

ASEAN and Japan Economic Cooperation: The Way Forward

Fukunari Kimura

Chief Economist, Economic Research Institute for ASEAN and East Asia (ERIA)

Professor, Faculty of Economics, Keio University

www.eria.org

Economic Research Institute for ASEAN and East Asia



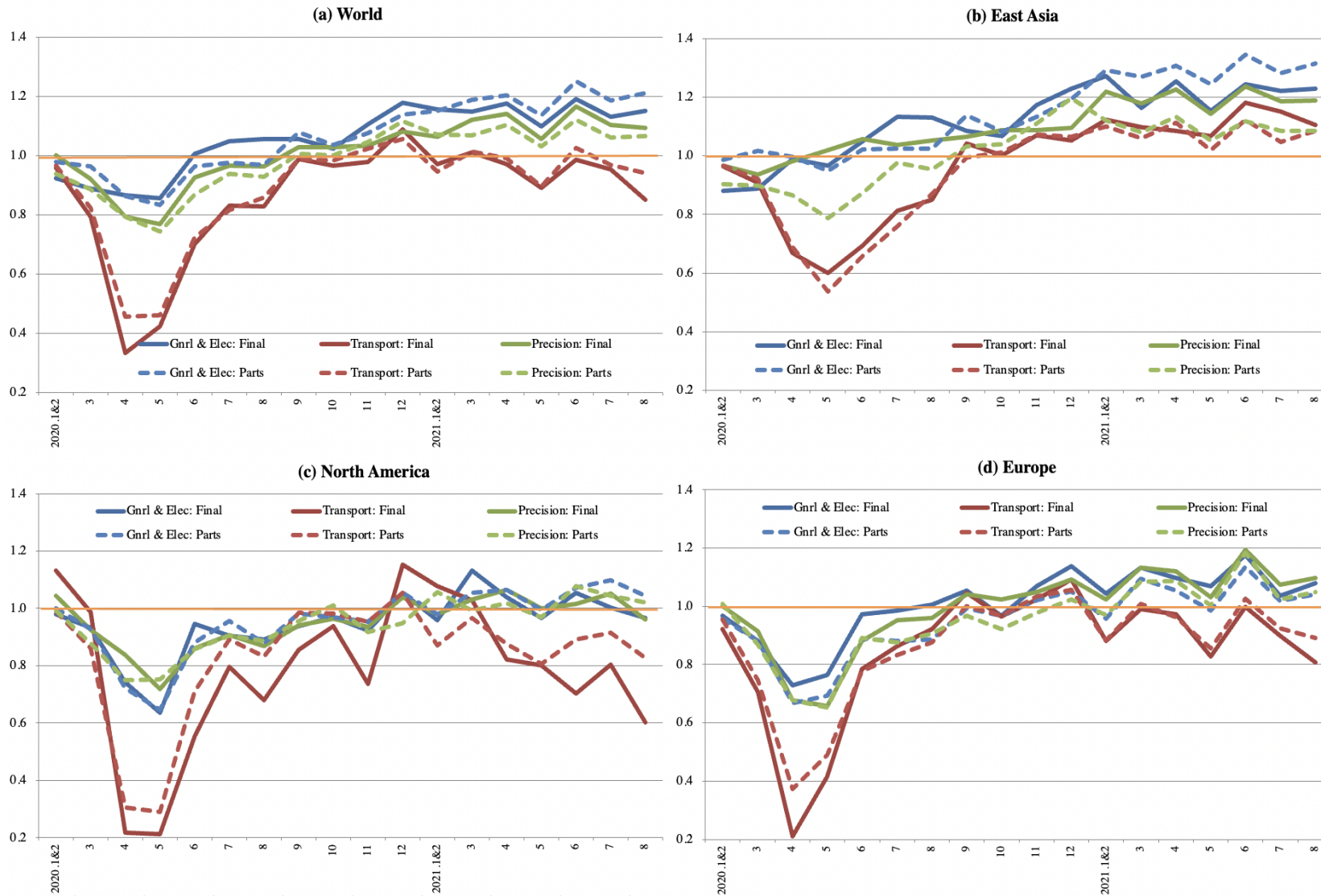
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1. Factory Asia survived COVID-19

- ASEAN and East Asia quickly overcame “negative supply shocks” and “negative demand shocks.”
 - Global value chains (GVCs), particularly international production networks (IPNs) (Ando and Kimura 2005, Baldwin 2016), proved to be robust and resilient again.
- ASEAN and East Asia aggressively take advantage of “positive demand shocks” due to work-at-home/stay-home type products.
 - ERIA questionnaire survey reveals dynamism of Asian companies (Oikawa, et al. 2021, Todo, et al. 2021).
- Although multiple infection peaks are still coming, ASEAN and East Asia can continue to utilize globalization forces for economic development.

