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## **GLOBAL VALUE CHAINS (GVCs) IN EAST ASIA DURING THE COVID-19 PANDEMIC – THE PERSPECTIVE OF JAPAN**

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**Abstract:** GVCs have become an inherent component of the economic landscape of East Asia, one of the key pillars of the regional integration processes and division of labour based on fragmentation and specialisation. The main objective of the paper was to describe the impact of COVID-19 pandemic on GVCs in East Asia from the perspective of Japan, using monthly trade statistics for 2020-2021. The paper indicates the short-term disruptive impact on trade statistics with the prospect of improvement, however, under conditions of the gradual phasing out of the pandemic, the effective utilisation of RCEP concessions to boost GVC trade, and with the better coordination of the regional response to future health crises. Statistical analysis is accompanied by critical analysis of literature in the field of research. The paper delivers the current statistical picture of the impact of the COVID-19 pandemic on intra-RCEP trade, accompanied by references to legal and institutional aspects of the response of individual countries to health crisis.

**Keywords:** global value chains (GVCs), COVID-19 pandemic, Japan.

## 1. Introduction

The COVID-19 pandemic, with more than 413 million cases and 5.8 million deaths to date (Worldometer, 2022), has significantly affected the performance of global value chains (GVCs) because of the restricted mobility of goods and services, limited access to labour forces for enterprises, as well as to retail markets for consumers. Several authors, including Antràs (2020), Yamashita and Fukasaku (2021), have recently studied the issue of the potential progressive de-globalisation of the world economy in the post-pandemic era.

East Asia is deeply involved in the vertical division of labour in manufacturing, accompanied by global distribution networks. Among the key participants of regional production networks are the member states of the Association of Southeast Asian Nations (ASEAN), namely Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam, whereas multinational enterprises (MNEs), originated in Japan, and play the role of investors, designers and coordinators of value chains dispersed within the region's emerging markets. Every year, more than 60 percent of total ASEAN's exports is routed through GVCs (Pasadilla, 2020).

To obtain a holistic picture of the impact of the COVID-19 pandemic on regional trade flows, the authors referred to trade statistics covering Japan's trade partners belonging to the Regional Comprehensive Economic Partnership (RCEP), i.e. ASEAN (Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, Thailand, Vietnam), China, the Republic of Korea, Australia and New Zealand. Notably, the RCEP member states account for more than 40 percent of exports and more than 50 percent of imports of Japan (International Trade Centre, 2021).

The research goal of the paper is to describe the impact of the COVID-19 pandemic on GVCs in East Asia from the perspective of Japan. The study includes non-tariff measures (NTMs) introduced by the government of Japan in response to the health crisis. The short-term implications are discussed using monthly trade statistics provided by the government of Japan. Statistical analysis is accompanied by critical analysis of literature in the field of research.

## 2. Theoretical context

GVCs are regarded as activities carried out by enterprises located in different locations as participants of a vertically integrated production process, from the creation of the product (good or service) to its final application, i.e. design, production, marketing, distribution and support for the end consumer, determining the value that is provided (Gereffi & Fernandez-Stark, 2011, p. 4). From the perspective of international business, GVCs are characterised by a number of critical attributes, such as: spatial flexibility, economies of scale and cost advantages (Drelich-Skulska, Bobowski, & Gola, 2021, p. 906), which are related in particular to access to natural

resources, a cheap and well-qualified workforce, the development of the global logistics services market, and the growth of the innovative and marketing potential of enterprises within many manufacturing and service sectors.

GVCs, enhanced by the ICT revolution and liberalisation, have become an inherent component of the economic landscape of East Asia, one of the key pillars of regional integration processes and the division of labour based on the fragmentation of value chains and specialisation (Deardorff, 2001). The expansion of production networks in East Asia has contributed to the proliferation of high-frequency GVCs, characterised by the vertical process-based division of labour, vertical foreign direct investment (FDI), agglomeration effects, *just in time* supplies, intra-corporate and arm's length transactions (Kimura & Ando, 2005), concentrating mostly within the machinery, automotive, electrical and electronics industries (Bobowski, 2018b, p. 396).

