

Impact of the regional comprehensive economic partnership agreement on the German economy



Marc Atkins¹⁺

Christian Peitz²

Bernard Michael Gilroy³

¹University of Paderborn, Warburger Str. 100, 33098 Paderborn, Germany.

¹Email: M.Atkins@mail.uni-paderborn.de

³Email: Bernard.michael.gilroy@upb.de

²Dragonerweg 26, 33104 Paderborn, Germany.

²Email: Christian.peitz@uni-paderborn.de



(+ Corresponding author)

ABSTRACT

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The Regional Comprehensive Economic Partnership (RCEP) creates the largest free trade zone worldwide and changes the world economy. The RCEP region is one of Germany's most important trading partners and supplier of key inputs with a trade volume of USD 218 billion in imports and USD 188 billion in exports in 2020. But how does RCEP impact Germany and which sectors are most affected? How should Germany best react economically and politically in order to benefit most from the agreement and its consequences instead of losing trade volume and global market share? To answer these questions, we analyse trade between Germany and the RCEP members in terms of imports, exports, trade in value-added as well as forward and backward linkages, before conducting a sector-level trade analysis. Our analysis incorporates the details of the RCEP provisions and compares the agreement to the CPTPP. We find that a more China-centric political agenda is necessary for Germany and that it ought to incentivise RCEP investment, especially in the computer, electronic and optical products sector as well as the motor vehicles, trailers and semi-trailers sector. This will preserve existing exports and market shares, further develop RCEP as a market for German exports as well as investment in order to benefit from positive local effects of RCEP.

Contribution/ Originality: It is unclear how Germany should react economically and politically, while existing contributions in the literature fail to assess key questions, which this work overcomes by analysing trade between Germany and RCEP on country- and sector-level as well as in trade in value-added terms and giving practical implications.

1. INTRODUCTION

Exchanged the last part of the highlighted text here with the information in chapter two (highlighted red: "On January 1st, 2022, it entered into force for Australia, Brunei, Cambodia, China, Japan, Lao, New Zealand, Singapore, Thailand as well as Viet Nam (RCEP, 2022a). On February 1st, 2022, RCEP entered into force for South Korea and on March 18th, 2022, for Malaysia (Australian Department of Foreign Affairs and Trade, 2022). RCEP accounts for approximately 30 percent of the world's aggregate economic output, 28 percent of world trade and its countries inhabit approximately 2.3 billion people (UN Comtrade, 2022). Because of its influence, RCEP is going to change the world economy as value chains within the RCEP cluster and with its trading partners are being re-arranged through enhanced regional integration in East Asia.

This holds for Germany as RCEP is one of its most important trading regions with 19 percent (USD 218 billion) of Germany's imports coming from and 14 percent (USD 188 billion) of its exports going to the region in 2020 (UN Comtrade, 2022). Research about the expected impact of RCEP on the German economy and especially its sectors, however, is scarce and insufficient, despite being fundamentally important because of the potentially immense economic effects.

It is unclear how Germany should best react economically and politically in order to benefit most from the agreement and its consequences instead of losing trade volume and global market share. For example, should Germany diversify its imports of intermediates in the manufacturing industry of computer, electronic and optical products from RCEP in order not to become overly dependent on a single region and, for instance, be vulnerable to supply shortages such as experienced in the wake of the COVID-19 pandemic and its consequences? Should Germany rely more on imports of intermediate inputs in the automotive industry from RCEP because the cost advantage of these imports is expected to increase as supply chains become more resilient in the region? Moreover, should Germany invest locally in the RCEP region in order to gain from local benefits and counteract trade diversion effects and, if yes, in which sectors should Germany invest?

Petri and Plummer (2020) refer to trade agreements as being sticky, influencing trade patterns and thereby shaping institutions as well as policies. FTAs have an influence on third countries that can be positive or negative or both at the same time. On the one hand, FTAs have a negative impact on outside economies for they exclude them from the agreed benefits making their output relatively less competitive. On the other hand, the economic growth that usually comes with FTAs for its partner countries generally also benefits third countries (Matthes & Kolev, 2020). Reductions of tariffs and non-tariff barriers, harmonised rules of origin that set unified trade standards, lower production costs and thus more robust value chains enable positive consequences in terms of trade volume.

Concerning RCEP, the harmonisation of the rules of origin is considered the greatest achievement of the agreement. It enables far-reaching tariff-free trade of products between member states as value added to products in any member state is counted as domestic production. This promotes global value chains (GVC) as it becomes less costly for goods to cross borders, also multiple times. Additional trade diversion effects can be caused by multiplying factors such as the level of remaining tariffs for third countries, depth of trade liberalization of the respective FTA as well as the duration of transitional periods. The impact on GVC is particularly relevant for complex GVC as inputs cross borders several times. In fact, complex value chains are relatively more prevalent in RCEP than simple GVC, which emphasises the opportunities stemming from the agreement (Flach, Hildenbrand, & Teti, 2021). In China, for instance, while 4.8 percent of total produced value is created by simple GVC, 6.7 percent is created in complex value chains. Hence, value created in complex GVC as a share of GVC production is 58 percent for China, compared to 52 percent for RCEP on average, 41 percent for the European Union (EU) and 42 percent for the United States (US) (Flach et al., 2021).

Economies like Germany benefit from RCEP's liberal rules of origin allowing for preferential treatment of goods containing a substantial amount of foreign value added. Reduction of tariffs have relatively less impact on Germany and overall, since the ten nations forming the Association of Southeast Asian Nations (ASEAN) already have bilateral trade agreements in place, reducing tariffs in the region (Matthes & Kolev, 2020). The Economist (2020) estimates that 83 percent of traded goods (USD 2.3 trillion in 2019) in the region are related to trade pacts existing prior to RCEP.

Park, Petri, and Plummer (2021) estimate that the reduction of non-tariff barriers on goods and services make up two thirds of the effects of RCEP while tariff liberalisations as well as rules of origin each account for approximately 16 percent and investments contribute some two percent (Park et al., 2021). By 2030, they project an incremental increase of 465 USD billion in exports from RCEP members to other RCEP members as well as 49 USD billion to other countries due to RCEP (Park et al., 2021). In line with FTA theory, they also project a

significant decrease in trade outside RCEP. Their analysis is based on a computable general equilibrium (CGE) model and is conducted on country and sector level and overall, they find positive effects on trade volume.

CGE model analysis has been the workhorse tool in analysing the impact of policy interactions lately. The very few other studies using this approach in this context find RCEP's impact on trade to go in the same direction, however, the range of empirical results is large. For instance, [Mahadevan and Nugroho \(2019\)](#) find more moderate effects pointing to existing agreements with substantial tariff reductions. [Cui and Li \(2021\)](#) confirm earlier research by [Petri and Plummer \(2020\)](#) in finding that reductions in tariff and non-tariff barriers increase the gross domestic product (GDP) of ASEAN members. Hence, we expect the largest trade diversion effects on Germany resulting from reduced non-tariff barriers and the effects of harmonised rules of origin. To answer the questions posed above and give further recommendations for action, a detailed analysis of the potential consequences of RCEP on the German economy is necessary on country- and industry-level, which is our contribution.

This paper is organised as follows. We analyse the RCEP agreement in detail, looking at the provisions in its different chapters, illustrating its strengths and weaknesses, comparing it to the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) as well as discussing its potential. It follows the analysis of today's relevant trade patterns, foremost the economic relations between Germany and RCEP countries. Besides depicting imports and exports on country- and sector-level we answer questions such as how Germany is tied into RCEP GVC, how large the share of domestic and foreign value added is and how this has changed over time. This enables a profound understanding of today's and past trade patterns and provides the basis for interpreting the results in the subsequent discussion and conclusion.

2. RCEP – THE AGREEMENT

RCEP was agreed between the ASEAN countries Brunei, Cambodia, Indonesia, Lao, Malaysia, Myanmar, Philippines, Singapore, Thailand and Viet Nam, the ASEAN+3 countries China, Japan, South Korea as well as the ASEAN+6 countries Australia, New Zealand except for India, illustrated in [Figure 1](#). It was signed in November 2020 after eight years of negotiations and took longer than expected to be ratified mainly due to the COVID-19 pandemic shifting domestic priorities, while Australia's political tensions with China slowed their domestic ratification discussions ([The Economist Intelligence Unit, 2021](#)). The minimum requirement, a minimum of six ASEAN as well as three non-ASEAN states domestically ratifying the agreement, for RCEP to enter into force 60 days later for these countries was met in late 2021 ([RCEP, 2022b](#)). On January 1st, 2022, it entered into force for Australia, Brunei, Cambodia, China, Japan, Lao, New Zealand, Singapore, Thailand as well as Viet Nam ([RCEP, 2022a](#)). On February 1st, 2022, RCEP entered into force for South Korea and on March 18th, 2022, for Malaysia ([Australian Department of Foreign Affairs and Trade, 2022](#)).