Machinery exports to the world by major regions (each month of 2019 = 1)



Source: Ando and Hayakawa (2021).

- COVID-19 provided big shocks on machinery IPNs.
 - However, we had a quick bottom-out in general & electric machinery and precision machinery with “positive demand shocks.”
- East Asia (including 6 AMS, China, HK, Taiwan, Korea, and Japan) had smaller drops and stronger recovery afterwards.
 - Some country-specific moves are observed in transport equipment due to local lockdowns and the shortage of semiconductors.
- Overall, East Asia can still believe in “globalization” for economic development.
 - Cf. North America, Europe

2. ASEAN's strong commitment to IPNs

- Some are worrying about low intra-ASEAN trade ratios.
- However, AMS' commitment to IPNs is strong.
 - Actual and predicted machinery trade values (gravity equation exercise)
 - After controlling the country size, distance and others, intra-ASEAN and ASEAN-Northeast Asia links are particularly strong (cf. North America, Europe).
 - AMS start constructing intra-ASEAN production networks.
- ASEAN is at the center of Factory Asia.
 - The US-China confrontation and geopolitical tension may rather strengthen the importance of ASEAN in Factory Asia.
 - To keep “the rule-based trading regime” is the key.
 - Utilize AEC and RCEP as living, evolving agreements.

Actual and predicted machinery trade values for RCEP and other countries (2010, 2019)

