly in power generation where substantial new capacity is required. Many of the region's gas-producing basins are located far from demand centres, thus gas demand throughout the region will increasingly be met by LNG imports, which promise to be more expensive relative to coal.

Southeast Asia will continue to be an important actor in global coal markets, with Indonesia being one of the world's largest producers and exporters, and the region as a whole being a major centre of demand in the coming decades. At end-2011, Southeast Asia had 27.9 billion tonnes in total coal reserves that would be sufficient to sustain current rates of production for 80 years. Southeast Asia's reserves are predominately lignite and sub-bituminous/bituminous coals of low and medium energy content, making them well-suited for use in power generation. The large bulk of coal reserve is located in Indonesia, which contains significant hard coal and brown coal. At end of 2011, Indonesia had 13.5 billion tonnes of hard coal reserves and 9.0 billion tonnes of brown coal reserves, by far the largest in Southeast Asia. Its reserves have risen significantly as a result of intensive exploration efforts. Indonesia's coals have modest energy content, making them well-suited for blending with other coals that have higher energy content. Additionally, they are generally low in ash and sulphur (but high in volatile matter and high moisture contents). In sum, these characteristics make Indonesian coals very attractive to steam coal export markets.

Coal production in Southeast Asia was 357 million tonnes of coal equivalent (Mtce) in 2011, rising by 9.8 percent year-on-year. Indonesia accounted for 85 percent of the region's total output. Southeast Asia features a mix of net importers (Thailand, Malaysia and the Philippines) and net exporters (notably Indonesia, and also Viet Nam). As a whole, its net exports were 220 Mtce in 2011, up by 11 percent than the previous year. Southeast Asia lies at the geographical nexus of global coal trade, its seaways serving as key transport routes for shipments between major importers in Asia (such as China, India, Japan and Korea) and major exporters (such as Australia and South Africa).

Since coal is abundant in ASEAN and EAS especially the low ranked coal, the strategic usage of coal will contribute to economic growth and also provide

energy security in the medium term. Thus, the choice of coal-fired generating technology will have significant implications for investments, efficiency, fuel inputs and costs. Presently, subcritical designs continue to be a popular choice for new plants despite the improved performance of supercritical and high efficiency technologies such as ultra-supercritical and integrated gasification combined-cycle designs. Lower capital costs are a key factor that makes subcritical plants attractive to generators in Southeast Asia, many of which are capital-constrained as a result of state ownership and implicit subsidies to end-users that lead to an under-recovery of revenues. This makes them less able to pay higher upfront investment costs for supercritical and high efficiency technologies, even if the economics are favourable in the long term. An additional factor is that subcritical plants are technologically simpler and faster to build, which can be an important consideration for governments wishing to reduce energy deficiency as quickly as possible.

Promoting clean coal technology. Supercritical and high efficiency plants, however, offer significant benefits in the long term. Their higher efficiency (about 5-12 percent higher relative to subcritical plants) results in substantial fuel savings, which translate to savings on fuel costs and emissions. The fleet of coal plants in Southeast Asian is gradually shifting towards supercritical and high efficiency technologies although significant subcritical capacity is still installed and locked in for the remainder of its technical lifetime (40-50 years). The ASEAN average efficiency of coal-fired generation rises from 34 percent in 2011 to 39 percent in 2035. More efficient price signals and stable investment frameworks could help to reduce the weighted average cost of capital, thereby encouraging investments to factor in costs over the long term. Southeast Asia's shift towards coal in power generation stems from the lower price of coal compared with natural gas as well as the higher value of gas as an export. Combining fixed costs, operational and maintenance costs, and fuel costs of new power plants allows total costs per unit of electricity generated to be compared across different technologies and cost assumptions.

For the sustainable usage of coal, the dissemination of Clean Coal Technology (CCT) for clean and efficient usage of coal in the ASEAN and EAS region is of pressing importance. In addition, in order to facilitate the economic development within the region, a cost effective and sustainable electricity supply system, with CCT at its heart, should be promoted. While the necessity

for the dissemination of CCT has been recognised, inefficient technology is still being widely used. It is therefore a concern that should this situation continue, valuable coal resources will be wasted by inefficient technology, environmental impact will not be sufficiently reduced, and sustainability will be harmed.

Table 5B.1 presents the comparisons of different technologies [Ultra Super Critical (USC), Super Critical (SC) and Sub-critical (C) boiler types] for utilising coal in terms of thermal efficiency, investment costs, maintenance costs, fuel consumption and CO2 emissions. The results show that the USC technology of Japan is the most beneficial because it has very high thermal efficiency, lower fuel consumption, lower CO2 emission, lower operations and maintenance cost, and lower generation cost compared to SC and C technologies. However, the barrier of deployment of the USC is the higher upfront investment cost.

Table 5B.1: Cost by types of technologies

	Boiler Type		
	Ultra Super Critical (USC)	Super Critical (SC)	Sub-critical (C)
Thermal Efficiency	41.5% ~ 45.0%	40.1% ~ 42.7%	37.4% ~ 40.7%
Initial Cost	1,298 mln USD	991 ~ 1,240 mln USD	867 ~ 991 mln USD
Fuel Consumption	2,229,000 tons/year (100%)	2,275,000 tons/year (+2.1%)	2,413,000 tons/year (+8.3%)
CO2 Emission (ton/year)	5,126,000 tons/year (100%)	5,231,000 tons/year (+2.11%)	5,549.000 tons/year (8.3%)
O&M Cost	3.42 mln USD/year	4.1 mln USD/year	5.0 mln USD/year
Generation Cost at USD 100/ton (USD cent/kWh)	4.03 cent/kWh (100%)	4.19 cent/kWh (+3.9%)	4.44 cent/kWh (+10.2%)
Examples	<ul style="list-style-type: none"> ✓ "Isogo" J-POWER ✓ "Tachibanawan" J-POWER ✓ "Nordjylland", Denmark ✓ Xinchang, China 	<ul style="list-style-type: none"> ✓ "Takehara" J-POWER ✓ "Matsushima" J-POWER 	<ul style="list-style-type: none"> ✓ Taichung Power Plant ✓ Thai Binh 2

Note: Operation is assumed at 75%. Thermal efficiency is LHV. API 6 Newcastle FOB coal = 6,000 kcal/kg. CO2 emission = 2.30-CO2/kg.

Source: ERIA, 2013a

In conclusion, ASEAN countries may also wish to use the clean technology. In this regard, lowering the upfront cost investment through appropriate financial and support framework will help ASEAN countries to have greater access to

the USC or IGCC technology. Currently, Japan has implemented the Bilateral Off-set Credit Mechanism (BOCM) which can further promote the use of high technology in ASEAN countries by reducing the upfront cost. BOCM is one of the financial options to reduce cost for ASEAN to apply CCT. Thus, it will need to be promoted in ASEAN with regard to how said mechanism is used. At the same time, ASEAN should produce a common voice saying that deployment of the clean technology is something beyond the financial affordability of most AMSs and therefore there is a need to have a support mechanism from the world to ensure affordable access to such technologies.

Promoting Renewable Energy

Renewable Energy (RE) development potentials in ASEAN and East Asia region. In 2010, EAS economies as a group accounted for 35.7 percent of the world's Total Primary Energy Supply (TPES). In the same year, the group also supplied 38.6 percent of the world's REs. In terms of product mix, East Asia economies have done proportionately better in biomass and other REs. Three EAS members, namely China, Japan and India, are among the world's top-5 energy consumers. Several relatively low income countries such as Myanmar, Cambodia and Lao PDR still rely largely on biomass as the main source of energy supplies (see **Table 5B.10**).

Overall, about 14 percent of the EAS group's TPES were drawn from REs in 2010. This figure is compatible with the world average (13 percent) in the same year. Similar to the world trend, biomass dominates REs in the EAS region as well. In general, the EAS as a group follows the global trend in RE development, although some EAS members such as Brunei, Singapore, South Korea, Japan, Australia and Malaysia seem to be lagging behind.

Traditionally, biomass has been a popular energy source for cooking and heating in Asia. As energy consumption increases and resources deplete rapidly, biomass as a source of energy will decline. Thus, it is anticipated that biomass as a share of TPES is likely to fall in countries such as Myanmar, Cambodia and Lao PDR, which currently rely on biomass as the main source of energy for households. The same may also occur in Indonesia, India, Viet Nam and Thailand, which currently obtain about one-quarter of their energy

supplies from biomass (**Table 5B.2**). The decline in the use of traditional biomass is due to its inefficiency and un-sustainability. With an increase in income levels, the consumers tend to use more commercial energies.

Table 5B.2: RE Shares in EAS Economies, 2010

Members	TPES (MTOE)	Shares (%)			
		Bio	Hydro	Other REs	Non-REs
China	2438	8.3	2.6	0.7	88.5
India	688	24.8	1.4	0.3	73.5
Japan	497	1.2	1.4	0.7	96.7
Korea	250	0.5	0.1	0.1	99.3
Indonesia	208	26	0.7	7.8	65.5
Australia	125	4.1	0.9	0.5	94.5
Thailand	117	19.3	0.4	0	80.3
Malaysia	73	4.7	0.8	0	94.5
Vietnam	59	24.8	4	0	71.2
Philippines	38	12.6	1.8	22.3	63.4
Singapore	33	0.6	0	0	99.4
New Zealand	18	6.5	11.7	20.8	61
Myanmar	14	75.3	3.1	0	21.6
Cambodia	5	72	0.1	0	27.9
Brunei	3	0	0	0	100
Laos	2	67	13	0	20
EAS	4568	11	1.9	1.1	86
World	12782	9.8	2.3	0.9	87

Source: Kimura, *et al.*, 2012.

However, there is potential growth in the production of biofuels in the EAS area. ASEAN and East Asia perceive biofuel as one of the possible options to address the oil security issue since expanding the use of biofuel will not only result in oil demand reduction but also contribute to the diversification of liquid fuels' import sources. Moreover, biofuel production also provides an additional way to increase farmers' incomes. The ASEAN and East Asia countries are endowed with potential growth in biofuel. The total bioethanol demand of the 16 countries of ASEAN and East Asia in 2035 is projected to be 49 million toe and biodiesel, 37 million toe, while the supply potential of bioethanol and

biodiesel is estimated to be 70 million toe and 57 million toe, respectively [ERIA, 2013]. This implies that the region as a whole would hold enough supply potential to cover biofuel demand driven by the countries' biofuel policies of promoting the use of biofuels.

EAS economies have plans to increase the contribution of biofuels in the transport fuel mix to enhance energy security. The largest increases in consumption of biofuels are expected in India and China. The rest of the EAS economies will need to double their target to increase the blending rate for the biofuel uses in the transportation sector. **Table 5B.3** summarises the targets of biofuels of AMSs and the rest of EAS economies.

Table 5B.3: Assumptions/Targets on Biofuels – Summary by Country

Country	Period	Assumptions
Australia	2010	No targets on biofuels.
Brunei Darussalam		No targets on biofuels.
China	2030	BAU: 20 billion liters, APS 60 billion liters
India	2017	20% blending of biofuels, both for bio-diesel and bio-ethanol.
Cambodia	2030	10% of road transport diesel and 20% of road transport motor gasoline will be displaced by biodiesel and bioethanol, respectively
Indonesia	2025	Bioethanol: 15% blend from 3-7% in 2010 Bio-diesel: 20% blend from 1-5% in 2010
Japan	2005-2030	No biofuel targets submitted.
Republic of Korea	2012	Replace 1.4% of diesel with biodiesel.
	2020	Replace 6.7% of diesel with biodiesel.
	2030	Replace 11.4% of diesel with biodiesel.
Lao PDR	2030	Utilise bio-fuels equivalent to 10% of road transport fuels
Malaysia	2030	Replace 5% of diesel in road transport with biodiesel
Myanmar	2020	Replace 8% of transport diesel with biodiesel.

New Zealand	2012-2030	Mandatory biofuels sales obligation of 3.4% by 2012.
Philippines	2025-2035	BAU: The Biofuels Law requires 10% bio-ethanol/gasoline blend and 2% biodiesel/diesel blend 2 years from enactment of the law (roughly 2009). APS: Displace 20% of diesel and gasoline with biofuels by 2025
Thailand		Biofuels to displace 12.2% of transport energy demand
Viet Nam	2020	10% ethanol blend in gasoline for road transport

Source: ERIA, 2013b.

Hydropower in the EAS members grew at an average annual rate of 8.12 percent during the period 2001-2010 (Kimura, *et al.*, 2013), which is well above the world average rate of 2.77 percent. Lao PDR and New Zealand obtained 13 and 11.7 percent of their countries' total energy supplies from hydropower, respectively, which are the highest in the EAS region. Viet Nam (4 percent), Myanmar (3.1 percent) and China (2.6 percent) are the other three countries which achieved relatively good shares. In absolute terms, China is the world's largest producer of hydroelectricity with a share of 21 percent of the world total in 2010 (*Ibid.*).

There is still potential for growth in the hydropower sector in the East Asia region. In particular, as resource endowment varies across countries, cross-border trade in hydropower has appeared and can be further expanded due to the current speed of the regional initiatives under the Greater Mekong Sub-region (GMS) linking infrastructures in the South East Asia including the power connectivity. Further, if the current Master Plan on ASEAN Connectivity (MPAC) could be realised, the ASEAN as a whole will likely benefit about US\$ 12.1 billion from power generation saving (Kutani, 2013b).

ASEAN is naturally endowed with hydropower resources. Myanmar alone has a high potential of hydropower production capacity of **108,000 MW** (ERIA, 2013d). There are 135 hydroelectric projects identified in the hydropower database for the Lower Mekong basin (Cambodia, Viet Nam, Lao PDR and Thailand) so far [see **Table 5B. 4**].

These projects have an aggregate annual energy potential of 134 TWh which, to put in perspective, is approximately 85 percent of the current power demand in Thailand. Only about 7 percent of that potential is in operation, another 12 percent is under construction and the rest in various stages of development. The distribution by country is very uneven. Of the projects in operation, 95 percent of the production is in Viet Nam and Lao PDR, 5 percent in Thailand and negligible in Cambodia.

Table 5B.4: Database Projects

COUNTRY		PROJECT STATUS				TOTAL
		IN OPERATION	UNDER CONSTRUCTION	UNDER LICENSE	PLANNED	
LAOS	Projects	10	8	22	60	100
	Capacity (MW)	662	2,558	4,126	13,561	20,907
	Annual Energy (GWh)	3,356	11,390	20,308	59,502	94,556
	Investment (Million US\$ 2008)	1,020	3,256	8,560	26,997	39,832
CAMBODIA	Projects	1	0	0	13	14
	Capacity (MW)	1	0	0	5,589	5,590
	Annual Energy (GWh)	3	0	0	27,125	27,128
	Investment (Million US\$ 2008)	7	0	0	18,575	18,582
VIETNAM	Projects	7	5	1	1	14
	Capacity (MW)	1,204	1,016	250	49	2,519
	Annual Energy (GWh)	5,954	4,623	1,056	181	11,815
	Investment (Million US\$ 2008)	1,435	1,312	381	97	3,225
THAILAND	Projects	7	0	0	0	7
	Capacity (MW)	745	0	0	0	745
	Annual Energy (GWh)	532	0	0	0	532
	Investment (Million US\$ 2008)	1,940	0	0	0	1,940
ALL COUNTRIES	Projects	25	13	23	74	135
	Capacity (MW)	2,612	3,574	4,376	19,199	29,760
	Annual Energy (GWh)	9,846	16,013	21,365	86,808	134,031
	Investment (Million US\$ 2008)	4,402	4,568	8,941	45,669	63,580

Source: MRCS, 2010

Apart from biomass and hydropower, other forms of RE have also been produced in the East Asia region. According to **Table 5B. 5** and **Table 5B.6**, EAS as a group accounted for 35.3 per- cent of the world’s installed wind capacity, 15.1 percent of solar capacity and 40.4 percent of geothermal capacity. While EAS has a relatively large share of the world’s geothermal capacity, the growth of this product is limited due to resource and technology constraints. Two EAS members, namely, the Philippines and Indonesia, in turn have the world’s second and third largest geothermal energy capacity with a joint share of 28.7 percent over the world total in 2011. During the decade 2001-2010, production output in the EAS group grew at an average rate of 3.3

percent which is higher than the world's average growth rate of 2.2 percent during the same period.

Table 5B.5: Installed Capacity (megawatts) in EAS, 2011

Countries	Geothermal	Solar	Wind
Australia	1.1	1344.9	2476
China	24	3000	62412
India		427	16078
Indonesia	1189		
Japan	502	4914.1	2595
Malaysia		12.6	
New Zealand	769.3		603
Philippines	1967		
South Korea		747.6	370
Thailand	0.3		
EAS	4452.7	10446.2	84534
World	11013.7	69371.1	239485
EAS (%)	40.4	15.1	35.3

Source: Kimura, *et al.*, 2013.

Table 5B. 6: World Major Geothermal Energy Producers in 2010

Countries	Ranking	Output (Mtoe)
Indonesia	1	16.09
Philippines	2	8.54
US	3	8.41
Mexico	4	5.69
Italy	5	4.78
China	6	3.71
New Zealand	7	3.64
Iceland	8	3.35
Japan	9	2.47
Turkey	10	1.97
EAS		34.51
World		64.61

Source: Kimura, *et al.*, 2013.

In terms of wind energy production, the EAS as a group achieved 22.2 percent of the world total in 2010, with China and India being the second and fifth largest producers. Given the rapid growth in capacity, production is expected to expand significantly in the coming years.

The production of solar energy has also expanded rapidly in the EAS group. During the 2002-2011 period, the average annual rate of growth in installed photovoltaic (PV) capacity was 36.0 percent, though this is lower than the world average rate of growth of 45.4 percent (BP 2012). Due to the increased capacity, the output of solar PV power in the EAS area grew at an average annual rate of 30.5 percent during 2001-2010 (OECD 2013).

In summary, REs are rapidly expanding in the EAS economies. But the development varies a lot across countries and products. The main products in the EAS economies include biomass, hydro, geothermal, solar and wind energies. There is hardly any development in oceanic energies. In general, the share of REs to total energy supplies in the EAS area is similar to the world average. The share of biomass to REs is slightly higher in the EAS group than in the world average. However, past experience shows that biomass consumption is likely to decline relatively as economies develop. In addition, geothermal energy production has been stable in recent years. Hence the potential for growth in the near future lies in solar and wind energies.

Capturing the RE wave and the need for appropriate energy policy in ASEAN for energy resiliency and green development

There have been great cost reductions in renewable energy over the past five years. Because of the fast learning curve and the sharp drop of upfront investment cost on solar, wind and hydropower technologies, tens of Gigawatts of wind, hydropower and solar photovoltaic capacity are installed worldwide every year in a renewable energy market that is worth more than a hundred billion US dollars annually. Other renewable power technology markets are also emerging. Recent years have seen dramatic reductions in renewable

energy technologies' costs as a result of R&D and accelerated deployment (IRENA, 2012).

For solar PV, the costs of concentrated solar and solar PV are declining due to steep learning curves and large deployments in recent years. It is estimated that every doubling of solar PV installed capacity will yield a reduction in module costs of about 22 percent. Continued rapid cost reductions are likely due to the rapid growth in deployment, given that cumulative installed capacity grew by 71 percent in 2011 alone. The factory gate price of thin-film module had fallen below US\$ 1/watt (W) in the beginning of 2012. The prices of crystalline silicon (c-Si) modules are more varied, but were typically in the range US\$ 1.02 to US\$ 1.24/W for the most competitive markets (IRENA, 2012). Solar-powered generation is projected to account for about 2 percent of global power supply by 2040 (Bloomberg, 2013).

The total installed cost of PV systems can vary widely within individual countries, and between countries and regions. Nonetheless, solar PV is already competitive with residential tariffs in regions with good solar resources, low PV system costs and high electricity tariffs for residential consumers. In addition, PV with storage is now virtually always cheaper than diesel generators for the provision of off-grid electricity. Countries which lack national power grids and distribution system can improve the electrification rate by solar PV. Countries with many islands such as Indonesia and the Philippines have already started considering the solar PV as an option for the improved electrification rate in remote islands. Thus, the policy to promote the deployment of the solar PV is critical in ASEAN.

The wind industry has observed significant cost- of- energy reductions and the cost of wind energy is expected to continue to fall (IEA, 2012). Performance improvements associated with continued turbine upscaling and design advancements are anticipated, and lower capital costs may also be achievable. The magnitude of future cost reductions, however, remains highly uncertain, although most recent estimates project that the Levelised Cost of Energy (LCOE) of onshore wind could fall by 20–30 percent over the next two decades.

The world's wind-power capacity increased 113-fold over the past 20 years and the price for a megawatt of wind power has dropped by almost half since 1991. The improved efficiencies of technology and scale and the industry's learning curve reduce wind-power prices by 7 percent every time installed capacity doubles (Bloomberg, 2013). By 2040, wind-powered generation is projected to account for about 7 percent of global power supply. Wind power is already among the most competitive renewable technologies. The levelised cost of electricity (LCOE) for new onshore wind farms ranges between US\$0.05 to US\$0.15/ kWh. In locations with good wind resources, onshore wind is becoming competitive with fossil fuel-based generation. This means that wind power is now cheaper than conventional energy sources, even without government subsidies.

Even as a relatively mature technology, hydro will continue to attract attention due to the advantages it offers such as lowest LCOE, grid stability, and potential for energy storage and complementarity with other renewables. Moreover, hydropower (including small hydro) provides options for building additional capacity at existing facilities or installing generation capacity at dam locations with no current generation at attractive marginal investment costs in the range of US\$500 to US\$800/kW.

ASEAN and East Asia countries are trying to increase the blending rate of bioethanol and biodiesel into the transportation fuels. ERIA has conducted a study on the future biofuel demands and supply potentials in the 16 countries and it shows that total bioethanol demand in 2035 will be 49 million toe and biodiesel 37 million toe, while the supply potential of bioethanol and biodiesel will be 70 million toe and 57 million toe, respectively. The results indicate that the region as a whole would hold enough supply potential to cover biofuel demand driven by the countries' biofuel policies to promote use of biofuels. It is also noted that more R&D is being conducted worldwide on the potentials of third generation biofuels. The current first and second generation biofuels like ethanol and biodiesel have a number of inherent limitations that make them less than ideal as a long-term replacement for petroleum. The primary feed stocks for first-generation ethanol (corn and sugarcane) and biodiesel (rapeseed, soybeans, and palm) are all food-based crops that compete for scarce cropland, fresh water, and fertilizers. If R&D can improve in the near future the "third-

generation biofuels” such as algae biofuels and other non-edible plants, it will provide ideal promise of increasing biofuel share in the market.

The strategic importance of energy resiliency and a Green ASEAN implies the need to promote the learning on and deployment of Green Energy such as solar PV, wind, geothermal, hydropower, advanced biofuels and other renewable energy resources. Renewable power generation can help countries meet their sustainable development goals through the provision of access to clean, secure, reliable and affordable energy. Therefore, in order to push this learning curve, appropriate energy policies by governments are needed. Those policies include Feed-in-Tariff (FIT), Renewable Portfolio Standard (RPS) and policies that provide incentive to technology development. As the technologies on green energy have advanced in Europe and other developed countries, ASEAN will need to tap those and leverage them into the ASEAN context.

Conclusions

According to the ERIA energy outlook studies, oil and gas consumptions will surely increase in ASEAN and East Asia due to robust economic growth, increased population and rapid motorisation. The continued growth of energy consumption and high reliance on oil and gas imports primarily from historically volatile Middle East region leave the ASEAN and East Asia region vulnerable to disruptions to global oil supplies and sharp spikes in price. The Cebu Declaration on energy security aims to strengthen ASEAN energy resiliency and security by emphasising energy efficiency and coordination, promotion of renewable energy, and fossil fuel stockpiling.

The diversification of energy sources and the implementation of APSA for the oil stockpiling are seen as important for ASEAN and East Asia in terms of energy security. ASCOPE is tasked to review the APSA mechanism. Further assistance on the operational guidelines and research on how APSA will be practically applied in ASEAN countries will be provided by the IEA and ERIA, respectively.

ASEAN and EAS countries perceive biofuel as one of the possible options to address the oil security issue. Expanding the use of biofuel will not only result in oil demand reduction but also contribute to diversification of liquid fuels’

import sources. The region itself is endowed with potential growth in biofuel that can hold enough supply to cover biofuel demand driven by the countries' policies promoting the use of biofuels. The current first and second generation biofuels like ethanol and biodiesel have a number of inherent limitations that make them less than ideal as a long-term replacement for petroleum. If R&D on "third-generation biofuel" such as algae biofuels and other non-edible plant succeeds, it will provide ideal promise of increasing biofuel share into the market.

The wind energy production in the ASEAN and EAS region reached 22.2 percent of the world total in 2010, with China and India being the second and fifth largest producers in the world. Given the rapid growth in capacity, production is expected to expand significantly in the coming years. The wind industry has observed significant cost-of-energy reductions, and the cost of wind energy has fallen and is expected to continue to fall. The improved efficiencies of technology and scale, particularly the industry's learning curve, help reduce wind-power prices by 7 percent every time installed capacity doubles. In locations with good wind resources, onshore wind is becoming competitive with fossil fuel-based generation.

The production of solar energy in the ASEAN and EAS region has also expanded with the average annual rate of growth in installed photovoltaic (PV) capacity at 30.5 percent compared with the global rate at 36.0 percent during the period 2002-2011. The costs of concentrated solar and solar PV are declining steadily due to steep learning curves and large deployments in recent years. Every doubling of solar PV installed capacity will yield a reduction in module costs of about 22 percent. Solar PV is often already competitive with residential tariffs in regions with good solar resources, low PV system costs and high electricity tariffs for residential consumers. Countries which lack national power grids and distribution system can improve the electrification rate by solar PV. Countries with many islands such as Indonesia and the Philippines have already started considering the solar PV as an option for the improved electrification rate in remote islands.

