



# Global and Regional Supply Chains in East-Asia and the Evolving ASEAN Regionalism

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**Abstract:** The paper departs from the analysis of the regionalizing processes, as Björn Hettne coined the spontaneous empirical trend driven by transnational corporations. They evolved within Southeast-Asia from the end of 1980s, despite a very low level of intergovernmental institutionalization within ASEAN. The activity of global and regional value chains increasingly webbing the ASEAN region is traced back to trade and investment relations and their change over time in 1995-2018. Regionalizing processes have been followed from the mid-nineties by intergovernmental negotiations on membership expansion and moving towards a single market and production base, facilitating the “bottom up” dynamics from the “top-down” level. Impacts of the US-China Trade War and Covid-19 pandemic are analysed to draw future prospects.

**Keywords:** East-Asian regionalization, ASEAN+3, AEC 2015, global value chain disruptions

## Introduction

The notion of the ‘Asian Century’ has surfaced in academic literature and political discourse over the past decade, claiming and prophesying that growth and development in the 21<sup>st</sup> century will be spearheaded by Asia (following the US dominance of the 20<sup>th</sup> century, with the 19<sup>th</sup> century being Europe’s). A recent study by McKinsey Global Institute provides facts and forecasts on how the global centre of gravity is shifting towards Asia. A substantial rise was demonstrated already between 2000-2017 in Asia’s share in global GDP from 32-42%, in global consumption from 23-28% and in the world’s middle class from 23-40%. By 2040, Asia is likely to generate more than 52% of real world GDP (in purchasing-power-parity), and could account for 39% of global consumption and 54% of the share of the world’s middle class according to the study (Tonby, Woetzel et al., 2019:2). Parag Khanna<sup>1</sup> paints in his recent book, *The Future is Asian, an Asian Century* which is not to be marked only by China’s increasing global role, but a multipolar, multifaceted, entangled Asia, with a further strengthening position of ASEAN and India as well (Khanna, 2019).

Reflecting on Asia's increasing geo-economic and consequently geo-political importance, this paper intends to shed light specifically on the ASEAN region and the ASEAN+3 area, involving China, Japan and South Korea too and the evolving regionalizing processes around them driven by global value chains of transnational corporations since the 1990s.

Catching a glance at the history of the Association of South-East Asian Nations (ASEAN), we can observe, that although it was established only a decade later than the European Economic Community was created by the Treaty of Rome, the way and speed of integration of the two groups of countries followed an entirely different path. ASEAN is seeking to unite very heterogeneous nations both in terms of their political systems and their economic development levels in a non-binding, non-interfering, consensus-driven way even after the 50<sup>th</sup> anniversary of its foundation with the Bangkok Declaration. ASEAN plays a central role in the regional Asia-Pacific architecture interconnecting Asiatic and Transatlantic nations, just to mention a few examples: APEC, ASEAN+3 (APT), and the RCEP. A rapid spread of bilateral Free Trade agreements (FTAs) webbing the ASEAN region and its East-Asian neighbours has been experienced since the mid-nineties, bringing to the fore East-Asia<sup>2</sup> globally by the 2010s in this field. These developments were further spurred by two major economic crises: the 1997 Asian Financial Crisis and the 2008 Global Financial and Economic Crisis. It has been referred to in Asian academic and expert literature as the “noodle-bowl” or “spaghetti bowl effect”, used interchangeably, referring to the fact that the individual FTAs, like individual pieces of noodles add to the whole, instead of a multilateral framework. The “noodle bowl effect” has a negative connotation since by keeping a multitude of overlapping rules of origin (ROO) legislation in the individual FTAs, any gains from the increased trade turnover are reduced due to the transaction costs, estimated by economists to 3-5% of the total export value (ADB 2008:22). ASEAN members initiated their internal FTA in 1992 and as a direct partner signed so-called ASEAN+1 FTAs with major regional powers: China, Republic of Korea (ROK), Japan, Australia, India and New Zealand. The latest ASEAN+1 FTA came into force with Hong Kong and China in 2019.

One of the distinct features of the ASEAN integration process is, that after decades of intergovernmental status quo, the integration started to unfold very slowly as a response to the activity of global value chains of transnational corporations (TNCs) in the region (Magasházi, 2015).

The current paper starts out from theories and concepts that try to grasp the specificities of the “ASEAN way” of integration, the move from regionalization to regionalism. Empirical analysis will follow to depict the trends of intra-regional trade and investments among the ASEAN as well as the ASEAN+3 member countries (China, ROK, Japan), their global connectivity, steered by global value chains (GVCs) in the 1996-2018 period. A major milestone of the evolving intergovernmental institutionalization from the 1990's has been the endeavour to create the ASEAN Economic Community (AEC) 2015, followed up by the envisaged ASEAN 2025 strategy. A region entangled so densely by activities of GVCs has found itself from 2018 in the forefront of global economic tensions. Provoked by the USA-China



Trade War and the Covid-19 pandemic causing disruptions and reconfigurations of GVCs with regional impacts, emerging countries on other continents can draw conclusions as well.

## Literature Review

Alongside the statistical trends and empirical results behind the development of the ASEAN integration, concepts that intend to explain the impacts of global forces – global value chain, global production network research frameworks as well as specific concepts of scholars in economics, management and theory of international relations are worthy of review.

Based on the Southeast Asian experience, Das brought into the literature, the terminology of the market-driven integration. He claims that “microeconomic decision-making in large firms, particularly transnational corporations (TNCs) played an active role in the spread of regionalization” (Das 2005:1). While liberalization of trade and FDI has evolved already from the 1970s in the Southeast-Asian countries and attracted transnational corporations seeking profit optimization into the region, it was the Plaza Accord in 1985 which changed the currency value configuration and spurred Japanese investments across the region.<sup>3</sup> The strategy of the TNCs in organizing their manufacturing from the nineties shifted from head-office-subsidiary relations to network aspects. Southeast-Asian countries, led in this process by Singapore, used the opportunity by conscious state policies for industrial upgrading already in the nineties (Gereffi, 1995). The global value chain literature deals in detail with theoretical concepts and empirical studies, how TNCs fine-slice parts of their production processes with a punctuality that has never been seen before, and settle individually to optimal places according to competitive advantages (Buckley, 2009). The global production network (GPN) literature inspired by the discipline of geography, concentrates specifically on the changing configuration of the networks (Coe, Dicken, Hess (2006)) compared to the governance aspect focus of GVC literature (Gereffi, Humphrey, Sturgeon (2005). The fragmentation of production processes has created transnational and cross-border production systems, causing intense integration and functional interconnectedness. Southeast-Asian countries were the first ones that collected the valuable practices in this new division of labour. Production networks became a major force behind the market-driven integration of the region.