RCEP is the world's largest FTA before the EU, the United States-Mexico-Canada Agreement (USMCA, formerly the North American Free Trade Agreement (NAFTA)) as well as the CPTPP. Its member countries generate around 30 percent of global economic output, approximately USD 26 trillion ([Plummer & Petri, 2021](#)). This can rise to more than half of the world's GDP by 2030 ([Neumann & Rajanayagam, 2020](#)). Thus, RCEP amplifies the global trend of the economic centre of gravity moving toward Asia. It comes at a time when the global COVID-19 pandemic reinforces regionalization as opposed to globalization due to new constraints in global supply chains, especially in manufacturing industries ([Frenkel & Ngo, 2021](#)).

India left the negotiations a year before the agreement was signed. Beside some domestic political issues, the decision was made mainly because of economic factors including trade deficits with 11 of the 15 RCEP members as well as the fear of Chinese competition in sectors such as manufacturing ([Petri & Plummer, 2020](#)). Recently, the current member states reinforced the option for India to join the agreement ([South Korean Ministry of Trade Industry and Energy, 2022](#)). Moreover, both Hong Kong and Bangladesh are keen to join RCEP, the former of which has already taken the opportunity to formally apply for accession to RCEP ([Nikkei Asia, 2022](#); [The Daily](#)

Star, 2022). This is generally possible for any state as of 18 months after entry into force (except for India, which is not bound by the 18 month-period as an original negotiating state).

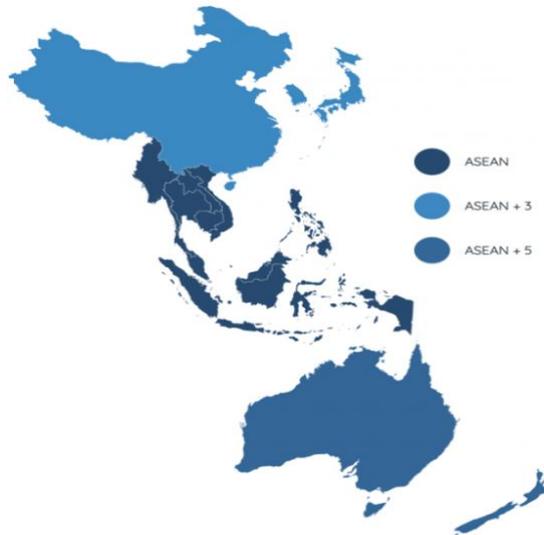


Figure 1. The 15 members of the RCEP agreement.

RCEP comprises 20 chapters, among others dealing with trade in goods, rules of origin, customs procedures, trade in services, investments, intellectual property rights, as well as e-commerce. The agreement’s main goal is forming an economic partnership that eliminates tariffs, thereby raising regional flows of trade and investment (RCEP, 2022b). For general comprehension, Table A1 (see Appendix) summarises the main features of the agreement. For Germany, chapter 2 (Trade in Goods), chapter 3 (Rules of Origin), chapter 8 (trade in services) as well as chapter 10 (investment) are most relevant due to their impact on RCEP’s foreign trade.

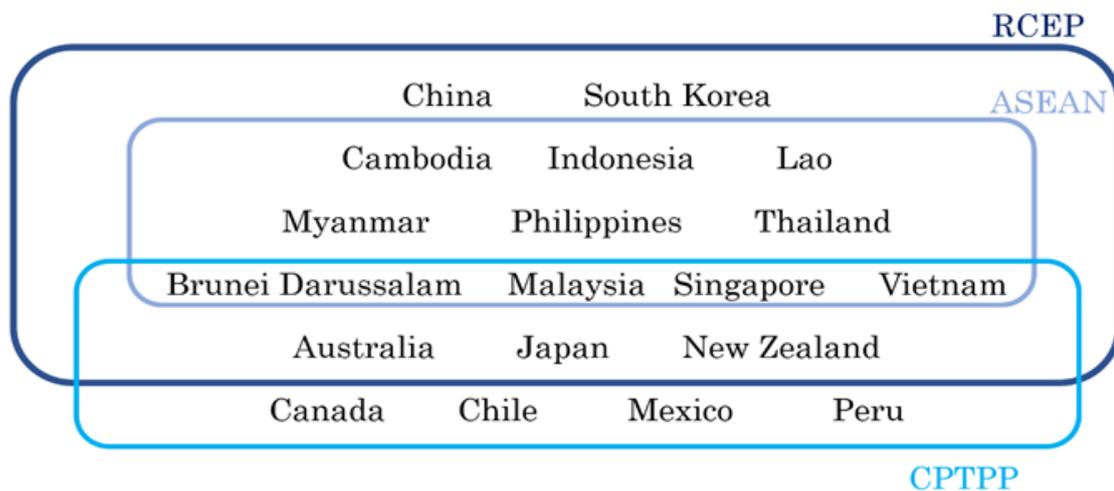


Figure 2. Trade groups in the Asia-Pacific region.

2.1. RCEP and CPTPP

Given its large number of members and their diverse economies, RCEP is not an agreement as extensive as the CPTPP, which eliminates 96 percent of tariffs on products traded among member countries. This was developed from the Trans-Pacific Partnership (TPP) after the US pulled out of the agreement in 2017 (Frenkel & Ngo, 2021). It was signed in 2018 by 11 countries around the Pacific (see Figure 2) and accounts for 13.3 percent of world GDP, 6.7 percent of the world’s population and 14.4 percent of world trade (Australian Department of Foreign Affairs and Trade, 2021). Figure 2 exhibits the large overlap of member states between CPTPP and RCEP. On the one hand, as

the less developed countries are not part CPTPP it was possible to set higher standards regarding, for instance, labour law and sustainable development. On the other hand, the absence of China and the US enabled a more far-reaching trade liberalization (Frenkel & Ngo, 2021).

The United Kingdom (UK) handed in a formal accession request to the CPTPP in February 2021 and after negotiations began in September 2021, the UK hopes to complete them by the end of 2022 (UK Parliament, 2022). After President Biden of the US had indicated his motivation in re-negotiating with CPTPP member states in January 2021 (Frenkel & Ngo, 2021), the US has moved away from this position, aiming at forming an economic framework with the Asia-Pacific that goes beyond the CPTPP (Nikkei Asia, 2021). There has not been specific progress in this regard since, however. Should both the UK and the US eventually join the CPTPP, or form separate far-reaching agreements, this could prove a substantial counterbalance in the world economy to RCEP with its giant member states China, South Korea and Japan.

Most chapters that are included in both agreements merely exhibit minor differences, such as that investor-state-dispute settlements are not yet incorporated into RCEP. Moreover, CPTPP uses negative list approaches more rigorously (Chaisse & Pomfret, 2019). Albeit all chapters of RCEP are found in CPTPP, RCEP does not include chapters on social standards, environmental protection, labour or state-owned companies and monopolies while the provisions on trade in services are not very far-reaching. The latter are mainly aimed at ensuring the current liberalizations are kept in place as well as enabling companies from outside the region an enhanced market access and are mostly limited to services in finance, telecommunications as well as professional services (Frenkel & Ngo, 2021).

2.2. How Far-Reaching is RCEP?

The large differences among RCEP member states regarding their level of development made it necessary to agree on the lowest common ground in some regards. Nevertheless, it is an extensive and far-reaching agreement and will eliminate 90 percent of tariffs on goods over 20 years. The average tariff for trade between RCEP members was 1.6 percent in 2017. The largest tariff reduction is expected for trade among China, South Korea and Japan, i.e. the three largest economies of RCEP (Flach et al., 2021). These are the countries with the highest tariffs still in place, which is in large parts due to cultural reasons. Moreover, RCEP is designed to be enhanced and extended over time, a method used by ASEAN before, by mechanisms stipulated in the agreement that allow for changes (Petri & Plummer, 2020). These include, for instance, a most-favoured-nation-clause for service trade, which determines that any RCEP member state grants another member state the same concessions it grants any third country (RCEP, 2022c). Most-favoured-nation treatment of other member states also applies for customs duties of goods trade (chapter 2) as well as investments (chapter 10). Another remarkable aspect regarding the provisions on services is that member states ought to use a negative list approach whereby every service not listed is considered liberalised (RCEP, 2022b).