The RCEP considered in this paper is the largest ever mega-regional trade bloc formed on 15 November 2020 by fifteen East Asian countries, accounting for nearly 30 percent of global GDP and exports (Drelich-Skulska & Bobowski, 2021, p. 94; Bobowski, 2020, p. 19). It started operating on 1 January 2022. The RCEP, following definition of mega-regionalism in trade provided by Meléndez-Ortiz (2014, p. 13), is a regional trade agreement (RTA) with a huge share in global GDP and exports, involving countries which serve as designers, coordinators or hubs in GVCs, i.e. Japan, China and ASEAN.

According to UNCTAD, the RCEP's inter-regional trade, worth more than 2.3 trillion USD, is expected to increase by more than 40 billion USD due to the gradual elimination of nearly 90 percent of tariffs (Martin, 2021). Japan, with an expected increase in exports by 5.5 percent, may be the largest beneficiary of tariff reductions under this mega-regional trade deal (Shiraishi, 2021).

East Asia has already experienced disruptions in GVCs due to natural disasters such as the tsunami in Indonesia (2004), flooding in Thailand (2011), the earthquake and tsunami in Japan (2011) (Bobowski, 2018a, pp. 274-275). However, the COVID-19 pandemic proved to have more significant, region-wide impacts caused by the national lockdowns.

Among the strategic reasons for the expansion of Japanese MNEs in East Asia, in particular in Southeast Asia, the need to improve cost competitiveness, production efficiency and risk diversification should be indicated. The influx of Japanese FDI to ASEAN countries largely results from the corporate strategy assuming the use and development of regional production networks for specific product ranges, thus increasing the scale of involvement in the manufacturing sector of regional emerging markets, offering a complementary base of location advantages, progressing clustering and agglomeration of industry.

Many of Japan's leading MNEs from the electronics, automotive and machinery industries, such as Toyota, Honda, Nissan, Mazda, Suzuki Motor, Mitsubishi, Isuzu, Sony, Panasonic, Canon and Nikon, have established complex forms of

regional production networks in ASEAN, others such as Sanden, Denso, Nidec and Yazaki, are contract manufacturers of parts and components. In the case of the automotive industry, the development of the domestic market of countries such as the Philippines, Indonesia, Malaysia and Thailand has prompted foreign suppliers of parts and components for Japanese MNEs to invest in these countries within clusters and industrial agglomerations. *Just in time* systems and flexible production agreements practiced by Japanese enterprises favour the presence of suppliers of parts and components from other countries in ASEAN within GVCs, in close proximity to the original equipment manufacturer (OEM) companies, e.g. Toyota and Nissan, or first-tier contract manufacturers (Bobowski, 2018a, pp. 276-280).

### 3. Empirical analysis

According to the Oxford COVID-19 Government Response Tracker – OxCGRT (2022), RCEP countries recorded 17,79 million cases of coronavirus and more than 335 thousand deaths up to 31 December 2021. Only five ASEAN member states, namely Indonesia, Malaysia, the Philippines, Thailand and Vietnam, accounted for nearly 78 percent of cases and 84 percent of deaths among the fifteen RCEP countries. Daily data provided by OxCGRT in respect of the responses and policies to the health crisis by the RCEP countries, including the ASEAN member states, reflect a high diversity and degree of interventions<sup>1</sup>, with little sign of cooperation and coordination at supranational level. The highest SI at the end of 2021 was calculated for Myanmar and China – 80.56 and 79.17, respectively, with also relatively higher scores (more than 68) for the Philippines, Vietnam and Laos, and least stringent responses by Australia, Singapore, the Republic of Korea and Japan (varying between 40-47). Similar regularities were observed in the case of GRI and CHI, ranking China and Myanmar at the top, with relatively lower, more or less diversified, scores of high income countries of the RCEP and the remaining ASEAN member states closer to the average. Importantly, neither SI, GRI nor CHI assess the implementation and enforcement of the introduced policy measures, indicating only their number and degree.