Hettne’s distinction between regionalism and regionalization connects simply and well the macro and micro level analysis. The notion of regionalism describes the process initiated by governments in a top-down way, while the notion of regionalization is “an empirical trend depicting a multidimensional process of regional change that occurs simultaneously at several levels of social, political and economic interactions in a bottom-up process” (Hettne, 2003). Hettne (1996) calls the top-down process of evolving regionalism in the 1990s as “new regionalism”, which differs from the “old” post WW2 form, providing one way of coping with global transformation, since most states lack the capacity and the means to manage such a task on the national level. While the old regionalism emerged in a bipolar Cold War context, the new one is

taking shape in a multipolar world order, exemplified also by the turn in the ASEAN integration process from the nineties. When examining the top-down “regionalism” aspect of the ASEAN integration, scholars of international relations (IR) look at the question of rules versus relations in regional governance. They intend to resolve how ASEAN could achieve several decades of peace and economic development despite its informal, loose framework. They claim that “the ASEAN way” cannot be explained purely by the mainstream (IR) theory – as it is based more on relations due, in part, to several Confucian societies existing among its members. Yaquing (2001) argues that the unit of analysis is relations among individual actors, and how relations harmonize during the process. Wunderlich, in his comparative view between the EU and ASEAN brings a historic element, the unfinished state-building in the post-colonialist Asian states, into his concept. I tend to agree with his statement: “While European integration is partially driven by the drive to restrain or at least pool sovereignty, ASEAN regionalism is driven by the desire to consolidate state-building and sovereignty in Southeast Asia.” (Wunderlich, 2007:5). It was the European example of widening and deepening integration in the nineties, that “triggered a wave of new regionalism (APEC) or revival of old ones” (Wunderlich, 2007:29), that acted as one of the factors impacting the development of ASEAN integration as well.

It can certainly be said that discussions behind the decisions in East-Southeast Asia are different from the EU. There are long chains of informal interstate consultations for years till the full consensus is reached. In several cases the issue lost its relevance in the meantime. This process has been convincingly explained by the Secretary-General of ASEAN 2008-2012, an opinion leader in the region, the late Surin Pitsuwan<sup>4</sup> at the conference held in the Institute of Foreign Relations and Trade on March 31, 2016 in Budapest. He claimed that ASEAN “got the inspiration from the EU, but ASEAN is very different. While in the EU, legal documents regulate interstate relations, East-Asia is in continuous flux, and cannot be constrained by rigid frames.” While the level of democracy and main macroeconomic indicators of the member candidates to the EU are thoroughly analysed before accepting a new member, it is enough in Southeast-Asia that the respective countries belong to the same geographical area. Thus the 10 member states of ASEAN, with a total population over 649 million (ASEAN Statistical Yearbook, 2019) encompasses states with entirely different political regimes: from royal monarchies, socialist countries, capitalist “one-party systems” to (as Pitsuwan described them), “noisy young democracies”. The countries in the latter category are most often slowing down the process to find the common denominator. “The speed of ASEAN is equal to the speed of the slowest country”- he noted. (Pitsuwan, 2016).

## **Global Value Chains and East-Asian Regionalisation – Facts and Figures**

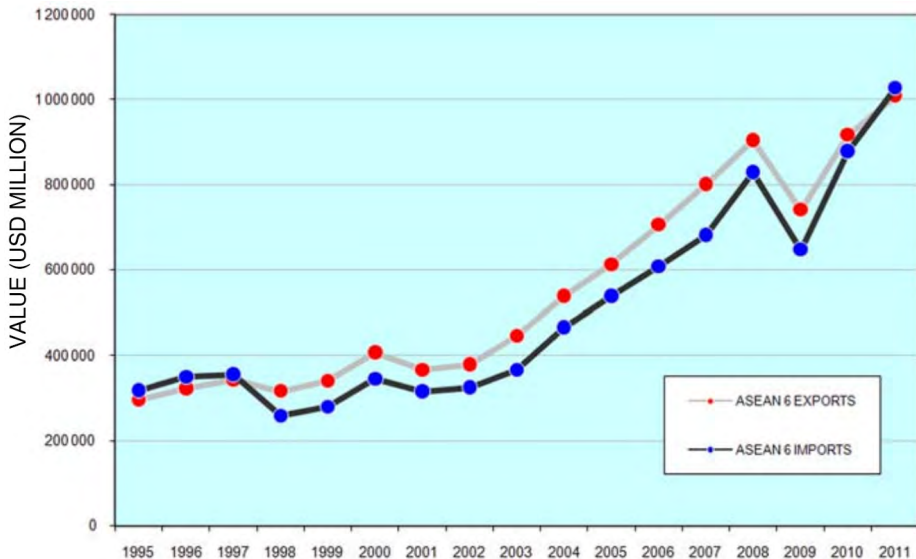
Looking behind the trade and FDI developments in the region, emphasis is put on intra-ASEAN relations, connectivity between ASEAN and its three major East-Asian partners: Japan, China and the Republic of Korea (ROK) as well as ASEAN’s relations



with the major advanced global centres of gravity: EU and USA. By 2017, 50 years after its establishment, ASEAN has become the 4<sup>th</sup> major trading area (after EU, US and China), with 7.2% share in global trade.

Looking at the 1995-2011 export and import developments of the ASEAN five founding members<sup>5</sup> and Brunei, a major increase can be followed starting from 2002, leaving behind the drops in export and import figures due to the 1997 Asian financial crisis and the 2001 dot.com crisis of the digital industry, illustrated on Figure 1.

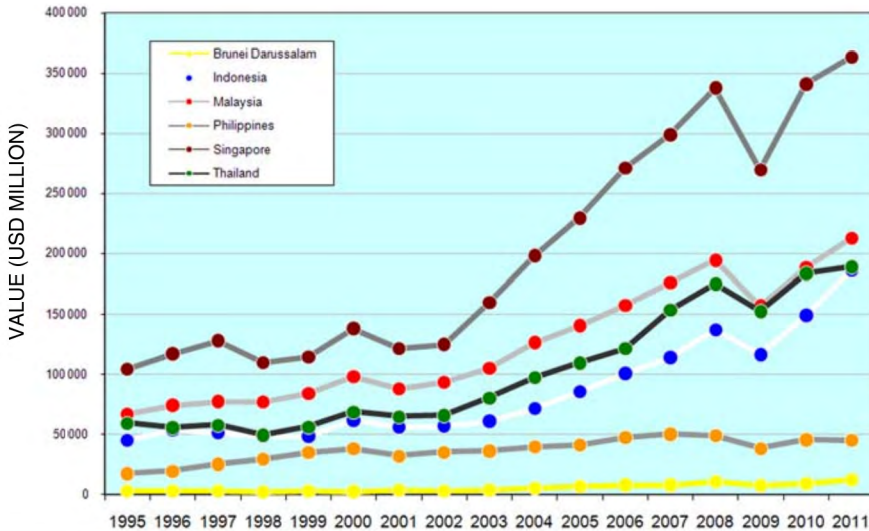
Figure 1  
Trend of ASEAN 6 Total Exports and Imports, 1995-2011<sup>6</sup>



A study by Gopalan (2020) underlines in his analysis, that the domestic value added share (DVA) in exports of the ASEAN countries fell in the 1995 to 2011 period from 70% to 67%, while total exports increased many times, driven by intermediate exports – mostly related to GVCs. The remarkable increase in gross exports also led to substantial growth in jobs. Using empirical evidence, researchers showed that increase in imports is equally advantageous in the time of GVCs; intermediate imports of goods and services (foreign value added – FVA) play a positive role in enhancing employment as well as productivity in the ASEAN countries. Rapid trade increase went hand in hand with substantial per capita GDP increase, an emerging middle-class and increasing domestic markets.