The harmonisation of the rules of origin is considered the greatest achievement (Flach et al., 2021). Every trade agreement comprises a set of rules referred to as the rules of origin. Exporters ought to prove a certain share of domestic production to avoid paying tariffs and receiving preferential entry into a market. In order to avoid a 20 percent tariff for the entry into Lao, for example, Chinese automobile producers today have to provide proof that at least 40 percent of the product comes from China itself or another ASEAN country (Flach et al., 2021). The main issue is that the rules of origin differ for every bilateral FTA as well as for every country and sector, making the rules to comply with for preferential treatment very complex. Fragmented value chains, in which intermediate inputs cross multiple borders, make it more difficult. By essentially counting all intermediate inputs from the 15 member states as domestic production, RCEP consolidates and harmonises the rules of origin. This promotes GVC trade as it becomes less costly for goods to cross borders, also multiple times. In effect, the Chinese automobile producer is going to need merely one certificate of origin for its exported goods. Especially small and medium

enterprises (SMEs) are expected to benefit from the reduced regulatory burden by harmonised rules of origin, enabling them to reach a larger number of customers more easily. This applies to German SMEs present in the RCEP region.

Until the harmonised rules of origin can deliver on their full potential, however, it will take up to 20 years until all planned tariffs on goods are eliminated. For this process, each RCEP member has its own schedule of tariff commitments. Furthermore, the RCEP agreement considers the special requirements of their economically less developed members. This applies specifically to each member’s schedule of tariff commitments (Annex I of the agreement, see RCEP (2022c)), Economic and Technical Cooperation (chapter 15 of the agreement, see RCEP (2022c)) as well as the provisions on dispute settlement (chapter 19 of the agreement, see RCEP (2022c)). On the one hand, this represents a significant assistance of less developed country members in engaging more in the GVC of the region, which allows for the region’s deeper integration. On the other hand, these flexibilities make RCEP less rigorous, for instance, compared with CPTPP.

3. RELEVANT TRADE PATTERNS

Besides depicting imports and exports on country- and sector-level we answer questions such as how Germany is tied into RCEP GVC, how large the share of domestic and foreign value added is and how this has changed over time.

3.1. Germany, RCEP and its Member States

RCEP is a major trading partner for Germany with 18.6 percent of its imports coming from and 13.6 percent of its exports going to the region in 2020 (UN Comtrade, 2022). In absolute terms, this equals approximately USD 218 billion in imports and USD 188 billion in exports. Thus, Germany has a significant trade deficit with RCEP as a cluster of its members.

China is by far the largest trading partner and accounts for 11.4 percent of Germany’s imports and 8.0 percent of its exports in 2020. This makes China Germany’s largest import market with USD 134 billion worth of goods before the Netherlands (USD 90 billion) and the US (USD 78 billion).

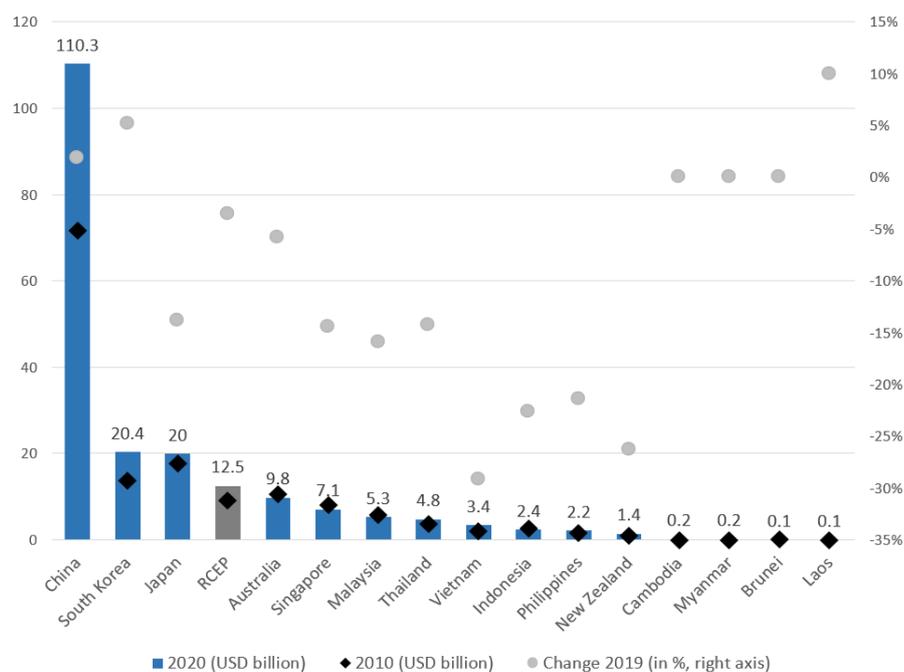


Figure 3. Germany’s goods exports to RCEP states in 2020.

Source: UN Comtrade (2022).

Regarding Germany’s export markets, China ranks second with goods exports worth USD 110 billion after the US (USD 120 billion) and before France (USD 104 billion) (UN Comtrade, 2022). Figure 3 illustrates Germany’s goods exports to RCEP members, reflecting China’s dominance in this regard. Nevertheless, RCEP member states without China constitute a substantial trading partner on their own, accounting for 7.2 percent of Germany’s total imports and 5.6 percent of its exports. Apart from China, South Korea and Japan are the largest trading markets for Germany among RCEP members. Even though they are not among its top ten trading partners, Germany exported goods worth approximately USD 20 billion to each while importing goods worth USD 24 billion from Japan and USD 13 billion from South Korea in 2020 (UN Comtrade, 2022).

Over time, RCEP has become a more important trading partner for Germany, both in absolute and relative terms as well as regarding both imports and exports. Between 2010 and 2020, Germany’s imports from the region increased by USD 33 billion while its exports rose by USD 49 billion. The COVID-19 pandemic has had an impact on trade volumes, contributing to numerous negative growth rates of Germany’s exports from 2019 to 2020 as shown in Figure 3 (right-hand scale). Overall, Germany’s exports to the region fell by four percent on average (including services trade), while imports increased by two percent on average (UN Comtrade, 2022). Therefore, the pandemic seems to have caused Germany’s trade deficit with RCEP countries to increase, rising from approximately 20 USD billion in 2019 to 32 USD billion in 2020, of which 23 billion USD originate from trade with China. In total, Germany has a trade surplus of approximately 211 billion USD in 2020 (UN Comtrade, 2022).

Nevertheless, the relative importance of RCEP continued to increase, regarding both imports and exports. Figure 4 depicts the relative share of RCEP as well as China, Japan and South Korea in Germany’s foreign trade over time. Looking at Germany’s three most important trading partners among RCEP members, we see that the import and export shares of Japan and South Korea remain almost constant over time. One and two percent of Germany’s imports come from, and exports go to South Korea and Japan, respectively. This is different for China and changes in shares regarding Germany’s trade with RCEP as a cluster are mainly due to changes in trade with China.

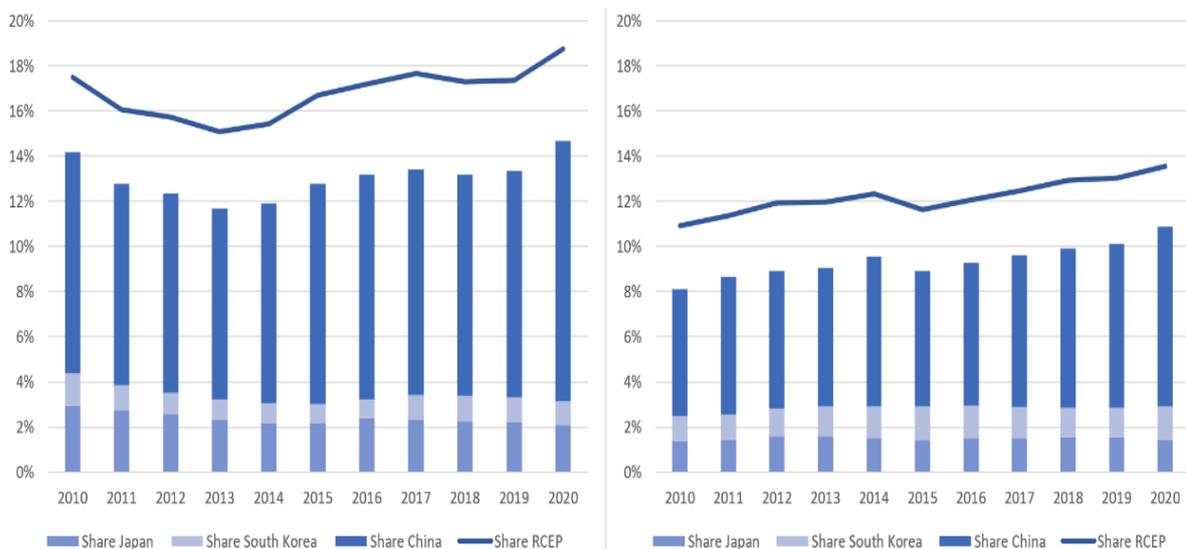


Figure 4. Share of Germany’s imports and exports.