Exporter/Importer	Value (millions US\$, %)	2019										2010	
		China	Japan	Korea	ASEAN	Australia and New Zealand	India	North America	EU	Rest of the world	Total (World)	ASEAN	Total (World)
2019	China	Actual (A)	75,889	58,515	161,657	7,708	37,831	296,546	249,381	477,260	1,364,788	70,256	903,387
	Predicted (B)	118,680	65,970	72,327	9,470	50,039	164,000	176,914	295,913	953,314	40,507	556,173	
	(A)/(B) (%)	64	89	224	81	76	181	141	161	143	173	162	
	Japan	Actual (A)	81,031	20,245	59,962	2,582	5,817	126,272	64,669	110,216	470,795	67,993	519,592
	Predicted (B)	74,330	22,411	21,730	3,931	7,175	64,155	60,352	84,784	338,867	25,204	362,288	
	(A)/(B) (%)	109	90	276	66	81	197	107	130	139	270	143	
	Korea	Actual (A)	84,679	9,161	54,181	744	6,551	66,569	36,682	77,162	335,729	24,744	301,857
	Predicted (B)	45,878	24,885	8,642	1,308	2,995	21,767	22,319	35,638	163,431	5,963	111,661	
	(A)/(B) (%)	185	37	627	57	219	306	164	217	205	415	270	
	ASEAN	Actual (A)	83,070	39,456	24,559	122,552	4,107	17,733	117,662	83,934	151,149	644,224	98,785
Predicted (B)	39,800	18,539	6,648	45,277	2,849	8,387	34,796	38,901	65,498	260,696	33,709	183,477	
(A)/(B) (%)	209	213	369	271	144	211	338	216	231	247	293	232	
Australia and New Zealand	Actual (A)	114	57	66	373	11	45	1,215	930	8,395	11,206	297	14,411
Predicted (B)	2,695	1,767	531	1,522	301	540	7,922	5,267	13,346	33,892	1,483	33,835	
(A)/(B) (%)	4	3	12	24	4	8	15	18	63	33	20	43	
India	Actual (A)	1,971	792	566	9,107	228	9,328	13,273	11,687	27,750	65,373	5,158	35,640
Predicted (B)	56,211	12,868	4,837	18,963	2,043	18,797	32,894	45,697	87,949	261,462	15,322	203,105	
(A)/(B) (%)	4	6	12	48	11	40	26	32	25	34	18		
North America	Actual (A)	63,106	28,621	23,338	43,379	5,678	9,328	617,230	161,678	177,231	1,129,588	43,134	846,915
Predicted (B)	105,300	65,765	20,097	42,277	16,002	18,797	592,094	291,395	328,009	1,479,736	32,608	1,199,849	
(A)/(B) (%)	60	44	116	103	35	50	104	55	54	76	132	71	
EU	Actual (A)	144,804	37,144	30,659	64,599	8,846	24,562	286,773	1,517,637	428,430	2,543,454	49,995	2,046,953
Predicted (B)	122,564	66,877	22,265	51,216	11,858	27,957	318,792	1,298,462	542,389	2,462,379	41,734	2,022,309	
(A)/(B) (%)	118	56	138	126	75	88	90	117	79	103	120	101	
Rest of the world	Actual (A)	92,501	22,859	16,508	60,048	8,727	21,201	95,207	180,290	192,628	689,968	41,608	526,599
Predicted (B)	137,651	59,790	23,094	55,248	17,503	38,624	227,929	380,455	361,053	1,301,347	39,713	948,336	
(A)/(B) (%)	67	38	71	109	50	55	42	47	53	53	105	56	
Total (World)	Actual (A)	551,277	213,978	174,456	575,858	38,631	123,069	1,620,747	2,306,888	1,650,221	7,255,125	401,971	5,621,033
Predicted (B)	584,429	369,171	165,855	317,201	65,265	154,513	1,464,350	2,319,762	1,814,579	7,255,125	236,243	5,621,033	
(A)/(B) (%)	94	58	105	182	59	80	111	99	91	100	170	100	
2010	ASEAN	Actual (A)	52,845	30,760	13,488	98,785	2,076	9,417	56,587	57,379	104,342	425,680	
	Predicted (B)	18,626	19,532	4,544	33,709	2,281	7,038	20,781	27,931	49,034	183,477		
	(A)/(B) (%)	284	157	297	293	91	134	272	205	213	232		
Total (World)	Actual (A)	425,132	171,620	131,735	401,971	39,300	78,630	1,081,542	1,853,986	1,437,119	5,621,033		
Predicted (B)	310,255	382,428	119,651	236,243	58,179	128,489	1,044,663	1,827,484	1,513,642	5,621,033			
(A)/(B) (%)	137	45	110	170	68	61	104	101	95	100			

Source: Ando, Kimura, and Yamanouchi (2021).

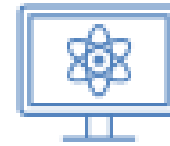
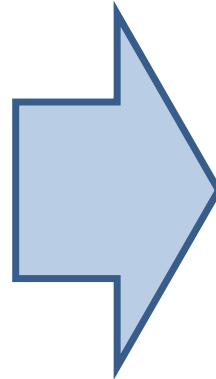
3. Innovation for economic development

- In the past two decades, innovation shifted its weights from incremental (gradual) innovation to disruptive innovation (Takasu and Takaguchi 2020).



Incremental (gradual) innovation

- Step-by-step but continuing improvement of existing goods and services, particularly in manufacturing
- Often with large R&D in the long-run perspective
- Low-risk, low-return



Disruptive innovation

(Bower and Christensen 1995)

- Introducing new goods and services and explore new markets
- Low threshold, trials and errors
- High-risk, high-return
- Digital technology makes disruptive innovation advantageous.

- However, since 2015, digital businesses have shifted their weights from simple matching to helping other industries (including manufacturing) be rejuvenated or upgraded (Okano 2020).
 - Collaboration of traditional industries and digital businesses may require good matching between incremental innovation and disruptive innovation.

4. Japan and ASEAN

- We can still believe in “globalization” for economic development.
 - The rule-based trading regime and favorable business environment are essential soft infrastructure.
- Challenges may become opportunities.
 - COVID-19, geopolitical tension, digital technology, environment and sustainability
- Japan would like continuously to be a trustable, reliable, and creative partner of ASEAN.
 - There are a number of issues for further collaboration.
 - Manufacturing with digital innovation, creating services sectors; education and human resource development, medical and aging society; energy, environment, sustainability; ...

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