Trade developments of the individual ASEAN 6 countries in the 1995-2011 period show that Singapore had built up its leading role with a widening gap from the rest of ASEAN. Malaysia, Thailand and Indonesia followed with a similar speed of up-ticking exports and, like Singapore, they had the momentum for a dynamic increase in exports after the 2008-2009 crisis as well.

Figure 2  
Trend of ASEAN Total Export by Country, 1995-2011<sup>7</sup>



A concise statistical analysis backed summary (UNCTAD, 2013) on the activity of GVCs concluded that *foreign value added in exports provides for a good estimate of the extent to which a global or regional value chain is segmented*. This proportion is *especially high in the electronics and automotive industries* (UNCTAD, 2013:131). The UNCTAD summary states furthermore that *Southeast Asia has the highest level of GVC participation*. De Backer and Yamano’s research findings confirm that emerging countries such as China, Singapore and Malaysia were the most successful in increasing their specialization in intermediates (de Backer & Yamano, 2012:16).

Based on the above findings, current analysis intends to get a closer look at the product group H85 “Electrical Machinery, Sound Recorders etc.”<sup>78</sup>, to track the increasing role of GVCs in East-Asia within the ASEAN+3 context and review ASEAN’s global interconnectedness. Of the ASEAN member countries, and from the newly industrializing East Asian economies and China, the electronics industry only dominated in Singapore in the early 1990s, accounting for 46% of total output in manufacturing, thanks to the country’s FDI-based, export-driven industrialization. She not only gained competitive advantage since the 1970s, but could also retain this advantage through continuous and conscious upgrading of the electronics industry in the 1990–2015 period (Magasházi, 2018.). Similar processes started in advanced East-Asian countries from the mid-nineties.

The inclusion of East-Asia into electronics GVCs can be seen by the multiple increase in the HS85 product category in the 1996-2000 figures (Table 1). The share of the product group substantially increased in intra-ASEAN trade too - both on the export and import side and especially in the export relations with the major advanced economies (EU, US and Japan), the main markets of their products. Exports to the US grew in this product category 46 times within 4 years; 34 times to the EU and 29 times to Japan. A dynamic upsurge of imports from the US and Japan can be observed in the same period suggesting the dominant activity of TNC networks headquartered in those countries



**Table 1**  
**The role of electric machinery, equipments and parts, sound recorders etc**  
**(HS 85) in ASEAN trade (1996-2018)<sup>9</sup>**

	1996		2000		2010		2018	
	USD mill.	%	USD mill	%	USD mill	%	USD mill	%
<b><i>Intra-ASEAN</i></b>								
HS 85 exports	12380.5	26.4	34441.2	38.1	59490.4	22.2	77958.1	22.5
Total exports	46926.0		90440.8		267981.0		346462.0	
HS 85 imports	12293.7	21.4	28195.1	40.1	55184.4	21.9	66540.6	21.9
Total imports	57380.5		69150.7		251823.8		304267.2	
<b><i>ASEAN-US</i></b>								
HS 85 exports	520.7	26.2	24014.0	35.5	23911.9	23.8	39626.2	24.7
Total exports	1988.2		67685.0		100464.7		160283.5	
HS 85 imports	322.2	13.2	18598.9	40.2	22862.6	26.5	21254.1	20.7
Total imports	2445.6		46315.3		86220.0		102739.6	
<b><i>ASEAN-EU</i></b>								
HS 85 exports	674.2	9.0	22957.7	40.0	26983.8	23.5	46693.5	29.0
Total exports	7474.1		57555.0		115036.4		160936.5	
HS 85 imports	1982	21.5	11340.5	30.1	19015.2	20,3	19795.5	15.6
Total imports	9217.6		36934.8		93548.4		127288.8	
<b><i>ASEAN-Japan</i></b>								
HS 85 exports	464.1	12.5	13526.7	26.0	22069.1	21.4	27053.2	23.6
Total exports	3722.8		51982.8		102890.8		114833.5	
HS 85 imports	174.2	6.1	21215.0	34.6	24106.1	23,2	27053.2	23.1
Total imports	2843.8		61404.9		103746.3		116881.9	
<b><i>ASEAN-China</i></b>								
HS85 exports	3308.7	31.3	2561.2	21.0	28951.8	25.6	54039.7	27.2
Total exports	10571.6		12222.7		112999.8		198955.7	
HS85 imports	1607.2	27.4	5355.9	31.8	30754.9	25.8	85521.3	30.0
Total imports	5866.7		16840.1		119013.4		284809.0	
<b><i>ASEAN-Korea</i></b>								
H85 exports	1496.1	15.8	3699.1	26.1	11322.6	25.2	17616.6	29.1
Total exports	9446.4		14145.2		44980.1		60489.6	
H85 imports	4760.8	35.8	6300.9	43.5	20319.8	37.9	43553.4	43.1
Total imports	13294.4		14470.7		53648.2		101025.0	

*Note:* Figures for 1996 and 2000 cover only ASEAN 6 in the ASEAN Trade Statistics Database

The involvement of the Republic of Korea (RoK) increased considerably from 2000 onwards, both as a market of the products and even more substantially on the import side, providing valuable electronic input and advanced products to the ASEAN markets, thanks to their own TNCs' regional and global networks. According to the micro-level analysis of Apple products, after Apple, the next biggest beneficiaries in the iPhone supply chain were South Korean companies, as upgrading within the value chain in the period 2000–2010 had been achieved by them. The initial stage of iPod manufacturing relied on Japanese (mainly Toshiba's) hard drive technology, while Korea's Samsung and LG became the prime suppliers of the flash memory technology used in the iPhone and iPad (Kraemer et al. 2011).

Generally, the reconfiguration of GVCs to increasingly East-Asian regional supply chains is reflected in the rapid emergence of China from 2000 onwards. Exports to China in the HS85 product segment increased 11-fold, imports from China 5.7-fold between 2000 and 2010, marching further in the concise data availability 2010-18 period as well. The figures show furthermore that imports from Republic of Korea (RoK) increased substantially on the account of the first-mover supplier countries: Japan and US as well as the EU. Intra-ASEAN exports and imports in electronics increased substantially in the 1996-2010 period – showing an increasing level of integration – in the sense of “regionalization” as defined by Björn Hettne.

Alongside this multifaceted integration by global firms in the ASEAN region, vertical disintegration can be also observed in TNC networks. In the late 1990s and early 2000s, as a result of the trend to outsource electronic manufacturing activities by TNCs to third parties rather than perform them at their own plants, contract manufacturing had been growing by 20% per year compared to previous decades (Buckley & Ghauri, 2004). Some former East-Asian domestic suppliers, such as Foxconn/HonHai (Taiwan) or Venture Corporation and WBL (Singapore), benefitted from this new trend after the new millennium and have become TNCs of global significance themselves, taking over the lead from the US first mover contract manufacturers (Flextronics, Celestica). At first, East Asian firms joined GVCs as simple component suppliers, then they developed their own production planning and design capacities to become original design manufacturers (ODMs). This radical organizational change within the industry provided a new global opportunity for domestic firms of emerging economies contributing to further increase of the region's flagship industry. GVCs interweaving East Asia had, and still have, a definitive role in the economic development of countries covering the region as a whole, as also seen in the continuous increase of the intra-ASEAN trade in the product category in the 1996-2000 and 2010-2018 period.