Source: OECD (2023).

3.2. Sector Level – what Industries Stand Out?

We analyse the top three industries of trade between Germany and RCEP regarding gross imports and exports, thus including both intermediate and final goods and services. For these industries, Table 1 shows the trade between Germany and RCEP member states as well as, for the purpose of putting the absolute numbers into

perspective, trade with the US, EU27¹ and the world total. Germany's top three export industries of trade with RCEP also constitute its top three overall export industries in the same order. Concerning imports, there are discrepancies in this regard as, for instance, the mining and quarrying, energy producing products industry is one of its largest import sectors, for which however, RCEP plays only a minor role. We follow the United Nations (UN) International Standard Industrial Classification (ISIC) of economic activities (UN, 2008) and analyse based on the most specific differentiation of industries the Trade in value-added (TIVA) database of the Organisation for Economic Co-operation and Development (OECD) allows for (OECD, 2023).²

3.2.1. Imports

Concerning trade with RCEP, Germany imports most from the manufacturing industry referred to as computer, electronic and optical products (D26) with an import value of 39.2 USD billion in 2018. The majority of this relates to imports from China (23.4 USD billion), while more than 80 percent result from imports from China, Japan and South Korea together. Of all of Germany's imports in this industry, 50 percent come from RCEP members and 30 percent from China alone. Moreover, imports in the computer, electronic and optical products industry from RCEP members account for 22 percent of total RCEP imports as well as six percent of Germany's world imports, making this its third largest import industry worldwide. The textiles, wearing apparel, leather and related products industry (D13T15) is Germany's second largest import industry with an import value of 15.1 USD billion in 2018. This manufacturing sector accounts for eight percent of Germany's RCEP imports and three percent of its total imports. Of all of Germany's imports in this industry, 40 percent come from RCEP members and 29 percent from China alone. The sector referred to as wholesale and retail trade; repair of motor vehicles (D45T47) is Germany's third largest RCEP import sector with an import value of 14.1 USD billion in 2018, which equals eight percent of all imports from RCEP members. Moreover, this is Germany's overall largest import industry, representing ten percent of its world imports in 2018. Imports from RCEP account for 11 percent of this trade while most originates from EU27 (74.6 USD billion).

Jointly, Germany's worldwide imports from these three industries make up 18 percent of its total imports, which amount to 1,331 USD billion in 2018, indicating the relevance of these sectors. Its imports from these industries from RCEP members alone account for five percent of Germany's worldwide imports alone. Concerning imports from RCEP, 38 percent come these top three sectors.

3.2.2. Exports

The motor vehicles, trailers and semi-trailers industry (D29) is Germany's largest export industry overall (16 percent of total exports worldwide) as well as specifically regarding trade with RCEP (17 percent of total RCEP exports). In 2018, Germany exported goods worth 41.4 USD billion to RCEP members, approximately 90 percent of which was exported to China, Japan, South Korea and Australia. As Table 1 shows, with respect to trade with RCEP, Germany's third largest import industry (wholesale and retail trade; repair of motor vehicles) is also its second largest export industry, accounting for nine percent of its total RCEP exports, while it is closely related to industry D29. Moreover, this is equal to 15 percent of Germany's worldwide exports in wholesale and retail trade; repair of motor vehicles, a sector which itself represents approximately nine percent of Germany's total exports in 2018.

Furthermore, the computer, electronic and optical products industry is not only Germany's largest import sector regarding trade with RCEP member states, but also its third largest export sector. In 2018, Germany

¹ Overview of present EU Member States (EU-27): Austria, Belgium, Bulgaria, Croatia, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden.

² Trade data in this entire chapter are taken from this database using the latest available data.

exported 16.1 USD billion to the region, accounting for seven percent of its total RCEP trade. With respect to Germany’s total exports in this industry, 22 percent was exported to RCEP. Taken together, Germany’s exports to RCEP members in these three industries account for one third of its total exports to RCEP or five percent of Germany’s worldwide exports in 2018. In addition, its worldwide (including RCEP) exports from these three sectors together make up 30 percent of Germany’s total exports (1,548 USD billion in 2018), showing their relevance for its world trade.

Table 1. Germany TOP3 industries (Imports and exports - 2018)³.

	Gross imports			Gross exports		
	D26	D13T15	D45T47	D29	D45T47	D26
China	23.372	11.220	5.548	20.186	10.639	8.431
Japan	4.496	100	3.112	8.223	3.469	1.991
South Korea	4.029	112	787	5.385	2.224	2.159
Malaysia	2.274	67	538	1.458	561	786
Australia	107	16	356	2.963	1.250	725
Singapore	1.152	10	1.747	1.300	497	454
Thailand	1.446	386	788	902	770	660
Vietnam	752	1.790	347	190	607	71
Indonesia	419	586	411	290	481	337
Philippines	1.188	51	252	91	309	421
New Zealand	6	7	113	380	190	82
Cambodia	2	448	62	14	28	11
Myanmar	1	296	58	17	19	10
Lao	0	36	24	4	3	1
Brunei	0	1	0	30	8	7
Σ RCEP	39.242	15.126	14.143	41.433	21.056	16.146
United States	6.495	313	12.043	28.536	13.128	7.992
EU27	21.038	10.383	74.588	108.925	70.065	29.869
WLD: World	77.793	38.213	130.147	250.425	145.199	72.748

Source: OECD (2023).

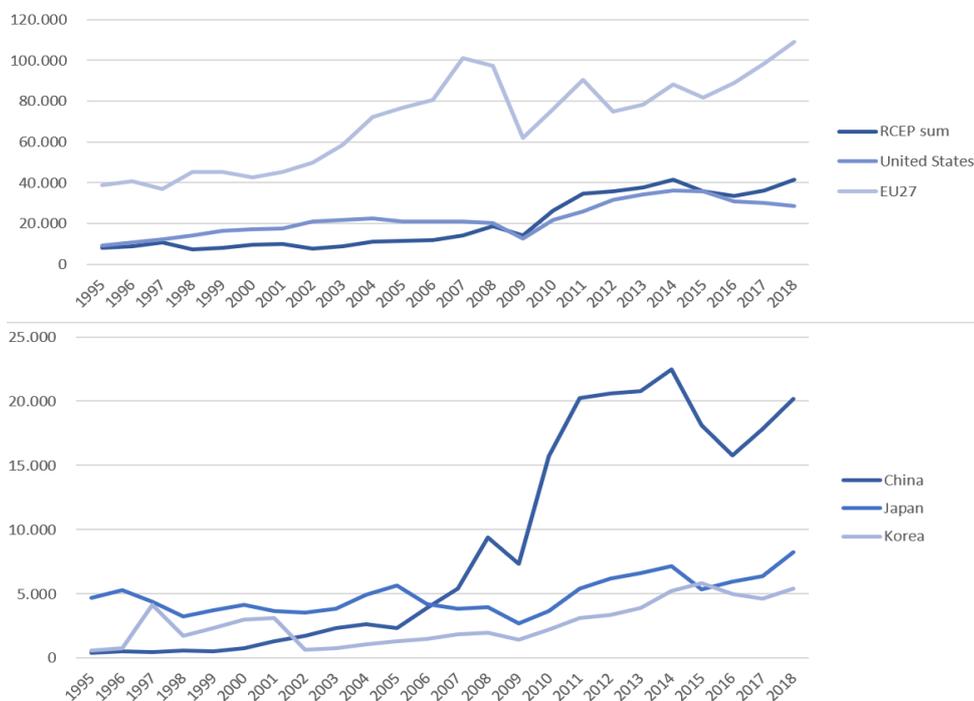


Figure 5. Germany’s exports in the motor vehicles, trailers and semi-trailers industry (D29) over time (USD billion). Source: OECD (2023).

