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The Regional Comprehensive Economic Partnership (RCEP) agreement: Economic implications for the EU27 and Austria

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The RCEP agreement, signed between ASEAN+3, New Zealand and Australia, forms the largest trade bloc in history, and will likely change the gravity of trade more towards Asia. This will pose large implications for its members that, due to economic and trade diversities, may not incur all economic benefits equally. This policy brief demonstrates that the countries encompassing the current trade bloc are large trade partners of the EU and Austria, and this trade embeddedness has been on the rise. High tech industries are particularly trade dependent on imports from this trade bloc, while significant value added from China is embodied in EU and Austrian service and goods exports. The assessment based on Caliendo-Parro is that due to formation of the bloc, trade with the EU may decline by -1%. Austrian export will suffer slightly more (-1.2%). However, more positive welfare effects might be generated from successful EU FDI inflows to the newly formed trade bloc, when possible.

1. Introduction

The Regional Comprehensive Economic Partnership (RCEP) agreement was signed in November, 2020 with the objective of broadening and deepening trade connections between the ASEAN+3 (Association of Southeast Asian Nations) economies (China, Japan, South Korea, Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, Vietnam), Australia and New Zealand.¹ These countries altogether account for about a third of global GDP and the world's population, thus representing the largest trade bloc in the world. This dominant position in world trade has prevailed in Asia in 2020 and 2021, while China rebounded faster than other countries, even exceeding pre-pandemic levels by a large margin.

Considering the size of these economies, the RCEP agreement has sparked the attention of policy makers as well as researchers, as the gravity of global trade, following the agreement, will likely shift towards Asia. This shift may come at the cost of the "western trade sphere", which seems to be entering a phase of de-globalisation with declining integration, as is becoming

obvious from the US-China trade war and Brexit. The COVID 19 crisis also called for shorter supply chains (moving from global to regional value chains) for the purpose of enhancing resilience to future negative shocks.

Figure 1: Geographical presentation of the RCEP members



Source: www.GIReportsonline.com

This is quite different from the earlier era of hyperglobalisation, that witnessed the expansion of trade (9% annual rise in exports) and global value chains over the 1990 to 2008 period (Asian

¹ India was part of the negotiations round until 2019 when it decided to opt out due to a strong trade deficit with China and

apprehensiveness that market openness with China would harm its key manufacturing sectors.

Development Bank, 2021). The top three countries experiencing an expansion of exports were some ASEAN economies such as Cambodia, Laos and Vietnam, while China kept its position as the third world exporter. From 2010 onwards production lengths did not expand further, in a period known as slowbalisation, implying shorter supply chains in the future. In that context, the RCEP agreement comes as the follow-up to pre-existing trends and brings regional ties closer to the creation of the trade bloc (see also UNCTAD, 2021b).

This policy brief first provides an overview of the most important aspects of the RCEP agreement and then shows selected characteristics of the RCEP members such as size, GDP per capita, and trade indicators. This also includes an overview of the relevant literature focusing on the impact of the RCEP on these member states. The next section then highlights the importance of the RCEP countries for the EU27 and Austria with respect to trade structures and global value chain (GVC) integration. In addition, it presents some results from a general equilibrium modelling exercise indicating the impact of the agreement on the EU27 and Austria. This is followed by some overall conclusions.

2. Main aspects of the RCEP agreement

While signed only recently, its origins trace back to 2011 when this trade initiative was introduced by Indonesia. The RCEP agreement consists of twenty chapters (see Table 1) that are well aligned with the WTO agreement.² Seven of the chapters define the future of economic flows within the region and related activities possibly inducing the growth of its members. The agreement itself implies the elimination of tariffs over the course of 20 years and almost complete commodity trade openness (90%).

Chapters 2 and 3 establish the two main pillars of the RCEP agreement, defining the means to implement the liberalisation of trade in goods and services. Trade in goods (Chapter 2) will be liberalised through national treatment of the goods of RCEP members (treatment of imported goods from the RCEP trade bloc as local goods), reduction (elimination) of customs duties, duty free temporary admission of goods and elimination of some export subsidies for agricultural goods. A Party should not impose any non-tariff measures on another Party, unless aligned with the WTO or RCEP agreement. Chapter 3 defines rules of origin, whereby originating goods are defined as those obtained by an RCEP party (primary goods such as live animals, plant(s) goods,

minerals, etc.) and produced in an RCEP Party with materials originating from the RCEP trade bloc (or outside it, if they satisfy the requirements defined in the agreement).

Table 1: List of chapters in RCEP agreement

Chapters	Definition
Chapter 1	Initial Provisions and General Definitions
Chapter 2	Trade in Goods
Chapter 3	Rules of Origin
Chapter 4	Customs Procedure and Trade Facilitation
Chapter 5	Sanitary and Phytosanitary Measures
Chapter 6	Standards, Technical regulations, and Conformity Assessment Procedures
Chapter 7	Trade Remedies
Chapter 8	Trade in Services
Chapter 9	Temporary Movement of Natural Persons
Chapter 10	Investment
Chapter 11	Intellectual property
Chapter 12	Electronic Commerce
Chapter 14	Small and Medium Enterprises
Chapter 15	Economic and Technical Cooperation
Chapter 16	Government Procurement
Chapter 17	General Provisions and Exceptions
Chapter 18	Institutional Provisions
Chapter 19	Dispute Settlement
Chapter 20	Final Provisions

Source: <https://rcepsec.org/legal-text/>

Likewise, greater trade in services (defined in Chapter 8) will be induced through most-favoured nation treatment, greater market access and national treatment of services, among other non-tariff barriers. The latter implies that a Party shall not adopt limitations on the number of services supplied; the total value of services transactions or assets (quotas); the total number of service operations; the total number of natural persons that could be employed in a service industry; the participation of foreign capital (upper percentage for shareholding) as well as the limitations on the measures that restrict/require legal entities that allow provision of services.

Chapter 5 defines sanitary and phytosanitary measures (SPS) with the objective of protecting human, animal and plant life within the trade bloc, while minimising the negative effects on trade. These measures should be aligned with the WTO Committee on Sanitary and Phytosanitary Measures and require appropriate certification provided by the competent authorities.

The agreement also defines a framework for an investment friendly environment in the region, relying on the existing provisions in the ASEAN+1 free trade agreements (FTAs), aiming to protect, liberalise,

² The following WTO agreements are explicitly mentioned: General Agreement on Tariffs and Trade (GATT), Agreement on Safeguards, WTO Trade Related Investment Measures (TRIMS) Agreement, WTO Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement), WTO Trade Facilitation agreement (TFA), WTO Ministerial Decisions on Export Competition, WTO Agreement on the

Application of Sanitary and Phytosanitary Measures (SPS Agreement), WTO Agreement on Technical Barriers to Trade, Agreement on government Procurement, Agreement on Subsidies and Countervailing Measures, WTO Agreement and the Article on Transfers in Investment Chapter.

promote, and facilitate investment (Chapter 10). Accordingly, this implies fair and equitable treatment and full protection and security of covered investments as well as most-favoured nation treatment.³ The agreement will promote the region as a common investment area.