There is still potential for growth in the hydropower sector in the ASEAN and EAS region. In particular, as resource endowment varies across countries, cross-border trade in hydropower has appeared and can be further expanded

due to the current speed of the regional initiatives under the Greater Mekong Sub-region (GMS) and ASEAN Master Plan on ASEAN Connectivity. Myanmar alone has a high potential of hydropower production capacity of 108,000 MW. Cambodia, Lao PDR, Thailand and Viet Nam have hydropower production capacity of about 30,000 MW. Hydropower will continue to attract attention due to the advantages it offers such as the lowest LCOE, grid stability, and potential for energy storage and complementarity with other renewables. Further, hydropower (including small hydro) provides options for building additional capacity at existing facilities or installing generation capacity at dam locations with no current generation at attractive marginal investment costs in the range of US\$500 to US\$800/kW.

ASEAN and East Asia countries will need to speed up the production chains of the New Renewable Energy (NRE) industries such as wind, solar PV and biofuels. To have these industries set up in ASEAN countries will drive down upfront installment cost and gradually make unit cost electricity produced from the NRE more competitive with fossil fuel power plants. Thus, ASEAN needs to promote the use of NRE wisely.

Since coal is abundant in ASEAN and EAS, especially the low ranked coal, the strategic usage of coal will contribute to economic growth and also provide energy security in the medium term. Thus, the choice of coal-fired generating technology will have significant implications for investments, efficiency, fuel inputs and costs. Lowering the upfront cost investment through appropriate financial and support framework will help ASEAN countries to access Clean Coal technologies such as the USC or IGCC technology.

Currently, Japan has implemented the Bilateral Off-set Credit Mechanism (BOCM) which promotes the use of high technology in ASEAN countries by reducing upfront cost. BOCM is one of the financial options to reduce upfront cost for ASEAN to apply CCT as well as invest in EEC equipments and facilities. Thus, in addition to the promotion of mechanisms like BOCM, ASEAN may push for international support to ensure that deployment of the clean technology becomes affordable financially to most AMSs and much of the developing world.

Policy Recommendations

1. Sustainable, reliable and affordable energy are keys for the ASEAN and EAS region to pursue robust and green growth. The future Green ASEAN will need to come from Renewable Energy as ASEAN and EAS are endowed with renewable resource potentials in wind, solar, hydropower, biofuels and other Renewable Energy. Although leaders have committed to implement the Cebu Declaration and the UN Conference on Environment and Development (UNCED), **ASEAN and East Asia will need to foster RE aspirations and deployment targets. ASEAN and EAS members could also develop RE deployment goals for each country within a target period that reflects the reality in each member's economy.** In this regard, energy policies such as Feed-in-Tariff (FIT), Renewable Portfolio Standard (RPS) and incentive on technology development shall be formulated to promote NRE.
2. ASEAN and East Asia's leadership to implement EEC will bring large energy saving potentials and surely contribute to the regional security. Thus **ASEAN and EAS need to develop a framework to support the deployment/ utilisation of the efficient and low carbon technologies.**
3. The strategic usage of coal will contribute to economic growth and also provide energy security in the region. For the sustainable usage of coal, the dissemination of Clean Coal Technology (CCT) for clean and efficient usage of coal in the ASEAN and East Asia region is of pressing importance. Thus, **BOCM may need to be promoted more in ASEAN; at the same time, ASEAN should call for international support to ensure that deployment of clean technology is accessible to all AMSs.**
4. The new ASEAN Petroleum Security Agreement or APSA is a covenant among ASEAN Member States that establishes a petroleum sharing scheme aimed at assisting Member State(s) in time of emergencies due to petroleum supply shortages. To date, APSA has already been fully ratified, but its implementation faces a real constraint in terms of its operation guidelines. Furthermore, the region has not adequately experienced how APSA is going to work in practice. The idea to localise and apply APSA at the regional and national levels has been broached

by ASCOPE in consultation with the IEA and assisted by ERIA. In this regard, **ASEAN Leaders would need to empower ASCOPE, including the provision of financial means, to implement APSA through its operation guidelines once the revised guidelines are updated with the assistance from IEA and ERIA.**

5. Expanding the use of biofuel will not only result in oil demand reduction but also contribute to the diversification of liquid fuels' import sources. Thus, **ASEAN and EAS will need to foster the implementation of promoting biofuels for transportation.** In this regard, it is important to have a **“free trade” in goods and services of biofuel products** to ensure that supply of the feedstock is part of the energy market integration. Furthermore, **ASEAN and East Asia will need to join hands to further invest in R&D for the “third-generation biofuels”** such as algae biofuels and other non-edible plants that will provide ideal promise of increasing biofuel share in the market.

6. The development and financing mechanisms in RE are keys to reducing the lead time for RE deployment. Recognising each ASEAN country's level of development, ASEAN countries will need to have access to financial support in order to acquire technology development for the NRE. Thus, it is recommended that **financial cooperation and technology development incentives amongst ASEAN and East Asia countries shall be policy priorities; in addition, the world may need to support developing member countries to embark in RE development.**

Chapter 6

Global ASEAN

Introduction

ASEAN has been comparatively more outward oriented than many comparator regions. For one, it trades more relative to output and relies more on foreign direct investment compared to regions like Latin America or large countries like India. Most AMSs rely more on non-ASEAN partners for trade and investment than on ASEAN partners. As discussed in the previous chapters, a number of AMSs are wedded in regional production networks in East Asia. Moreover, Chapter 4 of this Report emphasises that plugging into, and becoming deeply integrated into, the regional and global production networks is a key element of AMSs' development and competitiveness strategy towards sustained high and equitable growth. Finally, the simulation results of Itakura (2013) show that AMSs benefit more from deeper integration with the bigger East Asia region than with AEC itself. Thus, the two-pronged strategy of the ASEAN to deepen much further economic integration in ASEAN through the ASEAN Economic Community *in tandem* with greater integration with the rest of East Asia is the appropriate one for the region.

Pillar 4 in the current AEC Blueprint for 2015, "Towards Full Integration into the Global Economy" focuses on ASEAN developing a coherent approach to external relations in order to maintain "ASEAN Centrality". The Global ASEAN pillar discussed in this chapter brings this out in the Regional Comprehensive Economic Partnership (RCEP) in terms of the need to maintain ASEAN centrality in process and substance with respect to RCEP. In addition, the Global ASEAN pillar discusses two major elements of ASEAN in the global community of nations; that of ASEAN providing its voice in the international arena which complements and strengthens the voices of its

member states, and the challenge of strengthening ASEAN institutions for regional integration given the imperative of national autonomy for AMSs. To a large extent, the issues discussed here are reflective of the growing maturity of ASEAN as a regional association, a far cry from its beginnings as a weak forum for regional cooperation.

Regional Comprehensive Economic Partnership (RCEP)

Under the chairmanship of Indonesia in 2011, ASEAN proposed the concept of RCEP by adopting the ASEAN Framework for RCEP.¹ In 2012, the 16 national leaders supported the ASEAN proposal and agreed to launch the RCEP in Phnom Penh, Cambodia.² Unlike China's initiative of East Asian Free Trade Area (EAFTA) and Japan's proposal of Comprehensive Economic Partnership in East Asia (CEPEA), the RCEP idea came from ASEAN itself. As such, politically, RCEP is an ASEAN-centered initiative which competes with other major regional integration initiatives in the region: the Trans-Pacific Partnership (TPP) and the China-Japan-Korea FTA (CJK-FTA). TPP is negotiated by APEC members; thus, the APEC Economic Leaders Meeting as well as the APEC Ministers Responsible for Trade Meeting provide venues for political-level negotiations. Regarding the CJK-FTA, while China, Japan and Korean trade ministers meet in the margin of ASEAN Economic Ministers meetings, they also have separate meetings of their own. As of now, four AMSs have joined the TPP negotiation and none is a party to the CJK FTA. Thus, the active and successful negotiation of RCEP, in which all the 10 AMSs participate and wherein all political-level negotiations take place at the margin of ASEAN Summits and AEM-related meetings, is expected to energise the ASEAN-led process.

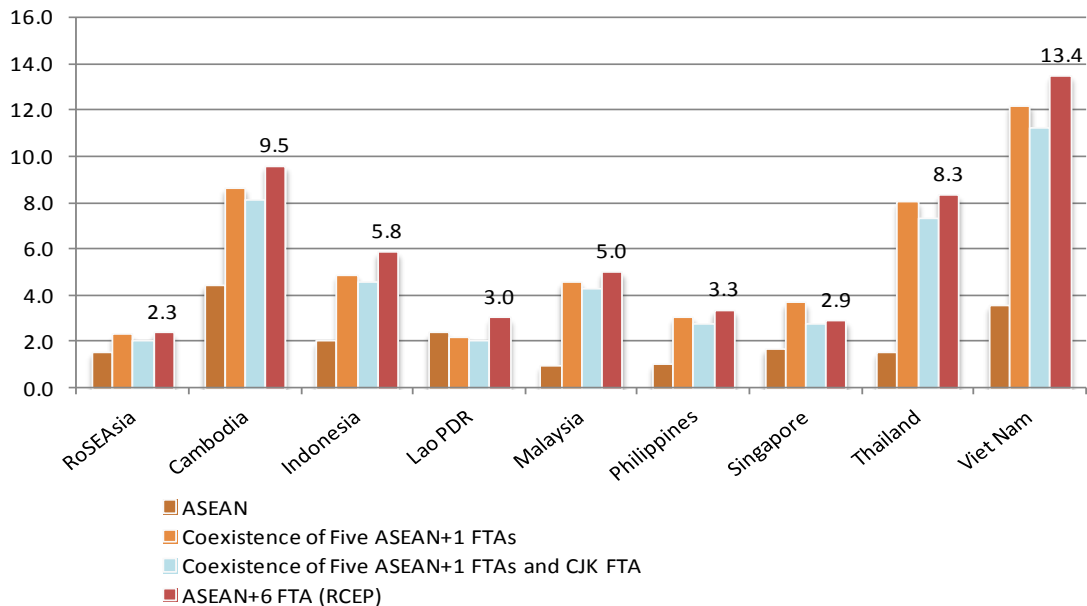
Given that ASEAN's intra-regional trade accounts for only a quarter of its total trade, and because production networks go beyond ASEAN and involve deeply the rest of East Asia, ASEAN economic integration with the rest of the East

¹ ASEAN Framework for Regional Comprehensive Economic Partnership, adopted at the 19th ASEAN Summit, Bali, Indonesia, 17 November 2011.

² Leaders' Joint Declaration on the Launch of Negotiations for the RCEP, Phnom Penh, Cambodia, 20 November 2012.

Asian countries can be expected to likely bring large gains to ASEAN economies. As Itakura (2013) clearly showed, ASEAN would likely gain larger economic welfare from RCEP than from AEC alone and from the five ASEAN+1 FTAs (see **Figure 6.1**). RCEP could also cancel out the potential negative effect (trade and investment diversion) of the China-Japan-Korea FTA on AMSs and ASEAN, as **Figure 6.1** also shows.

Figure 6.1: Impact on AMSs GDP of AEC, ASEAN + 1 FTAs and RCEP



Note: Percentage point, Accumulated from 2011 to 2015. Assumptions are: (a) complete elimination of the tariffs over the specified period of time, (b) reduction of ad valorem equivalents of service trade barriers by 20 percent, and (c) improvements in logistics cutting time spent to export or import goods by 20 percent.

Source: Itakura (2013).

However, RCEP should be designed well to have “significant improvements over the existing ASEAN+1 FTAs” (RCEP Guiding Principles and Objectives³) and generate significant economic benefits on AMSs and the region. Considering that ASEAN has already signed FTAs with all the RCEP members, a mere signature of another FTA will not bring large economic gains to ASEAN countries. The economic benefit comes from “significant improvements” over the current ASEAN + 1 FTAs.

³ Guiding Principles and Objectives for Negotiating the Regional Comprehensive Economic Partnership, adopted by RCEP Ministers, Siem Reap, Cambodia, 30 August 2012.

There are four major elements of improvements that RCEP can produce (Fukunaga and Isono, 2013):

- First, RCEP should deepen the liberalisation commitments in trade in goods, services and rules of origin.
- Second, RCEP should ease the “noodle-bowl” situation in a variety of rules and commitments in the ASEAN+1 FTAs. The potential areas include not only rules of origin but other areas such as making a bundle of bilateral tariff schedules consistent and simple by adopting the common concession approach.
- Third, liberal regional accumulation rules should be adopted to help ASEAN firms’ participation in the East Asian production networks.
- And last, RCEP should provide deeper economic cooperation for facilitation measures than those in the ASEAN+1 FTAs.

ERIA made the following more concrete proposals in its Mid-term Review study (ERIA, 2012a, pp. 62-63).

1. Set the target of 95 percent tariff elimination with “common concession” approach in order for ASEAN to gain additional benefits while maintaining more simple, transparent and business-friendly tariff structure;
2. Introduce the “core NTMs” concept and remove them as much as possible;
3. Allow co-equal rules in the ROOs, and set a general rule of “RVC40 or CTH” as much as possible, supplemented by alternative and more liberal rules;
4. Develop consolidated operational certification procedures in ROOs;
5. Introduce concrete and tangible trade facilitation programs (e.g., ASEAN Trade Repository) and address FTA utilisation issues;
6. Enrich the existing economic cooperation programs and develop coordination mechanisms;
7. Commit to liberalise trade in services at a much higher level than AFAS

package 5 to gain additionality on the GATS and existing ASEAN+1 FTAs. Emphasise the services sectors which strengthen regional production networks and regional connectivity;

8. Pursue a package deal negotiation of trade in goods, services and investment so that the different interests of the RCEP members can be properly accommodated;
9. When special and differential treatment is necessary, allow a longer transitional period, instead of other types of treatment; and
10. Consolidate the outstanding ASEAN+1 negotiations to the RCEP once the latter is initiated.

Most of the above proposals are still valid while some were already accepted in the RCEP Guiding Principles and Objectives to a certain degree (e.g., proposals no. 5, 6 and 8).

“ASEAN Centrality”: ASEAN as facilitator of process and as the driver of substance

The RCEP Guiding Principles and Objectives explicitly recognise ASEAN Centrality in the emerging regional economic architecture. On the other hand, there is no clear definition of ASEAN Centrality. Fukunaga *et al.* (2013) point out, by analysing nuances of the word “fulcrum”, that two aspects of ASEAN Centrality should be distinguished: ASEAN as “facilitator of process”; and ASEAN as the “driver of substance.”

The first role that ASEAN can play in the regional architecture is as facilitator of process. Indeed, ASEAN has been providing a variety of opportunities for Leader-level and minister-level meetings. At the Leader-level, those include ASEAN+1 Summits, ASEAN+3 Summit and East Asia Summit, which enable the leaders to discuss key policy issues including both political strategic and economic agendas. At the ministerial level, ASEAN+3 Financial Ministers Meeting has created tangible outcomes of the Chiang Mai Initiative, among others. In trade areas, all the ASEAN+1 FTA negotiations as well as pre-RCEP discussion of EAFTA and CEPEA took place in the AEM-related meetings.

ASEAN is successfully playing this role of facilitator of process in the RCEP as well. As mentioned above, ASEAN proposed the RCEP concept in the ASEAN Summit in 2011, the RCEP Guiding Principles and Objectives were agreed upon at the margin of AEM-related meetings in August 2012, and the RCEP negotiation was successfully launched at the margin of the ASEAN Summit in November 2012. Not surprisingly, the First RCEP Ministerial Meeting also took place in the margin of the AEM meeting in August 2013. Currently, all the three RCEP Working Groups (Trade in Goods, Trade in Services, and Investment) are chaired by AMSs. In addition, ASEAN's RCEP proposal mitigated the rival proposals on East Asia integration between China and Japan without those countries losing face, and transformed the two competing proposals into ASEAN's RCEP strategy.

The second aspect of ASEAN Centrality is as “driver of substance”. “Driver of substance” cannot be achieved with mere process facilitation. ASEAN has a strong competency in driving substance of RCEP negotiations because of its deep and wide experiences in AEC efforts. The AEC measures stipulated in the AEC Blueprint cover much broader issues than ASEAN+1 FTAs. When a similar measure is covered both in AEC and ASEAN+1 FTAs, AEC tends to go deeper and more substantive. Thus, ASEAN is in the right position to lead the discussion in designing the new regional architecture. Indeed, intra-ASEAN integration has positively and constructively influenced the way ASEAN+1 FTAs are formulated as ERIA's FTA Mapping Study found many commonalities in the ASEAN+1 FTAs. In the course of the RCEP negotiation, *ASEAN should play a leading role and make substantial proposals based on its AEC experiences (both success and failure)*, which will ensure ASEAN's position as the “driver of substances” in RCEP (and subsequently larger East Asian economic architecture building).

The following are examples of areas of interest in the RCEP and where substantive contributions from ASEAN can play a significant role:

1. ***Trade facilitation.*** The RCEP Guiding Principles and Objectives provide that RCEP will include “provisions to facilitate trade and investment and to enhance transparency in trade and investment relations” (Principle 3). ASEAN has adopted a number of tangible trade facilitation initiatives. Some are already highly successful while others are still

moving forward. For example, ASEAN has introduced liberal rules of origin (ROO) in ATIGA which were also adopted in some ASEAN+1 FTAs. The ASEAN Single Window (ASW) initiative is running the test run project among seven national single windows (NSWs). ASEAN has successfully established its own harmonised tariff nomenclature (AHTN) based on, but going deeper than, the global harmonised system of tariff nomenclature (HS Code). ASEAN is currently creating an ASEAN Trade Repository by linking National Trade Repositories. ASEAN+1 FTAs also cover trade facilitation aspects but the programs are not comprehensive in some FTAs. ASEAN's experiences can provide many ideas as well as technical designs of regional trade facilitation initiatives.

2. ***Services liberalisation.*** AFAS has achieved higher liberalisation in services sectors than any other ASEAN+1 FTAs as shown in **Table 6.1**. ASEAN's services liberalisation initially (in its 1st and 2nd Packages) took typical trade negotiation method: request and offer. A modified approach was taken in the 3rd to 6th Packages. However, with the endorsement of the AEC Blueprint, AFAS is taking a "formula approach". Each AMS should meet the set target (for each package as well as in 2015 as the final goal) but does not need to play the request and offer game any longer. In other words, AFAS practically facilitates concerted efforts of domestic regulatory reform at the regional level while taking conventional "trade liberalisation" forms. This method is reasonable considering that services reform brings large benefits to the reforming country rather than to the foreign country inasmuch as the productivity of services sectors contributes to manufacturing sectors' competitiveness and to the overall economic efficiency of the country (Dee, 2012). ASEAN may not be comfortable in giving the same level of preferential treatment to non-ASEAN countries, yet it can still propose adopting the AFAS-style liberalisation modalities, including the formula approach.

Table 6.1: WTO Plus in AFAS and ASEAN+1 FTAs (in terms of the Hoekman index)

	AFAS(8)		AANZFTA		ACFTA(2)		AKFTA	
	Total	WTO+	Total	WTO+	Total	WTO+	Total	WTO+
Brunei	0.30	0.27	0.18	0.15	0.04	0.02	0.09	0.06
Cambodia	0.45	0.06	0.53	0.14	0.40	0.01	0.40	0.01
Indonesia	0.58	0.51	0.30	0.23	0.11	0.03	0.19	0.12
Lao PDR	0.39	0.39	0.26	0.26	0.05	0.05	0.08	0.08
Malaysia	0.45	0.30	0.33	0.17	0.21	0.05	0.21	0.06
Myanmar	0.42	0.39	0.25	0.22	0.08	0.05	0.06	0.02
Philippines	0.32	0.22	0.26	0.16	0.20	0.10	0.15	0.05
Singapore	0.42	0.31	0.46	0.34	0.40	0.29	0.35	0.23
Thailand	0.60	0.34	0.36	0.11	0.27	0.02	NA	NA
Viet Nam	0.44	0.15	0.48	0.19	0.38	0.08	0.34	0.05
ASEAN (average)	0.44	0.29	0.34	0.20	0.21	0.07	0.21	0.08
Australia			0.52	0.17				
New Zealand			0.53	0.28				
China					0.34	0.09		
Korea							0.31	0.08

Notes: Based on specific commitments and some horizontal commitments (where explicit reference is made in specific commitments). AFAS (8) means its eighth package, while the score also considers respective countries' financial liberalisation commitments in the AFAS fifth financial package. ACFTA (2) means its second package. The scores are modified when FTA commitments do not fully reflect the respective countries' GATS commitments (GATS-modified score). 'WTO+' for Lao PDR assumes that Lao PDR's GATS commitments are 0 in terms of Hoekman index. ASEAN average for AKFTA does not count Thailand because its commitment is not publicly available.

'Total' means the score based on the simple average of the Hoekman index, derived from 155 subsectors. 'WTO Plus' is the difference between commitments under FTAs and those under the GATS, meaning 'addition liberalisation' vis-à-vis the WTO.

Source: The Economic Research Institute for ASEAN and East Asia (ERIA) database as of 3 September 2013.

3. Non-tariff barriers. ASEAN senior officials have increasingly voiced concerns about non-tariff barriers in the region. Indeed, ATIGA articles 41 and 42 call for the elimination of non-tariff barriers (NTBs). However, there is no clear definition of NTBs and ASEAN efforts to eliminate them on a voluntary basis yielded very few offers (indeed only from two AMSs). However, the incidence of "core non-tariff measures", which are the most likely candidates as non-tariff barriers, is relatively high in a few AMSs (ERIA, 2012a, pp. III-19-23). Similarly, the transparency measure provided in Art. 11 of ATIGA requires notification to the

Secretariat before a new measure is introduced. Such obligation, however, is not fully fulfilled. In other words, ASEAN faces challenges in eliminating NTBs (including setting clear definition) and in streamlining NTMs.

Nonetheless, some measures have become more promising. One is the ASEAN NTM Database compiled by the ASEAN Secretariat which provides transparency. In addition, the recent practice of “Matrix of Actual Cases” (also uploaded on the ASEAN Secretariat’s website) provides government-to-government consultation mechanism which has resulted in concrete, although limited number of, resolution of disputes. Notably, some NTM complaints in the Matrix are found to be based on wrong interpretation of laws by the complainant countries rather than implementation of problematic measures by the respondent countries. This strongly indicates the value of transparency of trade related regulations. All these ASEAN experiences will give a lot of insights on how the RCEP may address NTBs (or NTMs more broadly).

Credible AEC 2015

All of the abovementioned influences of ASEAN on ASEAN+1 FTAs and RCEP come from serious efforts towards the achievement of AEC 2015. If AMSs cannot meet the targets within ASEAN, it would be extremely difficult for them to do so in the RCEP. If AEC 2015 is successful, ASEAN’s experiences will naturally persuade its FTA partners to consider adopting such measures in the RCEP. Thus, a credible AEC 2015 will be the most important starting point for ASEAN centrality. Proactive proposals from ASEAN also require speedy consensus-building among AMSs. When internal ASEAN discussion takes too long a time, FTA partners will get frustrated and thus ASEAN may miss a precious opportunity to lead the discussion.

Implementation and Other Issues in RCEP

RCEP negotiation is aimed to be concluded in 2015 (RCEP Guiding Principles). Thus, most of the RCEP issues should be negotiated and concluded by December 2015 rather than post-2015, which is the timeframe of our paper. Nonetheless, it is worthwhile to consider in the negotiations implementation

and other issues that are important for RCEP post-2015 for the following reasons:

- First, as an FTA, RCEP will take some time before all the commitments are fully implemented. Implementation mechanism should be well crafted before 2015 so that post-2015 compliance is maximised.
- Second, RCEP is expected to expand its geographical coverage with its open accession clause, once the initial agreement is signed. The key mechanism to enable it is the open accession clause. How can RCEP members ensure that the open accession mechanism functions well?
- Third, RCEP is one of the two major initiatives, together with TPP, to achieve a Free Trade Area of the Asia-Pacific (FTAAP), as agreed by leaders of APEC 21 economies.⁴ RCEP's relationship and interaction with TPP will have critical impacts on the ASEAN's future in the post-2015 period.

All the issues will relate to ASEAN centrality as well.

Implementation mechanism in RCEP. Once the RCEP negotiation is concluded in 2015, the issue will shift to implementation of the Agreement. There are several measures which induce smooth and full implementation of commitments: dispute settlement mechanism (DSM); economic and technical cooperation; joint committee; secretariat; and some review mechanism by the secretariat.

(1) *Dispute Settlement Mechanism*

RCEP Guiding Principles list dispute settlement as one of the eight chapters to be covered in the Agreement. Thus far, the negotiation has not spent much time on the DSM.⁵

⁴Pathways to FTAAP, adopted by APEC Economic Leaders Meeting, 14 November 2011.

⁵As of December 2013, the negotiation has prioritised trade in goods, trade in services, and investment.

Well-functioning DSM will give credibility to the Agreement itself. Although several other mechanisms can be included in the RCEP to induce compliance of commitments, DSM is the last resort to allow members to enforce the Agreement. It should be noted that not only developed countries but also developing countries (including AMSs) use the WTO DSM. Indeed, DSM can be a useful measure for a smaller economy than a large economy: (a) a larger economy cannot unilaterally take sanctions to force a small economy; and (b) a large economy should abide by its own commitments just like a small economy. ASEAN has used the WTO DSM in a total of 163 cases (see **Table 6.2**): 30 cases as complainant; 17 cases as respondent; and 116 cases as third party. And ASEAN brings the case more often (30 disputes) than they are sued before the WTO (17 disputes). Surprisingly, this number (30 complainant cases) is larger than any ASEAN FTA Partners.⁶

Table 6.2: Use of the WTO dispute settlement mechanism

	Complainant	Respondent	Third Party	Total
Australia	7	15	80	102
China	12	31	103	146
India	21	22	92	135
Japan	19	15	138	172
Korea	16	14	80	110
New Zealand	8	0	36	44
ASEAN	30	17	116	163
Brunei	0	0	0	0
Cambodia	0	0	0	0
Indonesia	8	7	9	24
Lao PDR	0	0	0	0
Malaysia	1	1	5	7
Myanmar	0	0	0	0
Philippines	5	6	11	22
Singapore	1	0	11	12
Thailand	13	3	64	80
Viet Nam	2	0	16	18

Source: WTO Website (http://www.wto.org/english/tratop_e/dispu_e/dispu_by_country_e.htm ; as of 26 Dec 2013)

All the ASEAN+1 FTAs as well as ASEAN have DSMs. The current DSMs in ASEAN+1 FTAs resemble each other which adopt *ad-hoc* arbitration system, but are different from ASEAN's Enhanced Dispute

⁶Of course, the use of each AMS is smaller than ASEAN FTA Partners.