³ Where D26 equals the computer, electronic and optical products industry, D13T15 equals the Textiles, wearing apparel, leather and related products, D45T47 equals the Wholesale and retail trade; repair of motor vehicles and D29 equals the Motor vehicles, trailers and semi-trailers.

3.2.3. Development over Time

How has Germany's trade with RCEP changed over time in its most important export and import industry, respectively?

Germany's largest export industry (D29) exhibits an increasing amount of trade from Germany to its trading partners over time. The upper part of Figure 5 depicts exports to RCEP members, the US as well as EU27 states, which together account for more than 70 percent of Germany's exports in this industry. Trade with RCEP remained relatively constant and increased especially as of 2010, after the global financial crisis. The lower part of Figure 5 shows that this increase is mainly due to rising exports to China, which almost tripled between 2009 and 2011 and remained high afterwards. This growth is also the main driving force behind RCEP's growing importance as an export market for Germany in this industry over time, which increased from 11 percent in 2009 to 17 percent in 2018, approximately half of which is attributable to exports to China.

In addition, this industry is closely connected to the service sector wholesale and retail trade; repair of motor vehicles (D45-47) as these services form part of buying, selling and using D29 products, making this part of Germany's economy even more important in this context. Regarding trade in Germany's largest import sector, the computer, electronic and optical products industry, RCEP plays a more important role. Figure 6 follows the logic of Figure 5 and depicts Germany's trade in the computer, electronic and optical products industry (D26) over time (USD billion). In this case, however, for both imports and exports due to the significance of the trade volumes.

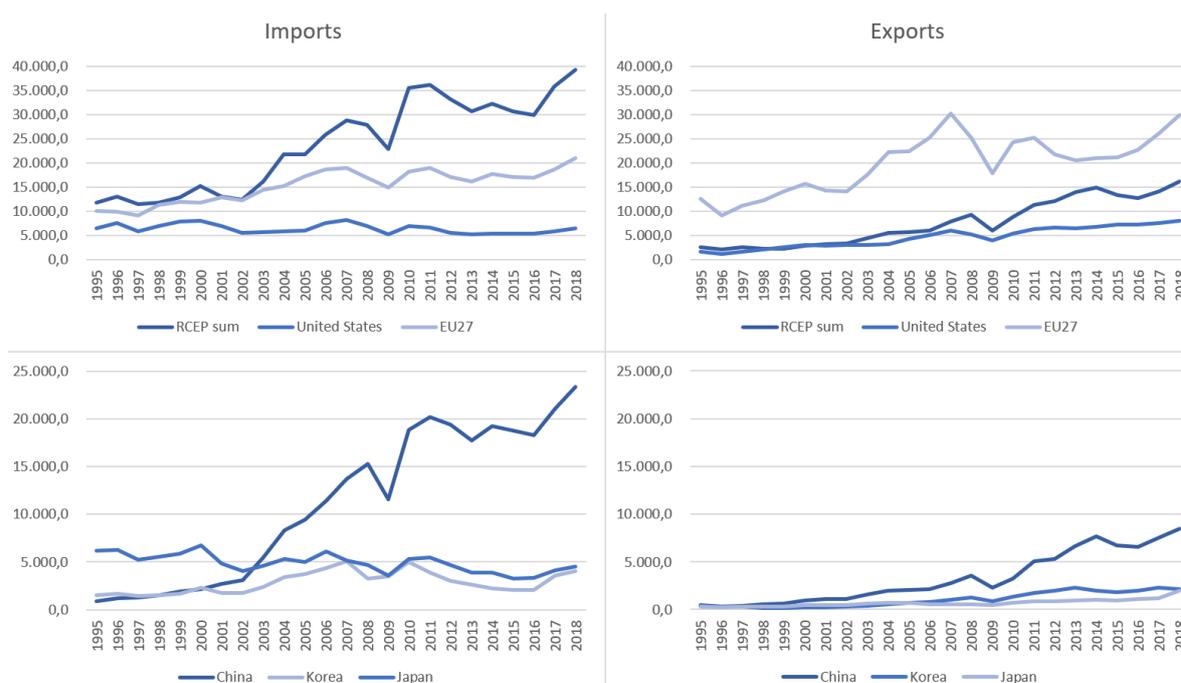


Figure 6. Germany's trade in the computer, electronic and optical products industry (D26) over time (USD billion)

Source: OECD (2023).

Figure 6 illustrates that Germany imports almost 40 USD billion from RCEP, which represents 50 percent of its total imports in this industry, and that this increased significantly over the past two decades. This growth is in most parts attributable to imports from China, which in 2018 represents 30 percent of Germany's world imports in this industry, or 60 percent of its RCEP imports. Imports from Malaysia, Thailand, Philippines and Viet Nam also increased over time and account for approximately 5.7 USD billion worth of imports in 2018.

Concerning Germany's exports in the computer, electronic and optical products industry RCEP plays an import role with trade worth more than 16 USD billion in 2018, however, is the destination of less exports than EU27 with more than 29 USD billion in exports. While Germany's exports to all three destinations increased

steadily over time, export growth to RCEP members is again largely attributable to exports to China, which accounts for more than 50 percent of exports to RCEP. The computer, electronic and optical products industry is most important for Germany's foreign trade with RCEP both in relative and absolute terms, accounting for 37 percent of its foreign trade in this sector. Therefore, the following paragraph analyses this trade in more depth regarding Germany's integration into RCEP trade and value chains.

3.3. The Computer, Electronic and Optical Products Industry

3.3.1. Products of the Industry

The manufacturing industry of computer, electronic and optical products is classified as D26 in the UN ISIC of economic activities (UN, 2008). It includes the production of electronic components, such as microprocessors or integrated circuits, the manufacture of computers and computer peripherals, such as printers, monitors, virtual reality helmets, etc., as well as communications equipment such as smartphones or radio equipment. The division also contains the production of consumer electronics, measuring, testing and navigating equipment, irradiation and electromedical equipment as well as the production of magnetic and optical media. In addition, the D26 division includes the manufacture of components for such products. Its production processes are highly specialised and often characterised by integrated circuits and miniaturization technologies (UN, 2008).

3.3.2. Trade in Value Added

It is key to analyse value-added in trade and GVC to obtain a more accurate picture of reality (Atkins, Gilroy, & Seiler, 2019). Traditional international trade data measure the value of a product at each border crossing including the value of intermediate inputs, regardless of any potential previous border crossings. A double-counting problem arises, which in many cases overstates the value of trade between countries, because international trade data are expressed in output terms. In GVC activities, value-added is created across national borders embedded in trade flows of intermediate inputs. Depending on whether the goods cross one or several borders, they can be segmented into simple or complex GVC activities (Wang, Wie, Yu, & Zhu, 2017). In fact, since the end of the 20th century, complex GVC have been the most important driving force of globalisation. As Atkins et al. (2019) point out, trade in value-added (TiVA) data are a trade measure capturing only the value a country adds to a good or service based on harmonised international trade data as well as input-output data. The shares of domestic and foreign value-added in exports indicate the extent to which countries are tied into GVC (Feenstra, 2017). Foreign value-added in exports (FVAiX) is an indicator of backward linkage trade in the sense that, moving backward from consumers, it illustrates the supply structure of domestic and foreign value-added to produce exports and thus shows the dependency on foreign inputs. By contrast, forward linkages analyse the dependence of domestic intermediate inputs that is exported on foreign production to reach consumers, in that sense looking forward to consumers. The discussed trade patterns suggest that the substantial trade volume between Germany and RCEP member states, paired with the political and economic consequences of RCEP, can lead to large trade diversion effects. A specific analysis of backward and forward linkages is necessary to better understand the potential effects, preferential political actions as well as opportunities for investment.

3.3.3. Backward Linkages: The Import Content of Germany's Exports

This paragraph analyses the import content of Germany's exports that is related to RCEP focussing on the D26 industry. It is a foreign value-added intensity measure in the analysis of GVC as it indicates the degree of vertical specialisation and dependence on foreign imports in the production of goods and services for exports.