The protection of intellectual property rights (IPR) and technological protection in the digital environment are guaranteed beyond the level of the WTO Agreement on Trade-Related Aspects of IPR (Chapter 11), while accounting for differentials in the countries' economic and legal aspects. RCEP also sets the basis for an increase in e-commerce among its members and globally (Chapter 12) that will facilitate trade and enhance the diffusion of ideas and technologies. These aspects of the agreement (Chapters 11 and 12) regulate the area of artificial intelligence, 3D printing and blockchain technology, all three important for future trade.⁴ It is safe to argue that the correct implementation of the RCEP agreement may boost technological growth among its members.

Other aspects of the RCEP agreement tackle the promotion of competition in markets and enhancement of economic efficiency and consumer welfare (Chapter 13), which will help members to enjoy the benefits of the agreement including trade facilitation and investment. However, each member retains the right to develop, implement and enforce its competition laws, regulations, and policies. RCEP is also supportive of SMEs as it aims to establish a platform whereby information on RCEP-specific rights pertinent to SMEs (i.e. to e-commerce, IPR, access to markets and innovation and technology) will be shared. The Parties will encourage SMEs' greater participation in global value chains. Since SMEs account for about 90% of business and more than half of employment globally (World Bank 2021) the facilitation of their business through the RCEP can potentially boost growth and innovation (Acs et al., 2004). The chapter on SMEs, competition, investment, and digitalisation (e-commerce), altogether, may in fact induce the internationalisation of SMEs across the RCEP region, which can reinforce entrepreneurial activity and growth (Lu and Beamish, 2001).

However, in general this agreement is considered to be less ambitious and comprehensive compared to other EU FTAs. The main reason for this assessment are limitations with respect to services and digital trade, as well as issues concerning social and environmental standards and labour rights (see Frenkel and Ngo, 2021).

³ Except for Cambodia, Laos, Myanmar, and Vietnam.

⁴ High-tech sectors and sectors equipped with better technologies survived the COVID 19 crisis better. Trade in high-tech sectors

3. Characteristics of RCEP member countries

3.1 The RCEP countries

Considering the heterogeneity of this group of countries in terms of their trade and industrial patterns, size and economic development, this trade bloc may not benefit all members equally. The level of development and trade indicators of each country-member differ significantly. China is by far the largest member country, making up 55% of GDP (and 62% of population) of the trade bloc, followed by Japan and Indonesia. Looking at the level of development (GDP per capita) we see that Australia, New Zealand and Japan are the most economically advanced. This subgroup of countries is also more resilient to trade shocks. UNCTAD (2021a) shows that international trade for this group recovered rapidly from the 2020 shock and already surpassed 2019 levels in 2021, unlike the smaller, developing economies that are facing more difficult growth (trade) recovery paths. Likewise, Nicita and Saygili (2021) show that trade within trade agreements was more resilient to the collapse in trade in 2020, albeit less so for developing economies.

Table 2: Economic characteristics of RCEP countries, 2019

	Population in mn	GDP (current USD mn)	GDP per capita	Trade Balance (% GDP)
China	1,398	14,279,937	10,253	1.2
Japan	126	5,064,873	40,029	0.2
South Korea	52	1,646,739	31,891	2.9
New Zealand	5	209,127	42,805	-0.1
Australia	25	1,396,567	55,879	2.5
ASEAN*	659.4	3,179,814	12,801	
Brunei	0.4	13,469	31,399	7.4
Cambodia	16	27,089	1,667	-1.4
Indonesia	270	1,119,091	4,181	-0.6
Laos	7	18,246	2,583	na
Malaysia	32	364,681	11,566	7.4
Myanmar	54	79,844	1,486	4.0
Philippines	108	376,823	3,533	-12.1
Singapore	6	374,386	66,396	28.3
Thailand	70	544,264	7,839	9.3
Vietnam	96	261,921	2,741	3.2

Note: *GDP per capita for ASEAN is GDP weighted.

Source: <https://wits.worldbank.org> and <https://data.worldbank.org> (population)

outperformed trade in goods in 2020 and these diverging trends are likely to continue in 2021 (Miller and Wunsch-Vincent (2021)).

3.2 Trade structures

The structure of trade has quite important implications as it indicates the level of technological growth (McMillan and Rodrik, 2011). Countries that export natural resources have less chance of technological growth because primary industries are less subject to technological change than manufacturing industries. This can indicate that countries like Brunei and Indonesia have a lower level of technological development in comparison to Japan, China and South Korea. Following the COVID 19 crisis, the trade and welfare divergence of these economies will likely be more evident. This is due to their less diversified economies, as reflected in the trade of countries such as Cambodia, Myanmar, and Brunei, that export predominantly consumer goods and raw materials (see Table 3)

Member countries also entered the agreement with differing trade policies. ASEAN countries had much lower tariffs compared to South Korea (Mahadevan and Nugroho, 2019). While some countries have a sizable positive trade balance – i.e. China and Australia, others suffer from quite large deficits. Trade structure is also quite diverse among members. China, Japan, South Korea, and others export more capital and consumer goods, while other members (i.e., New Zealand and Australia, as well as many ASEAN countries) export predominantly raw materials and intermediate goods.

Table 3: Trade structures of RCEP countries, 2019

Trade shares (in %)				
	Product category	Export	Import	Biggest trade partners
China	Raw materials	1.7	27.1	US, Hong Kong, Japan, South Korea, Other Asia NES, Vietnam,
	Intermediate goods	16.3	19.7	
	Consumer goods	36.1	14.0	
	Capital goods	45.5	38.7	
Japan	Raw materials	1.3	23.7	US, China, South Korea, Australia, Hong Kong, Saudi Arabia
	Intermediate goods	19.7	15.1	
	Consumer goods	26.7	33.2	
	Capital goods	46.3	26.4	
South Korea	Raw materials	0.7	23.7	China, US, Vietnam, Hong Kong, Japan, Saudi Arabia,
	Intermediate goods	23.9	15.1	
	Consumer goods	25.2	33.2	
	Capital goods	50.2	26.4	
New Zealand	Raw materials	34.3	10.3	China, Australia, US, Japan, South Korea, Germany
	Intermediate goods	28.9	15.4	
	Consumer goods	26.5	42.8	
	Capital goods	7.3	30.4	
Australia	Raw materials	57.4	6.0	China, Japan, Korea Rep, US, UK, Thailand, Germany
	Intermediate goods	13.8	13.9	
	Consumer goods	6.3	44.9	
	Capital goods	4.7	32.6	

contd.

Table 3: Contd.