Settlement Mechanism (EDSM).⁷ EDSM practically copies the strong and effective judicial system of the WTO. Most notably, ASEAN's EDSM has the Appellate Body, Secretariat (ASEAN Secretariat), and the ASEAN DSM Fund, none of which exists in the ASEAN+1 FTAs.

Fortunately or unfortunately, DSM has not been used either within ASEAN or in ASEAN+1 FTAs. Thus, it is too early to discuss whether EDSM is superior to the ASEAN+1 DSMs. On the other hand, it means that not only the ASEAN+1 DSMs but also ASEAN EDSM should be taken into account in crafting the RCEP DSM.

Least Developed Countries (LDCs) need to give special attention to the RCEP DSM. As is clear from **Table 6.2**, Lao PDR and Myanmar have never been involved in actual cases under the WTO DSM.⁸ As is stipulated in the WTO Dispute Settlement Understanding and in the AANZFTA dispute settlement provision, LDCs should be given a special and differential treatment. Moreover, three AMSs often utilise a technical assistance program provided by the Advisory Center for WTO Law (ACWL) in Geneva, when appearing in the WTO judicial system: Thailand, the Philippines, and Indonesia.⁹ A similar mechanism can be considered in the RCEP context as well.

(2) Possibility of trade policy review in RCEP

DSM is not the sole mechanism to induce compliance and timely implementation of trade pacts. ASEAN+1 FTAs typically have joint committees with sub-committee structures where practical and detailed implementation issues are discussed. Also, those committees function as negotiation body when new agreements are negotiated, or existing agreements are to be revised. Economic cooperation programs also have broad issue coverage. The emphasis of economic and technical cooperation in the Guiding Principles is appropriate.

⁷ ASEAN Protocol on Enhanced Dispute Settlement Mechanism, adopted at the ASEAN Summit on 29 November 2004, Vientiane, Lao PDR.

⁸ Brunei has not used the WTO DSM either probably due to its characteristic trading structure.

⁹ Nine cases for Thailand, 3 cases each for Indonesia and the Philippines. Among the RCEP members, India has also received assistance from the ACWL for 3 cases. From the ACWL Website (<http://www.acwl.ch/e/index.html>).

What ASEAN+1 FTAs lack when compared with the WTO is the trade policy review mechanism (TPRM). In the TPRM, all the WTO members are reviewed with different frequency depending on economic size (i.e., larger economies are reviewed more frequently). TPRM is an interactive process between the reviewed country, other members and the secretariat, which enhances transparency of trade policy and puts peer pressure for compliance/implementation. As of now, ASEAN+1 FTAs do not have TPRM probably because such a mechanism requires a strong secretariat, and none of the ASEAN+1 FTAs have their own secretariats.¹⁰ On the other hand, the ASEAN Secretariat produces several reports on the progress of the AEC, including the AEC Scorecard. ASEAN also conducted a mid-term review of the ASEAN Economic Community Blueprint in 2012, with the support from ERIA.

Such a review mechanism will enhance transparency as well as the implementation of the RCEP Agreement.

(3)Open accession clause in RCEP

The RCEP Guiding Principles and Objectives (Principle 6) declared that an open accession clause will be included in the RCEP. More specifically, it provides:

“The RCEP agreement will also have an open accession clause to enable the participation of any ASEAN FTA partner that did not participate in the RCEP negotiations and any other external economic partners after the completion of the RCEP negotiations.”(Principle 6)

Open accession clause is important on the following three points. *First*, considering that bilateral or regional FTAs cause trade diversion and thus do not bring the largest economic welfare to the world, an open accession clause minimises such trade diversion risk in the medium- to long-run by inviting other members to join the FTA. *Second*, RCEP (formally, ASEAN+3 and ASEAN+6 FTAs) and TPP are the two main pathways to achieve the Free Trade Area of the Asia-Pacific (FTAAP) as stated in APEC 2010 declaration. The geographical coverage of FTAAP is broader than the current geographical scope of RCEP and

¹⁰ ASEAN Secretariat plays the role in limited occasion. AANZFTA has a special unit in the ASEAN Secretariat, which plays a similar role of FTA secretariat to some degree.

TPP. In order to realise the long-term goal of FTAAP, open accession clause is the most important provision. *Third*, membership is one of the most important elements of an FTA's attractiveness. Given that TPP has an open accession clause, RCEP should also have one in order to make itself attractive enough not just when the agreement becomes effective but also in the future. Indeed, *RCEP with open accession clause is the only way that ASEAN can maintain its Centrality in the next decades of regional architecture design*. Thus, it was a rational choice that ASEAN and RCEP members have agreed to have an open accession clause.

Actually, open accession is not a new phenomenon. Indeed, Asia-Pacific FTAs already had some accession clause in the 1990s. For example, NAFTA (Art. 2204) clearly said that “[a]ny country or group of countries may accede to this Agreement...” Also, the P4 Agreement (Trans-Pacific Strategic Economic Partnership Agreement) also had an open accession clause (Art. 20.6.1). Interestingly, even some bilateral FTAs had accession clauses, e.g., Australia-US FTA (Art. 223.1) and Australia-Singapore FTA (Ch17, Art. 4).

However, none of them has successfully welcomed a new member. Chile tried to accede to NAFTA but in vain and switched its strategy towards bilateral FTAs with USA, Canada and Mexico separately. Although the P4 Agreement includes open accession clause, the United States “did not even consider acceding to P4 rather than initiate TPP negotiations” (Hawke, 2013). Considering the future possibility of China's accession to TPP, Hawke further contemplated that “[n]o difference in behavior can be expected of China.” Similarly, US may not “even consider” an RCEP accession clause either. Thus, the mere existence of open accession clause does not ensure the bright future of RCEP (or TPP) to lead to an FTAAP and thus trade diversion minimisation.

In addition, some points should be clarified in Principle 6 of the RCEP Guiding Principles and Objectives. First, “external economic partners” is a new wording. ASEAN Charter (Art. 44) uses “Dialogue Partners”, but never used “external economic partners.” It is not entirely clear whether Hong Kong with whom ASEAN has decided to pursue a new

ASEAN+1 FTA will get a ticket once the FTA negotiation concludes. Second, it is not clear whether the “external economic partners” should sign an ASEAN+1 FTA first to become eligible for RCEP negotiation (even after RCEP becomes effective). If such a pre-condition is introduced, there will be a risk of duplicative negotiations --- once in ASEAN+1 FTA process and secondly in the RCEP negotiation --- which may not be an efficient use of decidedly very limited negotiation resources of both ASEAN and the external economic partners. On the other hand, a pre-requisite of an ASEAN+1 FTA before joining RCEP may enhance ASEAN Centrality.

In view of the above discussion, and in order for the ASEAN-led RCEP to function as the core foundation and means in larger regional economic architecture formulation, ASEAN countries, together with ASEAN FTA Partners, should:

- *Provide clear criteria with established process for open accession;*
- *Make such open accession rules available for potential members;*
and
- *Engage with potential members.*

TPP, RCEP and FTAAP

TPP is largely perceived as a competitor of RCEP. Currently, four AMSs (Brunei, Malaysia, Singapore and Viet Nam) participate in the TPP while the other six AMSs do not. While TPP is often understood as a high-quality FTA, it is not clear whether RCEP is inferior to TPP. First of all, RCEP is to achieve “a modern, comprehensive, high-quality and mutually beneficial economic partnership agreement” (RCEP Guiding Principles and Objectives). Second, neither TPP nor RCEP negotiation is completed and thus the substance of agreements of each is not clear yet. Third, while TPP emphasises high tariff elimination ambition as well as new agendas (which makes TPP a 21st century agreement), it is not clear whether TPP will adopt some key elements of ASEAN+1 FTAs (or of RCEP) which fits the purpose of production network enhancement, e.g., liberal rules of origin and common concession approach in tariff elimination.

In general, TPP is often recognised as comprehensive and cover broader issues than RCEP. TPP is known to have 21 negotiation areas while RCEP Guiding Principles and Agreement mention only eight chapters. Such understanding, however, is not precise because TPP breaks down some components of RCEP into different negotiations (see **Table 6.3**). To take an example, RCEP covers trade in goods as one of the eight chapters. This includes, judging from ATIGA and ASEAN+1 FTAs, market access, rules of origin, customs, TBT, SPS, and trade remedies, each of which is counted as a separate negotiation area in the TPP context. Thus, the real issue is depth of commitments rather than broadness of negotiation issues.

Table 6.3: Issue coverage of TPP, RCEP, ASEAN+1 FTA and AEC

	TPP	RCEP	ASEAN+1	AEC
Trade in Goods	●	●	●	●
-- Market Access to Goods	●	●	●	●
-- Textile and Apparel	●	○	●	●
-- Rules of Origin	●	○	●	●
-- Customs	●	○	●	●
-- Trade Facilitation		●		●
-- TBT	●	○	●	●
-- SPS	●	○	●	●
-- Trade Remedies	●	○	●	●
Trade in Services	●	●	●	●
-- Cross-border Services	●	●	●	●
-- Financial Services	●	○	●	●
-- Telecommunications	●	○	●	●
-- Temporary Entry	●		●	●
Investment	●	●	●	●
-- Protection	●	●	●	●
-- Liberalisation	●	●	●	●
-- Facilitation		●	●	●
-- Promotion		●	●	●
Economic and Technical Cooperation	●*	●	●	
Intellectual Property	●	●	●	●
Competition	●	●	●	●
Dispute Settlement	●**	●	●	●
Others	●	●		●
-- E-commerce	●	●		●
-- Environment	●			
-- Government Procurement	●			
-- Labour	●			
-- Cross-cutting Trade Issue				

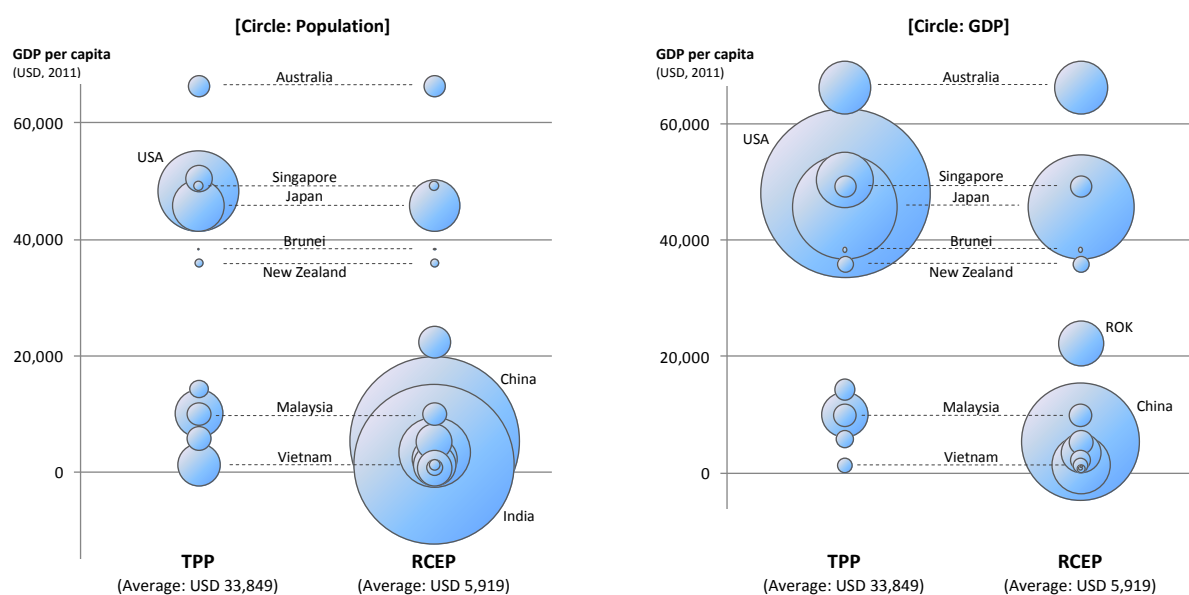
Note: “●” means the issue is covered. For ASEAN+1, “●” means at least one ASEAN+1 FTA covers the issue. “○” for RCEP means that the issue is likely covered judging from ASEAN+1 FTAs and AEC. * “Cooperation and Capacity Building.” ** “Legal issues” for administration of the Agreement including dispute settlement.

Source: Prepared by Yoshifumi Fukunaga

This does not mean that ASEAN does not need to consider those “new agendas” which have not been covered in the existing ASEAN+1 FTAs. As ASEAN should and does aim at further growing itself in the post-2015 period, many of these issues will become more and more relevant to ASEAN’s development.

In any case, TPP and RCEP are different FTAs for regional economic integration of different sets of countries. **Figure 6.2** shows the GDP per capita, populations and GDP of TPP and RCEP countries. TPP is dominated by high-income countries both in terms of number of countries as well as the population of member countries. In contrast, lower middle income countries and even LDCs have significant positions in the RCEP grouping, both in terms of number of countries and population. Thus, even if the long term goal of deeper regional economic integration is the same for RCEP and TPP, the meaning of what is “high-quality” can be different between the two, reflecting the different economic reality of their member states. It is apparent that RCEP needs to give more emphasis on inclusiveness and developmental goals as compared to TPP; TPP can be expected to emphasise more the more developed country agendas.

Figure 6.2: GDP per capita, populations and GDP of TPP and RCEP countries



Source: Calculated by Ikumo Isono, ERIA.

The overlapping ASEAN membership of TPP and RCEP with different coverage and degree of commitment between the two agreements can create complications on the preferential access in some AMSs vis-a-vis other AMSs. Specifically, where AMSs members of TPP agree to provide preferential treatment to other TPP members in areas not covered under RCEP (e.g., government procurement), non-ASEAN TPP members would be in a more advantageous position than non-TPP member AMSs even if the services liberalisation in RCEP were more ambitious than TPP. Solving this problem of preferential disadvantages of AMSs would call for either (a) ensuring that the commitments in the AEC (or RCEP) are as deep, if not deeper, than commitments in TPP or (b) bringing in the areas covered in TPP that are not yet covered in AEC (or RCEP) to the AEC (or RCEP) process. For the latter, the involvement of four AMSs in the TPP negotiations provide a valuable learning experience that can be useful for ASEAN as it attempts to expand the coverage of AEC to include those areas that are in the TPP. In the process, there would a convergence of AEC, RCEP and TPP in the future, which would be the major building block towards an FTAAP for the whole Asia Pacific region (see Fukunaga, 2013).

In summary, RCEP is an astute ASEAN strategy that helped address the competing visions of two key ASEAN Dialogue Partners on East Asian integration and ensured the promotion of ASEAN centrality not only in process but also in substance. It also addresses a more inclusive and developmental agenda in the wider East Asia regional economic architecture. In addition, RCEP becomes a major complement to TPP towards a much bigger FTAAP in the far future, and thereby minimises trade diversion within the Asia Pacific region. It is also likely to become a significant force in the reshaping of the global economic architecture that is increasingly centered on Asia Pacific.

Institutional Strengthening of ASEAN¹¹

Deepening ASEAN integration efforts beyond 2015 must necessarily address more difficult border and behind the border policy, regulatory, and institutional issues. However, there has been considerable disquiet about the capability of existing ASEAN institutions to effectively facilitate and address the challenges of regional integration and community building as well as of ensuring ASEAN centrality and greater ASEAN voice in the international arena (see, for instance, Sukma, 2014). ASEAN has of course come a long way from its beginnings as largely a weak regional cooperation forum; ASEAN's institutional growth is best exemplified by the 2007 ASEAN Charter that gave legal personality to ASEAN and embedded in it the lofty goals of the ASEAN Leaders for the region. However, it is precisely the tension between the institutional demands of regional community building and ensuring ASEAN voice and centrality, on the one hand, and the "...member states' attachment to the principle of sovereignty and overriding preference for maintaining unity and regional diversity" (Sukma, 2014, p.2), on the other hand, which is at the crux of the institutional reform debate for ASEAN.

AMSs are comfortable with "... reliance on regional institutions ... as long as it would not undermine national sovereignty and endanger regional unity" (Sukma, 2014, p.2). This section lists a number of recommendations, drawn from Sukma (2014) and ERIA (2012a), that "... ASEAN could and should do in order to fulfill its own promise to transform itself into a rules-based

¹¹ This section is largely based on Sukma (2014) and ERIA (2012a).

organization and accelerate the process of regional integration without necessarily becoming a supranational institution” (Sukma, 2014, p.3). They are as follows:

(a) Utilise flexible decision-making when appropriate

The ASEAN Charter states that the decision-making in ASEAN shall be based on “consultation and consensus” (Art. 20.1). However, it also explicitly mentions that flexible participation is allowed in the implementation of economic commitments (Art. 21.2). The “ASEAN minus X” is a well-known flexible approach. Such decision-making structure is indeed applied in trade in goods (e.g., self-certification) and trade in services. Of course, the risk is that two different sub-groups will be formed within ASEAN which hinders the scale economies that AEC could create. Thus, “ASEAN minus X” should be considered as “a means for experimentation, demonstration, and explanation of economic initiatives.”¹² On the other hand, when only one or two AMS(s) hesitate to join a new initiative, “ASEAN minus X” can be utilised in broad economic areas for the abovementioned purposes.

(b) Substantiate enforcement and dispute settlement

The context of enforcement and dispute settlement is different in the AEC-related areas from political-security areas which Sukma (2013) focused on. While Sukma emphasises lack of enforcement sanction in the political arena, the situation is different in economic agendas. ASEAN has already adopted the Enhanced Dispute Settlement Mechanism (EDSM) in 2004. Most economic agreements in ASEAN explicitly refer to EDSM. Modeling after the strong judicial system of the WTO, ASEAN EDSM allows for “sanction” (i.e., compensation and the suspension of concessions) when a Panel (or Appellate Body) finds the respondent is noncompliant with ASEAN economic treaties. While the EDSM itself has never been invoked, compensatory measures have been utilised within ASEAN. For example, in 2000, Thailand and then followed by Indonesia requested compensatory measure when Malaysia delayed its AFTA application to automotive products (Suzuki, 2003). Although the compensation was discussed via negotiation rather than adjudication, the “sanction” possibility induces compliance to an extent in AEC-related areas.

¹²Edmund Sim, AEC Blog on 8 Oct 2011, available at: (<http://aseanec.blogspot.com/2011/10/putting-asean-x-to-work-for-aec.html>).

On the other hand, there are issues of implementation of EDSM itself (ERIA, 2012a, Chapter XVIII). For example, Appellate Body members have never been appointed. In addition, the Secretariat capacity of supporting the Panel is very limited. Considering the clear and tight timeframe and with negative-consensus based semiautomatic procedure as stipulated in the EDSM Protocol, this suggests a high possibility for ASEAN EDSM to miss the deadline in its first case. Vergano (2009) also points out procedural and institutional shortcomings. For example, he argues that smaller countries face constraints due to funding structure of panel operation even if these countries have legal capacity to utilise EDSM. Some efforts are being made in ASEAN to operationalise the EDSM, e.g., GIZ's support to craft detailed procedural rules. Further efforts should be taken to substantiate the EDSM as early as possible.

(c) Build up independent monitoring mechanism

Given that EDSM is dispute settlement of last resort and dealing with pure legal issues, an effective monitoring mechanism plays a critical role in inducing timely implementation of the ASEAN commitments.

According to the AEC Blueprint (para. 73), “[t]he ASEAN Secretariat shall review and monitor compliance of implementing the Blueprint.” (ASEC, 2008). The ASEAN Integration Monitoring Office (AIMO), with the responsibility of updating and improving the AEC Scorecard and many more reports, is at the core of the Secretariat's monitoring role. However, with AIMO's limited number of staff members and given its other important responsibilities, the ASEAN Secretariat's monitoring function in practice is weaker than optimal. This can also be attributed to the broad but not specific mandate in the AEC Blueprint with respect to monitoring.

Thus, the first and most important recommendation will be to introduce a third party monitoring and technical resource function by the ASEAN Secretariat with the support from regional research institutions in key policy areas. Such monitoring will be effective when actual policy could be examined to ensure the full implementation of regional commitments (e.g., services and NTMs). In order to make it functional, ERIA (2012a) made the following more specific recommendations: (a) to give specific mandate to the ASEAN Secretariat on

these issues, and (b) to strengthen the Secretariat's capacity (see section below).

A supplementary measure to the Secretariat's monitoring (i.e., track 1) will be track 1.5 monitoring. Sukma (2013) proposed an outside and independent assessment mechanism as a key instrument of enforcement. He praises the ERIA Study on Improving the AEC Scorecard, conducted in collaboration with the ASEAN Secretariat and ERIA's Regional Institutes Network members, as a good model to be adopted in APSC and ASCC.¹³ Such an outside, independent yet officially engaged study provides objective viewpoints on the progress of ASEAN measures, which may also serve an outreach purpose. ERIA's Scorecard study which takes analytic scorecard approach supplements the compliance scorecard (i.e., AEC Scorecard by the ASEAN Secretariat). The ERIA Study invites business perspective as well as academic viewpoint in the analysis.¹⁴ It considers work in progress with specific data, in addition to "achievements".

Based on this, ERIA made the following proposals to the AEM Retreat in November 2011:

- i. Establish an AEC coordination-cum-monitoring committee in each country;
- ii. Establish a regular track 1.5 monitoring mechanism at the national and regional levels; and,
- iii. Invite donor community to support monitoring system at the national and regional levels.

All these recommendations will definitely function in the post-2015 era as well.

(d) Strengthen capacity of the ASEAN Secretariat¹⁵

¹³For the knowledge of authors, ASCC is also taking a mid-term review study, using outside and independent experts.

¹⁴Involvement of business and academia practically has an aspect of information dissemination and outreach as well.

¹⁵Sukma (2013) goes deeper than the size and capacity of Secretariat officials and advocates for reform of the Secretariat's top management status: (a) changes to the rotational appointment of the Secretary-General; and (b) introduction of open recruitment of Deputy Secretary-Generals. Noting that the DSG for AEC is already an open recruitment (not rotational appointment), those issues should be seriously considered in the broader context of Charter review process, rather than post AEC.

The two recommendations stated in section (c) above are complementary. The first recommendation (i.e., third party monitoring by the Secretariat) effectively means the strengthening of the ASEAN Secretariat as a technical resource and monitor to a number of ASEAN bodies. The second recommendation (i.e., track 1.5 monitoring) provides an institutionalised mechanism for the complementary, more analytic, and relatively more independent monitoring of AEC measures. This recommendation can also become an institutionalised mechanism to support the ASEAN Secretariat and/or be involved in third party technical analysis of AEC measures and policy actions, current or planned, by the ASEAN and/or AMSs. However, the ASEAN Secretariat still needs to be strengthened. This is because the Secretariat is the one that is in the frontline, and there are intra-regional discussions and negotiations that may need to be confidential to any but the concerned government officials and agencies as well as the Secretariat. Indeed, as the policy actions towards an AEC start to “bite” and difficult policy issues have to be addressed in order to move forward towards deeper economic integration, ASEAN needs an ASEAN Secretariat that serves well as a respected, deeply engaged, and highly competent professional technical support to the ASEAN bodies and the AMSs, and less as a secretariat to all the seemingly enumerable meetings in the ASEAN.

Anas and Narjoko (2013) link the Secretariat’s capacity discussion with the RCEP negotiation. One of the biggest challenges before ASEAN is to come up with the common position despite the large differences among AMSs. Strong analytical capacity of the Secretariat, supported by external resources of research institution(s), will be desirable. Although RCEP aims by end of 2015 for conclusion, such analytical capacity remains a necessity when subsequent and supplementary negotiation takes place and also for the purpose of effective monitoring of RCEP implementation.

(e) Introduce flexible rules in members’ financial contribution

The ASEAN Secretariat should be supported by sufficient financial resources. The ASEAN Charter provides the equal-contribution principle of ASEAN Secretariat funding (Art. 30.2). Under such a contribution framework, the country with the smallest fiscal capacity (or smallest willingness to contribute), whoever it is, practically limits the size of the ASEAN budget, and thus does not match the rapidly increasing roles of the ASEAN Secretariat. Thus, the High-Level Task Force on Strengthening the ASEAN Secretariat and

Reviewing the ASEAN Organs should examine the possibility of non-equal contribution.

A major deviation from the equal-contribution rule within the ASEAN framework is the ASEAN Infrastructure Fund (AIF).¹⁶ As agreed by the Finance Ministers in 2011, the AIF was established in 2012. All the AMSs except Myanmar joined the Fund but their financial contribution widely differs. Malaysia contributed the equity amount of US\$150 million, followed by Indonesia with US\$120 million. The Philippines, Singapore, and Thailand contributed US\$15 million each. Brunei and Viet Nam each owns equity of US\$10 million. Notably, Cambodia and Lao PDR contributed only nominal amount.¹⁷ This financial structure, which clearly considers the different size of economy,¹⁸ is a logical choice because the issue is not political but economic. As Dr. Surin Pitsuwan commented, the AIF was “an 'innovative financial architecture,' unique, and appropriate for ASEAN, timely for the region as it explores various financing mechanisms to support the ASEAN Economic Community by 2015.”¹⁹ While such deviation from the equal-contribution principle is exceptional even in the AEC-related funds, it strongly suggests a possible way forward of ASEAN funding.

Another model that ASEAN may consider is APEC Secretariat funding. It considers differences in economic size but also reflects equal partnership by setting upper and lower limits. At maximum, the US and Japan each contributes 20 percent of the total budget while smaller economies such as Viet Nam still contribute 3 percent.

AEC-related activities are expanding because of the broad coverage of the AEC Blueprint and the increasing number of ASEAN+1 FTAs. They will continue to grow in the post-2015 era. To support the financial needs, ASEAN should introduce flexible financial structures in the economic pillar, even if the Charter review faces political constraints.