ASEAN countries, despite the disastrous impact of the health crisis on local manufacturing, retail and tourism, acted independently without any coordinated

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<sup>1</sup> OxCGRT provides 20 indicators, classified into four categories: containment and closure (C1-C8: school closing, workplace closing, cancelling public events, restrictions on size of gatherings, closing public transport, stay-at-home requirements, restrictions on internal movement and international travel); economic response (E1-E4: income support, debt/contract relief for households, fiscal measures, giving international support); health systems (H1-H7: public information campaign, testing policy, contact tracing, emergency investment in health care, investment in COVID-19 vaccines, facial coverings, vaccination policy); miscellaneous (M1: other responses), normalised to vary between 0 and 100 (100 = strictest). The Stringency Index (SI) comprises indicators C1-C8 and H1, the Government Response Index (GRI) – the most comprehensive one: C1-C8, E1-E2, H1-H3, H6-H7, the Containment and Health Index (CHI): C1-C8, H1-H3, H6-H7 (Hale et al., 2021, p. 530).

response and involvement of regional institutions<sup>2</sup>. While high income Singapore successfully delivered tests, tracing systems and medical equipment, highly populated countries like Indonesia and the Philippines suffered from deficits in economic resources and healthcare infrastructure, receiving no support from ASEAN. A similar problem emerged in the case of vaccinations – both the production and distribution of vaccines varied significantly from country to country, disadvantaging the lower income ASEAN member states, i.e. Cambodia, Lao PDR and Myanmar<sup>3</sup>. The ASEAN and the ASEAN Plus Three Summits on COVID-19 were held in April 2020, with decisions in respect of establishment of the ASEAN COVID-19 Response Fund, the ASEAN Regional Reserve of Medical Supplies for Public Health Emergencies and the ASEAN Strategic Framework on Public Health Emergencies, however with no task force to coordinate actions and delegate duties between the ASEAN member states, and without comprehensive guidelines<sup>4</sup>. Consequently, China, Japan and the United States attempted to satisfy the ASEAN countries' demands for economic and medical support where necessary. The recently established ASEAN Centre for Public Health Emergencies and Emerging Diseases has not delivered any decisive effects so far, however, it is promising in terms of managing regional health crises in the future (Kashyap & Bhattacharya, 2021).

The short-term effects of the COVID-19 pandemic were calculated using monthly trade data from the Japanese Government Statistics for the period from January 2020 to November 2021. The analysis includes the fourteen trade partners of Japan involved in the mega-regional trade bloc, the RCEP: China, the Republic of Korea, the ASEAN member states, Australia and New Zealand. For the purposes of assessing the impact of the COVID-19 pandemic on Japan's exports and imports from/to the RCEP countries, the authors calculated the percentage change of monthly data year-on-year.

In respect of Japan's exports to the RCEP countries, there was a decline in trade volume during the first three quarters of 2020, with extremely high decreases for Thailand, Indonesia, the Philippines and New Zealand, while a dynamic recovery has been observed since the second quarter of 2021. In the case of Japan's exports to China, only the first two quarters of 2020 showed negative monthly dynamics year to year, whereas for the Republic of Korea – three quarters of 2020 (see Table 1).

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<sup>2</sup> The Philippines was first to decide to implement a lockdown in March 2020, and very soon after Malaysia closed the borders without notice which resulted in the mass migration of Malaysian workers to Singapore to sustain employment. With no access to local public services, including healthcare, migrant dormitories became a source of the dynamic spread of COVID-19.

<sup>3</sup> Including a lack of any formal and legal status of migrant workers from those countries when moving to the other ASEAN member states. For instance, Cambodians, working mostly in the informal economy in Thailand, were not considered for vaccination both at home and abroad.

<sup>4</sup> On the other hand, when facing avian influenza, ASEAN successfully responded by the establishment of the Highly Pathogenic Avian Influenza Task Force. Specifically, Malaysia created disease-free zones, Thailand monitored infections, while Singapore conducted epidemiological studies on a regional scale.

**Table 1.** Total volume of Japan's exports to the RCEP countries, January 2020-September 2021, change compared to the same month of a year before (%)