ASEAN countries				
Brunei	Raw materials	41.0	26.9	Japan, Singapore, Australia, Malaysia, India, China, US, Germany
	Intermediate goods	5.2	15.8	
	Consumer goods	50.7	32.8	
	Capital goods	3.1	24.4	
Cambodia	Raw materials	2.6	4.9	US, Japan, Germany, China, UK, Thailand, Vietnam, Japan
	Intermediate goods	7.7	44.2	
	Consumer goods	86.6	33.3	
	Capital goods	3.2	17.6	
Indonesia	Raw materials	22.2	12.7	China, US, Japan, Singapore, Thailand, India,
	Intermediate goods	30.4	33.2	
	Consumer goods	36.7	22.4	
	Capital goods	9.2	31.4	
Laos	Raw materials	29.1	9.8	Thailand, China, Vietnam, Japan, India, Singapore
	Intermediate goods	47.9	25.0	
	Consumer goods	18.0	40.5	
	Capital goods	5.1	24.8	
Malaysia	Raw materials	5.4	11.2	China, Singapore, US, Hong Kong, Japan
	Intermediate goods	20.1	24.0	
	Consumer goods	30.3	23.6	
	Capital goods	43.6	40.8	
Myanmar	Raw materials	18.0	3.2	China, Thailand, Japan, US, Germany, Singapore, Malaysia, Indonesia
	Intermediate goods	17.9	33.0	
	Consumer goods	61.2	41.0	
	Capital goods	3.0	22.8	
Philippines	Raw materials	8.4	10.0	US, Japan, China, Hong Kong, Singapore, South Korea, Indonesia
	Intermediate goods	10.8	21.6	
	Consumer goods	17.3	28.1	
	Capital goods	63.6	40.3	
Singapore	Raw materials	0.9	9.2	China, Hong Kong, Malaysia, US, Indonesia, Japan
	Intermediate goods	18.1	15.0	
	Consumer goods	25.5	27.3	
	Capital goods	49.9	47.3	
Thailand	Raw materials	6.4	14.8	US, China, Japan, Vietnam, Hong Kong, Malaysia, South Korea
	Intermediate goods	22.3	27.8	
	Consumer goods	35.4	22.9	
	Capital goods	38.9	43.5	
Vietnam	Raw materials	7.6	10.4	US, China, Japan, South Korea, Hong Kong,
	Intermediate goods	12.7	30.0	
	Consumer goods	37.5	15.7	
	Capital goods	40.5	42.5	

Source: <https://wits.worldbank.org>.

3.3 Selected empirical evidence of the impact of RCEP

There is no question that the RCEP agreement will have a large economic impact on its members. The agreement will further stimulate trade within the bloc through various channels. First, the multilateral trade agreement will expand market size – allowing firms to grasp the benefits of larger economies of scale in production. Second, reduced tariffs and non-trade barriers (NTBs) will lower the prices of exported commodities and intermediary goods, directly prompting exports amongst the members, an effect labelled the trade diversion effect. Third, as the members of the trade agreement grow economically, their demand for imported goods will also rise, further pushing trade – a phenomena known as the economic expansion effect. Fourth, integration into international markets allows firms to learn and adopt better production processes, improving their efficiency (Bond et al., 2005; Alvarez et al., 2013; Didlier and Pinat, 2017), an effect we label the knowledge spillover effect. Through serving foreign markets, firms can move up the technological ladder (Baltagi et al., 2016). This of course holds more potential for developed economies where firms are ex-ante technologically more equipped and more able to compete abroad (Ferragina and Mazzota, 2014). Therefore, more developed economies may benefit more, as they possess better technologies and human capital, and conduct more R&D.

Table 4: Papers on the effects of RCEP on trade and development, data and methods used

Authors	Data source	Method
Cheong and Tongzon (2013)	GTAP Version 6.2	GDyn, a recursive dynamic Computable General Equilibrium (CGE) model developed by GTAP
Rahman and Ara (2015)	GTAP Version 8	CGE model - GTAP model
Li et al. (2016)	GTAP Version 8 and two FDI databases	CGE model
Mahadevan and Nugroho (2019)	GTAP Version 9	Dynamic GTAP model
Itakura and Lee (2019)	GTAP Version 9	Dynamic GTAP model
Petri and Plummer (2020)	GTAP Version 9	Computable CGE model
Cui et al. (2021)	GTAP Version 10	CGE – GTAP model whereby value-added trade flows are decomposed by origin

Note: GTAP sourced from <https://www.gtap.ageco>. GTAP database covers 140 countries, 47 sectors/commodities, and eight factors of production. Li et al. (2016) explains the source of the FDI databases: "The FDI databases are the latest developments in FDI data collection and computation (Fukui & Lakatos, 2012; Lakatos, Walmsley, & Chappuis, 2011)." (page.4)

Source: Author's assessment.

The implications of the agreement and future trade growth patterns have been the subject of empirical research, whose data and methods are summarised in Table 4. Although the research has mostly relied on similar methods and data (Global Trade Analysis Project – GTAP database) sources, their results are not fully consistent.

Nevertheless, these studies agree that most Asian economies will benefit from this trade bloc. Itakura and Lee (2019) show that positive economic welfare effects on RCEP members will be noted during the 2025-2035 period, while some members (Taiwan) will incur these trade benefits only in 2030-2035. The authors show that ASEAN countries will jointly be the greatest beneficiaries of the trade agreement, followed by China. Petri and Plummer (2020) find that RCEP will add USD 186bn to the world's real income and 0.2% to its members' GDP. These benefits will be mostly accumulated by the largest Asian members – China, South Korea and Japan, because these three countries are not yet jointly members of the multilateral trade agreement (unlike ASEAN countries) and they are the largest RCEP economies. Cui et al. (2021) confirms this earlier research, showing that tariff and non-trade barrier cuts will increase the GDP of ASEAN economies by 1.92%, followed by China (0.68%), Australia (0.50%), New Zealand (0.47%), Japan (0.35%) and Korea (0.33%).

In contrast, Mahadevan and Nugroho (2019) find only moderate growth effects from RCEP which they justify with the fact that ASEAN economies and Singapore already had very low tariffs prior to the agreement. Countries like South Korea, Australia, Thailand and Vietnam are expected have the largest gains (especially the textile and wearing apparel sector). According to this study, the assessments are that the world would gain USD 35.6bn, which however will not be enough to offset the losses incurred by the US-China trade war.

The study by Itakura and Lee (2019) finds that some manufacturing sectors (i.e., machinery and electronic equipment) will particularly blossom in Malaysia, Thailand, and Vietnam, while all countries will experience an expansion of services. Some ASEAN countries will experience lower exports of some products (textile and apparel), due to the loss of non-RCEP markets like the United States and Canada (trade diversion effect) on the one hand, and the greater comparative advantage of China, on the other.