(f) Increase private sector involvement especially at the sectoral level

¹⁶ADB website: (<http://www.adb.org/sites/default/files/linked-docs/45097-001-reg-fa.pdf>).

¹⁷ADB also contributes a significant amount to the AIF, i.e., US\$150 million.

¹⁸The Malaysia and Indonesia factors should be understood because of their special attention to infrastructure development.

¹⁹ASEAN Secretariat website: (<http://www.asean.org/news/asean-secretariat-news/item/asean-infrastructure-fund-targets-us13-billion-towards-asean-connectivity>).

The private sector plays a pivotal role in AEC Building.²⁰ ASEAN economic integration has been promoted primarily through production networks building by business, supplemented by government initiatives. In this, the economic integration in ASEAN is often described as “market driven” economic integration especially in comparison with the “government driven” European single market. Many, but not all, of the AEC measures are designed to further enhance the private sector’s business activities by improving business environment at the national and regional levels, while mitigating the negative effects arising from economic integration. The private sector includes not only multinational enterprises but also SMEs.

The business sector has been involved in the AEC initiatives in many ways. To start with, the ASEAN Charter explicitly recognises some 20 business organisations. The ASEAN Business Advisory Council (ASEAN BAC) each year presents its policy recommendations to the ASEAN Summit in the fall meeting. The ASEAN Business Investment Summit (ABIS) also provides a precious opportunity for direct communication between the ASEAN Leaders²¹ and the private sector. In addition to the overarching mechanisms, the industries are involved in sector specific initiatives. The most prominent example is probably the Priority Integrated Sectors (PISs) where regional industrial associations are engaged. Yet, the degree of engagement depends on policy areas, and also differs from sector to another. To name one example, while some product working groups (PWGs) of standards and conformance heavily use private sector insights, other PWGs limit their engagement with industrial associations.

Successful implementation of AEC measures towards 2015 and beyond demands even deeper engagement of the business sector and other stakeholders. As ASEAN is shifting towards “people-oriented ASEAN” over the years, private sector involvement will become even more important in the post-2015 vision.

²⁰ Sukma (2014) discusses more broadly in the context of civil society organization involvement in ASEAN towards “people-oriented ASEAN”.

²¹ In 2013, however, ABIS was held in the margin of AEM rather than ASEAN Summit due to the limited accommodation capacity of Brunei. It is critical to once again bring up ABIS to the leader-level.

In short, ASEAN's operational strategies and institutional structures would need to embed private sector participation in decision making process. Therefore, we propose more active engagement with the private sectors in almost all the policy areas, as input channels to and dissemination channels of the regional efforts, as well as partners in implementation of the AEC measures.

ABAC reform should also be pursued seriously. Just like the ASEAN Secretariat, the ABAC Secretariat faces serious constraints of financial and human resources. Compared with the APEC Business Advisory Council (APEC BAC) which has produced many tangible outcomes via policy advocacy, Hew (2013) advocates that ABAC could learn from APEC BAC.

(g) Clarify the functions and role of ASEAN organs and institutions

There remains a lack of clarity in delineation of responsibility and relationships among ASEAN bodies. Sukma (2013) primarily centers on the relationship between the ASEAN Coordinating Council and the other two ASEAN Councils (i.e., AEC Council and ASCC Council), and the reporting structure from the Secretary-General. Putting in the AEC Context, there is also some vagueness or potential overlap between ASEAN organs. For example, the role of CPR in AEC-related issues is not clear. Currently, Committee of Permanent Representatives (CPR) is overseeing connectivity issues by representing their countries in the ASEAN Connectivity Coordination Committee (ACCC), which has many economic aspects involved. In this Report, we argue that the equity and inclusiveness as well as sustainability agendas should be paid more attention to in the post-2015 era. We also argue that the movement of unskilled labour should be considered in the future. These issues are currently dealt with under the ASEAN Socio-Cultural Community pillar rather than AEC. Thus, certain coordination mechanism should be set up to ensure early implementation of the post-2015 Vision. For example, ASEAN may consider the OECD approach which often establishes a joint working group between different committees, e.g., Trade and Environment Working Group.

Deepen Partnerships with APEC

In addition to institutional strengthening, ASEAN can exploit more the synergies with other regional integration efforts in Asia Pacific, most especially

the Asia Pacific Economic Cooperation Forum (APEC), of which 7 AMSs are members out of the total of 21 member economies in the APEC. APEC's Bogor Goals share with ASEAN Economic Community's objectives of free and open trade and investment regime and seamless connectivity among member economies, albeit on a wider geographical area, without binding commitments and compliance, and relying more on peer pressure and discussion to achieve the Bogor goals. Many of APEC's major initiatives are similar or complementary to the major measures in the AEC Blueprint and the MPAC. Thus, APEC and ASEAN can learn from each other, coordinate with one another, and complement one another in the drive towards a more economically integrated region in ASEAN, East Asia and the Pacific Rim.

Among the areas where APEC and ASEAN can work together are in trade facilitation, supply chain connectivity, structural reform and the role of the private sector (see Hew, 2013):

- Trade facilitation in APEC includes customs procedures, standards and conformance, business mobility, and electronic commerce. APEC has been more focused on transparency, process simplification, consistency and predictability, and consultations when it comes to customs procedures. ASEAN has an even more ambitious agenda in establishing National Single Windows and the ASEAN Single Window, and for transparency, the national and regional trade repositories. Nonetheless, APEC's trade facilitation action plans and supply chain connectivity framework action plan can help enrich the ASEAN trade facilitation program into and beyond 2015.
- APEC and ASEAN would need to give more importance to standards and conformance since technical barriers to trade are the most problematic NTMs affecting international trade. In both, alignment with international standards has been going on. Nevertheless, this is a complex area especially in the light of the wide differences in levels of development of the member economies. At the same time, this is an area where contribution from the private sector is particularly useful. Given that APEC

member economies include many of the most important economies in the world which can be expected to substantially shape international standards, a closer working relationship between ASEAN and APEC in the field of standards and conformance would contribute to regional and global efforts at reducing transactions costs of compliance to varied national standards.

- Structural reform in APEC includes any improvement in institutional frameworks, regulations and policies that help minimise behind the border barriers and improve economic performance. The priority work streams on structural reform in APEC are: (a) regulatory reform; (b) competition policy; (c) corporate governance; (d) public sector governance; and (e) strengthening economic and legal infrastructure (Hew, 2013, p. 10). It is apparent that this is an area where ASEAN can learn a lot from APEC. Thus, for example, the discussion on Responsive ASEAN in **Chapter 7** of this Report may involve improvement and/or reform of behind the border regulations and policies, even if the proposed process of informed regulatory conversations in the chapter differs somewhat from the whole of government approach of OECD that underpins the regulatory reform program of APEC. Competition policy is also given more importance for ASEAN beyond 2015 in Chapter 3 of this Report. ASEAN may need to address issues of corporate and public sector governance in the future as the AEC deepens.
- The private sector, primarily through the APEC Business Advisory Council (ABAC), has been a much more pro-active partner in APEC, providing many valuable inputs and significant studies that contributed a lot to the development of the action plans in APEC. Arguably, the private sector in ASEAN has been less pro-active than in APEC despite the rising instances of private sector-ASEAN official interactions in the ASEAN process. ASEAN can learn from the APEC experience in bringing and benefiting from the deep private sector involvement in the regional integration process.

There are likely other areas of complementarity and synergy between ASEAN and APEC. It is worthwhile for ASEAN to maximise the potentials from such synergy to further the deepening economic integration and improving business and investment climate agenda of ASEAN into and beyond 2015.

ASEAN voice in the global community of nations

A credible AEC 2015, the continued push for an integrated and highly contestable ASEAN (see Chapter 3), greater focus on the measures needed for a competitive and dynamic ASEAN (see Chapter 4) and an inclusive and resilient ASEAN (see Chapter 5A and Chapter 5B), as well as a credible RCEP (see recommendations in this chapter) can be expected to raise the profile of ASEAN in the global community of nations. But of course ASEAN is much more than AEC and RCEP. Indeed, arguably, a number of the important successes of ASEAN are in the diplomatic, rather than economic, arena. Perhaps the most important among them is the fostering of regional reconciliation among the original members of ASEAN (especially among Indonesia, Malaysia, Singapore and the Philippines) in the early years, one *raison d'être* for the establishment of ASEAN. This fundamental focus on regional peace is also embodied in the zone of peace and disarmament treaty that ASEAN and its dialogue partners have signed on. Indeed, Article 1.1 of the ASEAN Charter emphasises ASEAN's purpose as to "maintain and enhance peace, security and stability and further strengthen peace-oriented values in the region." Peace is a critical and necessary condition to any sustained economic growth and transformation in the region.

As ASEAN progresses, ASEAN's ambitions are well articulated by H.E. President Susilo Bambang Yudhoyono of Indonesia when he said that as ASEAN consolidates, integrates and transforms into a community, "...ASEAN seeks a more vigorous role in Asian and global affairs at a time when the international system is experiencing a seismic shift". In a region with much larger economies such as China and Japan, ASEAN, as essentially an association of small and middle powers, can be expected to have greater voice and influence regionally and internationally primarily by banding together and having a common voice where feasible in addition to its adherence to

deepening economic integration within ASEAN through AEC and the East Asia region through the RCEP.

In the 19th ASEAN Summit in November 2011, the Leaders adopted the “Bali Declaration on ASEAN Community in a Global Community of Nations --- Bali Concord III”. The Leaders adopted an ASEAN common platform on global issues, covering political-security, economic and socio-cultural agendas, with the following characteristics:

- (a) a more coordinated, cohesive, and coherent ASEAN position on global issues of common interest and concern;
- (b) An enhanced ASEAN capacity to contribute and respond to key global issues;
- (c) A strengthened ASEAN community centered on ASEAN as a rules-based organisation; and
- (d) A strengthened capacity of the ASEAN Secretariat which is able to support the vision and development of the ASEAN community in a global community of nations.

The “Bali Declaration on ASEAN in a Global Community of Nations--Concord III” is an indication of the growing maturation of ASEAN from its far more modest beginnings in the 1960s. It is an indication of the conviction of achievements and promise of ASEAN and AEC that ASEAN Leaders gave special focus on growing ASEAN’s role in global affairs. Tay (2013) gives examples of occasions when ASEAN banded together and had a common voice, thereupon resulting in a significant ASEAN influence diplomatic-wise. One example was the common ASEAN-6 position and voice on the Vietnamese presence in Cambodia during the cold war years that helped pave the way for the Paris Peace Agreement in 1991. Another more recent example was the constructive engagement of ASEAN with Myanmar instead of joining the US and EU in sanctioning the regime in Myanmar. Arguably, ASEAN’s constructive engagement and quiet diplomacy have substantially helped in facilitating the remarkable developments in and transformation of Myanmar in the past two years.

ASEAN, however, is composed of AMSs with varying levels of development, economic size and structure, political institutions and history. Thus, it is not easy for AMSs to band together and have a common position as exemplified in WTO negotiations. Nonetheless, as Tay (2013) puts it, “A common voice for ASEAN is not impossible even if it cannot be achieved overnight. But neither is it natural.” Thus, Tay (2013) emphasises some key elements needed to generate ASEAN’s common position on global and regional issues more effectively in post-2015, while respecting different positions of AMSs. They are as follows:

- First, ASEAN common voice should aim to articulate ASEAN’s regional interests. It means ASEAN should constrain itself from taking a strong position when conflicting national interests are involved (e.g., South China Sea). Rather, ASEAN’s role should be to set norms and thus facilitate a peaceful means for dispute settlement. In the economic sphere, ASEAN as the region should focus on helping resolve disputes as a neutral body, rather than taking a specific position.
- Second, therefore, ASEAN must ensure trust and neutrality.
- Third, ASEAN needs to be flexible while respecting the principles of unity, consensus and regional resilience. Among all, decision-making needs special attention. Consensus can mean unanimity or it can also mean lack of disagreement. If unanimity is required strictly, ASEAN cannot form its common position promptly. Thus, pragmatically, a flexible approach taking lack of disagreement as consensus should be adopted.
- Fourth, other ASEAN institutions should be reviewed and reformed to facilitate the coordination process (e.g., strengthen the ASEAN Secretariat). This issue has been addressed earlier in the section on institutional strengthening of ASEAN in this chapter.

The creation of the ASEAN Community sets the basis for ASEAN’s common voice especially in the economic arena. As explained earlier in the RCEP context, the AEC experiences help ASEAN prepare for larger economic

integration while at the same time give a special position for ASEAN to propose useful substances to the region. It is also the case for other non-trade economic agendas. If ASEAN integrates more, AMSs will get close to each other in terms of their approach to global issues. Tay (2013) discusses the importance of norm-setting via the ASEAN Charter. AEC Post 2015 Vision will substitute it in the economic context.

In sum, that ASEAN aims for stronger role in Asian and global affairs, as best expressed by H.E. President Yudhoyono of Indonesia, reflects to some extent the maturation of ASEAN from its more modest beginnings and of its considerable achievement as well as unique role in furthering regional peace and economic integration in East Asia. Thus, the challenges of ensuring a successful RCEP in tandem with ASEAN centrality, ASEAN institutional strengthening, partnerships with complementary regional organisations, and the search for an ASEAN voice in international diplomatic arena are all an embodiment of the drive of RISING ASEAN to becoming a truly global ASEAN.

Chapter 7

Responsive ASEAN

Introduction

The chapter discusses Responsive ASEAN as a key foundation for the four pillars. Much of it is related to improving the business and investment environment in the region with a drive towards smart regulations and responsive regulatory regime. Responsive ASEAN emphasises that process, especially the greater participation of stakeholders, counts in the drive in improving the regulatory regime and in institution building in the region.

The private sector is the key motor of the sustained high and equitable growth envisioned in the previous chapters that underpin the “ASEAN Miracle”. Thus it is critical to create a conducive and attractive business and investment environment in the region. The initiatives and recommendations discussed and proposed in the previous chapters all contribute to improved business and investment environments in the region. Many AMSs have seen substantial improvements in their business and investment climates in recent years. Nonetheless, there is much more room for improvement especially in narrowing the gap between the best performing AMSs and the poor performing AMSs with respect to their business and investment regimes.

“Responsive ASEAN” is more than AMSs addressing the concerns of the business sector. More fundamentally, it is about having a responsive regulatory regime in both content and process. A responsive regulatory regime in terms of content means having good and smart regulations that are responsive to the private sector since the latter is uniquely placed to identify when and how things go wrong with respect to regulations. Moreover, a responsive regulatory regime is responsive to the changes in objectives, priorities and circumstances and thereby calls for informed regulatory conversations, which are mediated conversations between the regulators and various stakeholders. Thus,

responsive regulatory regime involves not only good and smart regulations but also, indeed equally so, a responsive process that involves wide consultations with stakeholders, coordination within the government and evaluation (ex ante and ex post) of the regulations.

Given that the imperatives and recommendations from the four pillars as discussed earlier call for regulatory, policy and possibly even institutional improvements in many AMSs, process counts in the drive in ASEAN to improve the regulatory regimes and strengthen institution building in the region. The chapter highlights the role of informed regulatory conversations among the concerned government institutions and various stakeholders, as mediated by more objective third party institutions like research and academic institutions, as a major mechanism of responsive regulatory regime in the region.

Business environment in ASEAN: progress and challenges

Chapter 2A of the Report emphasises that ASEAN needs to garner a higher share of foreign direct investments globally that flow into developing countries in order that the region attains sustained high economic growth rate. In order to do so, there is the need for a comparatively better investment and business environment in ASEAN. Specifically, this chapter suggests that all AMSs should belong to the top half, and most of the AMSs to the top third, of the global rankings in the popular indices of business and investment environments such as the Global Competitiveness Index, Ease of Doing Business and Logistics Performance Index.

The results of the Global Competitiveness Index, Logistics Performance Index, and the Ease of Doing Business, among others, show that a few AMSs belong to the world's best while a few other AMSs belong to the world's bottom third in terms of the regulatory and structural environments for business and investment. As **Table 2A.4** in Chapter 2A of the Report shows, there is a large gap between the front runners and the laggards among the AMSs with respect to the popular global indicators of business and investment environments. Thus, for example, the AMSs' ranks in the Global Competitiveness Index in 2013 range from 2 to 139; the AMSs' ranks in the Logistics Performance Index

in 2012 range from 1 to 129, and the AMSs' ranks in the Doing Business 2013 range from 1 to 163.

The Global Competitiveness Index (GCI) provides the broadest indicator of the attractiveness of a country for business and investments among the major known indices today. The rest of the discussion focuses on GCI as the indicators of business and investment environments.

The overall GC index is a composite of sub-indices for basic requirements, efficiency enhancers, and innovation and sophistication factors. The sub-index for basic requirements is a composite of four pillars, namely, institutions, infrastructure, macroeconomic environment, and health and primary education; each of the four pillars is a composite of a corresponding set of indicators. Similarly, the sub-index of efficiency enhancers is a composite of six pillars, namely, higher education and training, goods market efficiency, labour market efficiency, financial market development, technological readiness and market size; each of the six pillars is a composite of a corresponding set of indicators. The innovation and sophistication sub-index has two pillars, namely, business sophistication, and innovation. Like the other pillars, each of them is also a composite of a corresponding set of indicators. The GCI uses both perception data and hard data.

Table 7.1 presents the overall scores and ranking of AMSs, China and India for 2007-2008 and 2013-2014. For 2013-2014, five AMSs plus China are within the top third highlighted by the second global ranking of Singapore, four AMSs plus India are within the second third, and one AMS is in the last third. It is worth noting that a number of AMSs experienced substantial improvements in ranking from the 2007-2008 period, most notably Cambodia (from 110 to 88), Indonesia (from 54 to 38), the Philippines (from 71 to 59) and Singapore (from 7 to 2). Brunei Darussalam, which started being rated in 2008-2009, also improved its scores and ranking.¹ The improvement in ranking is underpinned by the rise in scores, most notably for Brunei Darussalam, Cambodia, and the Philippines across all the three sub-indices of basic requirements, efficiency enhancers, and innovation and sophistication factors, Singapore in basic requirements and efficiency enhancers, and Indonesia primarily in basic institutions.

¹ Lao PDR and Myanmar are rated in the latest 2013-2014 only.

Note that Viet Nam's overall score also increased during the period albeit much more modestly, but its rank slipped marginally indicating that other countries improved faster or newcomer countries (e.g., Brunei Darussalam) have higher scores. China increased its score and ranking while India's score and ranking slipped significantly. Similarly, Thailand's, and to much less extent Malaysia's, scores and ranking also slipped; nonetheless, both countries belong to the top quarter of all countries in the world.

Table 7.1: ASEAN Competitiveness Score Rank

Country/Economy	Brunei Darussalam		Cambodia		Indonesia		Malaysia		Philippines		Singapore		Thailand		Vietnam		Lao PDR	Myanmar	China		India		
Year	2008	2013	2006	2013	2006	2013	2006	2013	2006	2013	2006	2013	2006	2013	2006	2013	2013	2013	2006	2013	2006	2013	
GCI	Score	4.54	4.95	3.39	4.01	4.26	4.53	5.11	5.03	4	4.29	5.63	5.61	4.58	4.54	3.89	4.18	4.08	3.23	4.24	4.84	4.44	4.28
Basic requirements	Score	5.3	5.64	3.83	4.18	4.41	4.9	5.44	5.37	4.19	4.46	6.13	6.3	4.98	4.86	4.37	4.36	4.41	3.4	4.8	5.28	4.51	4.23
1st pillar: Institutions	Score	4.65	4.96	3.26	3.61	4.04	3.97	5.12	4.85	3.38	3.76	5.9	6.04	4.37	3.79	3.62	3.54	4	2.8	3.51	4.24	4.55	3.86
2nd pillar: Infrastructure	Score	4.45	4.29	2.48	3.26	2.72	4.17	5.09	5.19	2.73	3.4	6.16	6.41	4.36	4.53	2.79	3.69	3.66	2.01	3.54	4.51	3.5	3.65
3rd pillar: Macro economy	Score	6.33	7	3.87	4.53	4.52	5.75	4.97	5.35	4.45	5.34	5.67	6.01	5.1	5.61	4.63	4.44	4.41	3.74	5.72	6.29	4.12	4.1
4th pillar: Health and primary education	Score	5.79	6.33	5.71	5.32	6.35	5.71	6.58	6.1	6.2	5.33	6.81	6.72	6.09	5.52	6.43	5.78	5.56	5.05	6.44	6.06	5.9	5.3
Efficiency enhancers	Score	3.84	4.09	2.94	3.79	4.12	4.32	4.89	4.86	3.85	4.2	5.63	5.63	4.29	4.43	3.45	3.98	3.6	3.03	3.66	4.63	4.32	4.41
5th pillar: Higher education and training	Score	3.93	4.52	2.63	3.12	4.25	4.3	4.8	4.68	4.02	4.28	5.59	5.91	4.44	4.29	3.39	3.69	3.31	2.52	3.68	4.23	4.35	3.88
6th pillar: Market efficiency	Score	3.95	4.52	3.63	4.35	4.93	4.4	5.24	5.23	4.21	4.19	5.62	5.59	4.76	4.67	4.1	4.25	4.36	3.57	4.22	4.32	5.07	4.18
7th pillar: Technological readiness	Score	3.64	3.75	2.56	3.22	3.17	3.66	4.64	4.17	3.32	3.58	5.69	6.01	3.67	3.56	2.85	3.14	2.98	2.03	3.07	3.44	3.52	3.22
Innovation factors	Score	3.35	3.81	3.05	3.44	4.07	4.13	4.91	4.7	3.63	3.75	5.11	5.14	4.15	3.83	3.32	3.41	3.54	2.55	3.75	4.1	4.6	4
8th pillar: Business sophistication	Score	3.75	4.23	3.37	3.83	4.53	4.44	5.29	5.02	4.2	4.29	5.17	5.08	4.57	4.42	3.55	3.68	3.86	2.87	4.05	4.31	5.06	4.38
9th pillar: Innovation	Score	2.94	3.38	2.72	3.05	3.6	3.82	4.53	4.39	3.05	3.21	5.04	5.19	3.74	3.24	3.1	3.14	3.22	2.24	3.44	3.89	4.14	3.62

Country/Economy	Brunei Darussalam		Cambodia		Indonesia		Malaysia		Philippines		Singapore		Thailand		Vietnam		Lao PDR	Myanmar	China		India		
Year	2008	2013	2006	2013	2006	2013	2006	2013	2006	2013	2006	2013	2006	2013	2006	2013	2013	2013	2006	2013	2006	2013	
GCI	Rank	39	26	103	88	50	38	26	24	71	59	5	2	35	37	77	70	81	139	54	29	43	60
Basic requirements	Rank	29	18	100	99	68	45	24	27	84	78	2	1	38	49	71	86	83	135	44	31	60	96
1st pillar: Institutions	Rank	41	25	95	91	52	67	18	29	88	79	4	3	40	78	74	98	63	141	80	47	34	72
2nd pillar: Infrastructure	Rank	39	58	97	101	89	61	23	29	88	96	6	2	38	47	83	82	84	141	60	48	62	85
3rd pillar: Macro economy	Rank	2	1	101	83	57	26	31	38	62	40	8	18	28	31	53	87	93	125	6	10	88	110
4th pillar: Health and primary education	Rank	47	23	98	99	72	72	42	33	82	96	20	2	84	81	56	67	80	111	55	40	93	102
Efficiency enhancers	Rank	77	65	110	91	50	52	26	25	63	58	3	2	43	40	83	74	107	140	71	31	41	42
5th pillar: Higher education and training	Rank	69	55	110	116	53	64	32	46	63	67	10	2	42	66	90	95	111	139	77	70	49	91
6th pillar: Market efficiency	Rank	91	42	99	55	27	50	9	10	57	82	4	1	31	34	73	74	54	135	56	61	21	85
7th pillar: Technological readiness	Rank	54	71	105	97	72	75	28	51	61	77	2	7	48	78	85	102	113	148	75	85	55	98
Innovation factors	Rank	87	54	102	83	41	33	22	23	66	58	15	13	36	52	81	85	74	146	57	34	26	41
8th pillar: Business sophistication	Rank	89	56	100	86	42	37	20	20	59	49	23	17	40	40	86	98	78	146	65	45	25	42
9th pillar: Innovation	Rank	91	59	98	91	37	33	21	25	79	69	9	9	33	66	75	76	68	143	46	32	26	41

Source: The Global Competitiveness Report (2008-2013).

A close look at the time series data on the specific indicators that underpin the pillars and the sub-indices shows significant improvements in a number of areas during the past 7-8 years. Among the noteworthy improvements, primarily in Brunei, Cambodia, the Philippines and Viet Nam (and also sometimes, Indonesia), are in the reduction of the burden of government regulations, quality of infrastructure, quality of primary education, tertiary education enrolment, effectiveness of anti-monopoly policy, reduction in redundancy costs, ease of access to credit, availability of latest technologies, state of cluster development, and intellectual property protection.

Despite the significant increase in scores, however, and as noted earlier, the gap between CLMV and the Philippines with the best performing AMSs is still large. Singapore is closest to the best practice in many areas given its ranking and scores; hence, the gap between them and the best practice is still large in many areas for a number of AMSs. To a large extent, this represents the regulatory, policy and institutional improvement challenges that a number of AMSs face moving forward beyond 2015.

The Ease of Doing Business indicators focus specifically on selected areas of business related regulations which are especially important for small and medium enterprises (SMEs). These areas are starting a business, dealing with construction permits, getting electricity, registering property, getting credit, protecting investors, paying taxes, trading across borders, enforcing contracts and resolving insolvency. As in the Global Competitiveness Index, there is a wide gap among the front runner AMSs and the tail-enders among the AMSs, from the global number one to the 8th from the lowest (182nd) rank. Singapore and Malaysia are in the top ten, Thailand in the top twenty while Lao PDR and Myanmar are in the bottom 20 percent.