EX	KOR	CHN	VNM	THA	SGP	MYS	BRN	PHL	IDN	KHM	LAO	MMR	AUS	NZL
I/20	-11.86	-6.42	11.78	-5.04	-3.95	-0.43	-29.61	-0.24	-13.77	12.76	142.97	53.67	2.85	-7.41
II/20	1.05	-0.35	22.94	-2.72	12.04	12.44	2.54	2.41	-12.86	9.18	55.64	10.33	-9.84	-0.53
III/20	-10.74	-8.73	10.10	-15.44	-33.34	2.42	-13.74	-15.39	-2.86	-1.85	20.91	-1.20	-5.69	-22.88
IV/20	-10.67	-4.06	0.32	-16.39	-17.76	-28.08	-70.01	-44.64	-34.87	-8.37	118.25	5.09	-45.97	-51.59
V/20	-18.01	-1.92	-13.83	-32.89	0.18	-27.11	-2.85	-42.65	-42.16	-55.32	32.00	-17.01	-59.13	-49.72
VI/20	-15.08	-0.24	-14.70	-45.63	-27.72	-27.51	-40.38	-30.20	-56.57	-18.09	1.12	-17.06	-41.84	-46.70
VII/20	-14.17	8.17	-2.82	-35.91	-13.07	-23.96	82.02	-26.49	-60.10	-11.76	135.24	-31.75	-27.09	-46.85
VIII/20	-13.83	5.13	-6.60	-31.34	-26.12	-0.88	-0.05	-14.88	-55.75	-15.43	19.35	17.46	-20.90	-39.84
IX/20	-1.15	13.98	-5.24	-18.69	-13.77	-2.58	-21.75	-20.18	-46.87	-20.21	71.28	-14.75	-11.76	-7.50
X/20	9.03	10.23	10.58	6.73	-3.96	5.37	-32.75	-10.83	-41.89	7.04	24.41	-45.93	20.88	-1.37
XI/20	3.12	3.76	4.10	-9.60	-26.66	-1.98	17.87	-19.13	-27.92	-29.72	110.51	4.53	-2.15	0.62
XII/20	20.94	10.16	5.71	1.54	-4.23	7.05	-16.49	-3.60	-28.24	-16.04	-19.29	-33.85	-3.73	21.07
I/21	15.14	37.49	16.16	11.52	-9.79	17.94	19.37	-9.58	-15.95	8.37	-22.91	-11.18	-2.69	24.26
II/21	2.11	3.35	-9.25	4.95	-16.43	2.20	-28.83	-16.26	-10.11	1.16	38.53	-48.45	0.99	11.60
III/21	11.21	37.25	4.41	19.11	20.91	24.98	5.71	25.83	-5.17	58.53	-4.32	-47.58	28.68	19.21
IV/21	25.63	33.80	30.45	35.12	15.01	62.2	-51.20	80.37	6.39	57.44	-5.17	-61.38	102.18	164.13
V/21	18.51	23.64	42.64	55.18	23.27	73.37	-68.01	82.32	145.68	48.11	36.48	-58.80	112.96	161.02
VI/21	36.38	27.69	42.44	98.69	23.46	58.08	-51.13	47.50	101.90	26.36	-13.57	12.00	55.51	92.57
VII/21	24.53	18.92	29.21	99.49	35.47	30.27	21.15	44.84	133.33	9.89	-32.71	-17.34	75.65	128.05
VIII/21	31.46	12.63	-4.38	54.22	51.88	5.04	-31.60	27.95	99.90	15.91	39.67	-67.57	15.49	103.23
IX/21	24.55	10.26	6.04	36.99	29.85	23.00	43.67	35.53	90.30	42.90	-15.77	-65.71	-16.12	27.15

Source: Japanese Government Statistics (2021).

**Table 2.** Total volume of Japan's imports from the RCEP countries, January 2020-September 2021, change compared to the same month of a year before (%)