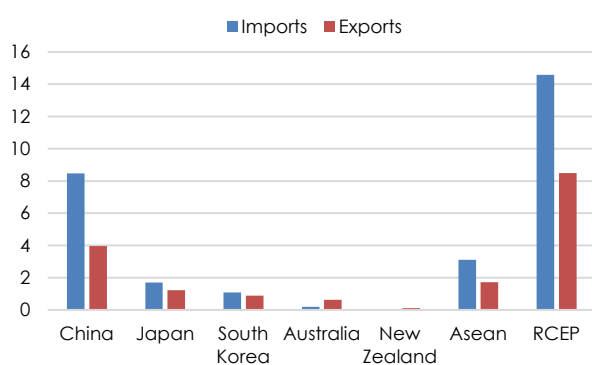
4. EU and Austrian trade relations with the RCEP trade bloc

The era of globalisation intensified trade integration and induced greater trade between EU members and the current RCEP members. This has particularly been true for China that has been the biggest trade partner since 2008, as measured by the share of exports in goods.⁵ This section analyses the trade patterns between the EU and Austria and the RCEP trade bloc (subsection 4.1 and 4.2). The increasing trade integration of the EU and Austria with the RCEP trade bloc will be approximated with backward and forward linkages (Subsection 4.3). The effects of the trade bloc on EU trade and welfare will be discussed and empirically assessed in Subsection 4.4. A special focus is placed on China, as the RCEP's biggest trade member.

4.1 EU trade with RCEP members

The enlargement of the EU over time as well as the adoption of the euro has led to high trade interconnectivity within the EU, and outside it. This is particularly true for China, which has become one of the EU's biggest trade partners. Figure 2 shows to what extent the EU trades with RCEP members. It reveals that the largest trade member is China, taking up to half of EU exports to and imports from the RCEP trade bloc. This is followed by the ASEAN, Japanese, and South Korean economies, taking up to 20%, 10% and 14% of EU-RCEP trade.

Figure 2: EU goods trade shares with RCEP members in %, 2019



Note: Including intra-EU trade.

Source: UN COMTRADE; own calculations.

EU-China trade has been trending upwards since 2001 when China became a member of the World Trade

⁵ <https://unctad.org/topic/trade-analysis/chart-10-may-2021>

⁶ Source: <https://unctadstat.unctad.org/>

⁷ According to the Eurostat classification, high-tech industries including the manufacture of pharmaceuticals, medicinal chemical and

Organization (WTO) and from then on committed fully to multilateralism. China pledged to reduce tariffs and to gradually eliminate import quotas, licenses, and other non-trade barriers. By 2008 China had reduced its tariffs to 10%, which was one of the lowest levels in the world (Gao, 2021). This has been reflected in the rise in China's import and export share by 5.7pp and 3pp, respectively (See Table 5).

Table 5: EU27 export and import shares with RCEP countries (goods trade)

	Import share (in %)			Export share (in %)		
	2000	2019	Difference	2000	2019	Difference
China	2.75	8.46	5.71	1.01	3.97	2.95
Japan	3.64	1.70	-1.94	1.72	1.22	-0.50
Korea	0.99	1.08	0.09	0.62	0.88	0.26
Australia	0.28	0.18	-0.10	0.50	0.62	0.12
New Zealand	0.07	0.06	-0.02	0.07	0.10	0.03
ASEAN	2.68	3.10	0.42	1.53	1.71	0.19
Vietnam	0.17	0.87	0.70	0.05	0.22	0.17
Malaysia	0.61	0.59	-0.02	0.31	0.26	-0.04
Thailand	0.52	0.48	-0.04	0.24	0.27	0.03
Singapore	0.67	0.43	-0.25	0.58	0.59	0.01
Indonesia	0.44	0.33	-0.11	0.16	0.19	0.02
Philippines	0.23	0.19	-0.03	0.17	0.15	-0.02
Cambodia	0.01	0.13	0.11	0.00	0.02	0.01
Myanmar	0.01	0.07	0.06	0.00	0.01	0.01
Laos	0.01	0.01	0.00	0.00	0.00	0.00
Brunei	0.00	0.00	0.00	0.00	0.00	0.00

Note: Including intra-EU trade.

Source: UN COMTRADE; own calculations.

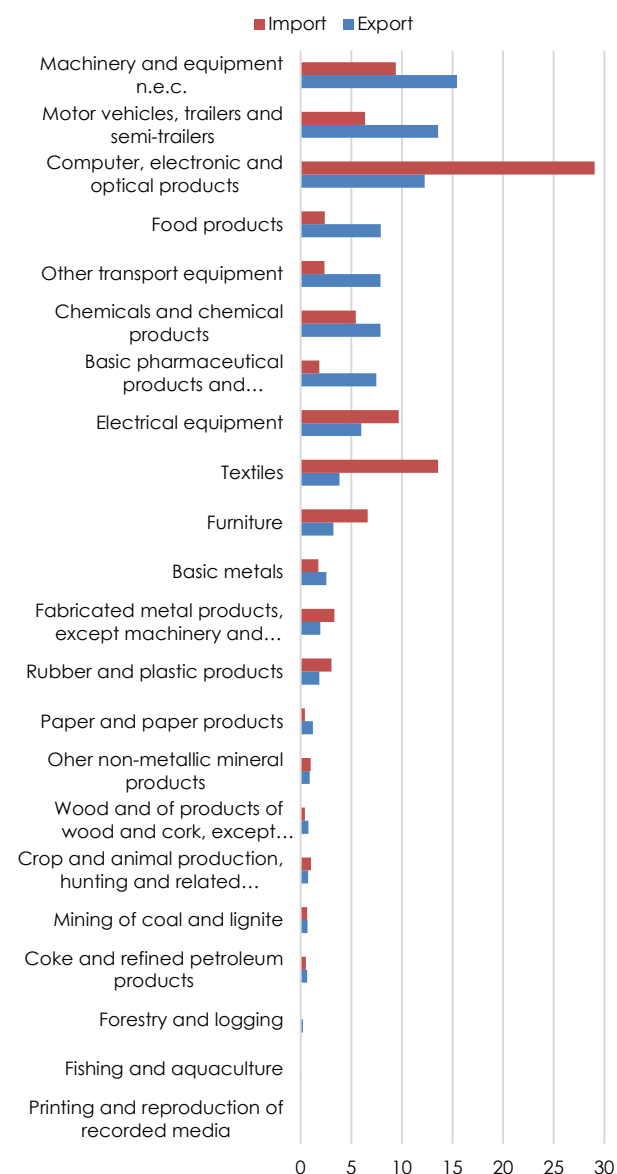
The global financial crisis led to a 20% decline in global exports in 2009. There were large disruptions in EU-China trade in 2009 too, after which the trend has flattened. The flatter trend of EU-China trade can also be explained by two additional factors – China's increasing importance and the EU's rather stagnant contribution to the global trade. Despite EU enlargement, EU members' contribution to world trade (export shares) has dropped by two pp, from 38% in 2005 to 36%, in 2020 (UNCTADStat, 2020).⁶ The Chinese contribution to global exports, on the other hand, has more than doubled – from 6% in 2005 to 13% in 2020. This partially explains the EU's rather stagnant trade with China in the years following the great financial crisis (GFC).