As becomes apparent from above, in total, Germany imports goods worth 39.2 USD billion in the D26 industry from RCEP in 2018 (compared with its 1,331 USD billion total world imports), of which around 23 USD billion come from China. These imports are measured in gross terms. Moreover, 16.1 USD billion of Germany's total gross

exports (1,548 USD billion) are exported to RCEP within the computer, electronic and optical products industry, of which 8.4 USD billion go to China.

3.3.3.1. D26 RCEP Imports in Germany's Total Exports

The relation of how much of Germany's total gross exports is D26 value-added from RCEP, irrespective of the destination of these goods and services, is of primary interest in order to analyse the backward linkages with RCEP for its largest import industry. Of all of Germany's exports in 2018 (including all industries and measured in gross terms), 50.9 USD billion is value-added from industry D26 (up from 16.4 USD billion in 1995). 40.2 billion of this is domestic value-added and 10.7 USD billion, or 21 percent, is foreign value-added. RCEP accounts for 46 percent of all D26 foreign value-added contained in Germany's exports (4.9 USD billion) in 2018, while 22 percent (2.3 USD billion) come from China alone. In fact, foreign value-added from China exceeds that of the US as well as EU27 in Germany's 2018 exports (OECD, 2023).

On a side note, in addition to its 4.9 USD billion value-added D26 imports from RCEP contained in its exports, Germany imports 14.5 USD billion from RCEP for domestic demand. Therefore, in value-added terms, a large share (approximately 25 percent) of the traded goods and services of Germany's top import industry with RCEP is eventually contained in its exports (OECD, 2023). Over time, the D26 foreign value-added content of Germany's exports has increased both in absolute and relative terms, rising from 2.6 USD billion and 16 percent in 1995 to 10.7 USD billion and 21 percent in 2018. More importantly, RCEP's foreign value-added content in Germany's exports increased even more, rising from 0.8 USD billion or five percent in 1995 to 4.9 USD billion or ten percent in 2018 (OECD, 2023).

3.3.3.2. D26 RCEP Imports in Germany's D26 and Total Exports

Regarding the use of D26 value-added inputs from RCEP in Germany's exports, the relation of how much of this is incorporated in Germany's D26 gross exports compared with its exports in other sectors is important in understanding the degree of interdependence and vertical specialization. Of the 50.9 USD billion D26 value-added content of Germany's exports in 2018, 40.7 USD billion was exported within the D26 industry and is thus intra-industry backward-linkage trade of Germany (OECD, 2023). The foreign value-added share of this is relatively low with 3.4 USD billion or eight percent, while the remaining 92 percent are produced domestically. Nevertheless, RCEP again accounts for a large share of the foreign value-added with 48 percent or 1.6 USD billion, of which almost half originates from China (OECD, 2023). It follows that 1.6 of the total 4.9 USD billion of value-added RCEP inputs that are contained in Germany's exports are traded within the D26 industry while the remaining 3.3 USD billion are exported in other industries. Hence, the share of D26 value-added from RCEP is relatively low in Germany's D26 exports compared with its overall exports. This relation is persistent over the past two decades as D26 RCEP value-added constitutes between two and four percent of Germany's D26 exports. Consequently, RCEP inputs are more important for Germany's exports in other industries, emphasizing the degree of vertical specialization and dependence on D26 RCEP inputs as these are mainly used for exports of other sectors. Furthermore, the fact that a large share of Germany's D26 foreign value-added content of exports originates from RCEP shows the importance of this trading relationship for this specific sector.

3.3.3.3. Total RCEP Imports in Germany's D26 Exports

The share of how much of Germany's D26 gross exports is (total) value-added from RCEP is needed to understand the relevance of this sector for Germany's backward linkage trade from another perspective. In 2018, Germany exported D26 goods and services worth 72.7 USD billion, of which by the way 16.1 USD billion or 22.1 percent went to RCEP (see Table 1), making it Germany's third largest export sector regarding trade with RCEP (as well as overall) (OECD, 2023). Of the 72.7 USD billion, 24 percent (17.5 USD billion) are foreign value-added

while RCEP value-added specifically accounts for seven percent (5.4 USD billion). Hence, RCEP accounts for approximately 31 percent of foreign value-added in this context. Over time, this relation has remained relatively constant, increasing slightly, with RCEP accounting for between 19 and 31 percent of foreign value-added. It follows that for Germany's exports in the computer, electronic and optical products industry, RCEP value-added plays a relatively less important role compared with its overall exports.

3.3.3.4. D26 RCEP Imports in Germany's D29 Exports

In addition, the relevance of D26 value-added from RCEP for Germany's exports within its top export industry of motor vehicles, trailers and semi-trailers (D29) indicates the degree of vertical specialisation in this regard. Of Germany's 250.4 USD billion exports in the D29 industry in 2018, 27 percent (68 USD billion) are foreign value-added and four percent originate from RCEP (9.5 USD billion) (OECD, 2023). When filtering for D26 value-added input we see that 1.8 USD billion of the 250.4 USD billion is D26 value-added. Thus, in general, inputs from the D26 sector comprise a minor share of the required inputs for Germany's D29 exports. The RCEP share of the 1.8 USD billion is relatively high with 31 percent. Therefore, despite the fact that Germany is heavily reliant on foreign inputs for its top export industry, this is not the case for RCEP inputs, however, when looking at D26 input for D29 exports, RCEP inputs play an important role. This trend is persistent for the past two decades. Furthermore, for both aspects, China constitutes approximately half of value-added from RCEP.

3.3.4. Forward linkages: Germany's Value-Added in RCEP's Exports

Germany being a well-known export nation, which is true also for trade with RCEP, backward-linkages tell us more about Germany's dependence on RCEP. Germany's forward participation in terms of its domestic value-added in the exports of RCEP members indicate Germany's dependence on RCEP as a sales channel. It is not calculated for single industries. Measured as a share of Germany's total world exports, 3.5 percent is embodied in the exports of RCEP as German value-added. In comparison, 0.7 percent is embodied in US exports, 1.2 percent in exports of China alone, while 14.1 percent in EU27 exports (OECD, 2023).

4. DISCUSSION AND CONCLUSIONS

4.1. Overall Effects (Country Level)

The reduction of trade barriers as a combination of tariffs, the related rules-of-origin as well as non-tariff-barriers on goods and services will result in several trade effects. Firstly, as trade barriers on goods and services traded between RCEP members fall, they replace some domestic products by more efficient products from other RCEP members (Lu, 2019). The additionally created trade flows are referred to as the trade creation effect of FTAs (Baldwin & Wyplosz, 2019). This lets us hypothesise that,

H₁: RCEP members will source more goods and services from within the RCEP area following the implementation of the agreement.

Secondly, the discriminatory nature of FTAs and in this case RCEP suggests that trade among RCEP members replaces trade with non-members, such as Germany, as products from the area become more efficient. This is referred to as the trade diversion effect (Baldwin & Wyplosz, 2019) and lets us hypothesise that,

H₂: Exports from Germany to RCEP members will decline following the implementation of the agreement.

This corresponds to the risk for Germany losing trade relationships and market share. The three largest economies of RCEP are going to play a major role in this regard as they are Germany's most important trading partners from the area with substantial trade volume. RCEP could shift trade with Germany to Japan or South Korea, for instance, for technically advanced products in the automobile industry as RCEP enables better market access to local manufacturers, such as Toyota, Hyundai, Nissan, Kia or Honda (Frenkel & Ngo, 2021). Thirdly, more efficient supply chains make RCEP exports more competitive on world markets and let them gain additional

market shares. Even though this does not necessarily hold for each member of the agreement, it lets us hypothesise that,

H₂: Exports from RCEP members to Germany will increase and acquire additional market shares following the implementation of the agreement.

Combined with H₂, this causes an increasing trade deficit of Germany with RCEP. Fourthly, in accordance with H₃, non-members of RCEP, such as Germany, will lose market shares, which leads us to hypothesise that,

H₃: Exports from Germany to other non-members of RCEP will decline and lose market shares to RCEP members following the implementation of the agreement.

This effect also causes Germany's foreign trade balance to decrease. Nevertheless, Germany can benefit from consequences of the agreement such as the rules of origin. Some intermediate inputs from the region become cheaper for German importing companies as some producers in the RCEP region will be able to lower production costs due to economies of scale (Frenkel & Ngo, 2021). This enables lower production costs and increased competitiveness. Hence, H₃ need not be viewed entirely negatively despite contributing to an increasing trade deficit. Moreover, German companies invested in the region benefit from reduced regulatory burden more directly, as well as generally from the region's growth.