The Ease of Doing Business indicators also indicate some areas where each AMS is particularly lagging and needs to give more focus. The indicators also show areas where AMSs are doing comparatively better vis-à-vis other countries given their overall ratings and rankings. Thus, for example, despite its high overall ranking, Thailand lags particularly behind in starting a business and in getting credit. Most AMSs are in fact lagging behind in starting a business, e.g., Brunei Darussalam, Cambodia, Indonesia, and the Philippines, with Myanmar ranking the lowest globally. Thailand also lags well behind with

respect to getting credit. However, for most of the AMSs, it is comparatively easier compared to their overall ranking, best exemplified by Cambodia, the Philippines, Viet Nam, Indonesia and even Malaysia which ranks number one globally. This is similarly the case for many AMSs with respect to trading across borders. The Doing Business 2014 report states that the Philippines is one of the ten most improved countries for 2013 globally in terms of business friendliness. However, it is also apparent that the country needs to do a lot more and even better in order to narrow the “regulatory gap”, i.e., the gap from the best practice “frontier”. The wide regulatory gap in many AMSs provides the pressure and impetus for regulatory improvement and reform to move substantially towards best practice.

The results of the survey of multinationals operating in Southeast Asia provide another indicator of the perception on the business environment in the region. For example, the results of the ASEAN Business Outlook Survey 2014 show that for the American multinationals, corruption is a significant concern in virtually all the AMSs (except Brunei Darussalam and Singapore), followed by laws and regulations and infrastructure. The other area which is a significant concern in five AMSs is the availability of trained personnel although this is a factor where both the Philippines and Singapore have strengths. The survey shows that, perhaps not surprisingly, Singapore has the largest number of areas of strength, followed by the Philippines and Thailand (see **Table 7.2**).

The 2014 survey also shows that for the period 2008 to 2013, there has been some improvement in infrastructure as a region primarily from marked improvement in Malaysia and to some extent the Philippines, improvement in the state of corruption primarily from marked improvement in the Philippines, and improvement in tax structure again primarily due to improvements in the Philippines. The survey shows the Philippines as the AMS that registered the marked improvement in the business environment during the past five years. (There is no information on the changes for Brunei Darussalam, Cambodia, Lao PDR and Myanmar because the countries were included in the survey later than 2008.) The results of the ASEAN Business Outlook Survey appear to be generally consistent with those of the Global Competitiveness Index, e.g., concern on infrastructure, customs, and corruption at the individual country level for AMSs, and significant improvement in the standing of the Philippines.

Table 7.2: Current Local Business Environment

Factors	Regional	BN	KH	ID	LA	MY	MM	PH	SG	TH	VN
Availability of Low Cost Labour	WS	N	S	S	N	N	WS	S	C	N	S
Availability of Raw Materials	N	N	N	N	WS	WS	WS	WS	N	WS	WC
Availability of trained Personnel	WS	C	C	WC	C	WS	C	S	S	C	N
Corruption (or Lack of)	C	S	C	C	C	C	C	C	S	C	C
Ease of Moving Your Product Through Customs	WS	WC	N	C	C	S	C	C	S	WC	C
Free Movement of Goods within the Region	WS	WS	N	WC	C	WS	C	WS	S	WS	N
Housing Cost	WC	WS	S	N	N	N	C	S	C	S	C
Infrastructure	WS	WS	C	C	C	S	C	C	S	S	C
Laws and Regulation	WC	N	C	C	C	WS	C	C	S	C	C
Local Protectionism (or lack of)	N	N	N	N	C	N	C	N	S	N	N
New Business Incentives offered by the government	WS	N	N	C	WC	WS	C	S	S	N	C
Office lease cost	N	WS	N	N	N	S	C	S	C	S	WC
Personal Security	S	S	S	WS	S	WS	S	S	S	S	S
Sentiment Towards the US	S	S	S	S	WS	S	S	S	S	S	S
Stable Government and Political System	S	S	N	WS	WS	WS	N	S	S	N	N
Tax Structure	WS	WS	N	N	C	C	N	C	S	N	C



Strength: 50% or greater satisfaction rate
 Concern: 40% or greater dissatisfaction rate
 neutral the plurality is neutral or the factor is inapplicable
 Weak Strength: Plurality is satisfied but satisfaction rate is less than 50%
 Weak Concern: Plurality is dissatisfied but dissatisfaction rate is less than 40%

Source: AMCHAM Singapore, 2013.

In summary, in virtually all the surveys, there has been significant progress in a number of areas for many of the AMSs. Nonetheless, much remains to be done in order for all AMSs to be in the top half of the world rankings and for most of them to be in the top third of the world rankings by the early 2020s.

Responsive regulatory regime: A framework²

Moving up the global rankings would call for improvement in regulatory environment in the AMSs considering that many other countries in the rest of the world are busily doing so. This means the need for smart regulations and responsive regulatory regime.

Good regulation requires good content and process. It also requires regulation to be responsive to the private sector (**Figure 7.1**). Regulators and government officials need to have clear regulatory objectives and to understand the characteristics of good regulation, but the business community is uniquely placed to identify when and how things go wrong.

Figure 7.1: The Essence of Good Regulation



Source: Dee (2013c).

Ideally, the *content* of regulatory interventions should be:

- pro-competitive
- commensurate with objectives
- non-discriminatory

Markets by themselves do not always produce the most economically efficient outcomes. But where interventions are required to deal with market failures, they should generally do so in a way that does least damage to competition. This requires interventions to be targeted only at the particular markets where problems occur. It also requires that if competition in regulated markets is constrained by policy choice, anti-competitive behaviour is not able to spill over to neighbouring markets.

² This section, with the exception of a few paragraphs, is taken from Dee (2013c).

The World Bank *Doing Business* presents good regulation in terms of what it calls “smart regulation” which amplifies the characteristics of a good regulation discussed above. Smart regulation is as follows (World Bank, 2013, p.21):

S for streamlined: that is, regulations that accomplish the desired outcome in the most efficient way

M for meaningful: that is, regulations that have a measurable positive impact in facilitating interactions in the marketplace

A for adaptable: that is, regulations that adapt to changes in the environment

R for relevant: that is, regulations that are proportionate to the problem they are designed to solve; and

T for transparent: that is, regulations that are clear and accessible to anyone who needs to use them.

Governments often have additional objectives besides economic efficiency. Where interventions are designed to achieve other objectives, it is important that they do not unduly compromise economic efficiency. Multiple objectives require multiple regulatory instruments, so it is important that the appropriate *number* and *type* of regulatory instruments are chosen. And once chosen, it is important that the interventions are no more burdensome than they need to be to achieve their objectives.

As much as possible, interventions should not prejudge either the *number* or the *identity* of players in a market. And they should not create an uneven playing field. They should not advantage government-owned enterprises relative to private enterprises. They should not advantage domestic enterprises relative to foreign-owned enterprises. They should not advantage incumbent enterprises relative to new entrants.

Ideally, such regulatory interventions should be devised using *processes* that involve:

- consultation (with all stakeholders)
- coordination (within government)
- evaluation (ex- ante and ex post)

Broad consultation with all stakeholders can help to disclose who gains and who loses from an intervention, and the likely magnitudes of those gains and losses. This information is vital in establishing the case that the intervention will produce a net gain to the community as a whole. Accordingly, it is important that the consultation be with all stakeholders, not just those whose privileged position might be threatened by the intervention. Such consultation provides an opportunity for the special pleading of these special interests to be set against the broader benefits to other stakeholders.

The scope of desirable economic interventions may not line up neatly with the portfolio responsibility of a single government department. Ministries themselves are often stakeholders, whose bureaucratic position may be affected positively or negatively by an economic reform. And successful implementation may require the cooperation of more than one ministry. The views of ministries as stakeholders need to be heard and understood, and their cooperation needs to be secured. This requires coordination.

New interventions need to be evaluated before they are implemented to ensure that they have the best chance of generating a net gain to the community. New interventions can also be evaluated after they have been in place for a time, to ensure that they are operating as intended. And long-standing interventions also need to be evaluated, to ensure that they have not outlived their usefulness. Such evaluations require consultation, but they also require a careful analysis of the costs and benefits to various groups, and careful judgment as to where the balance of net benefit to the community lies.

The literature on *responsive regulation* stresses that consultative processes are not only critical in the design phase, for example, through formal processes such as Regulatory Impact Assessments (RIAs) but also critical on an ongoing

basis to ensure compliance with regulation, and to learn when current interventions are not working or have outlived their usefulness.

Braithwaite (2011) argues that regulation needs to be responsive to the moves that regulated actors make, to industry context and to the environment. While responsive regulation is sometimes identified narrowly with the concept of a sanctions pyramid (that is, try the least coercive enforcement methods first, and escalate up the pyramid only as necessary), Braithwaite (2011) identifies broader principles that are relevant here (**Figure 7.2**).

Thinking in context means pre-testing theories ‘on the ground’ with real participants. *Listening actively* gives a voice to stakeholders. *Engaging those who resist* shows them respect by allowing their resistance to be used as an opportunity to learn how to improve regulatory design. *Support and education* can be used to build a common understanding of the rationale for regulation, and to build the capacity and motivation to comply. In resource poor countries, it can be particularly useful to *engage wider networks of partners*, such as industry associations and NGOs, and co-opt them into the design and enforcement of regulation (e.g., development of industry-based accreditation programs and industry-based training). Drahos (2004) makes this argument on resource grounds, but Braithwaite (2006) also notes that it can be useful to guard against regulatory capture. Finally, it is critical to *learn* — to evaluate how well and at what cost outcomes have been achieved, and to communicate the lessons learned.

Figure 7.2: Responsive Regulation



Source: Dee (2013c).

Responsive regulation may involve relatively ‘soft’ styles of control that may be difficult to put through an RIA process. Arguably, however, the approach may lead to less red tape than would be produced by RIAs:

‘Any proponent of a new regulatory system who knows that a RIA process has to be negotiated will have a huge disincentive to put forward a smart regime and an almost irresistible imperative to opt for something closer to an old-fashioned command and control system.’ (Baldwin 2006, p. 205)

A responsive approach is also likely to pick up on new risks and risk creators, thereby avoiding one of the criticisms of purely risk-based regulation — that while seeking greater efficiency, it tends to focus on known and familiar risks. Finally, a responsive approach is likely to be sensitive to industry differences, and therefore not to take, for example, the same approach to controlling SMEs as to multinationals (Grabosky 1995).

Baldwin and Black (2008) agree that to be *really* responsive, regulators have to be responsive not only to the compliance performance of the regulatee but also in five further ways:

- to the firms' own operating and cognitive frameworks (their 'attitudinal settings');
- to the broader institutional environment of the regulatory regime;
- to the different logics of regulatory tools and strategies;
- to the regime's own performance; and
- to changes in each of these elements.

Thus responsive regulation is mindful of how the firm-regulator relationship can itself affect the motivation to comply. It recognises the constraints and opportunities of the regulator, as well as the regulatee. It is careful in how it combines different regulatory logics, for example, carrots versus sticks. Performance sensitivity requires assessing performance against objectives, and modifying tools and strategies accordingly (and perhaps even radically).

Finally, responsive regulation needs to be responsive to *changes* in objectives, priorities and circumstances. Baldwin and Black (2008, p. 75) recognise that this involves a challenge:

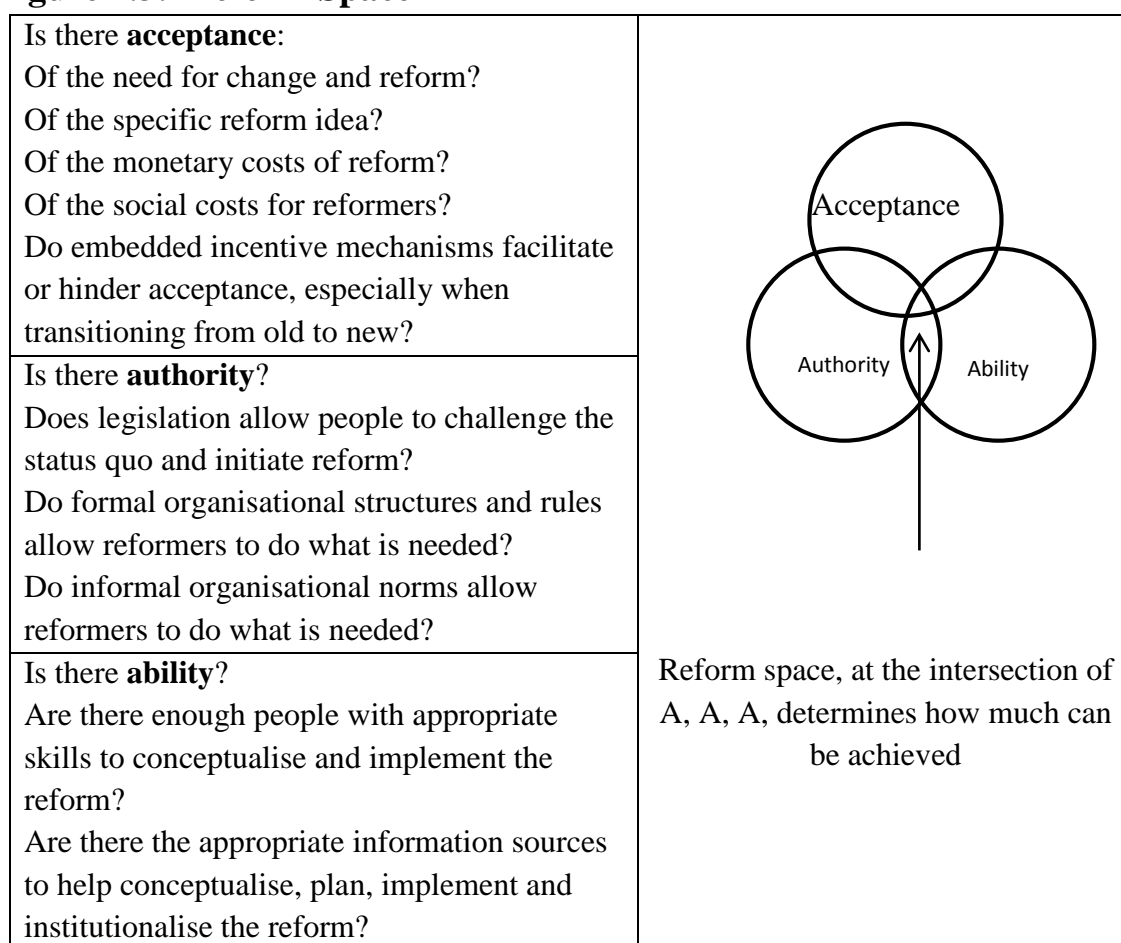
'There are real dangers that networked, smart, regulatory regimes lock their involved actors into agreed positions and approaches so that salutary reforms cannot be brought into effect. In an ideal world, conversations between networked regulatory actors might be expected to produce regulatory adjustments. In a less than ideal world, such conversations may lead to confusions, entrenched positions, and inability to respond to regulatory failures and blame shifting. What may be needed are strategies for encouraging appropriate programmes of modification'.

One such strategy is to hold *informed regulatory conversations*, which are *mediated* conversations between networked regulatory actors. The presence of a mediator who can act as an 'honest broker' can help to break through entrenched positions, not just to identify better options, but to build a consensus in favor of reform.

Informed regulatory conversations³

Andrews (2008) describes the type of environment in which reform can actually take place. He talks about ‘reform space’ as an environment in which there is *acceptance* of the need for reform, and the *authority* and *ability* to carry it out. These concepts are spelled out in **Figure 7.3**.

Figure 7.3: Reform Space



Source: Adapted from Andrews (2008), in Dee (2013c)

A series of recent studies of reform experiences in East and South Asia has shown that there is a useful role for informed regulatory conversations as a strategy to help create these conditions. Such conversations help to overcome two key impediments that can get in the way of better regulations and procedures being adopted — ignorance about better solutions, or vested interests (including those inside government).

³ This section draws on Dee (2013b).

If the problem is one of identifying better policies, then a policy review process that involves conversations with stakeholders can provide a *technical solution*, by identifying better options. This is the conventional understanding of the role of a policy review mechanism (e.g., as in a RIA). An ‘ideal’ review process is set out in **Figure 7.4**.

Figure 7.4: Elements of a Policy Review

A policy review may set out

- The problem or circumstances which give rise to the need for action
- The desired objective(s)
- The policy options (regulatory and non-regulatory) that may constitute viable means for achieving the desired objective(s)
- An assessment of the impact (costs and benefits) on consumers, business, government and the community of each option
- A consultation statement (the process and results of consultation with all stakeholders)
- A recommended option
- A strategy to implement (including consideration of appropriate enforcement mechanisms) and review the preferred option

Source: Dee (2013c).

But conducting informed regulatory conversations along these lines can also be a *strategy* for managing vested interests (including those within government) and building a coalition in favor of reform. The strategy can be helpful in a number of ways.

First, informed regulatory conversations can help set the agenda — policy change will not happen if nobody talks about it. Second, informed regulatory conversations led by an independent facilitator can also set the parameters of the debate. Vested interests typically highlight the effects of policy changes on themselves alone. Informed regulatory conversations can examine the costs and benefits of current policy settings to other stakeholders. Third, when taken out of the political arena and led by an independent facilitator, informed regulatory conversations can sometimes help to depoliticise a debate. Fourth, they can lead to at least some convergence in opinions about best ways forward, and help to build a coalition in favour of reform. A process that invites input from all interested parties can help reform champions to self-select. It also provides a forum for all groups to identify their common interests, and to agree

to cooperate in pro-reform strategies. Finally, review processes with a sufficiently broad purview can help to identify policy *combinations* under which no one is made worse off, and thus help to build a *grand coalition* in favour of reform. If such an outcome is not possible, they can at least reveal how the costs and benefits to vested interests weigh up against the costs and benefits to other stakeholders.

It is important that the conversations be facilitated by an *independent* agent. This means not only one sufficiently independent of private stakeholders. There also needs to be a certain degree of distance from government. The facilitator should not be bound by current government policy, as members of line government departments often are. In fact, line government departments are often stakeholders in their own right. Equally, the facilitator should not have an implicit stake in the regulatory *status quo*, as members from the regulatory authorities in charge of implementing current economic policy often do.

It is also important that the facilitator be able to take an *economy-wide view*. He/she needs to be able to look beyond narrow sectional interests, and be able to elicit information about the costs and benefits to all stakeholders, thereby helping to form a view about the *net* gains to the economy as a whole. It can require analytical capacity to be able to take such a broad view.

Finally, the facilitator needs to ensure that the informed regulatory conversations are conducted under conditions of *transparency*. It is not necessary for all the stakeholders to be in the same room at once. But it is important that each set of stakeholders be made aware of the views and arguments of others, so that they can give considered responses. Only under conditions of such transparency can an iterative process allow stakeholders to learn from each other, understand each other better, and converge on a common understanding about best ways forward.

Recent studies of reform experiences in East and South Asia (Dee 2010 and 2012) confirm that informed regulatory conversations have often played a role in reform success. Dee (2010) examined eight case studies of structural reforms in the East Asian region. Two case studies were from developed democracies in Japan and Australia. Four were from developing democracies in the Philippines, Indonesia, Malaysia and Thailand. Two were in developing

countries, Viet Nam and China, the central governments of which also have to manage a variety of vested interests and maintain a mandate for reform. The volume found that in each case, the reform process had been supported to a greater or lesser extent by indigenous institutions that undertook formal policy reviews or conducted informed regulatory conversations.

It is useful to look at the characteristics of those indigenous institutions in the ASEAN member countries.

Some planning agencies in the region have the attributes, skills and even the mandate to carry out policy reviews and conduct informed regulatory conversations, although it appears that none has yet exercised that mandate on a sustained basis. For example, the National Economic and Development Authority (NEDA) in the Philippines is the national and regional development plan and program coordinator among the various branches of government. The NEDA Board is a cabinet level board composed of the major government departments and is chaired by the President of the Philippines. The NEDA Secretariat provides technical and secretariat services to the various NEDA committees. It has comprehensive information on the implementation of government policies and has the capacity to comment on policies issued by government. According to Llanto (2010), NEDA has latent powers to lead the policy development process, but has not exercised these to date. Similarly, Indonesia's BAPPENAS is a traditional planning agency with the technical expertise to undertake detailed policy reviews and informed regulatory conversations. However, according to Soesastro, Aswicahyono and Narjoko (2010), it has not yet taken on a more pro-active policy review role. Malaysia is yet another economy in which the planning process could potentially be transformed into a process of *ex ante* and *ex post* policy review. In countries without formal planning mechanisms, central government agencies (such as Treasury or Finance, as opposed to line agencies such as Customs or Transport) have sometimes been successful conveners of policy review mechanisms.

Similarly, think-tanks around the region have often played an influential though indirect role in promoting structural reforms. For example, the Philippine Institute for Development Studies has produced independent policy reviews, research and analysis, which are turned over to the public domain by way of publications, seminars, workshops, and testimony on hearings arranged

by various Congressional committees, although it is currently not resourced for conducting significant public consultations. Other regional examples are the Centre for Strategic and International Studies in Indonesia, the Thailand Development Research Institute, the Fiscal Policy Research Institute in Thailand, the Malaysian Institute of Economic Research, and the Central Institute for Economic Management in Viet Nam. These organisations vary in the extent to which they sit inside or outside formal government structures and in the extent to which their contributions are used in the policy development process. But all have at least some of the characteristics of independent policy review institutions, and have performed at least some of those functions.

Additional case studies of South Asian reforms in the 1990s and early 2000s show that the strategies of holding policy reviews and conducting informed regulatory conversations can be helpful, even in difficult political circumstances. Dee (2012) concludes that only through a process of policy review and analysis, involvement of stakeholders and coalition building, were South Asian governments able to sustain any reform efforts within coalition governments that lacked a strong political base. A weakness was sometimes in the formulation and analysis of policy proposals themselves, and academics and think-tanks have sometimes been ‘missing in action’ in providing objective, independent reviews and helping to manage vested interests. But reforms nevertheless took place.

A reform program that makes provision for policy reviews and ongoing informed regulatory conversations may be relatively slow, but it is more likely to be sustainable in the longer term. This is because these strategies do not just identify reform options; they help to forge a consensus on ways forward.

Is it worth the trouble?

The economic gains from regulatory reforms are potentially huge. This can be gleaned from the results of a recent ERIA study on logistics and trade facilitation in ASEAN member countries.

Good regulation in logistics and trade facilitation requires two things. First, it requires regulations and procedures governing cross-border trade to be

efficient and *coherent*. Efficient regulation is no more burdensome than it needs to be to achieve its desired objective. Coherence requires that different regulations and procedures do not duplicate each other or work at cross purposes. Second, good performance requires those providing the various links in the logistics chain to operate efficiently. In most cases, this can be assured by making these services *contestable*.

When regulation in logistics and trade facilitation imposes an undue burden, it has adverse effects on the time cost and dollar cost of importing and exporting. The ASEAN business community is uniquely placed to identify the burdens imposed by inefficient or incoherent regulations, and has already provided ample evidence of which regulations are unduly burdensome in logistics and trade facilitation.

In the 2012 Enabling Trade report of the World Economic Forum, the CEOs of major corporations operating in ASEAN countries were asked to identify which factors were most problematic for trade. In addition to market factors (e.g., identifying potential markets) and explicit trade barriers (e.g., tariffs, NTBs, technical standards), they also identified regulatory factors in broad terms. ‘Burdensome’ import procedures were the most important factor, with 20.6 percent of respondents identifying these as problematic. Other significant burdens were high cost of delays caused by international transport (14.9%), corruption at the border (12.9%) and high cost of delays caused by domestic transport (11.7%). Note that poor regulation can also add to domestic and international transport costs, either directly, or by discouraging necessary investments in infrastructure.

ASEAN logistics services providers (LSPs) are more intimately involved in importing and exporting, and can help to ‘unpack’ the problems identified by the CEOs. In 2007, the ASEAN Secretariat supported a survey of ASEAN LSPs, in which they (a) identified a number of regulatory problems and (b) gave them a ranking of relative importance. Key items on their list are shown in **Figure 7.5** while more details are available in Dee (2013).

Figure 7.5: ‘Burden’ Defined by ASEAN Logistics Services Providers

Burdensome import procedures	Contestability of links in transport chain
<ul style="list-style-type: none">•No customs EDI•No de minimis level•Import licensing•Rate of physical inspection•No customs appeal•Customs clearance times•Customs operating hours•Discriminatory fees or inspection practices in customs•Local language used on customs documents•Etc etc	<ul style="list-style-type: none">•Restrictions on hours of truck operation•Restrictions on equity participation in logistics•Licensing restrictions in logistics•Cabotage restrictions in air transport•Restrictions on foreign aviation firms in cargo handling and warehousing•Difficulty of firing•Restrictions on customs brokerage services•Monopolised handling of port-related services•Etc etc

Source: De Souza, et al. (2007).

In the ERIA study, the negative impact of these burdensome procedures on economic performance was measured in a two-stage process. The first stage involved calculating a ‘restrictiveness’ index measuring the prevalence of these burdensome regulations, with weights reflecting the relative rankings of importance provided by the ASEAN LSPs. Econometric techniques were used to estimate the effects of this restrictiveness index on the behind-the-border dollar costs and time costs of importing and exporting, while controlling for the effects of other factors such as the availability and quality of infrastructure, trade finance, and security. The second stage of the analysis involved estimating the effects on bilateral trade volumes of behind-the-border dollar costs and time costs at both ends of the trade transaction, while controlling for other factors such as the size of the respective countries and the distance between them.

The results showed that better regulation of logistics and trade facilitation can lower the behind-the-border time and dollar costs of trade, and hence boost trade volumes. *The estimates suggested that 10 percent better customs procedures and 10 percent more contestability in the logistics chain could increase ASEAN trade volumes by just over 40 percent or about US\$ 120 billion.* The results also suggested that contestability was just as important as customs procedures, if not more so — the improvement in contestability

contributed a 25 percent gain while the improvement in customs contributed to a 15 percent gain. Thus, both dimensions of regulatory improvement are important.

Can it be done?