Even though the share of EU imports and exports from the RCEP bloc take up about 15% and 8%, respectively, some high-tech industries⁷ are particularly dependent

botanical products; the manufacture of computer, electronic and optical products; and the manufacture of air and spacecraft and related machinery. Medium-high tech industries include the manufacture of chemicals and chemical products; the manufacture

on this trade bloc (see Figure 3). Almost a third of total EU imports of computer, electronic and optical products and 10% of imports of electrical equipment and machinery originates in RCEP members. About 15% of EU exports of these goods (along with motor vehicles, trailers and semi-trailers, and computer electronics) is directed to the RCEP bloc.

Figure 3: Structure of EU27 exports and imports from RCEP members in %, 2019



Source: UN COMTRADE, own calculations.

It is also important to note that heterogeneity with respect to the biggest RCEP members (China, Japan,

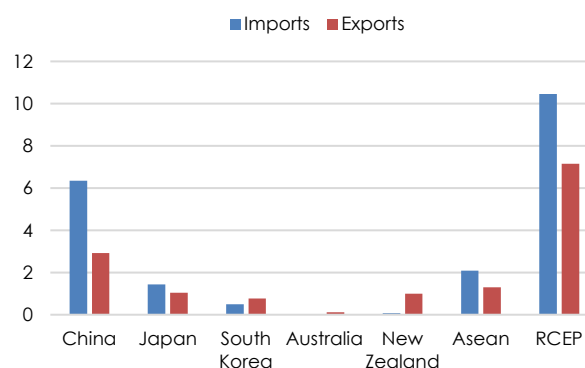
of weapons and ammunition, the manufacture of electrical equipment, the manufacture of machinery and equipment; the manufacture of motor vehicles, trailers and semi-trailers; the

South Korea, New Zealand, and Australia) is also high. These countries represent 71% of the total population of the RCEP trade bloc and 88% of its respective GDP. Their share of EU exports in each manufacturing sector reveals that 9.8% of EU imports comes from the largest RCEP members, out of which 7.2% is from China. The remaining RCEP members – ASEAN countries - take up 2.2% of total EU imports. About 6.5% of EU manufacturing exports goes to the biggest RCEP members, of which more than half (3.8%) to China. The remaining 1.6% of EU exports is directed to the ten ASEAN economies.

4.2 Austrian trade with the RCEP members

Austria's trade with RCEP members is quite substantial: USD 12.2bn of exports and USD 18.1bn of imports in 2019. This corresponds to 7.2% and 10.5% of total Austrian exports and imports, respectively. This trade is mostly driven by the high share of trade with China (see Figure 4).

Figure 4: Austria's goods trade shares with RCEP members in %, 2019



Austria's imports and exports from/to the RCEP trade bloc have risen significantly over the course of twenty years. The share of imports rose from 6% in 2000 to almost 11% in 2019, a rise that has been practically exclusively driven by greater imports from China. Likewise, the share of Austrian exports to the RCEP rose from 3.9% in 2000 to 7% in 2019. China has contributed less to the rise in Austrian export markets: its export share rose from 0.7% in 2000 to 2.9% 2019. Austria's imports from China rebounded after the global financial crisis and remained on an upward trend until 2016. Exports were flat after the GFC and grew significantly prior to COVID 19.

manufacture of furniture, the manufacture of medical and dental instruments and supplies.

Table 6: Austria's import and export shares with RCEP countries (goods trade)

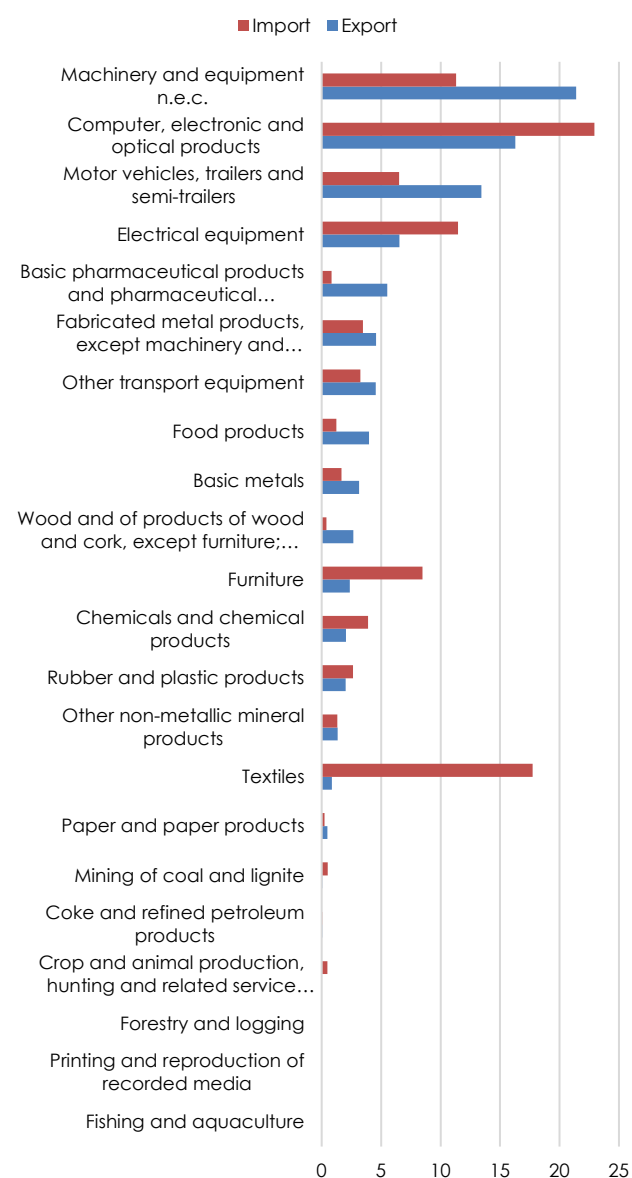
	Import share (in %)			Export share (in %)		
	2000	2019	Difference	2000	2019	Difference
China	1.67	6.34	4.67	0.70	2.92	2.22
Japan	2.68	1.44	-1.24	1.32	1.04	-0.27
Korea	0.48	0.49	0.00	0.39	0.77	0.39
New Zealand	0.03	0.03	0.00	0.07	0.12	0.04
Australia	0.04	0.07	0.03	0.44	1.00	0.57
ASEAN	1.14	2.09	0.95	0.99	1.30	0.31
Vietnam	0.10	0.64	0.54	0.03	0.17	0.13
Thailand	0.26	0.46	0.20	0.11	0.31	0.20
Malaysia	0.32	0.26	-0.06	0.15	0.30	0.15
Indonesia	0.20	0.19	-0.01	0.24	0.15	-0.08
Cambodia	0.01	0.18	0.17	0.01	0.01	0.00
Singapore	0.15	0.14	-0.01	0.33	0.22	-0.11
Philippines	0.08	0.12	0.04	0.11	0.10	-0.01
Myanmar	0.01	0.10	0.09	0.00	0.02	0.02
Laos	0.00	0.00	0.00	0.00	0.01	0.01
Brunei	0.00	0.00	0.00	0.00	0.00	0.00
RCEP	6.3	10.5	4.2	4.7	7.5	2.8

Note: Including intra-EU trade.

Source: UN COMTRADE; own calculations.