IM	KOR	CHN	VNM	THA	SGP	MYS	BRN	PHL	IDN	KHM	LAO	MMR	AUS	NZL
I/20	-4.44	-5.56	12.39	2.78	9.81	4.97	3.17	-7.41	-12.60	4.77	18.57	20.89	-17.33	-10.35
II/20	1.41	-47.03	-6.04	-11.36	-8.82	-7.86	-14.45	-5.32	-13.81	0.68	6.90	14.77	-17.46	-4.74
III/20	-5.33	-4.36	18.51	-4.75	7.09	-1.13	-0.93	-9.80	-6.35	4.60	-1.19	11.02	-15.18	13.98
IV/20	-8.77	11.89	3.68	0.83	15.03	-39.48	-37.33	-35.47	-6.43	2.85	-17.40	16.64	-8.67	-14.05
V/20	-26.54	-1.58	-21.26	-14.67	35.36	-34.39	-73.54	-42.80	-20.04	-33.08	-51.53	-38.53	-27.65	-8.86
VI/20	-15.63	0.95	-12.29	-16.53	17.29	3.56	-19.60	-15.88	-26.54	5.56	-6.37	-15.06	-21.77	-1.80
VII/20	-20.99	-9.67	-17.42	-24.63	12.77	-14.89	-63.76	-12.45	-25.98	-18.88	-16.74	-16.14	-28.71	-20.03
VIII/20	-18.01	-6.84	-7.26	-18.02	7.12	-12.59	-51.46	-15.92	-22.40	-18.34	-16.20	-8.70	-43.17	-12.11
IX/20	-8.12	-11.65	-14.05	-14.46	-1.26	-25.36	16.60	-3.89	-16.67	-8.86	-32.70	-12.83	-34.51	-4.50
X/20	-19.44	-3.42	-4.01	-2.75	13.02	-9.71	-40.26	-5.56	-19.79	-17.43	-9.84	-24.89	-25.44	-16.81
XI/20	-11.80	6.99	7.17	4.46	-10.08	-4.25	-47.30	-0.04	-19.51	-14.14	-11.47	-43.68	-22.97	-0.34
XII/20	-6.14	2.14	-2.79	5.13	-5.84	2.35	-51.29	-8.70	-7.56	-5.67	-64.69	-22.14	-9.71	-14.48
I/21	-6.17	-1.01	-10.52	-0.87	-12.6	-15.48	-26.18	-7.75	-13.96	-12.02	-15.34	-33.72	-4.93	-11.75
II/21	-7.69	114.59	22.92	4.30	-5.52	6.65	-23.23	1.53	-2.24	1.74	-17.96	-28.73	1.12	-17.48
III/21	11.13	10.05	-2.08	15.4	0.17	9.44	-16.27	15.98	20.17	8.13	-4.09	-32.66	-8.40	-7.98
IV/21	19.55	0.75	11.48	8.58	-18.72	78.26	-6.88	67.24	20.98	0.50	32.02	-37.12	0.78	20.19
V/21	34.31	4.41	17.44	11.58	-17.64	44.57	210.17	70.17	15.70	-1.68	50.42	38.11	41.34	-22.10
VI/21	40.66	17.55	23.64	22.04	4.73	25.76	21.48	26.79	33.28	13.19	-11.69	-7.00	50.24	17.90
VII/21	39.95	12.37	18.43	25.70	-0.05	20.59	195.19	20.25	32.39	0.66	17.14	-48.12	40.23	23.18
VIII/21	40.50	23.35	4.62	33.75	36.98	37.83	180.47	16.77	69.55	49.48	43.48	-27.11	118.83	49.88
IX/21	33.24	23.76	4.20	26.35	40.88	21.99	121.26	7.30	43.06	20.36	16.98	-37.81	99.71	29.80

Source: own calculations based on: Japanese Government Statistics (2021).

**Table 3.** Total volume of Japan's exports by commodity classification, January 2020-September 2021, change compared to the same month of a year before (%)