The effects from hypotheses H₁ to H₄ apply holding all other things constant. Despite our forecast for RCEP's effects on Germany, new FTAs, other countries joining existing FTAs as well as existing FTAs changing in scope have their own effect on world trade, just as other economic and political factors. Eventually, the size of the different effects determines the gains and losses for Germany while foreign direct investment (FDI) and other forms of investment in the RCEP area can have a positive influence. Our hypotheses are, however, in line with the projections from the CGE model analysis of Park et al. (2021).

Germany has a significant trade deficit with RCEP, which to approximately 80 percent results from trade with China. Hence, while Germany will benefit somewhat from the RCEP region's growth, the trade deficit is going to increase making Germany more dependent on RCEP inputs. Furthermore, the past development of trade between Germany and RCEP members, together with the region's development in general, strongly indicates a rising trade deficit and dependence of Germany on RCEP, without taking the effects of the agreement itself into account, which are a multiplying factor for this development.

4.2. Industry Effects

We expect the German industries analysed in 3.2 to be most affected by RCEP as they are the ones with the highest trade volumes with the agreement's members and because RCEP's provisions do not apply very differently to some specific industries. Especially the computer, electronic and optical products sector (D26) and the motor vehicles, trailers and semi-trailers sector (D29) will be affected.

4.2.1. The Computer, Electronic and Optical Products Industry (D26)

Because Germany's import volume in the computer, electronic and optical products industry clearly surmounts the export volume, following our hypotheses, we expect a rising import volume and an increasing share of Germany's RCEP imports relative to its overall world imports in this sector.

Looking at D26 RCEP imports in Germany's total exports (of any industry), a significant share of Germany's exports is D26 value-added (50.9 USD billion), of which approximately ten percent is foreign value-added from RCEP (4.9 USD billion). In fact, 2.3 USD billion value-added comes from China alone, exceeding that of the US as well as EU27. Over time, not only have D26 inputs become a more important part of Germany's exports (in relative as well as absolute terms), but RCEP's D26 foreign value-added content in Germany's exports has increased even more, rising from 0.8 USD billion or five percent in 1995 to 4.9 USD billion or ten percent in 2018. This illustrates Germany's dependence on RCEP D26 inputs, which we expect to increase as a result of the agreement.

Of Germany's 4.9 USD billion value-added RCEP inputs from the D26 industry, 3.3 USD billion are contained in Germany's exports in other industries than D26, which is a relation persistent over time. Hence, Germany' intra-industry dependence on foreign inputs of the D26 industry is low, while Germany relies more on D26 inputs from RCEP for exports in other industries, such as automotives of the D29 industry, which emphasises the degree of vertical specialization. This holds for imports from RCEP in any industry as Germany uses relatively less inputs for its D26 exports.

4.2.2. The Motor Vehicles, Trailers and Semi-Trailers Industry (D29)

The local motor vehicles, trailers and semi-trailers sector in the RCEP region is going to benefit significantly as harmonised rules of origin and reduced trade barriers unlock additional market access with lower production costs and more efficient value chains, for instance, for local automotive giants such as Toyota, Hyundai, Nissan, Kia or Honda as well as some of their suppliers. Germany's D29 sector will be significantly impacted as it is Germany's largest export industry regarding trade with RCEP as well as world trade, accounting for 16 percent of its world exports. According to hypotheses H2 and H4, both exports to RCEP and non-RCEP countries are expected to decline. More than 80 percent of Germany's 41.4 USD billion D29 RCEP exports go to either China, Japan or South Korea.

RCEP members might shift imports from Germany to local manufacturers, for instance, in China, Japan or South Korea. Therefore, the German D29 sector faces declining exports as a large share is threatened by increased competition due to reduced trade barriers, harmonised rules of origin and high-quality alternatives among RCEP members. While Germany's D29 exports increase over time, its rising exports to RCEP are particularly driven by trade with China. Combined with the high trade volume, this suggests that working to sustain and further develop RCEP as an export market in this industry depends in large parts on exports to China and how Germany can sustain and influence this, such as by local investment. Nevertheless, local presence of German multinationals such as the large automotives BMW, Mercedes or Volkswagen, some of their suppliers and other companies in the industry together with the perception of German products regarding, for example, quality and prestige, are trade-protecting aspects. Moreover, as Germany is heavily invested locally in this industry, it follows that Germany is going to participate in the benefits of the agreement, which is particularly relevant for Germany's D29 imports that are going to benefit from increased cost advantages.

4.2.3. The Wholesale and Retail Trade; Repair of Motor Vehicles Industry (D45T47)

In addition, the D29 industry is closely connected to the service sector wholesale and retail trade; repair of motor vehicles, which itself accounts for 21 USD billion in exports to RCEP. On the one hand, we therefore expect the same effects regarding export flows as for the D29 exports. On the other hand, as this industry also entails large import flows, following hypothesis H3, we expect more German imports due to rising market shares of RCEP in this regard. These effects combined will cause a declining trade surplus of Germany with RCEP in this industry, which today is disproportionately large compared with its overall D45T47 foreign trade (see [Table 1](#)). FDI and other forms of local investment in the D29 as well as D5T47 industries can protect exports flows.

4.2.4. The Textiles, Wearing Apparel, Leather and Related Products Industry (D13T15)

There has been a history of companies in the textiles, wearing apparel, leather and related products industry from the relatively more developed Japan, South Korea and also China to invest in relatively less developed countries by means of joint ventures and subsidiaries, which has contributed to the industry's regional supply chains (Gereffi, 1999; Lopez-Acevedo & Robertson, 2012). Multinationals place production orders and supply raw material to their subsidiaries in less developed, lower-wage countries that undertake the more labour-intensive tasks.

The industry's supply chain not only expands across countries and is in most parts regional to Asia-Pacific, but is also highly vertically specialised (Lu, 2019). Thus, single tasks are highly interchangeable and observe a high price elasticity of substitution (Dickerson, 1999). While this is a pattern generally observable between geographically close countries and particularly in the Asia-Pacific region due to its large differences of countries' development stages (Kojima, 2000), it is particularly pronounced in this industry. These aspects enhance the opportunity for involved companies to benefit from RCEP, especially based on the harmonised rules of origin. Consequently, the industry's supply chain in the region becomes more efficient and gains global market share, leading Germany to increase its imports. RCEP countries, together with a few non-member states such as India, Pakistan and Bangladesh, are still the garment factory of the world as was highlighted by the recent report of the International Labour Organization (ILO) on employment, wages and productivity trends in the Asian garment sector. It finds that Asia accounts for 55 percent of the world's T&A exports and employs 60 million workers (ILO, 2022). As RCEP accounts for most of this (approximately 50 percent of world exports), this makes the D13T15 industry critical for RCEP as well. The RCEP agreement itself reinforces Asia's dominance in this industry by enabling further enhanced supply chains and competitiveness, despite challenges the industry faces in terms of remaining poor working conditions, pressure towards more sustainability and countries failing to move toward higher value-added tasks (ILO, 2022).

4.3. Conclusion

RCEP member states have become a more important trading partner for Germany in recent decades, both in absolute and relative terms. This development is expected to continue, and we expect RCEP to be a multiplying factor. The economic effects caused by the agreement are complex and ambiguous. We show that, overall, Germany will increase its imports from RCEP, thereby becoming more dependent on RCEP members for key imports and is likely to face reduced exports. Moreover, Germany's already substantial trade deficit with RCEP will increase.

There are two sides to this coin as, on the one hand, the increased imports can yield benefits such as reduced import prices leading to increased competitiveness while, on the other hand, Germany becomes more dependent on key inputs, among others, for producing many of its exports. Despite the opportunities stemming from cheaper imports and the RCEP region's additional economic upheaval, we see dominating trade-diversion effects for Germany, which is in line with findings of e.g. (Park et al., 2021).