However, it has also to be mentioned regarding the soaring figures that, as a result of cross-border stages of production, today the processes within the world economy can hardly be explained by statistical evidence on gross trade flows between national economies. In various stages as a semi-finished product, the same product may cross the borders of a country multiple times back and forth until it reaches its ultimate destination as a finished product. This causes double counting in global gross trade figures (Koopman et al., 2010; Timmer et al., 2013).





According to experts, the average foreign value-added in exports at the global level was approximately 28% in 2010 (UNCTAD, 2013). This information gap gave rise to the creation of new input-output databases that are still far from being fully developed with respect to the scope of countries included, the periods examined and data updates (WIOD, TiVA, ICIO, UNCATD-Eora). ASEAN member states (AMS) with higher shares in goods trade also have higher shares in services relative to other AMS with the exception of Singapore and Vietnam. Singapore has a much higher share of trade in services (47.1% versus 27.8% for trade in goods) in 2017, while Vietnam's trade is more tied to goods. (17.1% versus 5.4% for trade in services).

While the expansion of GVCs are mirrored by trade developments, FDI flow is a major driver behind the regionalization of ASEAN and East Asia, and the region's growing embeddedness into the global economy. Comparable figures are available only till 2018, thus

Table 2  
Inward FDI Flows to ASEAN by Selected Source Countries 1995-2018<sup>10</sup>

	1995		2000		2009		2014		2018	
	mill USD	%	mill USD	%	mill USD	%	mill USD	%	mill USD	%
ASEAN	3187.7	15.2	959.1	9.2	8807.8	20.3	22180.9	17	23188.4	15.1
China	113.7	0.5	57.1	0.5	2068.7	4.8	6165.2	4.8	9940.1	6.5
Japan	4238	20.2	-55.5	n.a.	3451.1	8	13436.1	10.3	20964.5	13.7
RoK	627.9	3	179.7	1.7	1804.1	4.2	5257.2	4	-223	n.a.
EU28	3648.9	17.4	2905.8	27.9	5659.9	13.1	28943.3	22.2	21613.5	14.1
USA	3262.1	15.6	2320.4	22.2	5180.8	11.9	21141.3	16.2	8340.7	5.5
Total	20912.1		10408.4		43365.4		130114.5		152755.3	

As Table 2. illustrates, total inward FDI flows into ASEAN, as well as intra-ASEAN flows were 7.3 times higher in 2018 than in the starting year of analysis, in 1995. As annual FDI flows have seasonality, the trend in the selected years in the period confirm a major jump especially following the 2008-2009 crisis. While in the 1995-2001 period ASEAN countries following FDI-led industrialization strategy relied mostly on Japan, EU and USA, the East-Asian emerging economies, China and also Republic of Korea represent an increasing share from 2009. According to figures in 2017, about 95% of intra-ASEAN investments came from three source countries, Singapore (69% share), followed by Malaysia and Thailand. Singapore's contribution surpassed even Japan, in an East-Asian context – confirming how intensely the city-state is entangled in GVCs, investing out of Singapore, as their regional hub. According to final FDI figures in 2018, ASEAN received in 2018 USD 154.7 billion inward capital flow, which made up 11.9% of total global FDI inflows. The figure was the highest in its history, ranking third after the EU and the US. The region's outward investments also grew markedly amounting to USD

69.6 billion – 6.9% of the world total. (ASEAN Integration Report 2019) As an example, Thailand's outward FDI surpassed in 2018 substantially its inward FDI flow, amounting to USD 20.7 billion (Bank of Thailand, 2019).

Table 3  
Inward FDI flows into ASEAN by Host Country 1995-2018<sup>11</sup>

	1995		2000		2009		2014		2018	
	mill USD	%	mill USD	%	mill USD	%	mill USD	%	mill USD	%
Indonesia	4346	20.8	-4550	n.a.*	4876.8	11.2	21810.4	16.8	21979.9	14.4
Malaysia	3007	14.4	1309.7	12.6	1405.1	3.2	10875.3	8.4	8071.6	5.3
Singapore	7208.8	34.5	6390.9	61.4	18916.8	43.6	73284.5	56.3	77630.5	50.8
Thailand	2004	9.6	3280.2	31.5	6411.5	14.8	4975.5	3.8	13205.1	8.6
Vietnam	1780	8.5	1289	12.4	7600	17.5	9200.1	7.1	15500	10.1
Philippines	1578	7.5	1726	16.6	1963	4.5	5814.5	4.5	9832.3	6.4
Brunei	582.8	2.3	600.2	5.8	371.2	0.9	568.2	0.4	503.9	0.3
Cambodia	150.7	0.7	127.7	1.2	539	1.2	1726.5	1.3	3102.6	2.0
Myanmar	317.6	0.2	203.6	2.0	963.3	2.2	946.2	0.7	1609.8	1.1
Lao	88.4	0.4	33.9	0.3	318.6	0.7	913.2	0.7	1319.6	0.9
Total	20912.1		10408.4		43365.4	100.0	130114.5	100.0	152755.3	100.0

*Note:* 2018 figures are preliminary

\*divestments because of political and economic crisis in Indonesia

From the individual ASEAN countries Singapore is the main recipient of inward FDI flowing into the region amounting to 34.5% -61.4% share in 1995-2018. ASEAN's strategy to invite and integrate the less-developed Southeast-Asian economies (Cambodia, Lao, Myanmar, Vietnam – CLMV countries) from 1995 onwards shows its results in the FDI statistics as well. In 2018, Vietnam took the third place behind the globally more entangled Singapore and Indonesia, which attracts investors with a consumer market of 267.7 million population (2018) in terms of inward FDI-share, surpassing large ASEAN founding nations such as Malaysia, Thailand or the Philippines. (Table 3). In an East-Asian context, Japan, the Republic of Korea and ASEAN were the main investors in Vietnam, contributing 67 per cent of inward investments in 2017 (ASEAN Investment Report 2018).

Fukinari Kimura argued that although we observe similar cross-border production sharing in the US–Mexico nexus and in the Western Europe (WE)–Central/Eastern Europe (CEE) corridor, they have not yet reached the level of development that East Asia has accomplished” (Kimura, 2006, p. 326), which is even more true in 2020, with the increasingly complex intra-regional East-Asian GVCs, connected to extra-regional European and North-American GVC networks.