RCEP members and China in particular, have thus played an increasingly prominent trade role in Austrian trade, but more in terms of their imports that showed resilience even in the face of large macroeconomic shocks. COVID 19 has not impacted imports from China while Austrian exports dropped by 13%. COVID 19 reflected badly on the main industries contributing to Austrian exports to China – merchandise goods such as machinery and equipment (-7%), and medical precision and optical instruments (-18%), the latter decline resulting from greater demand for medical equipment due to the health crisis. A deep decline was also registered in chemicals, chemical products, and man-made fibres (-22.9%).

Austria exports about 7% of its goods and services to RCEP members. The biggest exporting industries are high-tech industries, the core of future growth. The biggest share of Austrian exports refers to machinery and equipment (21.4%), computer, electronic and optical products (16.3%), and motor vehicles, trailers, and semi-trailers (13.4%).

Figure 5: Structure of Austrian exports and imports to/from RCEP members in %, 2019

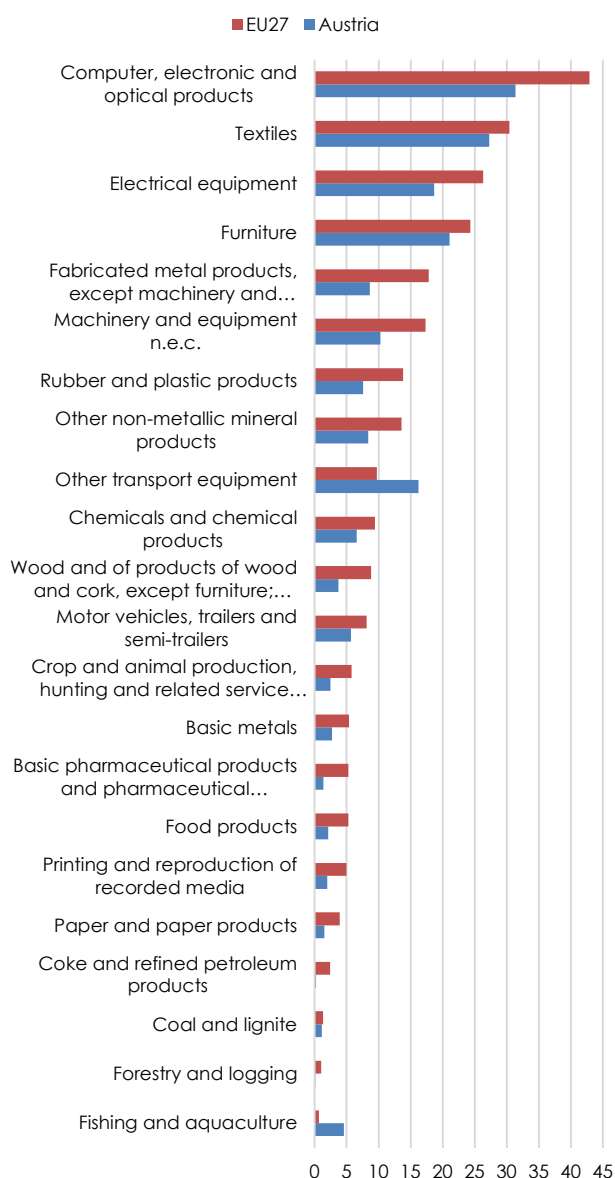
Source: UN COMTRADE, own calculations.

4.3 High import intensities in high-tech products

Trade between RCEP members and the EU has been dominated by manufactured goods. Almost 15% of EU manufactured goods is imported from the RCEP trade bloc, mostly driven by trade in the high-tech sector. About 42.9% of imports of computer, electronic and optical products originate from RCEP members; and 26.3% of electrical equipment and 17.3% of machinery and equipment. Also, textiles have with 30.4% a large share. Albeit lower, these figures are also quite high for Austria (see Figure 6). Hence, the implementation of the RCEP agreement may have consequences

particularly for high-tech manufacturing in the EU and Austria.

Figure 6: EU and Austria's imports from RCEP members by industry, in %, 2019



Source: UN COMTRADE, own calculations.

The growth of high-tech sectors depends on R&D rather than on cheap labour, and as such, exhibits a higher degree of innovation than traditional manufacturing (Glasmair, 1991; Silva, 2008). This makes high-tech industries important drivers of growth. Possible changes in trade patterns with the RCEP may thus have important implications for the EU and Austria, as findings suggest that the change in trade orientation

has had a similar effect on traditional and high-tech manufacturing as reflected in the demand for workers (Silva, 2008). Potential losses are large as these sectors are important catalysts of technological growth and stimulus to economic development and the standard of living (Hornbeck and Moretti, 2018). It is likely that these sectors may suffer greater losses due to the formation of this new trade bloc as the gravity of trade in goods may shift away from Europe.

4.4 Global value chain (GVC) integration

In this subsection we investigate to what extent the European Union and Austria are integrated through global value chains with RCEP economies, using the 2021 OECD Trade in Value Added (TIVA) database. Backward linkage measures to what extent foreign value added is embodied in a country's exports and is thus the sum of the foreign value added that is part of domestic exports. Forward linkages approximate domestic value added inherent in the exports of another country. The more integrated a country is into GVCs, the higher is the forward linkage. Backward linkages are higher when more foreign value added is used in the exports of goods and services. These linkages are measured as a share of total gross exports. The results for the years 2000 (a year prior to Chinese entry into WTO) and 2018, are presented in Table 7.

Table 7: Backward and forward-linkages between RCEP, the EU27 and Austria, in % of gross exports

	2000			2018		
	EU27	Austria	RCEP	EU27	Austria	RCEP
EU27	87.3	90.9	2.6	84.4	87.5	2.7
RCEP	2.6	1.9	88.5	3.8	2.9	87.0
... of which China	0.4	0.3	13.3	1.6	1.4	34.2
Other	10.1	7.2	8.9	11.8	9.5	10.3

Source: OECD TIVA database, Release 2021; own calculations.

In 2000, EU manufacturing exports were based mostly on local (EU27⁸) value added: about 87% of EU value added was embodied in EU gross exports, pointing to the high level of value chain integration amongst EU countries. From the RCEP members share of 2.6% value added was contained in exporting. By 2018 this had significantly changed, with the percentage of value added from RCEP members rising by 1.2pp mostly due to a rise in sourcing of value added from China. Figures are very similar for Austria, which contained 91% of EU value added (including its domestic value added) when exporting in 2000. This dropped to 84% in 2018. Chinese and RCEP value added in Austrian exporting rose by 1.1 and 1pp, respectively, from 2000 to 2018.

⁸ The United Kingdom is considered being part of country group "Other" in Table 6

RCEP members have not significantly increased the share of European value added in their exports over the course of these nineteen years. Intra-trade (between RCEP members) in value added embodied in exporting only slightly declined from 88.5 to 87%. Overall, this implies that regional value chains in this region looks very stable, though China gained importance.