As part of ERIA's AEC Scorecard Phase III project, the ERIA Research Institutes Network (RIN) was asked to facilitate a series of informed regulatory conversations on a topic of their choice in the area of logistics and trade facilitation. These think-tanks have the necessary independence and analytical capacity to be effective facilitators, though they do not have the same levels of access within government that planning agencies would have. Perhaps the ideal team to undertake such exercises in the future would be think-tanks acting in cooperation with planning agencies or central government agencies.

The RIN was asked to:

- pick a service or activity;
- identify all the players involved in that activity;
- identify all the regulations affecting those players;
- for each regulation, ask the key questions in Figure 4: what problem is this regulation supposed to solve, what is the objective, is the current regulation actually delivering that objective, is there a better way (given the country's current state of development); and
- facilitate a conversation with stakeholders about these questions (often carried out in sequential fashion).

The results of these exercises are reported in detail in the country reports for the AEC Scorecard Phase III project. The country case studies demonstrated the kinds of **processes** that could begin to generate convergence among stakeholders in recognising problems and developing solutions. And they provided insights into the **content** of successful reforms. There were ten key insights of each type.

Key messages on process

1. Informed regulatory conversations can indeed generate consensus on ways forward.
2. Informed regulatory conversations can generate acknowledgement of a problem.
3. Informed regulatory conversations can identify a problem, thereby alerting it to other stakeholders.
4. On some issues, where the time available to the RIN was too short (especially when conversations were conducted sequentially), further conversations would be required to bridge the gaps.
5. On some issues, analytical capacity is required to recognise that the conversation would need to be broadened in order to deal with the fundamental causes of current problems.
6. On some issues, informed regulatory conversations would need to be conducted across different (national and local) levels of government
7. On some issues, informed regulatory conversations reveal areas where institutional mechanisms are required so that consultations can take place on an ongoing basis.
8. Informed regulatory conversations can certainly provide a forum for special pleading by vested interests, but the critical thing is that other voices are also heard.
9. Informed regulatory conversations can reveal new business opportunities for vested interests, thus easing the adjustment process.
10. Informed regulatory conversations can identify other forms of adjustment assistance that could ease the reform process.

Key messages on content

1. For reforms to be implemented, there needs to be a reform champion within government. Statutory Boards are one option for performing this function.
2. There may be the opportunity to co-opt an existing institution into a reform champion.
3. A coordinating agency is not the same thing as a champion agency, if it does not have the authority and the accountability for implementation.
4. If there is no champion agency, then there is no 'go to' place for stakeholders.

5. Strategic plans are all very well, but implementation is the key.
6. There is good news.
7. Customs is not always to blame.
8. For efficient clearance processes, Customs needs to act as a trade facilitation agency rather than as a revenue generating agency.
9. Computerisation is not always beneficial, especially if only partially implemented.
10. Poor regulation can prevent necessary infrastructure investment.

The key message for ASEAN post-2015 is that informed regulatory conversations conducted under conditions of transparency provide a forum in which stakeholders can learn from each other, understand each other better, and converge on a common understanding about best ways forward. An ASEAN forward work program on regulatory issues could therefore usefully include informed regulatory conversations. Perhaps the ideal team to undertake such exercises in the future would be think-tanks acting in cooperation with planning agencies or central government agencies.

Ways forward

Regulatory reform is primarily a domestic issue, so concerted unilateralism is a better approach than negotiation. Regulation is about the best ways of achieving domestic objectives and priorities, given domestic circumstances. In most cases, the key players are domestic — incumbent producers, potential new entrants, upstream and downstream producers, consumers, disadvantaged groups, and government ministries. The politics of resolving conflicting interests among these groups is deeply domestic. The ASEAN experience with services trade reform shows that negotiated trade commitments have tended to lag domestic reforms, rather than lead them. This is not surprising — the domestic political impediments to reform need to be removed first. The ASEAN approach to regulatory reform should recognise this reality.

The AEC Blueprint approach of setting targets and milestones has served ASEAN well in promoting concerted unilateralism, as the Mid-Term Review of the Implementation of the AEC Blueprint indicates (ERIA, 2012a). The imperative is not that each member country should do something because other member countries have requested it; the logic instead is that each member

country should show some improvement over time. APEC followed a similar approach to target-setting by having the Bogor goals. However, ASEAN has gone further than APEC by setting milestones as well as targets. This has created additional reform momentum.

A post-2015 regulatory agenda should include both targets and milestones. The key target is to have **efficient** and **coherent** regulation. Efficiency can be met by ensuring that regulation is pro-competitive, commensurate with objectives, and non-discriminatory.

Targets could also be set in numerical terms. As the ERIA empirical work on regulation in logistics and trade facilitation illustrates, there are measures of regulatory burden appropriate to any particular area of the economy, as well as measures of economic performance. Numerical targets could be specified as target measures of burden, or target measures of performance. But it needs to be remembered that efficient and coherent regulation is a moving target, because objectives, priorities and circumstances change. So any numerical target would have to be provisional.

Process matters as well as content, so the post-2015 agenda should include commitments on process. In an important sense, this is the critical milestone, because it offers a built-in action agenda by which the target can be achieved. The process should include a regular audit of the regulatory landscape, and periodic assessment of progress and impacts, but it should include more than just this desk research. The process should also include a regular series of informed regulatory conversations — to identify problems, come up with technical solutions, and help to build a consensus in favor of reform.

Milestones could also be set in numerical terms. Just as targets could be specified for particular measures of burden or performance, milestones could be specified as regular improvements in these measures over time. However, the same provisos apply to numerical milestones as to numerical targets. Further, numerical milestones do not imply an action agenda, whereas process-oriented milestones do.

With targets and milestones specified in this way, a regular (e.g, annual or biennial) report on regulatory reform would cover the results of periodic

performance assessments. Such assessments would provide guidance on where future informed regulatory conversations could usefully take place. The report would also cover the conduct and results of the informed regulatory conversations. The sectoral coverage of the audits and conversations could rotate over time.

The purpose of these reports is not for peer review by other AMSs. Rather, the key purpose is to involve the private sector in identifying and rectifying problems with the current regulatory regime, and to bridge perception gaps among national stakeholders about best ways forward. So the transparent conduct of the informed regulatory conversations and the subsequent publication of the activity report is itself the key part of the process. Being responsive to private sector views and bridging perception gaps is the best way of ensuring that progress is made towards the ultimate regulatory goals.

Chapter 8

Moving ASEAN and AEC Forward Beyond 2015: Highlights, Conclusions and Key Recommendations for the Successor AEC Blueprint post 2015

The previous chapters elaborated the four pillars and the key foundation and the proposed ways forward towards an “ASEAN Miracle” of sustained high and equitable growth during the next two decades or so. This chapter consolidates the highlights, conclusions and recommendations in the previous chapters, with emphasis on the recommendations for the Successor AEC Blueprint post 2015. The chapter ends with the possible state of the ASEAN economies by 2025 and 2030 based on the results of the baseline simulations undertaken by Itakura (2013) for the Study.

ASEAN and AEC: progress and challenges

ASEAN experienced significant economic progress and transformation during the past two and a half decades, highlighted by ASEAN’s golden decade of 1985-1996 of high economic growth and substantial structural transformation in many AMSs (especially Thailand, Singapore, Malaysia and Indonesia). After the financial and economic crises in ASEAN in 1997-1999, ASEAN had more modest GDP per capita growth during the next decade, growing by 3.7 times in nominal dollar terms and 2.1 times in PPP terms during 1998-2011. There was also significant structural transformation in a number of AMSs during the past decade or so. The structural transformation during the 1998-2011 period is seen in the significant rise in the share of industry in the CLMV countries ranging from 8 to 16 percentage points as well as by the rise in the share of services in the Philippines by around 8.8 percentage points during the same period.

The robust economic growth in the region translated into the remarkable reduction in the incidence of poverty in the region from 45 percent in 1990 to about 15.6 percent in 2010¹ and the marked reduction in the poverty gap from 14 percent to 3 percent during the same period. The sharp reduction in poverty corresponds to a substantial rise in the region's middle class, more than doubling in share from about 15 percent of total population in 1990 to about 37 percent in 2010,² (or from about 10 percent in 1990 to about 27 percent under a more stringent definition of a middle class³). There have been substantial improvements also in other social development indicators such as infant mortality rate, youth literacy rate, life expectancy, human development index, and expected children schooling completion, especially in the CLMV countries.

The past decade has also seen substantial achievements in the region's economic integration efforts towards an ASEAN Economic Community, although much remains to be done to have a fully functioning economic community in ASEAN. Intra-ASEAN CEPT rates are virtually zero for ASEAN 6, and the average CEPT for the 10 countries was a mere 0.68 percent in 2012. There have been greater investment liberalisation commitments, especially in manufacturing, under ACIA as well as expanded services liberalisation commitments under AFAS 8. The trade facilitation regime in the region has also improved, with marked improvement in import and customs clearance in CLMV, the implementation of National Single Window in 6 AMSs (albeit still incomplete in many of them except for Singapore and possibly Malaysia), and the implementation of the ASEAN HTN. Air travel regime has also been more liberalised in many AMSs under the ASEAN-X principle. There is measured progress in many other regional cooperation agreements in ASEAN. Thus, despite that there is a lot more that needs to be done, there are robust grounds for optimism towards deeper economic integration in the ASEAN.

¹ Poverty threshold used is US\$ 1.25 PPP per capita per day at 2005 prices. The 15.6 percent estimate includes Myanmar. ASEAN-7 poverty rate is 14.2 percent. Myanmar poverty figure based on national poverty line which may differ from the US\$ 1.25 PPP per day per capita at 2005 prices used for ASEAN-7 (excluding Myanmar, Singapore and Brunei Darussalam).

² Middle class is defined by income per capita per day between US\$ 3 and US\$ 12.

³ The stringent definition of middle class is defined by income per capita per day between US\$ 4 and US\$30, which approximates the METI, Japan definition.

There remain, however, significant challenges for the ASEAN region. There were still around 95 million poor people in ASEAN by late 2000s. There were still around 120 million marginally non-poor, low income people living above US\$1.25 PPP per capita per day but below US\$2 PPP per capita per day around 2010. This means that regional economic community building needs to deeply take into account the economic status of such a huge segment of the ASEAN population. In addition, the gap between rich and poor AMSs remains very large and AMSs have a mixed record on income inequality. At the same time, there is a need to improve the competitiveness of ASEAN. ASEAN needs to be more integrated, generate more economies of scale and greater depth of industrial clusters, and become more innovative in order to be more competitive vis-à-vis the large economies of China and India.

Moreover, as indicated earlier, building a fully functioning ASEAN economic community remains unfinished. Nonetheless, as one eminent ambassador to ASEAN suggested, what matters with respect to AEC is not AEC 2015 per se but that the ambition and the momentum towards a more integrated, open, competitive, dynamic and resilient region, and the attendant reform and institution building efforts, remain and continue despite the many challenges along the way. Clearly, this process goes beyond 2015.

Vision, Indicative Outcomes and Framework

The vision of our ASEAN Leaders that was well articulated in the *ASEAN vision 2020* signed in Kuala Lumpur in the face of the tremendous uncertainties of the unfolding economic crisis of 1997 remains resonant for ASEAN for the years beyond 2015 in the current unsettled global economic environment. ASEAN remains a concert of Southeast Asian nations, now more robustly growing middle income and high income countries. ASEAN aims to be an economic community of dynamic development and that is more inclusive, resilient, sustainable and people-centered. Moreover, ASEAN continues to be a strong, outward-oriented and globally connected region.

ASEAN vision 2020 animated deeper integration initiatives in the region, best expressed by the ASEAN Economic Community, the ASEAN Charter with the creation of the three Communities in the region, and the Master Plan for ASEAN Connectivity. Significant progress in ASEAN community building

gave rise to ***Bali Concord III***: Bali Declaration on ASEAN Community in a Global Community of Nations, signed on 17 November 2011. The Bali Concord III complements, amplifies, and indeed strengthens, ASEAN community building as it articulates ASEAN shared vision and coordinated action on various global concerns which they in turn impact on the progress and outcomes of ASEAN economic integration and community building efforts.

The Leaders' enduring vision and ambition of a dynamic, resilient, people-centered, inclusive, deeply integrated, and globally important ASEAN is best served by definable and high targets in order to continue to animate and sustain the momentum of the region's integration, reform, institution-building, and cooperation efforts. The Study proposes that ASEAN targets the elimination of (dire) poverty (i.e., people living below US\$ 1.25 PPP per capita per day), youth illiteracy and serious malnutrition as well as marked improvement of the region's food security capability by 2030. This calls for sustained high and equitable growth for the region's currently low income and lower middle income countries, marked improvement in the global rating and ranking of the lagging AMSs in indicators of business and investment climates and thereby generate a higher share of global FDI inflows by the early 2020s, and the successful conclusion and implementation of RCEP.

To achieve the Leaders' vision and the indicative outcomes discussed above and elaborated in Chapter 2A of this Integrative Report, the Study proposes a framework consisting of four pillars and a foundation towards the attainment of "ASEAN Miracle" of ASEAN RISING. The four pillars are similar to, evolved from, and deepen the four pillars of the AEC Blueprint: i.e., "Integrated and Highly Contestable ASEAN", "Competitive and Dynamic ASEAN", "Inclusive and Resilient ASEAN" and "Global ASEAN". In addition, the proposed framework includes "Responsive ASEAN" as the strong foundation of the four pillars. To a large extent, the Study's proposed framework and this Integrative Report explicate, build on, and deepen the *Jakarta Framework on Moving ASEAN and AEC Forward Beyond 2015* that ERIA, together with the ASEAN Secretary General, presented to ASEAN Leaders through H.E. President Yudhoyono during the ASEAN Summit in Bali in November 2011.

Note that the four pillars are not independent of each other; in fact, they are highly interrelated. Thus, a key challenge for AMSs and ASEAN is to find that balance and virtuous cycle among them, given that the measures needed to realise the four pillars are not easy at all. And precisely because the measures are tough, each AMS and ASEAN need to be responsive, bringing in the various stakeholders in the process of regulatory improvement and institution building needed to effect the ASEAN Miracle.

An integrated and highly contestable region (Pillar 1) with robustly growing, expanding and increasingly innovative industrial clusters (Pillar 2) linked more to a vast and robustly growing East Asia arising from a successful RCEP (Pillar 4) and operating under much more improved investment climate and responsive regulatory regime (Responsive ASEAN) can be expected to entice a much larger investment response and engender greater competitiveness in both domestic and foreign markets. This would lead to a markedly higher foreign trade, and ultimately, to higher economic growth and eventual elimination of poverty. Robust agricultural productivity growth, growing SMEs, greater physical connectivity between peripheries and growth centres, the drive for energy efficiency and green development, and greater disaster resiliency (which are all part of Pillar 3) also contribute to greater competitiveness, investment attractiveness, and dynamism of ASEAN (Pillar 2). Such greater competitiveness and dynamism is quantitatively expressed in terms of the increased share of ASEAN to the total FDI, trade and GDP envisioned in the previous sub-section. Thus, the implementation of the four pillars and foundation that comprise the proposed framework can be expected to lead to the attainment of the proposed desired indicative outcomes presented in the previous sub-section.

It is also worth noting that the four pillars are shaped by the following key premises; namely:

- Competitive industries and private sector dynamism is the core of ASEAN economic growth and development.
- Balanced and inclusive growth should be pursued primarily through dynamic economic forces, rather than primarily through income redistribution and social policies.

- The pursuit of resilient and green development brings out the complementarity among green growth, energy security and food security.
- ASEAN centrality should be kept in a dynamic pro-active diplomacy.

Pillar 1: Integrated and Highly Contestable ASEAN

Note that the pillar is expressedly not titled “Single Market and Production Base” because the latter has unnecessarily created alarm bells about AEC 2015 and much greater focus on liberalisation. The proposed Pillar 1 reframes “single market and production base” in the context of production networks-driven development and integration strategy. “Single market” is made compatible with diversified development stages among AMSs: this means “single market” remains a long term goal; a highly contestable market and integrated ASEAN is one great step towards it. A highly contestable market is one where there is relative ease in the entry and exit of goods and services (in the product market) and/or entry and exit of firms (for investments and operations in goods and services industries). The extreme form of highly contestable markets is “single market and economy” where there is free flow of goods, services, labour, and capital⁴. In the transition, priority is given to integration efforts to realise “*integrated production base*” or seamless production networks, with greater emphasis on *institutional connectivity*, *physical connectivity*, and *convergence of regulatory systems* to reduce service link costs.

In order that ASEAN becomes an even more competitive platform for regional production networks, a central element of Pillar 2 of the proposed framework, ASEAN needs to be more deeply integrated in terms of seamless trade facilitation, harmonisation of standards and facilitative conformance, greater connectivity and better transport facilitation, greater mobility of skilled labour, etc. in addition to highly contestable services and investment and non-protective NTMs. While there has been progress in many of them, much remains to be done. Indeed, the more difficult ones remain to be done beyond 2015. The reframing from “single market and production base” to “integrated

⁴ Given its popular usage in ASEAN, “single market and production base” may still be used but liberally interpreted as “integrated and highly contestable” in the transition.

and highly contestable ASEAN” shifts reference point from the European Union (the exemplar of single market and production base) to China and India as major competitors cum complements in trade and investment. Moreover, the reference frame is less ideological (i.e, “free flow...”) and more dynamically policy relevant in fast changing East Asia

In support of an integrated and highly contestable ASEAN, the following are the key recommendations culled from the previous chapters of the Report on various elements of Pillar 1 for the Successor AEC Blueprint post 2015:

1. Non-Tariff Measures and Non-Tariff Barriers

With the virtual elimination of tariffs, what is becoming a growing policy concern are the non-tariff measures (NTMs) since they have the potential to be measures for trade protection and thus become non-tariff barriers (NTBs). NTMs are much less transparent and more complex, covering a wide range of regulations that can have impact on the volume or pricing of international trade in goods. Said impact of the NTMs could have been unintentional or meant intentionally. Most NTMs actually have primary objectives meant for health, food or environmental safety and not for trade protection. Thus, the challenge is to ensure that such NTMs do not unnecessarily affect international trade adversely and/or become NTBs. This therefore constitutes a basis for the prioritisation of NTMs for review and streamlining.

The following are the key recommendations on addressing NTMs moving forward beyond 2015:

- a. ***Institutionalised consultation mechanism*** --- As economic integration and trade linkages deepen in ASEAN, there could be more cases that need to be resolved. Thus, ASEAN may need to establish a more continuing body than the current “Matrix of Cases” to look into these or to fully operationalise the ASEAN Consultation to Solve Trade and Investment Issues (ACT);
- b. ***Effective monitoring and transparency mechanism on NTMs---*** ASEAN can push for the global implementation of the new multilateral classification of NTMs as springboard for an exhaustive

inventory of NTMs in the region. This can then form part of the ASEAN Trade Repository in each AMS;

- c. ***Analysis of NTMs for streamlining prioritisation***---while the Matrix of Cases and NTM monitoring based on private sector feedback are possible approaches in the prioritisation of NTMs for streamlining, a more systematic approach is the statistical analysis cum case study on key industries which can indicate what NTMs have serious price-increasing impact in which industry. The results of such kind of analysis, together with case studies and private sector consultation, will provide the basis for determining which industries and which NTMs need to be given priority for possible streamlining;
- d. ***Addressing technical barriers to trade (TBTs) and SPSs***---this is addressed by ASEAN through its standards and conformance program and through the ASEAN Consultative Committee on Standards and Quality (ACCSQ); and
- e. ***NTM streamlining as a concerted domestic regulatory reform***—at the national level, NTMs may best be viewed not from a trade negotiation point of view but from a better regulation perspective. Streamlining NTMs therefore is really about minimising the cost of compliance by the private sector while the benefits from NTMs are achieved. Hence, the review of NTMs involves looking at the balance of benefits from NTMs *vis-a-vis* the cost of complying with them. It is assumed that there is sufficient analytic support in the AMSs to undertake said review. In the absence of such, though, there is need for capacity building and technical training to develop such capability to do a robust review and streamlining.

2. Trade facilitation and logistics

Efficient trade facilitation and logistics is absolutely necessary for a seamless production base and integrated ASEAN and is critical for competitive and well performing regional production networks. Results of the ERIA survey in 2011 reveal that the premier concern of the private sector in the region is trade facilitation and logistics. The two key components of ASEAN's trade facilitation program are the

establishment of (a) the ASEAN Trade Facilitation Repository, and (b) the ASEAN Single Window, both of which have corresponding national level initiatives. The full implementation of the two major initiatives can perhaps be described in terms of key components such as transparent and interactive repository of trade-related regulations and procedures; e-customs; e-permits (or e-certificates, etc.), and a single window.

The results of the ERIA survey of the private sector as part of the Mid-Term Review of the Implementation of the AEC Blueprint provide some indication of the important “to dos” in the short term. The results of the ERIA survey include the following (ERIA, 2012a, Vol 1, pp. IV-16-17):

- Strong support for an effective advanced ruling system to obtain binding rules
- A very considerable percentage of respondents in a number of AMSs view that irregular and arbitrary payments are often required to expedite release of goods from customs.
- Most of the respondents consider that computerisation and automation of customs and trade procedures have noticeably reduced average time of clearance.

The above results point to the importance of implementing *advanced ruling system, elimination of irregular and arbitrary payments, and the acceleration of the implementation of e-customs, e-payments, and the National Single Window to all AMSs*. Note that the process of the implementation of the National Single Window includes the *streamlining of business processes (including those of trade related agencies) and reduction of documentary requirements* (especially paper based), both of which can reduce further the time needed to import or export goods. Equally important is the institution of an *effective and efficient risk management system that helps reduce substantially the rate of physical inspection of goods*. Large number of documents and relatively high physical inspection rates are two important contributors to comparatively long period of time of import/export and customs clearance in some AMSs such as Lao PDR and Myanmar. The full implementation of the National and ASEAN Trade Repositories can be expected to reduce conflicts in interpretation of rules and regulations and

thereby reduce uncertainty, time spent, and likely the incidence of improper payment, in importing and exporting.

In addition to the above and more broadly, the ways forward towards a seamless trade facilitation regime in ASEAN include:

a) ***standardisation of procedures***---it is necessary to strengthen and standardise existing NSWs that are at different levels of development and expedite their development;

b) ***online payments***---online payment mechanisms through debit cards and credit cards should ideally not only be used for customs and tax/tariff payments but also for issuing licenses in technical control government agencies;

c) ***digitalisation of back-office /support documentation***---efforts invested in creating facilitation tools will be less appreciated if control agencies continue to maintain documents in physical form in various parts of the country instead of in a handy digitalised manner. The role of ICT in automating the entire process is important; and

d) ***digitalisation of support documents***--- documents should be digitalised in order for them to easily be shared, eventually leading to reductions in transaction costs.

e) ***passing of e-commerce legislation***—this will allow all investments in ICT by the AMSs to be fully reaped. The legislation has to include digital signature, digital documentary proof and clear liabilities on the proper way to handle electronic documents;

f) ***adoption of integrated risk management border controls to ensure cross border compliance***---this would allow for detailed controls of types of cargo and traders mobilising cargo in the region. This would likewise allow for all possible risks inherent to a shipment to be analysed;

In many ways, the above mentioned recommendations reflect the full roll-out of the National Single Windows in all (the major ports and airports at least) of the AMSs as well as the widening of the scope of the ASEAN Single Window beyond what is in the pilot project. Indeed, a

well performing ASW would call for the widening of the scope of the current ASW project to more stakeholders and more documents to all the AMSs as well as an effective legal framework for ASW.

In addition, the following are also recommended:

g) ***encouragement of use of pre-clearance and pre-certification programs***---this is to decrease congestion in wet and dry ports and allow for a more expedited physical movement of cargo. At the same time, having the needed information submitted to granting local authorities in advance will allow for a better risk assessment and compliance. In addition, implementation of advanced rulings can help minimize disputes such as on tariff classification for example. Relatedly, it would be important to streamline COO (certificates of origin) processes, including possibly the implementation of self-certification where feasible.

h) ***private sector involvement***—wherein a regular consultation or forum for public-private sector engagement should be held both at the national and regional levels through the creation of steering and technical committees for single windows;

i) ***physical infrastructure readiness***—this refers to the presence/availability of road, air and port infrastructure to expedite movement of cargo. Thus, for example, in border crossings between AMSs, the long truck queues arising from inadequate infrastructure is in fact one of the major complaints of the private sector. Improved infrastructure for effective implementation of NSW/ASW and customs clearance especially at the border included reliable electricity and backups to eliminate downtime as well as wider roads and more queue lanes at border posts.

3. Standards and conformance

Next to trade facilitation and logistics, the private sector respondents to an ERIA survey consider *standards and conformance* (S&C) the second most important area that should be implemented for AEC. This is because firms incur costs to meet technical regulations or standards and/or get conformity certifications in order to export to another country.

ASEAN is equally cognisant of the importance of the issues surrounding standards, technical regulations, and conformance assessment for a well performing AEC. As noted earlier, the majority of NTMs are in technical barriers to trade and SPS.

The process of harmonisation of national standards to international standards, practices and guides, the harmonisation of mandatory technical requirements and technical regulations, as well as the harmonisation of conformity assessment procedures is a complex, long and continuing process. Thus, ASEAN work on standards and conformance will run well beyond 2015.