## **ASEAN Economic Community (AEC) and the Future of Integration**

The evolving regionalization driven by global and regional value chains of TNCs increased global competition in the increasingly multipolar world order and induced the ASEAN member states (AMS) to facilitate their economic development by trying to clear away obstacles from the activity of GVCs and RVCs. However, the “ASEAN way” caused a very slow movement going forward. With continuous tariff reductions, the ASEAN Free Trade Agreement signed in 1993 was implemented in 2010 in the first ASEAN countries (ASEAN 6). To facilitate free trade of services, which represents 40-70% share in the GDP of the AMS, an agreement was signed in 1995, but nothing moved ahead in the first 8 years. The bottleneck was solved by deciding on the ASEAN-X formula, enabling those ASEAN countries ready to liberalize certain sectors of services to go forward without any obligation to provide benefits to the non-participating ASEAN countries. Special bilateral agreements were approved from 2015 to slowly start the liberalization of financial services among those AMS that were more ready than others. These processes underline the combination of economic pragmatism and insistence on national sovereignty of the ASEAN member countries,

The ASEAN Charta, signed by all 10 member countries in 2007, was the first legally binding agreement among AMS. It paved the way for the establishment of the ASEAN Economic Community, envisaged for December 2015, which has laid a foundation for a functioning single market and production base. The commitment to step on the path of AEC 2015 was induced to facilitate the activity of GVCs in the region in order to gain increasing competitiveness and thus a higher share in the crisis – hit world economy. Although the roadmap till 2015 included strict, regular monitoring by scorecard mechanism, they did not refrain from the ‘ASEAN-way’; dissents were mitigated by negotiations, sanctions were not applied. In order to achieve the goals set forth by AEC 2015. A new integrative agreement – ASEAN Comprehensive Investment Agreement (ACIA) - was agreed in 2009 and implemented in 2012. ACIA encourages such investments from third country investors (external to ASEAN), that are undertaking investments through their subsidiary based in ASEAN in further ASEAN member countries. Preconditions to be eligible for third country investor incentives are:

- The company owns or controls (appoints the majority of Board Members) the ASEAN legal entity
- The legal entity, which was established first in the ASEAN area, has to conduct real business activity.

Although some elements of AEC 2015 were not implemented fully by the original target date, it has created new opportunities for the regional integration and gradual unionization of a large trade and investment market with full global integration of the area. The attractiveness of the region is enhanced by the rapidly growing middle class of the region with huge demand for goods and services

(banking, insurance, tourism etc.) with an age pyramid relying on a broad base. In the meantime, Singapore has been experiencing a continuous decline, and the lowest level in birth rates worldwide for two decades, along with other East-Asian advanced economies such as Japan, Taiwan and the Republic of Korea – increasing the demand for healthcare services for the aging population.

AEC 2015 was not a final goal, but a point of reference which has been followed by the ASEAN Community Vision 2025, a roadmap titled: Kuala Lumpur Declaration on ASEAN 2025: Forging ahead together. The declaration signed by all members envisages a “future direction for a politically cohesive, economically integrated, socially responsible and a truly rules-based, people-oriented, people-centred ASEAN”. The document signed on November 22, 2015 unfolds the necessity of a rules-based approach and the adherence to international human rights principles in the ASEAN Political and Security Community 2025 Blueprint. Let us refer to Surin Pitsuwan’s analysis shared on ASEAN, in March 2016 in Budapest, where he suggested that in the implementation, the “ASEAN way” will still be followed, however.

The strategy towards AEC foresees by 2025 a “highly integrated and cohesive; competitive, innovative and dynamic community; with enhanced connectivity and sectoral cooperation” It includes “supportive policies towards innovation, science-based approach to green technology and development, and by embracing the evolving digital technology; promotion of good governance, transparency and responsive regulations; effective dispute resolution; and a *view towards enhanced participation in global value chains*” – as indicated in section 10.2 of the declaration.

There is empirical evidence, that TNCs look more and more on ASEAN as an integrated region. “Foreign multinational enterprises MNEs and ASEAN companies continued to expand in the region across a broad range of industries and in many cases with multiple investments. MNEs such as Aeon (Japan), Seven-Eleven (Japan), Continental (Germany), Alibaba (China) and ASEAN companies such as Axiata (Malaysia), Ayala (Philippines), San Miguel (Philippines), Keppel (Singapore), Maybank (Malaysia), RedDoorz (Singapore) and Siam Cement (Thailand) expanded in multiple ASEAN countries”. Looking at the 100 largest non-financial ASEAN domestic companies, 77 have operations in other ASEAN countries. The other 23 are purely domestically focused due to the nature of their business (ASEAN Investment Report, 2018). ASEAN countries with varying economic development levels entered differently into GVCs and have achieved different levels of integration. They are specialized in different industries, or within the same industry in different stages of production according to the comparative advantage of their domestic economy.

The region’s trade has substantially grown due to the conscious efforts to boost integration from 2007 with the ASEAN Charta and AEC-2015, 2025 strategy. Trade in goods, encouraged by cross-border fragmentation of production stages, increased from USD 2 trillion in 2010 to USD 2.8 trillion in 2018.



## Global and Regional Value Chains in East-Asia, Recent Disruptions and Future Prospects

More than 60% of world trade occurs through global value chains (when production stages are realized at least in two countries. (UNCTAD, 2013, WTO 2019.). From the beginning of the 21<sup>st</sup> century, international organizations and national public policy focus strongly on GVC movements as they impact advanced/emerging and developing economies alike relying on data collected in input-output databases (OECD-WTO TiVA database, WIOD, APEC-TiVA, UNCTAD-Eora GVC Database etc.). A joint effort by IDE-JETRO, OECD, the Research Centre of Global Value Chains headquartered at the University of International Business and Economics (RCGVC-UIBE) in Beijing, the World Bank Group, and the China Development Research Foundation, published Global Value Chain Development Reports in 2017 and 2019 to shed light on developments till 2017, the latest input-output data availability. The growth of global value chains has slowed since 2008-09, measured by the GVC participation index.