4.5 Effects of the RCEP agreement on the EU and Austria

Studies investigating the issue of the effects on the EU are not abundant. The research shows that countries excluded from the trade agreement, spanning from South Asia (Rahman and Ara, 2015; Li et al, 2016) to the EU and the US (Li et al, 2016; Cui et al., 2021) will incur mostly negative effects. In other words, trade between the EU and RCEP countries is likely to decrease due to trade diversion. This is, however, not fully confirmed by Mahadevan and Nugroho (2019), who using different simulation designs, find that the EU countries will have neither benefits (in terms of GDP) nor substantial costs following the agreement.

In our own assessment based on the Caliendo-Parro (2015) model⁹ we find a strong trade creation effect of trade between RCEP countries (+30%), whereas small trade distortion effects with exports from the EU27 to RCEP declining by about 1% and to non-RCEP countries shrinking by less than 0.1%; RCEP exports to the EU27 would increase by 0.12% according to these calculations. Similar magnitudes are found for Austria, although the decline in exports to RCEP economies is a bit larger with 1.2%. The overall GDP effects – given the relatively low trade shares – are insignificant with -0.01% for Austria and practically no effect for the EU27. However, the effects of trade openness can have a slightly different effect if a model accounts for the fact that FDI and trade can act as substitutes and/or complements (Ramondo and Rodríguez-Clare, 2013). The decrease in trade between the EU and Asia may lead to an increase in FDI, and this process can occur in three ways. First, if FDI is a substitute for trade in serving a foreign market (horizontal FDI) then we may see an increase in FDI as the consequence of the downturn in trade (Martinez-San-Roman, 2016). The best exporters would switch to FDI in the wake of high tariffs (“tariff jumping” FDI) and the least productive exporters would simply reduce their foreign presence (Blonigen et al., 2004; Cole and Davies, 2011). Second, if EU multinationals (MNEs) are driven by the efficiency-seeking objective (vertical FDI), then we may see a rise in FDI to RCEP markets, as sourcing inputs from these economies will be more cost-efficient. Third, export-platform FDI which refers to the type of FDI whereby MNEs enter a host location to export to neighbouring markets, will likely rise as tariff cuts will make exporting

within the RCEP bloc cheaper (Ekholm et al., 2007). This is particularly true if the host economy is smaller in size (Hanson et al., 2001) and geographically close to large markets (a phenomenon known as a country’s market potential).

Large share of FDI from developed economies going to developing ones is in the form of export-platform FDI (UNCTAD, 2010). However, research shows that the size of export platform FDI in developing countries will largely depend on the strength of intellectual property rights in the host economy (Ghosh et al., 2018). As MNEs conduct most global R&D and have the most sophisticated technology, their intangible assets are less protected in a country with low IPR protection. If IPR protection in a host economy is weak, it is likely that (export-platform) FDI will be rather low, regardless of the reduction in tariffs within the trade bloc.

In that context, it is important to note that the trade bloc has been formed around the same time as the Comprehensive Agreement on Investment (CAI) was reached between the EU and China, defining the new principles for EU investment in China. This agreement ensures fair treatment of EU multinationals in China, the RCEP’s biggest member. It guarantees the transparency of government subsidies and rules against technology transfers, the latter being important in the context of preserving intangible assets. This may bring about significant changes as China was the country applying highly restrictive FDI policies across all its sectors, especially services. China imposed different treatment of MNEs operating abroad, a practice that the CAI aims to abolish. Li et al. (2016) studies the effects of the RCEP on investment in China, albeit not accounting for the CAI agreement that was signed in 2020. They find that FDI in China will increase because the RCEP agreement explicitly promotes investment from partner countries (see description of Chapter 10, in Section 2) and due to the indirect effects of lower tariffs attracting FDI in export sectors. The authors calculate that the welfare gains from trade liberalisation and FDI (stemming from it) will amount to as much as 2% of GDP.

⁹ We use data from the WIOD 2016 release (Timmer et al., 2015) for the year 2014 which includes the most important RCEP economies. The

calculations assume that all tariffs on trade between RCEP countries are set to zero.

5. Conclusions

In November 2020 the Regional Comprehensive Economic Partnership Agreement was signed between China, Japan, South Korea, New Zealand, and the ASEAN economies, representing the largest trade bloc formed in history – both in terms of population and GDP. This can have large economic implications as the gravity of trade will shift more towards the East. The agreement is a continuation of earlier trends calling for regionalisation and less geographically fragmented production, both being at the forefront of policy-making after COVID 19.

The RCEP agreement, in its twenty chapters, defines liberalisation policies in the trade of goods and services, but also the means whereby investment, competition and SME participation in trade will be promoted. A special focus of the agreement lies in the enhancement of e-commerce, which is an important aspect considering the rising importance of technologies for trade in post-COVID times.

The RCEP countries, however, differ significantly in size, level of economic development and their contribution to GVCs. China is by far the largest country, while Australia, New Zealand and Japan are the economic leaders of the bloc. While some countries predominantly export intermediate goods, other base their exports on capital goods. These diversities will have major implications in how the future of trade within the bloc will affect these economies. Empirical evidence agrees that most RCEP members will benefit from the trade bloc, but not all equally and not all at the same time. Some empirical evidence points out that the largest trade members will benefit the most, as well as those that were not jointly members of ASEAN economic union.

The possible implications of the RCEP for the EU and Austria are quite significant, as the expansion of trade between these economies is reflected in greater trade dependence – particularly in imports of goods. Over the course of twenty years, the RCEP members' share of EU (Austrian) imports and exports has significantly increased, and this is mostly due to the expansion of manufacturing trade with China. European high-tech industries are a lot more trade-dependent than low-tech (traditional) manufacturing, posing higher risks for these industries in the wake of changes in trade orientation. This is important as high-tech firms base their business on R&D and human capital.

The value added from RCEP countries embodied in European and Austrian exports has increased significantly from the period before China entered the WTO: from 2.6% in 2000 to 3.8% in 2018. This implies an increasing role for China and the RCEP in European value chains. The empirical evidence points in the direction of negative effects of the formation of this trade bloc on the EU, albeit limited in size. Our assessment, based on the Caliendo-Parro (2015) model, is that there will be strong trade creation effects

between RCEP members (+30%), and a small distortion effect on EU exports to the RCEP, declining by less than 1%.

These negative effects could be offset, if the formation of the bloc induces efficiency seeking and export-platform FDI. The extent of these effects will depend on how successfully the Comprehensive Agreement on Investment, granting fair treatment of EU multinational, is implemented in future.