Each industry is going to be affected somewhat differently. We find that Germany faces an increasing dependence on its largest import industry, the computer, electronic and optical products sector, which is important to many German industries. Thus, Germany should diversify its sourcing strategy to decrease vulnerability to supply shortages, as experienced in the wake of the COVID-19 pandemic. This could potentially be done by near-shoring or re-shoring some of its RCEP inputs to the EU. On the other hand, Germany should encourage local investment in RCEP states. This would, for example, in the form of FDI, enable German companies or subsidiaries to benefit from positive local RCEP effects and secure inputs in this industry. This is particularly relevant regarding China, which is where 30 percent of Germany's world imports in this industry (or 60 percent of its RCEP imports in this industry) come from. Moreover, these aspects particularly concern the motor vehicles, trailers and semi-trailers sector, Germany's largest export industry, since inputs from RCEP in its computer, electronic and optical products sector play a disproportionately large role among RCEP imports for Germany's largest export industry. They originate from China to approximately 50 percent.

Especially for the motor vehicles, trailers and semi-trailers sector, increased local investment will benefit German companies. It is critical for Germany in this industry, as we expect large local benefits from the RCEP agreement causing a transformation of this sector. Harmonised rules of origin and reduced trade barriers unlock additional market access with lower production costs and more efficient value chains, for instance, for local automotive giants such as Toyota, Hyundai, Nissan, Kia or Honda as well as their local suppliers leading to further

regionalised supply chains and higher trade volumes. Encouraging local investment in the motor vehicles, trailers and semi-trailers industry will not only enable benefiting from increased cost advantages and more efficient local supply chains but also protect Germany's key exports to the region. This also applies to the closely connected service sector wholesale and retail trade; repair of motor vehicles.

For the textiles, wearing apparel, leather and related products industry, we expect a rising import volume and an increasing share of Germany's RCEP imports relative to its overall world imports in this sector, while pressure for more sustainability and local supply chains work against this. This latter effect, however, applies mainly to higher-value products, which constitute a small part of the traded goods in this industry.

Economically and politically, the relationship with China is the largest factor in mitigating negative consequences and benefitting from positive local effects. Therefore, Germany should make reinforcing existing ties with China and creating new ones a top priority of its foreign politics. Germany's focussed approach in this regard began with its Indo-Pacific principles, published in September 2020, aiming at strengthening Germany's role in this region long-term by intensifying international cooperation, supporting local partners and preserving a rule-based maritime order (Federal Foreign Office, 2020). Some first specific measures were taken so far, including Germany's accession to the regional anti-piracy regime ReCAAP, intensified bilateral relations with Australia and Japan as well as a newly created centre for fact-based communication on Germany and its foreign politics and regional dialogue within its Federal Foreign Office in Singapore, among others (Federal Foreign Office, 2020). Moreover, Germany has expanded its partnership with ASEAN for development purposes. Between 2018 and 2022 it invests a total of 131 million Euro in local projects, making Germany the largest supporter in this regard among EU members.

Two aspects show the importance of Germany's local political engagement. Firstly, military spending in the Indo-Pacific increased by 50 percent between 2010 and 2019, in the case of China by 80 percent, pointing towards increasing political tension (Federal Ministry of Defense, 2022). This shows how remarkable the far-reaching RCEP agreement is, making trade liberalization a common ground between the members in the region despite political tensions and counter-acting the trend of protectionism seen in many regions across the world (Matthes & Kolev, 2020) Secondly, 90 percent of world trade is facilitated via sea routes, a large share of which through the Indo-Pacific region. In fact, nine out of ten of the world's largest container ports are located in the Indo-Pacific, six alone in China (Federal Ministry of Defense, 2022). A deterioration of political tensions in the Indo-Pacific could have significant, also economic, consequences.

Another key aspect is the mentioned development of the world's economic centre of gravity moving toward Asia, which is amplified by RCEP. Asian economies are more dynamic and the reliable estimates of future population changes forecast increasing Asian workforces. Consequently, despite Germany's important and far-reaching political engagement in Asia, a more China-centric political agenda is necessary and local investment into RCEP member states ought to be supported while at the same time managing increasing dependency on key inputs. This will preserve existing exports and market shares, further develop RCEP as a market for exports as well as investment in order to benefit from positive local effects of RCEP.

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Appendix

Table A1. Overview of key RCEP features by chapter.

	Chapter	Content
1	Initial provisions and general definitions	Sets out the agreement's objectives and definitions
2	Trade in goods	This chapter has the largest impact since it concerns the majority of trade and brings about the largest changes. It will eliminate 90 percent of tariffs on goods over 20 years. For this process, each RCEP member has its own schedule of tariff commitments. Generally, each RCEP member ought to grant national treatment to the goods of another member. This is in accordance with Article three of the General Agreement on Tariffs and Trade (GATT) from 1994. Provisions on non-tariff measures include a general elimination of quantitative restrictions, improved transparency regarding the application of non-tariff provisions and the administration of import licensing procedures.
3	Rules of origin	Prescribes the rules for determining the originating status of a good making it eligible for preferential tariff treatment. This includes the necessary certification procedures to apply for the RCEP proof of origin

	Chapter	Content
		that verifies a good's originating status.
4	Customs procedures and trade facilitation	Simplifies customs procedures and harmonises them with international standards. While the application procedures are made more transparent and efficient, this chapter defines the expectation that goods ought to be released from customs control within six hours and customs clearance should be made within 48 hours of the arrival of the good. The RCEP members have differing periods to implement these commitments depending on the difficulty of the respective provision's implementation as well as each country's level of development.
5	Sanitary and phytosanitary measures	Contains measures to protect human, animal or plant life or health and facilitate trade by minimising negative effects of such measures on trade. Reaffirms commitments made in the respective agreement in the World Trade Organization (WTO).
6	Standards, technical regulations, and conformity assessment procedures	Aims at enhancing mutual understanding of each country's standards, technical regulations and conformity assessment procedures as well as improving cooperation thereof. Thereby, for instance, unnecessary technical barriers to trade can be reduced. Reaffirms commitments made in the respective agreement in the WTO.
7	Trade remedies	Provides parties with a mechanism in case of damage done to an industry or the threat thereof and includes motivation on cooperating on anti-dumping and countervailing duties. Reaffirms commitments made in the respective agreement in the WTO.
8	Trade in services	Has a strong focus on financial, telecommunications and professional services. Measures include rules on market access, national treatment, most-favoured-nation treatment and local presence. Analogous to chapter 2, these are subject to individual schedules of tariff commitments. Prescribes member states to use a negative list approach to service trade commitments.
9	Temporary movement of natural persons	Defines conditions and limitations for the temporary entry and stay of natural persons related to trade or investment.
10	Investment	Defines measures on protection, liberalization, promotion and facilitation of investments, which includes most-favoured nation treatment as well as the negative list approach. Provisions include remuneration on case of expropriation and assistance in resolving complaints. Measures on investor-state-dispute settlement are not integrated yet and are made part of a work programme starting up to two years after entry into force of RCEP. Resulting provisions will be activated only if all parties agree.
11	Intellectual property	Harmonises standard measures of intellectual property rights and includes provisions on technology and the digital environment, such as cinematographic work, trademarks including geographical indications, industrial designs as well as the protection of plant varieties.
12	Electronic commerce	Comprises measures encouraging to enhance trade administration using electronic means. This chapter contains personal data protection commitments for users and consumers of e-commerce, addresses cross-border transfer of data and includes a moratorium on customs duties on electronic transmissions.
13	Competition	Stipulates commitments on competition laws as well as their implementation and enforcement while respecting each member's sovereignty as to define their own competition laws and their enforcement. This chapter includes measures on consumer protection.
14	Small and medium enterprises	Obliges member states to develop and maintain an information platform specifically for SMEs regarding relevant information resulting from the RCEP agreement.
15	Economic and Technical cooperation	Aims at narrowing development gaps among the members by maximizing mutual benefits as well as effectively and efficiently enforcing the RCEP agreement through economic and technical cooperation. This includes technical assistance for those members that are less developed.
16	Government procurement	Prescribes members to publish information on government procurement and related laws in order to improve transparency and promote cooperation among members.

	Chapter	Content
17	General provisions and exceptions	Stipulates provisions and exceptions applying to the entire RCEP agreement, for instance, regarding transparency on laws and regulations, protection of confidential information as well as preventing and combatting corruption.
18	Institutional provisions	Defines the modus operandi of the RCEP institutional bodies such as the RCEP Ministers and several committees.
19	Dispute settlement	Prescribes detailed provisions governing dispute settlements with rules and procedures. Recognises special requirements for the treatment of least-developed country members in this regard.
20	Final provisions	Addresses the relationship between RCEP and other FTAs and defines procedures for amendments of the agreement as well as its entry into force and potential accessions of other parties.

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