Figure 3  
World GVC participation from 1990-2018 (%)<sup>12</sup>

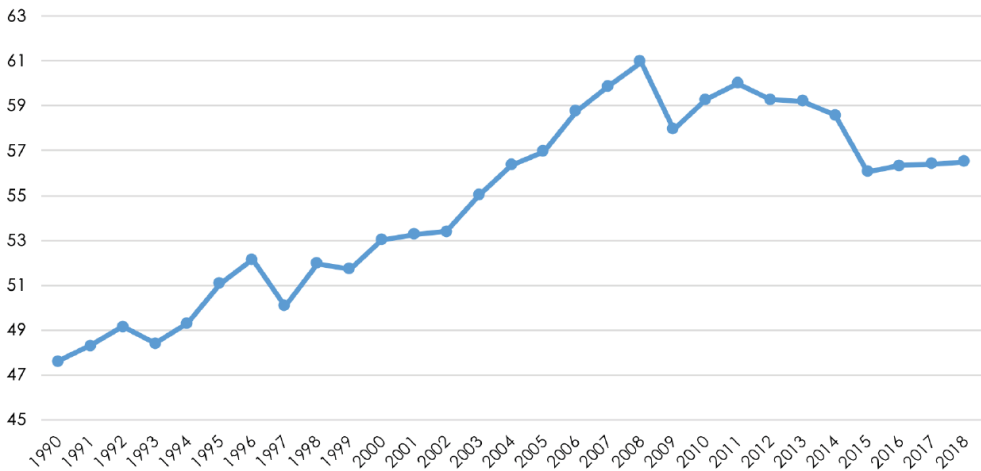
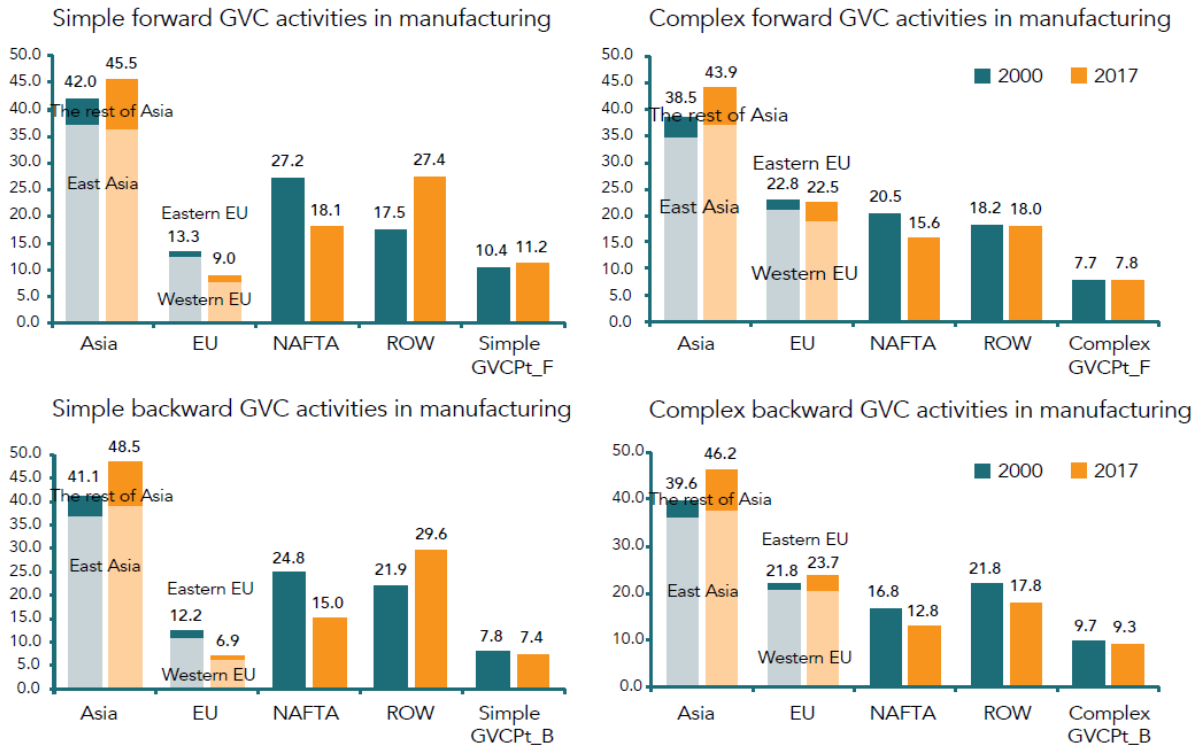


Figure 3. illustrates that the expansion trend of GVCs halted already with the 2008 Great Financial Crisis (GFC) and has not gained back momentum ever since. Discourses on possible de-globalization tendencies and reshoring of certain businesses started to emerge from 2012. While certain IP-Protection-sensitive Western-European medium-size producers withdrew from their Chinese ventures, the robust and expanding East-Asian market remained attractive for global manufacturers, placing certain stages of their production on the continent.

In spite of the declining trend, the expansion of complex global value chains (GVCs) was confirmed with the help of various input-output tables showing that the segment grew faster than GDP in 2017. In a more detailed picture, the growing importance of “Factory Asia” was identified, thanks to the increase of cross-country production sharing activities in the last decade and led by intra-regional complex GVC activities. The share of Asia’s total forward/backward complex GVC activities increased from 38.5% / 39.6% in 2000 to 43.9% / 46.2% in 2017 (WTO, 2019:20) to the detriment of “Factory America”. While in “Factory Europe” the increasing share and volume of GVC activity involving Eastern Europe can be seen on account of Western Europe from 2000 to 2017 (Figure 4).

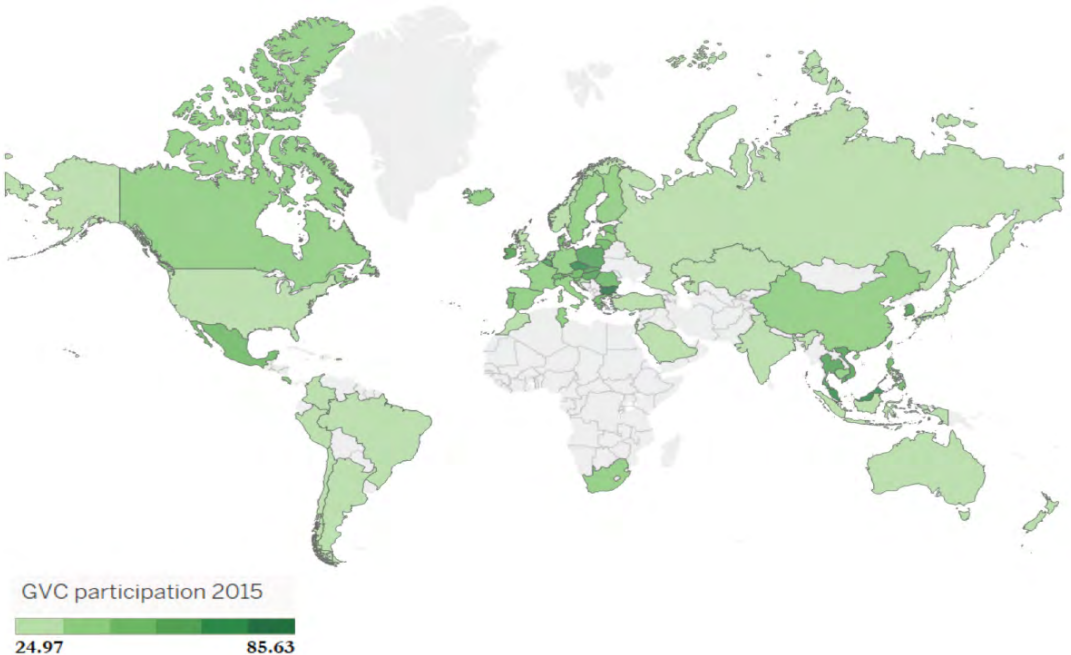
**Figure 4**  
Forward and backward (simple/complex) GVC participation, share of intra-and inter-regional GVC activities in manufacturing, (%), 2000 and 2017, Asia<sup>13</sup>



*Note:* the last set of bars represent the overall GVC participation ratios for Europe. Data calculated from the UIBE GVC indexes derived from the ADB 2018 ICIO tables.