6. References

- Alvarez, F. E., Buera, F. J., & Lucas, R. E. (2013). Idea flows, economic growth, and trade (No. w19667). National Bureau of Economic Research.
- Asian Development Bank (2021) Global Value Chain Development Report: Beyond Production, 2021, (<https://dx.doi.org/10.22617/TCS210400-2>)
- Baltagi, B. H., Egger, P. H., & Kesina, M. (2016). Firm-Level Productivity Spillovers in China's Chemical Industry: A Spatial Hausman-Taylor Approach. *Journal of Applied Econometrics*, 31(1), 214-248.
- Blonigen, B. A., Tomlin, K., & Wilson, W. W. (2004). Tariff-jumping FDI and domestic firms' profits. *The Canadian Journal of Economics*, 37(3), 656-677. Retrieved from (<http://www.econis.eu/PPNSET?PPN=393112225>)
- Bond, E. W., Jones, R. W., & Wang, P. (2005). Economic take-offs in a dynamic process of globalization. *Review of International Economics*, 13(1), 1-19.
- Caliendo, L., & Parro, F. (2015). Estimates of the Trade and Welfare Effects of NAFTA. *The Review of Economic Studies*, 82(1), 1-44.
- Cheong, I., & Tongzon, J. (2013). Comparing the economic impact of the Trans-Pacific Partnership and the regional comprehensive economic partnership. *Asian Economic Papers*, 12, 144-164.
- Cole, M. T., & Davies, R. B. (2011). Strategic tariffs, tariff jumping, and heterogeneous firms. *European Economic Review*, 55(4), 480-496. (<https://doi.org/10.1016/j.euroecorev.2010.07.006>)
- Cui, Q., Wei, W., Dong, W., Liang, Y. (2021) Effects of Regional Comprehensive Economic Partnership on Asian-Pacific Economies from the Perspective of value added trade, pending in *Journal of Asian Economics*.
- Didier, T., & Pinat, M. (2017). The nature of trade and growth linkages. World Bank Policy Research Working Paper, (8168).
- Ekhölm Karolina, Forslid Rikard, & Markusen James, R. (2007). Export-platform foreign direct investment. *Journal of the European Economic Association*, 5(4), 776-795. (<https://doi.org/10.1162/JEEA.2007.5.4.776>)
- Ferragina, A., & Mazzotta, F. (2014). FDI spillovers on firm survival in Italy: Absorptive capacity matters. *The Journal of Technology Transfer*, 39(6), 859-897. (<https://doi.org/10.1007/s10961-013-9321-z>)
- Frenkel, M., & Ngo, T. (2021), Das RCEP-Abkommen und dessen Bedeutung für die EU, *Wirtschaftsdienst – Zeitschrift für Wirtschaftspolitik*, Heft 6, 432-438. (DOI: 10.1007/s10273-021-2938-x)
- Fukui, T., & Lakatos, C. (2012). A Global Database of Foreign Affiliate Sales. GTAP Research Memorandum, No. 24, 47.
- Gao, H. S. (2021). WTO reform and China: Defining or defiling the multilateral trading system? *Harvard International Law Journal*, 1.
- Glasmeier, A.K. (1991). *The high-tech potential: Economic development in rural America*. New Brunswick, NJ: Center for Urban Policy Research.
- Ghosh, A., Morita, H., & Nguyen, X. (2018). Technology spillovers, intellectual property rights, and export-platform FDI. *Journal of Economic Behavior & Organization*, 151, 171-190.
- Hornbeck, R., & Moretti, E. (2018). Who benefits from productivity growth? Direct and indirect effects of local FTF growth on wages, rents, and inequality (No. w24661). National Bureau of Economic Research.
- Itakura, K., & Lee, H. (2019). Estimating the Effects of the CPTPP and RCEP in a General Equilibrium Framework with Global Value Chains.
- Lakatos, C., Walmsley, T. L., & Chappuis, T. (2011). A Global Multi-sector Multi-region Foreign Direct Investment Database for GTAP. GTAP Research Memorandum, No. 18, 5.
- Li, Q., Scollay, R., & Gilbert, J. (2017). Analyzing the effects of the Regional Comprehensive Economic Partnership on FDI in a CGE framework with firm heterogeneity. *Economic Modelling*, 67, 409-420.
- Lu, J. W., & Beamish, P. W. (2001). The internationalization and performance of SMEs. *Strategic Management Journal*, 22(6-7), 565-586.
- Mahadevan, R., & Nugroho, A. (2019). Can the Regional Comprehensive Economic Partnership minimise the harm from the United States–China trade war? *The World Economy*, 42(11), 3148-3167.
- Martínez-San Román, V. (2016). Foreign direct investment, trade integration and the home bias. *Empirical Economics*, 50(1), 197-229. Retrieved from (<http://www.econis.eu/PPNSET?PPN=857066633>)
- Miller, J. and Wunsch-Vincent, S. 2021. High-tech Trade Rebounded Strongly in the Second Half of 2020, with New Asian Exporters Benefiting. World Intellectual Property Organization. (https://www.wipo.int/pressroom/en/news/2021/news_0001.html) (accessed on April 1, 2021)
- McMillan, M. S., & Rodrik, D. (2011). Globalization, structural change and productivity growth (No. w17143). National Bureau of Economic Research.
- Nicita A. and Saygili, M. (2021) Trade agreements and trade resilience during COVID-19 Pandemic, Trade Analysis Branch, Division on International Trade and Commodities, UNCTAD.
- Petri, P. A., & Plummer, M. G. (2020). East Asia Decouples from the United States: Trade War, COVID-19, and East Asia's New Trade Blocs, Peterson Institute For International Economics (No. WP20-09).
- Rahman, M., & Ara, L. (2015). TPP, TTIP and RCEP: Implications for South Asian economies. *South Asia Economic Journal*, 16, 1–19.
- Ramondo, N., & Rodríguez-Clare, A. (2013). Trade, multinational production, and the gains from openness. *Journal of Political Economy*, 121(2), 273-322.
- RCEP (2021) Regional Comprehensive Economic Partnership agreement. (<https://rcepsec.org/legal-text/>) (accessed on October 27, 2021)
- Reed, R., Lira, C., Byung-Ki, L., & Lee, J. (2016). Free trade agreements and foreign direct investment: The role of endogeneity and dynamics. *Southern Economic Journal*, 83(1), 176-201. (<https://doi.org/10.1002/soej.12136>)
- Rumbaugh, T., & Blancher, N. R. (2004). China: international trade and WTO accession. *IMF Working Papers*, 2004(036).
- Silva, J. A. (2008). International trade and the changing demand for skilled workers in high-tech manufacturing. *Growth and Change*, 39(2), 225-251.
- Timmer, M.P., E. Dietzenbacher, B. Los, R. Stehrer and G.J. de Vries (2015), 'An Illustrated User Guide to the World Input-Output Database: The Case of Global Automotive Production', *Review of International Economics*, 23(3), pp. 575-605. (<https://doi.org/10.1111/roie.12178>)
- UNCTAD (2010). *World Investment Report*. United Nations Publication, New York
- UNCTAD (2021a) *Trade and Development Report 2021: From Recovery to Resilience: the development dimension*. United Nations, Geneva.
- UNCTAD (2021b), *A new centre of gravity: The Regional Comprehensive Economic Partnership and its trade effects*.

6. References

World Bank (2021), Small and Medium Enterprises (SMEs) Finance: Improving SMEs' access to finance and finding innovative solutions to unlock sources of capital. Accessed at (<https://www.worldbank.org/en/topic/sme/finance>) on 14.10.2021.

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