Recommendations for the Successor AEC Blueprint post 2015 include:

- a) ***Add resources to deliver results***— Given the vital importance of standards and conformance (S & C) for AEC and given its complexity, it is important to put in more resources on S&C in order to deliver results. In particular, it is important to beef up the manpower and staff complement in the area of S&C at the ASEAN Secretariat. A ***High Level Task Force on Standards and Conformance***, possibly aligned with the High Level Task Force on Economic Integration, is proposed to help develop vision and strategies and raise policy profile for a facilitative S & C towards an integrated and highly contestable ASEAN

- b) ***Complete S&C in, and broaden out from, the Priority Integration Sectors***---ASEAN's decision to focus first on the Priority Integration Sectors allowed for a more effective utilisation of ASEAN limited resources and is delivering results. Much remains to be done in order to fully address the S&C bottlenecks in the priority sectors. Nonetheless, success in the priority sectors can serve as basis in broadening the S&C initiatives beyond the priority integration sectors. In expanding the sectoral coverage of S&C initiatives, one key question is whether to follow a similar approach as in the priority sectors or is it better to undertake "horizontal

measures” such as the creation of an **ASEAN product safety regulatory framework**;

- c) ***Identify and address the priority barriers***---having an external review of the barriers and potential economic benefits on addressing these barriers would be useful in order to determine the barriers that need to be prioritised. A common methodology in doing the review could be adopted and this may also serve as a mechanism to engage the private sector in the process;
- d) ***Maximise the benefits of engagement with the private sector***--The extent of private sector engagement in the AEC process is mixed. In S&C, the private sector is actively involved in some product working groups but not in others. SMEs also tend to be underrepresented. It is thus important to give more emphasis to greater engagement with the private sector in terms of information exchange, and developing mechanisms for feedback and support for the process;
- e) ***Define and communicate the benefits from AEC***---aside from defining the benefits from AEC on the whole, it is useful to define the benefits from standards and conformance (S&C) initiatives that lead to regulatory convergence and alignment of regulations and standards across ASEAN. The implied investment in data collection, analysis and dissemination of research results is to convince manufacturers and suppliers of the benefits of adhering to the standards and conformance initiatives. ; and
- f) ***Strengthen cooperation in capacity building***—the more developed economies need to bring the lesser developed economies on board the whole process so that the divide between them and the late developers does not deepen.

4. **Highly Contestable Markets in Services**

Simulation results indicate that reducing barriers to services investment and trade in ASEAN provides substantial potential benefit to AMSs. Moreover, modern services are the glue of production networks and value chains; e.g., logistics and transportation, telecommunications, finance. Moving up the value chain involves greater usage of high quality services embodied in production and increasingly outsourced domestically or internationally.

Given the importance of an efficient service sector in order to have a competitive goods sector and overall economy as well as for industrial and value chain upgrading, the policy implications include (a) the promotion of contestability in the service sector (including anti-monopoly measures), (b) the need for equal access to services, (c) transparency and greater participation of wider stakeholders; and (d) smart regulation to address market failures in the sector.

Moving forward into 2015 and beyond involves:

- a. Deepen and widen further the scope of services liberalisation beyond AFAS 8 (e.g., AFAS 10);
- b. More prudent application of the 15 percent flexibility (and reduction in the flexibility percentage beyond 2015);
- c. Minimize other MA and NT limitations;
- d. Preference should be given to the greater contestability in the connectivity- important services industries.

Financial services

A more measured and cautious approach to financial integration in the region is warranted. More integrated financial markets enhance efficiency and innovation in the provision of financial services within a country, provide greater venue for better allocation of investments within the region and entice more investments within the region. However, there are significant risks to financial integration, given the wide range of prudential regulatory capability and regimes among AMSs as well as the inadequacy of the region's financial stability infrastructure.

Despite mixed performance of AMSs in financial services liberalisation, ABIF aims for banking integration by 2020. Banking integration is more than banking liberalisation; it also includes cooperation and coordination. This reflects the importance of prudential aspects in banking as well as the wide gap in financial stability infrastructure among AMSs especially with BCLMV. Prudence is also called for because AMSs are increasingly interrelated resulting in business cycle synchronisation. This also calls for greater macroeconomic policy coordination in ASEAN.

Learning from lessons from EU, ASEAN has more cautious approach to banking integration with a greater focus on harmonisation of principles of prudential regulations, building financial stability infrastructure, capacity building for BCLMV, and market access for ASEAN Qualified Banks, likely initially for their subsidiaries and then branches.

Thus, the key recommendations for financial services in ASEAN post 2015 include the following (from Wihardja, 2013):

- a) ***Build the financial stability infrastructure to contain systemic risk and contagion effects after integration.*** This includes regional macro-prudential monitoring and surveillance (under AMRO), regional crisis management protocol, regional payment and settlement system, regional financial safety net (under CMIM now), legal system to protect property rights, and possibly automatic exchanges of tax information among the AMSs.
- b) ***Harmonise prudential regulations among AMSs.*** Despite being potential entry barrier, strong prudential regulations are a *sine qua non* to a robust and open financial sector.
- c) ***Capacity building is very important.*** This is especially so for BCLMV countries where regulatory gaps are substantial.
- d) ***Greater macroeconomic coordination within ASEAN and within ASEAN + 3 (China, Japan and Korea).***

e) *Intensive study on various aspects of ABIF and regional financial integration.* In view of the risks and rewards of deeper financial linkages within the region, it is important to examine the benefits, opportunities, costs and risks of the implementation of ASEAN Banking Integration Framework (ABIF).

5. Investment Liberalisation and Competition Policy

High investment rate is critical to the attainment of the target high economic growth in the Report. ASEAN remains dependent on large inflows of foreign direct investment in order for the region to strengthen its competitive footing and improve its technological upgrading in an increasingly competitive global market. This means that the region needs to maintain, and indeed improve, its investment climate. A more liberalised investment policy regime can be expected to improve further the investment climate in the region.

The way forward for investment liberalisation is relatively straightforward—to *continue the phased liberalisation process under ACIA*. Assuming strong political will and overall thrust among AMSs, the self-selection modality with the elimination or improvement of investment restrictions and impediments, together with clear guidelines for Component 1 and the institution of a CCI Peer Review Mechanism, is a robust and innovative way of forging ahead with the elimination of investment restrictions/impediments or the diminution of the scope and degree of the investment restrictions/impediments.

The ERIA Mid-Term Review of the implementation of the AEC Blueprint also recommended the setting up of guidelines on what can be included in the minimum investment restrictions/impediments under Component 2, and the institution of a third party monitor and resource, preferably the ASEAN Secretariat with possible analytic support from institutions like ERIA and the ERIA RIN members. It is well worth that such efforts, meant for AEC 2015, need to be continued and refined where needed in order to push ahead with the further phased liberalisation of the investment regime in the region.

6. Competition Policy

This is an important complement to the liberalisation and facilitation initiatives. Competition policy becomes more relevant in an increasingly integrated ASEAN not just with respect to practices in the domestic market but also to those that are transnational. The fundamental goal of competition policy is to ensure a level playing field for all firms, both domestic and foreign.

The recommended actions on competition policy beyond 2015 include the following:

- a) ***Implementation of competition law.*** AMSs without competition laws by 2015 need to be encouraged and provided technical support.
- b) ***Capacity building.*** More formal and institutionalised approach to capacity building needs to be considered.
- c) ***Peer review of competition policy.*** Given fairly uneven enforcement performance of competition authorities in ASEAN, it is worthwhile to undertake peer review of the competition law and policy in order to improve them further.
- d) ***Enforcement cooperation arrangements.*** With deeper economic integration, it is important to further strengthen cooperation on enforcement including general information exchange, case handling guidelines and joint investigations.
- e) ***Competitive neutrality review and implementation.*** As ASEAN deepens its economic integration, it is suggested that ASEAN undertakes or commissions a study towards competitive neutrality on issues like government issued financial guarantees, state aids or subsidies to firms (state owned enterprises or government linked corporations), and government procurement.
- f) ***Anti-dumping and regulatory governance.*** A review of the anti-dumping cases in ASEAN and the potential conflict between

competition policy (which focuses on consumer welfare) and anti-dumping policy (which focuses on firms) may need to be undertaken. There is also a need to study the impact of government regulations like price controls on competition.

7. Mobility of Skilled labour

The AEC Blueprint includes “Free Flow of Skilled Labour” as part of the single market and production base pillar. However, the measures in the Blueprint are suggestive more of “managed flow of skilled labour”. As such, it is best to look at mobility of skilled labour as primarily for enhanced competitiveness of ASEAN (e.g., through skills complementarity) and, perhaps more importantly as a major element of people to people connectivity, and therefore form part of Connected ASEAN discussed below.

To move forward beyond 2015, the following measures are recommended:

- a. ***Encourage more effective cooperation among tertiary institutions and facilitate exchange of students and staff.*** The use of the English language may facilitate student and staff exchanges. At the same time, ASEAN may consider programs like Europe’s Erasmus Programme and Bologna Process where, respectively, tertiary students spend some time in another regional country with transferability of course credits, etc, and where a system of comparable degree and credits is adopted.
- b. ***Liberalise and facilitate entry and employment of ASEAN professionals and skilled workers.*** Among the measures relating to this would be the facilitation of issuance of visas, employment permits for professionals and skilled workers, transparency on the legal and policy restrictions governing employment, creation of an ASEAN skills recognition framework, improvement of information networks on employment opportunities, and portability of social security benefits.

- c. ***Build ASEAN centres of excellence.*** With mutual recognition of qualifications and freer movement of professionals and skilled labour, ASEAN should look into developing centres of excellence and hubs for various services and sub-sectors in different countries.
- d. ***More effective implementation of MRAs.*** The ASEAN equivalence of the EU Professional Card for some ASEAN professions may be explored.
- e. ***Need to change mindset about skilled labour mobility.***
This would entail looking at skilled labour mobility as having a more synergistic effect on domestic pool of talents.

8. Connected ASEAN

Connectivity is central to an integrated and competitive ASEAN as a production base and to a more unified ASEAN market. ASEAN has thereupon developed a Master Plan on ASEAN Connectivity (MPAC) with a three-pronged strategy of having enhanced physical infrastructure development for physical connectivity, effective institutions, mechanisms and processes for institutional connectivity, and empowered people for people-to-people connectivity. The measures on trade facilitation, streamlining of non-tariff measures and engendering a more facilitative S&C regime all enhance institutional connectivity within ASEAN. ASEAN is enhancing physical connectivity within the region through the ASEAN transport facilitation agreements and through concerted efforts at improving transport infrastructure in the region (e.g., the ASEAN Highway Network; Singapore-Kunming Railway Line).

ASEAN has clear strategic actions to develop ASEAN physical connectivity through the ASEAN Strategic Transport Plan (ASTP) and the Master Plan on ASEAN Connectivity (MPAC). The challenge into 2015 and beyond for physical connectivity is essentially one of implementation. Thus, for example, it is important to have the signing of Protocol 2 to operationalise the AFAFGIT and AFAFIST, the two major land transportation facilitation agreements, preferably by 2015 at the latest. RIATS is now operative under ASEAN – X; however, without

Indonesia in it, air connectivity within ASEAN under RIATS is far from complete. Thus, the challenge is how to improve the political economy in Indonesia to allow the country to join RIATS, preferably by 2015. Meanwhile, the full implementation of SKRL can be expected to go beyond 2015.

Pillar 2: Competitive and Dynamic ASEAN

Plugging ASEAN deeply into the networked and innovation world future is the core of ASEAN's drive to be competitive and dynamic. Note though that some AMSs have been plugged into the networked world embodied in production networks and supply chains unleashed by what Robert Baldwin calls the 2nd unbundling. Note also that Baldwin dates the emergence of the 2nd unbundling during 1985-1995, precisely ASEAN's golden decade of high growth and significant economic transformation. Yes, ASEAN and China and Mexico have been very much the exemplars for the developing world of regional production networks and 2nd unbundling.

The 2nd unbundling and production networks are a catalyst for industrialisation; the challenge is to ensure that it does not become an "enclave industrialisation" with dual economies. The implementation of the AEC Blueprint measures and the measures suggested in this Report help prevent that to happen. Indeed, the measures under Pillar 1 for an integrated and contestable ASEAN as well as under the MPAC help AMSs join and grow with the regional production networks. At the same time, efforts to develop clusters and deepen the technological capability of AMSs deepen AMSs participation in and generate more benefits from production networks.

Thus, in many ways, the AEC Blueprint is a facilitator of industrial development in ASEAN and not only an enabler of regional integration.

Plugging many more AMS more deeply into the regional production networks includes deepening the capacity of AMSs in engaging in more commodities and more deeply through more robust industrial clusters or districts in each AMS and between such clusters among AMSs and the rest of East Asia. There are many lessons from the success stories of industrial clusters in ASEAN and China that can be adapted to more areas and countries in ASEAN. This may

also involve the development and implementation of a well-crafted cluster based industrial strategy in the ASEAN member states.

Thus for example, successful ASEAN clusters are leading MNC-driven; export oriented; have very good to excellent infrastructure; actively encourage inter-firm linkages and transmission of tacit knowledge, technical advice and support to local firms; and have advanced training institutes or specialised training programs. The successful Chinese clusters are characterised by export orientation, aggressive pursuit of foreign direct investment, very good to excellent infrastructure, and strong local government support on skill formation, quality assurance and innovation.

Technology transfer, adaptation and innovation are also very important for competitiveness and dynamic development. At the micro level, studies in ASEAN indicate that face to face contacts among engineers of partner firms facilitate more technology transfer than supplier audits and training. In addition, local firms which cater to foreign buyers, with joint ventures with MNCs, or invest more in research and development tend to undertake more process and product improvements than other kinds of firms. At the macro level, Singapore's successful experience highlights the importance of effective policy mechanisms to promote technology transfer and innovation (through FDI, licensing, joint ventures, as well as joint cooperation and development in research and innovation of local institutions with foreign and domestic enterprises), protection of intellectual property rights, and promotion of competition. Human capital development and increased investment in R & D are also critical moving forward, to provide a firmer and sounder base for innovation and creativity.

Drawing from the above, the key recommendations towards a competitive and dynamic ASEAN (Pillar 2) beyond 2015 and for the Successor AEC Blueprint post 2015 include:

- a) ***Undertake a regional cooperation program on industrial upgrading and clustering, together with the + 3 countries (China, Japan and Korea)***, to engender learning and partnership on areas like local government support programs in quality assurance, branding, and skills development; industrial cluster design, development and implementation (that includes prioritisation, linkages, specifics on

policy/regulatory/institutional issues, workforce development, and supply chain improvements, etc.), technology transfer programs, etc..

- b) Encourage more local firms to invest in R & D and raise substantially the investment rate in R & D nationally in most AMSs.*** As the Machikita-Ueki paper indicates, technology transfer, and product and process innovation is greater in local firms that undertake R & D. Moreover, moving up the technology ladder entails that firms and the government invest more in R & D,.
- c) Government facilitation programs where MNCs transfer technologies to selected local firms as future suppliers or sub-contractors*** through fiscal incentives to the firms and co-financing cost of technical experts. These will help local firms upgrade to meet the MNCs' quality standards and become innovative themselves. This is akin to Local Upgrading Programs such as Singapore's.
- d) Strengthen “visible and invisible colleges” for skill formation, human capital, and entrepreneurship.*** This calls for strengthening the quality of, and university-industry collaboration on, formal education especially in the technical, engineering and science areas. It also calls for the strengthening of network cohesion, encouragement of greater “shop-floor” or company skill formation, and establishment of institutionalised mechanisms for human capital development-based technology transfer such as the Penang Skills Development Center or the advanced technical training institutes that Singapore established with the cooperation of Japan, Germany and France in the 1980s.
- e) Improve the policy and institutional environment for technology transfer, adaptation and innovation.*** This includes some government co-funding support (with the private sector) for the establishment of specialised research institutes and training programs. It also includes strong intellectual property rights protection. Indeed, the results of the WIPO-ASEAN study indicate “more effective means to stop infringement” is a significant

determinant in the decision to apply for patents, trademarks or industrial design, while “streamlined and more efficient application procedures” were significant only for trademarks.

f) Many of the recommendations on IPR in the Mid-Term Review of the Implementation of the AEC Blueprint (ERIA, 2012a, Vol. II) are also relevant here for stronger regional cooperation towards improved facilitation and policy on IPR matters; to wit:

- a. Fully implement the ASEAN IPR Action Plan*
- b. Introduce special treatment for SMEs to enhance local innovation (e.g., expedited examination and discounted fee)*
- c. Continue cooperation in drafting legislation and enforcement procedures in IPR*
- d. Introduce numerical targets to monitor the administration quality; e.g., turnaround time in patents*
- e. Accelerate accession to key global IP conventions*
- f. Review existing legislation to enhance collaborative inventions and the local participation in them*
- g. Compile IPR-related data at the regional level in a comparable manner*
- h. Strengthen cooperation in dissemination to and engagement with stakeholders on IPR matters*

g) Strengthen supportive policy and institutional environment for investment and business operations. This includes a wide range of areas that are measures for an integrated and highly contestable ASEAN discussed in the previous chapter. This also implies greater ease of doing business and more responsive regulatory regime (discussed in Chapter 7 of the Report). A complementary aggressive pursuit of FDI is also important.

h) Facilitate greater mobility of skilled personnel (e.g. engineers) and scientists

i) Strengthen regional cooperation to build R & D infrastructure for the region and AMSs; e.g., AUN-SEEDS

j) Engender a liberal research environment and encourage greater public-private collaboration in R & D

Pillar 3: Inclusive and Resilient ASEAN

Inclusive and Resilient ASEAN pillar is similar to, but goes beyond, Pillar 3 of the AEC Blueprint “towards a region of equitable economic development”. The Study focuses on a few important areas related to inclusiveness and resiliency in ASEAN; namely, linking peripheries to growth centres and narrowing development gap, improving policy regime for SME development, raising agricultural productivity and improving AMSs food security robustness, the complementarity of energy efficiency, green energy, energy security and food security, and promoting social safety nets and disaster management.

The first is geographic inclusiveness where peripheral regions or countries are linked more with growth centres and engender growth in the peripheries themselves. Connectivity, and with it infrastructure, is critical to geographic inclusiveness. Using public private partnership (PPP) for the more bankable projects in the growth rates would allow resources to be freed for use for the less bankable infrastructures involving peripheral areas, and thereby bring them closer to the growth centres. The Report discusses issues and proposes recommendations related to engendering PPP in the region, as listed below.

Among AMSs, inclusiveness has been couched in terms of narrowing the development gaps between the hitherto poorer new ASEAN members and the richer old members. CLV countries have been the star growth performers in ASEAN during the past one and a half decades; the Myanmar Comprehensive Development Vision discussed in the Report has the potential of ensuring Myanmar to be ASEAN’s star growth performer during the next decade or so.

SME development is one key strategy in Pillar 3 of the AEC Blueprint. SMEs dominate the economic landscape in all AMS. Naturally, a competitive and dynamic ASEAN necessitates competitive and dynamic SMEs. Additionally, as dominant employment creators in most AMSs, a robustly growing SME sector is needed for robust employment growth, a critical means towards

inclusive growth. Thus, the importance of a supportive policy environment for SMEs in ASEAN. ERIA, together with the ASEAN SME Working Group and OECD, developed the ASEAN SME Policy Index based on a wide range of policy areas. The initial results of the ERIA Study suggest that there is so much more that needs to be done to really have a supportive SME policy environment in most AMSs, especially in CLM countries. Ironically, Singapore and to some extent Malaysia, two of the three richest AMSs, lead the AMSs towards the best practice regime for SMEs.

Agriculture and food security are equally important concerns for inclusive growth and resiliency in ASEAN. Agricultural development, primarily from productivity growth, remains an important driver of growth for CLM countries in the near future.

The continuing transformation of ASEAN and Asian food consumption, marketing and production offers both challenges and opportunities not only for CLM countries but also for other AMSs with sizeable agriculture sector such as Indonesia, the Philippines, Malaysia, Thailand and Viet Nam.

Greater emphasis on productivity enhancing investments, a trade regime and code of behaviour among importing and exporting countries to prevent sharp price volatility for basic food crop like rice, and greater access to and more certain land tenurial rights for countries like Myanmar augur well to a more inclusive and resilient agricultural development path in the region.

And food security is a Leaders' main concern especially after the 2007-2008 global food crisis. The malnutrition rates and the Rice Bowl Index indicate that a number of AMSs are very much food insecure and the capabilities to address food security remain significantly constrained in many AMSs. The Study proposes the institutionalisation of the Rice Bowl Index as a mechanism to determine each AMS's capability to address food security concerns.

Energy demand will grow markedly in ASEAN and East Asia in the next two decades, as the region becomes the growth driver of the world. A smart set of energy strategies and policies in ASEAN and East Asia can lead to more resilient and green ASEAN while, at the same time, raising growth prospects within the region and the world as well as contributing to improved climate

change scenarios. That smart set of strategies and policies include energy efficiency, expanded use of renewable energy like solar especially in island economies, institution of incentives for use of clean coal technology or CCT like Japan's BOCM, and the operationalisation of the ASEAN Petroleum Security Agreement.

Most of the above contribute to Greener ASEAN which would help in the long term to the region's food security and social equity since the region is very vulnerable to extreme weather disturbances that tend to hit the poor hardest as exemplified by Super Typhoon Haiyan that devastated Eastern Visayas of the Philippines. Super typhoon Haiyan brings out forcefully the fact that ASEAN and East Asia is the region most prone to natural disasters in the world. Super typhoon is just the latest of a string of major natural disasters during the past decade or so, such as the 2004 Indian Ocean tsunami, 2008 cyclone Nagis that devastated Myanmar, the 2008 earthquake in Sichuan, China, the 2009 earthquake in Padang, West Sumatra and the 2011 earthquake and tsunami in Japan.

Given that the region is disaster-prone, the fundamental challenge is to make the region more disaster resilient and to substantially reduce disaster losses in lives and property as well as adverse effects on the economy and the environment. Disaster risks arise when hazards interact with physical, social, economic and environmental vulnerabilities. Disaster risk reduction therefore involves understanding keenly the nature of the hazards and their interaction with the various vulnerabilities; reducing the vulnerabilities and underlying disaster risk factors; ensuring that disaster risk reduction is mainstreamed and embedded in national and local policies and programs; strengthening capacities for disaster preparedness including enhanced early warning system and for effective disaster response. The preceding constitutes the core of the Hyogo Framework for Action 2005-2015 in order to make the region more disaster resilient. In addition, it is important to strengthen complementarities among markets, government and the community such as through creative use of insurance schemes in minimising the adverse impact of disasters.

While disaster preparedness and disaster risk reduction rest a lot on national and local capacities and initiatives, there is clearly quite a bit of regional dimension to it. Indeed, ASEAN has been raising its collective efforts to cope

with the challenges, as exemplified by the establishment of ACDM, the signing of the AADMER, and the signing of the Cha-am Hua Hin Statement on EAS Disaster Management. The Cha-am Hua Hin Statement shows determination of EAS Leaders to strengthen cooperation and coordination on a wide range of areas in order to make the region more disaster resilient and the region's response to disasters more effective. The Report highlights key recommendations on the way forward into and beyond 2015 towards a more disaster resilient ASEAN and East Asia.

Finally, the Report points out that many AMSs have at best moderately effective coverage of a number of social safety net measures; e.g., unemployment benefits, old age pension, employment injury. As a number of AMSs face the problem of aging population and as AMSs become more integrated with each other and the world and therefore more vulnerable to economic shocks, the region may well examine how it would address the social safety net challenge in the future. International experience suggests that AMSs need to give emphasis on strong health insurance systems, developing effective transfer mechanisms that do not rely on labour market relationships, controlling administrative costs and modernising existing social security systems, and addressing the challenge of integrated systemic reforms in order to improve substantially the efficiency and effectiveness of social security systems. Note though that social safety nets need to be viewed as secondary to the more important strategy of engendering inclusive and dynamic economic growth towards social inclusiveness.

In view of the above, the following are the **key recommendations for the Successor AEC Blueprint post 2015 under Pillar 3 towards inclusive and resilient ASEAN:**

- a) ***Institutionalise the ASEAN SME Policy Index.*** This is a mechanism for a step by step and balanced process for consistently improving policy and institutional environment for SMEs in ASEAN. Of special interest are in the areas of technology, access to finance and easier and faster start-ups for SMEs.
- b) ***Strengthen government commitment to the PPP framework and the AMSs' capacity to select, develop and manage PPP projects.*** This is to

help address the infrastructural challenges of regional connectivity as well as national linkages of the peripheries to the growth centres. This implies, among others, the following:

- a. *AMSs invest more funds for PPP project development*, up to 5 – 10 percent of total project costs, to include the payment for expert advice as PPP projects can be complex.
 - b. For AMSs still learning the PPP ropes, *unbundle larger PPP projects into smaller and simpler projects*.
 - c. Establish a regional *ASEAN Centre of PPP Excellence* (or something similar) staffed with high calibre experts in areas like finance as a regional technical resource to provide assistance to AMSs in selecting and developing PPP projects.
 - d. Engender a *robust and enabling legal, regulatory and institutional environment* in developing and implementing efficient PPP infrastructure projects. This may call for the PPP units to have the necessary authority to move the PPP projects forward.
- c) ***Engender robust productivity driven agriculture growth*** as a major strategy to reduce poverty and narrow rural-urban divide in a number of AMSs. This involves, among others, the following:
- a. For CLM countries especially, where agriculture remains a key for rapid rural economic development, *public infrastructure, R & D, land titling, and rural credit* are very important.
 - b. For ASEAN -4, the focus is on *promotion of higher labour productivity, efficient resource allocation in agricultural production* (mainly towards high value added production), and overall price stability.
 - c. For the ASEAN region, the need for *coordinated and credible trade policy regime* and code of behaviour among importing and exporting AMSs is important to prevent sharp price volatility for basic food crop like rice, *improved supply chain connectivity* in agricultural products, and *enhanced regional cooperation in R & D, food safety and risk management strategies for farmers*.

- d) Institutionalise the *ASEAN Rice Bowl Index*, as a mechanism to determine each AMS's capability to address food security concerns.
- e) Towards *energy security and green ASEAN*, ASEAN and EAS need to prioritise the encouragement of energy saving and low carbon technologies as well as renewable energy. This entails, among others, the following:
 - a. Foster *policies supportive of renewable energy* and set targets accordingly. Policies can include the Feed-in-Tariff (FIT), renewable portfolio standards (RPS), and incentives for RE technology development.
 - b. *Develop framework to support the deployment and utilisation of efficient and low carbon technologies*, and call for international support to ensure ASEAN access to mechanisms that foster low carbon technologies more affordably. An example of a mechanism is the bilateral off set mechanism (BOCM) of Japan.
 - c. *Promote the use of biofuels for transportation*. This include ensuring free trade in biofuels within the region and investment in R & D on third-generation biofuels.
 - d. *Empower ASCOPE*, including the provision of funding, to implement the new ASEAN Petroleum Security Agreement.
- f) On *disaster management*, it is proposed for ASEAN to:
 - a. Strengthen further the (a) operationalisation of regional cooperation in disaster reduction and emergency response in the region, (b) networking and sharing of best practices, experiences and operational manuals among specialists, responders and practitioners, and (c) operationalisation and enhancement of standard operating procedures for greater compatibility and effectiveness in disaster response.
 - b. Accelerate national efforts in ASEAN to integrate disaster risk reduction in national policies and programs and to strengthen national and local capacity in disaster management in AMSs.