EX	CRUDE MATERIALS	MINERAL FUELS	INDUSTRIAL CHEMICALS	METALS	TEXTILES	NON-ELECTRIC MACHINERY	ELECTRIC EQUIPMENT	TRANSPORT EQUIPMENT	TEXTILE PRODUCT	HOUSEHOLD EQUIPMENT	DOMESTIC ELECTRIC EQUIPMENT	PASSENGER CARS	MOTOR-BICYCLES & BICYCLES	TOYS & MUSICAL INSTRUM.
I/20	13.06	-3.74	-4.94	1.25	-3.56	-9.47	-0.89	1.06	8.47	-4.89	-8.90	-4.83	5.83	25.86
II/20	7.69	-18.62	3.37	13.03	-3.38	-8.94	11.14	-4.52	83.10	-2.57	-1.24	-3.77	1.27	33.88
III/20	-2.82	-5.55	-4.68	6.60	-12.80	-17.85	-2.38	-23.86	-12.57	-11.30	-15.88	-13.86	-6.26	23.18
IV/20	-19.63	-40.91	-6.89	-8.22	-18.61	-23.17	-7.92	-35.26	-15.96	-16.75	-3.74	-52.17	-27.08	84.34
V/20	-35.02	-73.53	-8.61	-21.56	-23.89	-23.19	-11.9	-52.50	-4.30	-10.14	-5.00	-65.41	-43.63	-40.64
VI/20	-22.12	-54.20	-15.85	-17.31	-33.68	-24.46	-17.82	-28.00	-17.42	-1.93	-2.95	-50.14	-36.27	-1.93
VII/20	-7.86	-71.67	-12.85	-17.4	-29.68	-17.71	-7.39	-41.73	-1.79	-4.15	3.57	-27.69	-20.68	14.74
VIII/20	-9.85	-70.06	-10.76	-9.78	-23.68	-16.81	-4.56	-32.26	-13.61	2.16	-4.32	-16.85	-14.15	-13.71
IX/20	-2.25	-61.61	0.01	-7.62	-19.21	-7.81	3.67	-22.51	-7.94	12.45	6.73	3.22	-7.26	4.11
X/20	14.29	-70.81	5.58	-3.75	-12.73	-2.87	6.84	-12.29	2.88	28.00	8.73	5.17	-6.82	3.98
XI/20	7.10	-61.96	3.90	-7.61	-19.27	-3.04	3.67	-11.09	-7.26	10.45	19.44	-0.86	-12.98	5.99
XII/20	22.89	-52.69	8.27	-0.53	-7.64	0.27	9.02	-2.55	-4.78	20.89	6.98	-3.92	5.40	36.78
I/21	7.73	-42.93	21.49	4.58	2.20	12.42	14.16	-12.73	4.18	37.19	24.66	-6.09	1.07	37.34
II/21	7.20	-41.70	4.21	-2.62	-14.49	-1.42	-0.06	-11.74	-43.10	12.64	-2.15	-14.08	-1.37	-26.01
III/21	41.15	-19.10	17.47	13.14	4.92	18.64	12.41	12.04	15.87	37.82	12.12	10.53	32.64	17.85
IV/21	77.42	-5.40	28.35	29.70	11.66	40.13	25.63	39.41	34.21	56.29	29.10	92.04	89.65	6.07
V/21	106.49	8.71	33.12	50.28	27.56	40.36	31.10	90.37	39.37	48.88	41.13	138.11	156.59	114.37
VI/21	86.89	5.18	39.56	62.14	39.64	41.90	39.84	31.36	25.12	44.37	17.50	100.60	113.87	43.95
VII/21	44.41	139.7	35.35	64.44	34.85	35.77	30.99	57.44	14.34	26.28	18.29	37.21	63.31	-7.94
VIII/21	48.37	161.12	29.25	52.65	28.33	31.65	16.30	31.07	39.24	33.23	13.45	-1.49	75.39	3.60
IX/21	37.42	175.05	28.27	57.15	19.33	23.65	14.11	16.08	36.73	12.61	7.81	-46.63	34.80	5.42

Source: own calculations based on: Japanese Government Statistics (2021).



**Table 4.** Total volume of Japan's imports by commodity classification, January 2020-September 2021, change compared to the same month of a year before (%)