Figure 5  
Global GVC Participation Index 2015<sup>14</sup>



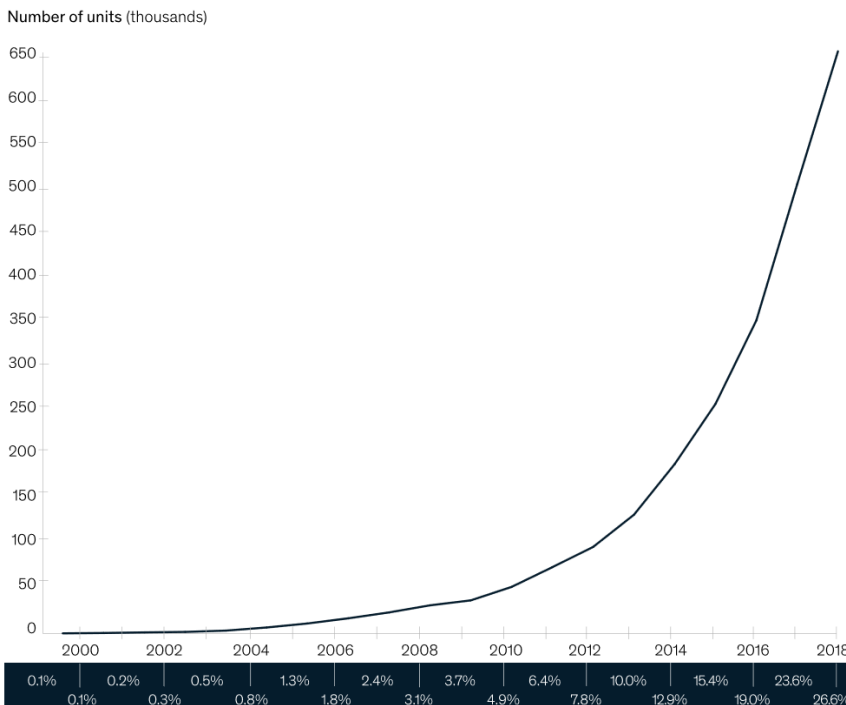
As Figure 5 presents with dark colours, both CEE and Southeast Asia show a high participation rate in global value chains, from the ASEAN countries particularly Singapore, Malaysia, Thailand and Vietnam. GVCs have made it easier for developing countries in East Asia to move away from export reliance on unprocessed primary products to step first into the simplest stage of manufacturing operations, e.g. electronics assembly activities. Research applying network analysis to illuminate the typology of foreign value added embedded in bilateral manufactured exports for the 2000-2015 identified major shifts in the period.

The substantial role of China in GVCs is reflected on Figure 5, too. Research into trade in value added regarding China has shown that integration of the Chinese economy into GVCs and reaching new export markets are achieved through foreign subsidiaries processing for manufacturing exports. However, the biggest contributor to GDP is the domestic private sector; firms plugging into the supply chains and generating a major part of the domestic value added (UIB-GVC, 2017). Certainly, the first wave of industrialization of East Asia from the end of the eighties, was dominated through production ties with Japan (described as the flying geese model with Japan's leading role). More recently, the role of ethnic Chinese business networks (Chinese diaspora) has increasingly become an important integrative driving force in promoting regional economic integration, both as a major source of inward investment to China, but also as important network connector, which links the Chinese market with the rest of the region.

These firms from advanced countries in the region use China as a low-cost manufacturing and export base, establishing production sites in China. At the same time, they have brought capital, technology and know-how into China. Xing and Zhang call it ‘regional network-based Chinese capitalism’, which has created hundreds of successful ethnic Chinese family businesses and networks interlocking medium-sized businesses in many countries in the region by the turn of the century. Thus contributing to the rise of China and her evolving “unavoidable” position in the regional GVCs and strengthening the Chinese economy (Xing, Zhang, 2009). This new pattern of regional integration is referred to in academic literature or economic journals as “Bamboo capitalism”, where the stages of the manufacturing process are carried out in various parts of the region before reaching their final assembly stage in China.

China’s emergence to the position of the world’s manufacturing base in the 21<sup>st</sup> century, was accompanied by the surging demand for industrial equipment. In China, operational stock of industrial robots has grown from less than 1,000 in 2000 to almost 650,000 in 2018, making the country home to an estimated one-quarter of the world’s robots and suggesting that China, as a manufacturing base, cannot be replaced in the short-term. The service network of major equipment manufacturers in China have a minimum of 100 branches, some up to 500 branches with 10,000 employees in aftersales service, to cover their installed base (McKinsey, 2020).

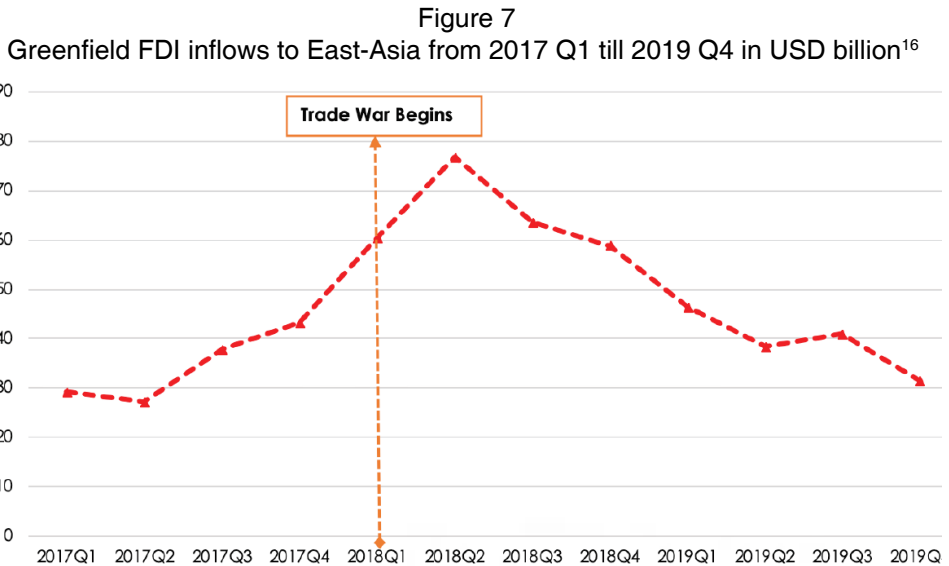
Figure 6  
China’s operational stock of multipurpose industrial robots in 2000-2018<sup>15</sup>







Trade tensions between the US and China evolving from early 2018, have had a drastic impact on global trade growth (WTO, 2019) and on FDI into East Asia too, due to increased economic uncertainty affecting business confidence and investment decisions.