- c. Develop formal mechanisms to diversify aggregate disaster risks at national and regional levels and to elaborate multi-country risk pooling schemes and sources, i.e., regional fund, to cover sovereign disaster risk. Examine and implement *insurance mechanisms* at the regional level to help address the after-effects of natural disasters
- d. Establish a *regional centre for disaster risk data*, modelling and insurance. The availability of hazard maps and data is very important in enhancing risk-based pricing and identifying appropriate risk financing strategies for effective and timely disaster responses.

g) On *social protection*, focus needs to be given on

- a. Prioritisation and tiering to allow for wider coverage of population within prudent fiscal constraints.
- b. Establishing strong health insurance systems,
- c. Developing effective transfer mechanisms, and
- d. Making existing social security systems cost effective and modernised.

Pillar 4: Global ASEAN

The Global ASEAN pillar deepens further the Pillar 4 of the AEC Blueprint “Towards Full Integration to the Global Economy” to include issues of interest for ASEAN in the global community of nations.

The emphasis is on RCEP and ASEAN centrality in terms of process and substance, the tension between the need to strengthen ASEAN institutions especially the ASEAN Secretariat and the imperative of national autonomy, and where and how does ASEAN provide its voice in the international arena complementing and strengthening the voices of its member states.

The reason why RCEP is important for ASEAN is because deeper integration with East Asia matters even more: the benefits to AMSs are greater with deeper ASEAN integration with East Asia than with AEC alone. This reflects the fact that ASEAN economies are very much integrated in the production networks in the East Asia region, and East Asia is a much larger market than ASEAN alone. This means the current ASEAN strategy of moving towards an ASEAN Economic Community together with deepening economic integration with the rest of East Asia via RCEP is appropriate.

At the same time, much of the benefits from RCEP arise from lower barriers in services and easier flow of goods and services in East Asia, similar to the results of the simulations for AEC. Like in AEC, these areas, especially services and logistics, can be expected to be contentious in the negotiations. Nonetheless, the full benefits from the 2nd unbundling cannot be realised without efficient services, trade facilitation and logistics. Thus, there may need to be a change in mindset with respect to negotiations on services and trade facilitation in the RCEP in order for the latter to be an agent of development as much as of regional economic integration.

But it is important for ASEAN member states to have a coherent framework and approach to RCEP negotiations, and thereby shape the substance of RCEP negotiations. The Report presents a number of recommendations to ASEAN in shaping the RCEP agenda, as follows:

- ***Set at least 95 percent tariff elimination target, adopt “common concession”, and use extensively co-equal/ liberal ROOs.***
Greater emphasis on developing a common regime in support of expansion and deepening of regional production networks.
- ***Minimize ‘core NTMs’*** that tend to be used for trade protection.
- ***Use of the AFAS, including the formula approach, as the model approach for services liberalisation under RCEP.***
- ***Develop consolidated operational certification procedures.***
- ***Introduce concrete and tangible trade facilitation programs (as in the ASEAN) and address FTA utilisation issues.***

- *Set out agreements on RCEP implementation issues and arrangements such as dispute settlement mechanism for RCEP, possibility of trade policy review similar to the WTO review to enhance transparency in RCEP, and the operationalisation of the open access clause.*
- *Ensure strong technical and economic cooperation component in RCEP in support of the less developed AMSs.*

The above constitute the significant elements of the coherent approach. However, a previous study of ERIA shows that coming up with such a coherent approach along the lines listed above is not easy to do at all for the AMSs. There lies a key challenge for ASEAN and the credibility of ASEAN centrality in the shaping of the economic architecture in East Asia.

Strengthening ASEAN centrality in the evolving economic architecture in East Asia and raising ASEAN's voice in the regional and international arena necessitates deep integration within ASEAN and greater cohesion among AMSs themselves. Apart from ASEAN resolve and political will, **ASEAN may strengthen its cooperation with APEC** given the great overlap and complementarity of ASEAN and APEC initiatives. Areas of cooperation and joint learning between ASEAN and APEC include the following:

- Trade and business facilitation
- Standards and conformance
- Supply chain and regional connectivity issues
- Structural reform issues; e.g., regulatory reform, corporate and public sector governance, strengthening economic and legal infrastructure,
- Engendering greater transparency for greater public awareness of the progress and challenges of regional economic integration
- Strengthening the role of the private sector in the ASEAN process

However, ASEAN faces a significant institutional dilemma moving forward. Part of the problem for ASEAN is that ASEAN has not addressed frontally a major dilemma facing it: i.e., how to reconcile the need for effective regional institutions for regional integration with maintaining national autonomy and preserving regional diversity. Yet, maintaining ASEAN centrality and raising ASEAN voice and influence in the international arena demands that there is a

credible AEC performance and that AMSs have a strong political will to deepen economic integration within ASEAN and East Asia.

In order to address to a large extent the institutional dilemma facing ASEAN, the Study Team presents key recommendations on the way forward, as follows:

- ***Use flexible decision making when appropriate.*** Introduce voting on non-sensitive issues; retain consensus on sensitive issues.
- ***Build up independent monitoring mechanism.*** Strengthen monitoring of the AEC Blueprint by the ASEAN Secretariat (ASEC) and third parties. Strengthen track 2 and track 1.5 institutions in the ASEAN integration process.
- ***Introduce flexibility rules on members' financial contribution.*** The ASEAN Infrastructure Fund and the APEC Secretariat funding provide examples of flexibility in financial contributions that ASEAN may explore in revising the formula on members' financial contribution to ASEAN.
- ***Substantiate enforcement and dispute settlement.*** Strengthen EDSM. Establish mechanism to enforce compliance in non-economic sphere; e.g., establish independent Assessment Task Force; and explore adoption of regime sanctions.
- ***Strengthen ASEAN Secretariat.*** The Secretariat needs to be as much a technical resource as a secretariat. ASEAN may explore the establishment of specialised institutions linked with the Secretariat but located in other ASEAN capitals as a means of decentralising but at the same time strengthening the Secretariat.
- ***Increase private sector involvement.*** The Report shows many areas where the private sector can provide significant benefit to the ASEAN integration process.
- ***Clarify functions and relationships of ASEAN organs/institutions.*** For example, the role of CPR is not clear cut especially with respect to economic policy matters considering that institutional connectivity is a critical element of MPAC which the CPR oversees. The Report

highlights inclusiveness and resiliency a lot; this would call for greater coordination between the economic and socio-cultural community bodies. ASEAN may consider the OECD approach of creating joint committees from concerned ASEAN community bodies.

In addition, raising ASEAN voice through a “common foreign policy” a la European Union is not feasible given the great diversities among AMSs. An ASEAN voice and platform is best viewed as an additional and supplementary avenue for AMSs to access. Moreover, an ASEAN common voice and platform is not one of lowest common denominator but the creation and reiteration of norms so that ASEAN reinforces its normative power in the regional and international arenas.

Foundation: Responsive ASEAN

In addition to the four pillars, the Report’s framework includes a foundation for the four pillars; that is, responsive ASEAN.

Much of it is related to improving the business and investment environment in the region with a drive towards smart regulations and responsive regulatory regime. Note that the private sector is the key motor of the sustained high and equitable growth in ASEAN. Thus, AMSs need to create conducive and attractive business and investment environments for business.

Note that most AMSs have been improving markedly in global rankings on business and investment environments such as the Global Competitiveness Index, Logistics Performance Index and the Ease of Doing Business Index. And many of the AMSs are in top 20 investment destinations by MNCs as compiled by UNCTAD. Nonetheless, there are substantial gaps among AMSs and there remain significant concerns (e.g., corruption) which, when addressed, would make ASEAN an even more attractive investment destination.

One important way of improving further the investment attractiveness of AMSs and ASEAN is to move towards SMART regulations and responsive regulatory regime. SMART regulations, as put together by the World Bank and IFC in their Ease of Doing Business Report for 2014, is **Streamlined, Meaningful,**

Adaptive, Relevant and Transparent regulations. In a way, this is like the “best practice “set of regulations. As the DB report for 2014 brings out, Singapore is the nearest to the world’s “best practice” frontier, while a number of AMSs have huge regulatory gaps to fill up.

Moving towards the regulatory best practice is essentially regulatory improvement. The framework of the Report emphasises the role of responsive regulatory regime and the correlative informed regulatory conversations moving forward for regulatory improvement towards the best practice frontier but cognisant of the specific circumstances each AMS is in.

Responsive regulation or regulatory regime is a prerequisite for responsive ASEAN. Responsive regulatory regime involves the following actions:

Think in context – pre-test theories ‘on the ground’ with real participants.

Listen actively – it gives a voice to stakeholders.

Engage those who resist – show them respect, use their resistance as an opportunity to learn how to improve regulatory design.

Support the willing – use support and education to build a common understanding of the rationale for regulation, and to build the capacity and motivation to comply.

In resource poor countries, **engage wider networks of partners**, such as industry associations and NGOs, and co-opt them into the design and enforcement of regulation (e.g., development of industry-based accreditation programs and industry-based training).

Learn – evaluate how well and at what cost outcomes have been achieved, and communicate the lessons learned.

Informed regulatory conversations can ensure responsive regulatory regime. In support towards regulatory improvement and coherence in the AMSs and region, under the ERIA project monitoring the AEC, the ERIA RIN study team in each AMS facilitated regulatory conversations with concerned agencies and stakeholders on a specific regulatory issue of interest to each country. Informed regulatory conversations are meant to allow stakeholders to learn from each other, understand each other better, and converge on a common understanding about best ways forward.

The results suggest that yes, regulatory conversations---undertaken transparently and informed with some analysis, economy-wide perspective, and open mind---can be useful in improving the regulatory environment by highlighting (and engendering some consensus) on areas for improvement such as operational problems, coordination problems, and even regulatory inconsistencies. Ideally, informed regulatory conversations are continuing and regular, rather than one-off events.

The **proposed post 2015 regulatory agenda** consists primarily of setting some targets and milestones as well as the conduct of informed regulatory conversations. Regulatory reform is primarily a domestic issue, so **concerted unilateralism** is a better approach than negotiation. The AEC approach of setting targets and milestones has served ASEAN well in promoting concerted unilateralism. The targets proposed in Chapter 2 of the Report wherein all AMSs are in the top half and most AMSs in the top third of global rankings in ease of doing business, global competitiveness, logistics performance and the like by early 2020s can be considered. In addition, AMSs are proposed to agree to submit to periodic assessment of progress and impacts on the regulatory landscape of each AMS.

Process matters as well as content, so *the post-2015 agenda should also include commitments on process*. Informed regulatory conversations offer a responsive process – not just coming up with technical solutions, but involving stakeholders and helping to build a consensus in favour of reform. The informed regulatory conversations among government, business and other stakeholders need to be facilitated by independent intermediary institutions like research institutions and academia. The conversations are meant to assess efficiency of individual regulations, and coherence of (groups of) regulations.

ASEAN RISING: It's High Time It's ASEAN!

Given political will, concerted efforts among AMSs, and given private sector support in implementing the range of policy and regulatory reform, institution building, and regional cooperation initiatives spelled out in the previous chapters and consolidated in this chapter, ASEAN offers great opportunities for growth to the business sector and other stakeholders. To some extent, the best is yet to come for the ASEAN region.

The ASEAN region would have about 685 million people by 2025 and 720 million people by 2030. With robust growth of per capita income of most AMSs, dire poverty (i.e., people living below US\$ 1.25 PPP per capita per day) would be a thing of the past in the region within 2025-2030. **Table 8.1** presents possible per capita income (at 2007 prices) ranges for the AMSs based on the target growth rates set out in Chapter 2A of the Report and the use of the dynamic GTAP model. Using the current World Bank classification, **Table 8.1** suggests that there would be:

- At least 3 AMSs (Brunei Darussalam, Malaysia and Singapore) in the high income country category, with the possibility of Thailand joining the group if the actual growth rates would be substantially higher than the modest growth rates set out in Chapter 2A of the Report.⁵
- At least two AMSs (Indonesia and the Philippines) would barge into the upper middle income country category (but with the proviso that the Philippines experiences sustained growth rates very much higher than its historical performance), with Viet Nam nearly making it or could possibly make it also if the country could generate much greater growth bang out of its very high investment rate.⁶
- The lower income AMSs (Cambodia, Lao PDR and Myanmar) are expected to have their per capita GDP in real terms at least tripled or even quintupled by 2030 relative to 2007.

⁵ With fast growth and rising wages expected in Cambodia, Lao PDR and Myanmar, Thailand has a much tighter labour reserve to rely on, and thereby may need to markedly upgrade its technological capability and human capital in order to attain high economic growth rate.

⁶ Viet Nam had an extremely high investment rate (41 % of GDP in 2007), resulting in negative total factor productivity growth in the 2000s. The slow growth of Viet Nam in the model is the result of more sluggish growth in investment in the face of the country's very high investment to GDP ratio.

Table 8.1: GDP Per Capita and GDP Growth Rate Projection

	GDP Per Capita (US \$ at 2007 Prices)				Real GDP Growth Rate (Cumulative, 2007=100)			
	2025		2030		2025		2030	
	Low	High	Low	High	Low	High	Low	High
Cambodia	1523	1825	2090	2671	243	310	396	534
Indonesia	4598	6285	5971	9127	191	298	293	501
Laos	2272	2392	3249	3484	341	364	572	621
Malaysia	12831	15849	15694	20906	137	193	205	307
Philippines	3589	4772	4657	6857	195	292	310	504
Singapore	57065	64411	65277	76942	97	123	134	176
Thailand	6714	8204	8211	10777	87	128	128	199
Viet Nam	1986	2717	2605	3987	185	289	281	483
RoSEAsia	1567	1567	2165	2165	216	216	345	345

Source: Itakura (2013)

The GDP growth rate and GDP per capita in the table are decidedly ambitious for a number of AMSs. It is best to look at the implied investment growth rates as set out in **Table 8.2**. Perhaps the most striking is that of the Philippines in view of the comparatively lackluster performance of the country for much of at least two decades. It is best to look at the investment growth rate for the Philippines (as well as for the other AMSs) in **Table 8.2** as the **required** investment growth in order for the country to achieve the ambitious growth targets indicated in **Table 8.1**. This is because the country has such an extremely low investment to GDP ratio in 2007 (about 15% of GDP), in sharp contrast to the outstanding investment rate performance of Viet Nam during the year (41% of GDP). In short, *the Philippines has to focus its efforts at substantially improving its investment climate and dramatically increasing its investment rate* in order to generate the targeted high economic growth rates that are needed in order to eliminate dire poverty in the country during 2025-2030. Cambodia, Indonesia and Myanmar (although imperfectly represented in the model by RoSEA (Rest of Southeast Asia))⁷ also need to have markedly high investment rates in order to attain the growth targets set out in Chapter 2A which, as indicated earlier, represent the growth rates needed to eliminate dire poverty in the region.

⁷ Rest of Southeast Asia (RoSEAsia) is an amalgam of Brunei Darussalam, Myanmar and Timor Leste. Given that the population of Myanmar dwarfs the tiny populations of Brunei Darussalam and Timor Leste, the GDP and investment numbers in **Tables 8.1 and 8.2** appear more reflective of Myanmar. Brunei Darussalam, Myanmar and Timor Leste are lumped together in GTAP because there are no separate individual country models for each of them due to data problems.

Table 8.2: Cumulative Investment Growth

	Investment Growth (Cumulative, 2007=100)			
	2025		2030	
	Low	High	Low	High
Cambodia	538	708	849	1168
Indonesia	473	882	633	1288
Laos	367	415	607	698
Malaysia	451	619	596	880
Philippines	1255	1870	1729	2902
Singapore	402	492	477	619
Thailand	275	406	348	553
Viet Nam	55	143	109	251
RoSEAsia	996	991	1463	1448

Source: Itakura (2013)

Table 8.3 presents the cumulative export volume and import volume increases relative to the 2007 base year. For many of the AMSs, the export to GDP ratio and the import to GDP ratio would increase further in the next two decades, albeit only modestly so compared to the 1990s and the 2000s. The rise in the export shares is due mainly to the increased share of exports to the total output of machinery and heavy intermediates, especially in Indonesia⁸ and Thailand. The machinery and heavy intermediate manufacturing industries would have a rising share of GDP in most AMSs, as the discussion of **Table 8.4** below indicates. The table seems to suggest that domestic demand expansion would be a much greater driver of aggregate demand for the hitherto highly open AMSs, i.e., Malaysia and Singapore.

⁸ For Indonesia, light manufacturing and other manufactures also have marked increase in export orientation compared to the present.

Table 8.3: Cumulative Export Volume and Import Volume Growth

	Export Volume Growth Rate (Cumulative, 2007=100)				Import Volume Growth Rate (Cumulative, 2007=100)			
	2025		2030		2025		2030	
	Low	High	Low	High	Low	High	Low	High
Cambodia	315	380	454	588	202	257	295	396
Indonesia	205	214	308	369	258	382	360	575
Laos	422	451	691	758	415	467	686	791
Malaysia	119	158	186	261	195	253	280	384
Philippines	283	316	509	617	341	441	527	734
Singapore	87	112	123	163	143	179	185	242
Thailand	103	133	159	221	136	183	190	270
Viet Nam	220	317	305	488	157	233	231	368
RoSEAsia	97	100	169	173	443	446	682	685

Source: Itakura (2013)

The robust growth rates projected for the AMSs in the next two decades or so imply some changes in the structure of the economy of AMSs (see **Table 8.4**). The most notable pattern is the increased share to GDP of heavy intermediate manufactures (essentially chemicals, basic metals and metal based industries) and machinery industries (e.g., automotive, electrical, non-electrical) in many AMSs, most especially the Philippines (in machinery), Indonesia (in both), Malaysia (in heavy intermediates) and Thailand (in machinery). The resource based sectors and manufactures (e.g., agriculture and processing, mining and mineral processing, fiber and textiles, energy based industries) remain a key sector in a number of AMSs, especially Lao PDR, Cambodia, (likely) Myanmar, Viet Nam, and to a less extent, Indonesia. (Low skilled) Labour intensive manufactures in the table consist mainly of garments and footwear (light manufacturing) and other manufactures; the table suggests that Cambodia and, to a much less extent, Viet Nam would be the significant players in the region⁹. It is interesting to note that the share of labour intensive light manufactures and other manufactures is lower, and the share of agriculture and natural resource based industries is higher, under the high growth scenario than under the low growth scenario especially in Cambodia and even Viet Nam. This suggests that as wages rise, (low skilled) labour intensive manufactures lose comparative advantage in favour of agriculture and natural resource based

⁹ Myanmar could likely be another, but the RoSEAsia economic structure in the model is likely largely based on some “synthetic” structure from some comparable countries given the lack of robust sectoral and input-output data from Myanmar (as well as Brunei Darussalam and Timor Leste). Thus, the sectoral results for RoSEA could not probably provide significant insights for Myanmar or Brunei Darussalam.

processing industries, which generally tend to be more capital intensive than, say, garments and footwear. The table suggests that Singapore and Malaysia would be the AMSs most reliant on trade, financial and business services.

It must be emphasised that the projected sectoral shares in **Table 8.4** are based on models with economic structures (as indicated in input-output tables) around the base year of 2007 and the effect of resource reallocations across sectors arising primarily from wage increases over time. Such models **do not** adequately capture major technological or investment shocks. Thus, for example, Viet Nam has become a growing base for the assembly of electronics and electrical equipment products in recent years, which the input output available for 2007 would likely not capture adequately. Hence, it is likely that the share to GDP of machinery in Viet Nam would be significantly higher than what the model simulation results in **Table 8.4** indicate. Similarly, the Philippine I-O would not adequately capture the sharp rise in business process outsourcing services in the Philippines; as such, the share of trade, finance and business services would likely be higher and that share of machinery would likely be lower than what the table indicates. Thus, at best, the table can be viewed as essentially indications of the possible economic structure of ASEAN economies in the next two decades or so.

Even if it is only indicative, **Table 8.4** nonetheless suggests that changes in economic structure are inevitable in the face of economic growth and in the context of open and integrated economies in ASEAN. Such changes in economic structures, however, are not smooth and painless. Thus, it is best that such economic transformation process is managed well.

Arguably, many AMSs have been managing their economic transformations through such mechanisms as roadmaps or industrial development plans that have been agreed upon by key stakeholders, together with budgetary and institutional support. As an example, based on **Table 8.4**, the Philippines would have to undertake the biggest investment and economic transformation among the AMSs in order to meet the growth targets to eliminate poverty in the country. Specifically, apart from the marked rise in investment rate (and therefore the need for a very conducive investment climate), the Philippines would have to undertake a major revival of its hitherto languishing

manufacturing sector drawing from what **Table 8.4** suggests of a marked rise in the share of manufactures to GDP for the Philippines.

Table 8.4: Share of Sectoral Output Volumes and Projected Sectoral Shares in ASEAN

No	Sector	Share of Sectoral Output Volumes							
		Cambodia		Indonesia		Laos		Malaysia	
		Low	High	Low	High	Low	High	Low	High
1	Agriculture and agribased products, Natural resources & Energy	32	40	22	23	49	49	15	16
2	Light manufacturing, Other manufactures	23	15	4	2	3	2	1	1
3	Heavy intermediates	3	4	15	15	10	11	17	17
4	Machinery	5	5	10	9	1	1	24	23
5	Utilities, Transportations and communications	7	7	7	6	10	10	9	9
6	Trade, Financial and business services	11	11	14	15	9	9	22	22
7	Construction and other services, Public services	19	19	28	31	19	19	12	12
		100	100	100	100	100	100	100	100

No	Sector	Projected Sectoral Shares in ASEAN									
		Philippines		Singapore		Thailand		Viet Nam		RoSE	
		Low	High	Low	High	Low	High	Low	High	Low	High
1	Agriculture and agribased products, Natural resources & Energy	11	12	9	9	15	17	38	42	31	31
2	Light manufacturing, Other manufactures	2	1	0	0	4	3	12	7	2	2
3	Heavy intermediates	7	7	13	12	14	14	8	8	3	3
4	Machinery	41	38	21	22	30	29	7	7	7	7
5	Utilities, Transportations and communications	7	7	15	14	8	8	9	9	10	10
6	Trade, Financial and business services	15	15	24	24	18	18	11	11	19	19
7	Construction and other services, Public services	17	19	18	19	12	13	15	16	28	28
		100	100	100	100	100	100	100	100	100	100

Source: Itakura (2013)

Interestingly, the Philippines has been undertaking during the past year a serious process of crafting detailed industry roadmaps with the active involvement of industry players as well as the government. It is also interesting to note that the researcher person from the Philippine Institute for Development Studies or PIDS (an ERIA RIN member institute), who has been effectively in charge of consolidating and integrating the various industry roadmaps over the past year, has been recently promoted to a top government position with the responsibility of managing the implementation of the industry roadmaps.

It is worth looking into the Philippine industry roadmaps as an example of the preparation for an integrated ASEAN (and East Asia) and management of the

structural transformation process. Aldaba (2013) presents the Philippine new industrial policy that consolidates the various manufacturing industry roadmaps. Remarkably, the new industrial policy takes as given an integrated ASEAN and the focus of the roadmaps is how to attract more investments, strengthen coordination and facilitation to address binding constraints, and create proper environment for the private sector towards industry upgrading and along the country's comparative advantage (Aldaba, 2013, slide 2). The Philippine roadmap for structural transformation towards a globally competitive manufacturing sector consists of three phases, starting with Phase 1 of rebuilding capacity of existing industries and strengthening emerging industries where the country has comparative advantage, followed by Phase 2 of shifting to high value added activities, investment and upstream industries, and linking and integrating industries and firms especially between large enterprises and SMEs. The third phase involves deepening participation in regional production networks in a number of selected industries like automotive and machinery industries.

The roadmap has set out targets and strategic actions by industry, including specific actions to close the supply or value chain gaps by industry, expanding the domestic market base by industry, human resource development and skills training by industry, and the encouragement of SME development and innovation. Overseeing the implementation of the roadmap is the National Steering Committee headed by the President of the Philippines, Subcommittee for Industry Roadmap Formulation, and the Industry Councils and Institutes with the latter being the venue for coordination, information sharing, monitoring, and policy formulation for each selected industry. A big set of government agencies are involved in the implementation of the roadmap, and coordination among them is expected, given that it is the President of the country who chairs the National Steering Committee (see Aldaba, 2013 for details).

The Philippine manufacturing roadmap summarised above is both comprehensive and detailed, with heavy stakeholder involvement in design and formulation, and with apparent strong support from the government. It may well be a possible model for other AMSs that may need to develop their own roadmaps in order to better manage the structural transformation of their

economies to meet the demands of an open and integrated ASEAN (and East Asia) in the future.

In **conclusion**, by 2030, there would be 3 or 4 AMSs that are high income countries, 2 to 4 AMSs would be upper middle income countries and 3 to 4 are very well on their way to becoming upper middle countries themselves. These results are the expressions of the “ASEAN Miracle” story that the Framework of 4 Pillars and 1 Foundation of a Responsive ASEAN aim for. With about 720 million people by 2030, ASEAN is a huge market. With the targeted high growth rates for most AMSs, that is a robustly growing huge market. Thus, ASEAN offers opportunities and the best is yet to come. Thus, as AMSs maintain the momentum of reforms, institutional development, and community building towards an integrated and highly contestable ASEAN, competitive and dynamic ASEAN, inclusive and resilient ASEAN, and a global ASEAN, then it is high time it is ASEAN RISING indeed.

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