IM	CRUDE MATERIALS	MINERAL FUELS	INDUSTRIAL CHEMICALS	METALS	TEXTILES	NON-ELECTRIC MACHINERY	ELECTRIC EQUIPMENT	TRANSPORT EQUIPMENT	TEXTILE PRODUCT	HOUSEHOLD EQUIPMENT	DOMESTIC ELECTRIC EQUIPMENT	PASSENGER CARS	MOTOR-CYCLES & BICYCLES	TOYS & MUSICAL INSTRUM.
I/20	0.12	-3.61	-8.36	-8.16	-6.74	-2.86	-9.65	-20.21	5.01	9.36	2.64	28.35	10.50	-10.64
II/20	6.44	-9.79	-4.42	-9.04	-20.7	-25.35	-17.74	-8.52	-37.92	-36.36	-30.05	-30.64	-9.46	-35.94
III/20	0.23	-12.10	1.12	2.19	-7.67	-9.48	5.17	-20.03	-1.79	-13.94	-9.49	15.38	-5.37	0.84
IV/20	-2.82	-33.09	15.00	-6.21	-6.78	-4.29	1.29	-10.61	29.73	2.98	9.38	12.29	9.96	15.56
V/20	-21.62	-57.57	-4.96	-23.75	-24.18	-11.89	-14.31	-62.50	24.67	-16.77	-15.97	-48.50	-11.63	-5.52
VI/20	-1.05	-49.05	11.36	-13.16	-13.53	2.37	-5.96	-55.48	-1.51	4.27	11.62	-70.42	10.05	0.01
VII/20	-9.91	-48.38	-7.13	-20.11	-24.26	-13.79	-8.51	-58.11	-13.49	-0.48	5.17	-30.52	-7.32	-5.37
VIII/20	-7.80	-45.11	-15.10	-21.91	-21.72	-6.90	-4.21	-41.77	-13.97	-7.30	0.25	-39.1	3.16	-23.85
IX/20	-4.92	-38.6	-11.96	-5.03	-19.21	-8.80	-18.91	-22.32	-6.56	-0.09	19.23	-7.52	9.45	-13.26
X/20	-1.84	-38.24	-2.44	-11.09	-19.35	-3.73	-3.28	-44.41	-10.63	7.27	9.18	-9.35	4.88	15.19
XI/20	-0.28	-39.97	-8.23	-10.44	-17.60	-1.78	18.09	-18.86	-4.80	4.87	6.89	-25.31	3.43	-3.09
XII/20	5.17	-36.12	-7.35	7.51	-19.07	1.34	1.18	-29.31	-4.64	3.74	4.88	6.46	10.22	-9.91
I/21	5.93	-26.97	-11.55	1.83	-20.33	-6.21	14.50	6.57	-24.66	-12.91	-2.89	37.58	-0.49	0.12
II/21	4.35	-8.85	1.91	24.63	10.59	28.89	32.06	3.68	60.56	104.96	61.62	13.61	47.31	99.01
III/21	33.38	-11.49	15.20	17.28	-1.47	15.30	9.39	-13.27	-7.98	26.89	26.98	-11.97	41.17	32.90
IV/21	40.33	22.53	3.21	48.29	-2.85	2.91	20.16	21.50	-27.49	13.30	16.49	-7.48	18.37	9.46
V/21	50.69	71.27	30.88	77.03	7.56	2.77	23.00	44.82	-31.64	33.53	36.52	100.45	39.87	32.33
VI/21	75.29	86.53	10.73	81.52	7.68	7.51	29.60	66.91	-1.58	32.15	16.46	398.58	43.53	21.53
VII/21	60.45	79.11	21.62	73.15	13.74	6.58	24.72	41.64	-15.96	20.23	0.93	29.66	16.22	13.86
VIII/21	71.11	104.49	62.36	111.47	32.99	19.02	26.22	50.18	1.17	39.67	3.52	3.78	30.42	43.24
IX/21	70.26	90.03	55.55	76.02	24.75	15.23	39.24	32.92	-4.64	21.98	-4.89	-21.78	14.79	16.55

Source: own calculations based on: Japanese Government Statistics (2021).

In respect of Japan's imports from the RCEP countries, decreases were recorded through the whole of 2020 and the first quarter of 2021, with extremely high falls for Brunei Darussalam, Thailand, Indonesia and Australia. A dynamic recovery has been observed in most cases since 2021, except for Singapore, Brunei Darussalam, Myanmar and Australia. In the case of Japan's imports from China, there were episodes of negative growth in the first and third quarter of 2020, while for the Republic of Korea – through the whole of 2020 and the first two months of 2021 (see Table 2).

In respect of Japan's exports to the RCEP, most sectors experienced decline in 2020, with extremely high negative growths in the case of passenger cars, motor-cycles & bicycles, transport equipment, non-electric machinery, textiles and mineral fuels. Since the second quarter of 2021, a recovery has been recorded in most sectors, with special regard to passenger cars, motor-cycles and bicycles. Regarding Japan's imports from the RCEP, decreases in most sectors were recorded through the whole of 2020, especially regarding transport equipment, mineral fuels, passenger cars and textiles. Significant recoveries have been observed since the first quarter of 2021 in most sectors, especially concerning passenger cars, transport equipment, crude materials, mineral fuels and metals (see Tables 3-4).

Summing up, there are no premise to claim that the COVID-19 pandemic may disrupt GVCs in the longer term.