Authors of the ASEAN Integration Report 2019 warned, that although trade tensions between the US and China in 2018 “have not discernibly dented trade flows to and from ASEAN, although a few AMS have been more affected. Moving forward, however, further escalation of trade tensions could undermine trade flows as well as business and consumer optimism, with repercussions on regional integration and real economic activity.” In mid-2019, Moody’s ranked Singapore as one of the most vulnerable Asia-Pacific countries together with Hong Kong due to slowdown of Chinese demand that was clearly seen in the Singaporean GDP figures of the first half of 2019, despite ASEAN taking over the position of China’s largest trading partner from the US for the first time since 1997. Some analysts and consultants argued that ASEAN countries may benefit from the US-China trade frictions, as an alternative manufacturing base to China, for which there is empirical evidence. In May 2019, The American Chamber of Commerce in China conducted a survey among member companies in China on the impacts of the tariff increase. The survey addressed the tariff hikes announced for May and June 2019 from both sides, and concluded that the tensions certainly negatively impact the competitiveness of American companies; 40% of the respondents from 250 companies were considering or had already moved manufacturing out from China. A quarter of them considered Southeast Asia and 10.5% viewed Mexico as alternative location. Less than 6% considered moving manufacturing back to the US. (AmCham China, 2019). The rise in Chinese wages has seen low-value and labour-intensive tasks

in clothing, footwear and low-cost electronic parts manufacturing starting to move from China to Vietnam and Cambodia from 2015. Primarily, Vietnam has been seen as a possible alternative for relocation. As Vietnam cannot keep up with the giant size of the manufacturing base, India is positioning itself, with its Make in India campaign, for this role too. Nevertheless, nearly 40% of all green-field FDI into East Asia went to China in the 2017-2019 period as well, however, 15% of investments went to Vietnam in the same period. Research, based on microdata from the FT FDI Database between October 2018 and December 2019, identified 22 investments relocated from China that mostly went to Vietnam followed by Malaysia, Thailand and Cambodia (Gopalan (2020):19).

Even if the first phase agreement signed between the US and China on 15<sup>th</sup> January 2020 gave the first hope of easing the situation causing GVC disruptions, the outbreak of the Covid-19 epidemic in China and its turning into a global pandemic has brought a new shock for trade and investment activity within GVCs. In the electronic equipment segment, interwoven most strongly by supply chains with nodes in the epicentre of the Chinese epidemic outbreak as well, the impact was especially shocking. Relocation figures from China have still been relatively low, but the trend will certainly continue caused by the uncertainties attributable to Covid-19. Global companies are expected to diversify, for the long run, their supplier base and reduce their overdependence on China's manufacturing base. While it is widely known that Apple's huge assembly activity is taking place in the Chinese subsidiaries of the Taiwanese Foxconn, it is less known that 2/3 of their top ten suppliers are also located in East Asia. Disruption of supply chains due to border closures and lockdowns to contain the virus as well as falling demand in the globally uncertain situation still cast a dark shadow on East Asian economies where GVCs play a decisive role in their economic progress. The WTO confirmed 1.8% drop in total trade for 2019 in ASEAN and forecasts a drop of 13-32% in global trade across regions and a 40% drop in global FDI for 2020.(ASEAN Policy Brief No.3/July 2020). In the Joint Declaration of the Special ASEAN Summit on COVID-19 issued on April 14, 2020, ASEAN Leaders committed to keep markets open for trade and investment as well as strengthen ASEAN Economic Cooperation and Supply Chain Connectivity.

## Conclusion

Where is the way forward from the two "black swan" events of the past 2.5 years that are still around reinforcing each other with major uncertainties? Is there a "New Normal" to come in East Asia? Sasidaran Gopalan, senior researcher of NTU CEM Singapore, claims that East Asian countries should learn to adapt to the partly de-globalized new realities, which will stay at least in the mid-term, while they should take advantage of new emerging opportunities. Hoe Ee Khor, chief economist of the ASEAN+3 Macroeconomic Research Office, established in Singapore in 2011, forecasts that the region realises the need to achieve compatibility between regional integration and globalisation. He believes that globalisation is here to stay – and Asia will remain one of the strongest advocates.



Looking at the developments from outside the continent, ASEAN member countries and businesses in their territory will certainly seek for more resilience, while still remaining closely connected to GVCs.

On the macro level:

- greater preparedness is needed for unexpected events and greater adaptability encouraged by policies
- according to capabilities and endowments, AMS countries should intend to move up the value chain by upgrading technology and human capital
- diversification shall be pursued in the economy e.g. best practice examples of Singapore advancing from electronics to biomedical research and biotechnology. Both sectors have shown robust growth in the first half of 2020; upgrading public health service after lessons from SARS in 2003 or, in the case of Malaysia, specializing in PPE manufacturing with great demand in the time of Covid-19 (Malaysia had 14.2% world market share in PPE production in 2018)
- stronger focus on institutionalization of integration and positioning ASEAN as a common investment platform with different merits in different tasks and functions in order to benefit from the shortening of supply chains with more regional scope

On the micro-level:

- companies started to realise the risks associated with the utmost fragmented production processes and extreme globalisation. Consultancy firms strongly promote this approach
- contingency plans are prepared for corporations to focus on more resilience including multiple suppliers for key components to enable shift if necessary
- overdependence on Chinese manufacturing is being reduced by diverting new investments of foreign and Chinese producers to alternative locations, mainly in ASEAN, to still service the growing Asian market
- shorter and more localised supply chains will hopefully lead to closer cooperation between state governance and foreign and local firms in considering the social component in order to avoid the circumstances for migrant workers which surfaced in Singapore with Covid-19

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## Endnotes

- 1 Global strategy advisor and Senior Research Fellow, Lee Kuan Yew School of Public Policy, National University of Singapore, member of the World Economic Forum's Global Agenda Council on Geoeconomics. Khanna held a lecture on 16.3.2017 at Corvinus University of Budapest, as well, at the invitation of the PAGEO Foundation.
- 2 In the paper, East Asia is applied to East- and Southeast Asia together

- 3 Refers to the Agreement signed by US, Japan, Germany, UK and France in New York Plaza Hotel to offset trade surpluses in Japan and Europe against US, causing JPY's 50% appreciation against USD and DM
- 4 Some believed that Surin Pitsuwan had a chance to be elected as General Secretary of the UN, against Ban ki-Moon, but since another party than his came to power in Thailand, he was not nominated. The author participated in the conference on 31.3.2016 at IFAT Budapest and took precise notes of the lecture.
- 5 Founding members of ASEAN: Indonesia, Malaysia, Phillipines, Singapore, Thailand. Brunei joined in 1984
- 6 Source: ASEAN Statistical Yearbook 2012. Graphic 5.1. p. 62.
- 7 Source: ASEAN Statistical Yearbook 2012. Graphic 5.5. p. 64.
- 8 From 2010, the product group is specified with the HS code 85: Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television image and sound recorders and reproducers, and parts and accessories of such articles acknowledging the cross-border fragmentation of the manufacturing processes worldwide
- 9 Source: author's calculations based on various tables from ASEAN Statistical Yearbook 2001, 2012, 2019
- 10 Source: author's calculations based on ASEAN FDI Database, ASEAN Statistical Yearbook 2001, 2019
- 11 Source: author's calculations based on ASEAN FDI Database, ASEAN Statistical Yearbook 2001, 2019
- 12 Source: Gopalan S. NTU CEM (2020) p. 7. Figure 5. (based pm UNCTAD Eora Database)
- 13 Source: Global Value Chain Development Report. WTO 2019 p.22. Figure 1.11
- 14 Source: Gopalan, S. NTU NCEM (2020) p. 23.
- 15 Source: Chesnais Th. & Wu, T. (2020), McKinsey & Company Article August 14<sup>th</sup>, 2020.
- 16 Source: Gopalan S, NTU CEM (2020) Figure 20. p. 18. (based on Financial