As reported by Global Trade Alert (2021), Japan has imposed a relatively high number of non-tariff measures (NTMs) since January 2020. The most harmful interventions in the trade policy of Japan across the RCEP member states regarded China (23), the Republic of Korea (21), Thailand (19), Indonesia, Malaysia and Australia (11), Vietnam (10). Among the most affected sectors there were: motor vehicles, trailers & semi-trailers and their parts, machinery for mining, quarrying & construction and their parts, semi-manufactures of plastics and live animals. An important role has been played recently by the sanitary and phytosanitary measures introduced under the COVID-19 safety regulations, and it can be expected that this trend will continue also after the pandemic, irrespective of the reduction of average tariffs in trade. The rising number of harmful interventions under Japan's trade policy since 2020, reflects the growing scale of trade disputes across East Asia, some of which have become a subject of the WTO's dispute settlement procedures.

Recently, there has been an escalation of disputes involving the ASEAN member states, such as Indonesia and Thailand, addressing harmful contingent trade-protective and other non-technical measures, mostly in agricultural rather than manufactured products.

## 4. Conclusion

The disruptive impact of the COVID-19 pandemic on GVCs in East Asia has proved so far to have a temporary nature. Japan's trade with the RCEP countries was affected

negatively by the health crisis, especially in the case of the largest ASEAN economies, such as Thailand, Indonesia and the Philippines, which are intensively involved in GVCs in machinery, automotive, electric and electronic industries. The increasing number of NTMs imposed since 2020 might become a challenge for the RCEP countries as potential obstacles for the further expansion and inclusiveness of GVCs in East Asia.

On the other hand, the RCEP, which entered into force in January 2022, may support economic recovery within the region by boosting GVCs trade, however, under the condition that the pandemic is gradually phased out and COVID-19 turns into an endemic disease, similar to e.g. seasonal influenza, thanks to the increase in the immunity of societies and the decrease in the mortality rate of subsequent variants of the coronavirus. Importantly, the RCEP provides common rules addressing competition, dispute settlement, e-commerce and intellectual property.

Taking into account recent studies by Shih (2020), and Zhan (2021), it can be assumed that GVCs in the post-pandemic era may become more regional or local with strong focus on supply security, resulting in the relocation of production processes to nearshore locations. This, in turn, can translate into a trade diversion effect accompanied by a trade creation effect within the RCEP, considering the aforementioned tariff reductions and a trade resilience effect. Japan, as a key investor, designer and coordinator of value chains within East Asia, is expected to gain the most, i.e. 48 percent of the total increase in the RCEP's exports, especially regarding auto parts, steel and chemical products (Shiraishi, 2021).

Considering the fairly disappointing response of the ASEAN member states to the COVID-19 pandemic, and the diversified measures undertaken by national governments, there is a need for better coordination of actions among the regional countries to manage future health crises more effectively through prevention, exchange of information, tracing, distribution of medical and economic assistance as well as the delegation of specific duties from country to country.

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## **GLOBALNE ŁAŃCUCZY WARTOŚCI (GŁW) W AZJI WSCHODNIEJ W DOBIE PANDEMII COVID-19 – PERSPEKTYWA JAPONII**

**Streszczenie:** Globalne łańcuchy wartości (GŁW) stały się nieodłącznym atrybutem krajobrazu gospodarczego Azji Wschodniej, jednym z kluczowych filarów procesów integracji regionalnej i międzynarodowego podziału pracy opartego na fragmentacji i specjalizacji. Głównym celem artykułu jest scharakteryzowanie wpływu pandemii COVID-19 na GŁW w Azji Wschodniej z perspektywy Japonii z wykorzystaniem miesięcznych statystyk handlowych 2020-2021. Opracowanie wskazuje na krótkoterminowy destrukcyjny wpływ na statystyki handlowe z perspektywą poprawy, jednak pod warunkiem stopniowego wygaszania pandemii, efektywnego wykorzystania koncesji *Regional Comprehensive Economic Partnership* (RCEP) w celu pobudzenia handlu GŁW oraz lepszej koordynacji na poziomie regionu w zakresie odpowiedzi na przyszłe kryzysy zdrowotne. Analizie statystycznej towarzyszy analiza krytyczna literatury przedmiotu. Artykuł przedstawia aktualny obraz statystyczny wpływu pandemii COVID-19 na handel wewnątrz RCEP wraz z odniesieniami do prawnych i instytucjonalnych aspektów reakcji poszczególnych krajów na kryzys zdrowotny.

**Słowa kluczowe:** globalne łańcuchy wartości, pandemia COVID-19, Japonia.