



GED Study

Asia's Rise in the New World Trade Order

The Effects of Mega-Regional Trade Agreements on Asian Countries

Part 2 of the GED Study Series:
Effects of Mega-Regional Trade Agreements

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Executive summary

Asia is one of the most dynamic regions in the world and has the potential to become the key region in world trade in the 21st century. Our analysis shows that mega-regional trade deals such as the Trans-Pacific Partnership (TPP), the Free Trade Area of the Asia-Pacific (FTAAP) and the Regional Comprehensive Economic Partnership (RCEP) could play a crucial role in achieving this and constitute an important counterweight to the Transatlantic Trade and Investment Partnership (TTIP) as a “West-only” initiative. The three agreements differ in regard to membership and thus in their potential economic effects on Asian countries. The TPP, which currently has 12 members, and the FTAAP with 21 potential members strive for a transpacific integration, whereas the RCEP aims at deepening ties between the 10 members of the Association of Southeast Asian Nations (ASEAN) and their six most important trading partners in Asia and Oceania (ASEAN+6).

As the most exclusive agreement, the TPP shows more negative effects on real income in Asia than the other two trade pacts. These effects stay within narrow limits, though. Since only four out of 10 ASEAN states participate in the TPP, this might hamper the ASEAN integration process in the long run. The TPP also does not include China, which could be regarded as deliberate containment by the United States. Even though negative effects on China's welfare, value added and trade structure are comparatively manageable, the exclusion of the world's largest trading nation from the TPP does not make sense from an economic perspective and implies welfare losses for the member states. Therefore, the political dimension seems to be the key factor here.

The FTAAP is the largest of the three mega-regionals and, most importantly, includes the world's two largest economies, the United States and China. Hence, this agreement could have significant positive effects and provide major momentum for trade in the region and beyond for non-participating Asian countries as well. As can be seen with

the FTAAP, according to our calculations the RCEP also has positive economic effects for most countries in Asia, including non-members. The more Asian countries that are involved, the more advantageous are the effects on intra-Asian integration.

In terms of economic effects, the TPP is the least advantageous of the three mega-regional agreements considered for Asia, whereas the FTAAP would give the region a real boost in trade. However, since it is unlikely that the FTAAP will be concluded in the near future, the TPP and the RCEP could be concluded parallel to one another and maybe pave the way for the FTAAP.

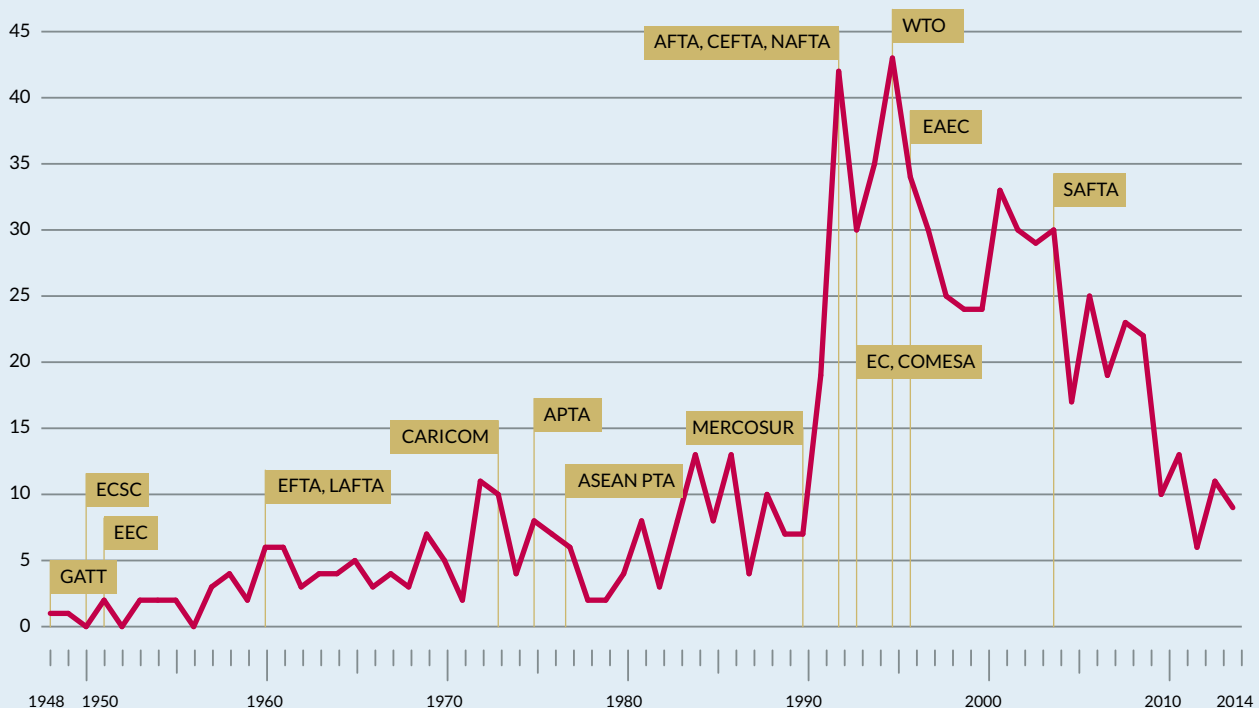
Our analysis of the potential coexistence of the TPP and RCEP shows that Asia would profit most if both agreements were concluded. Also, both agreements could be an effective “antidote” to the TTIP, which would negatively impact Asia's economies. The participation or non-participation in 21st century trade deals, which aim at creating new rules especially in regard to non-tariff barriers to trade, will also influence the role of Asian countries in the setting of international standards: Who will actively shape the world trade order of the 21st century—East or West? Or to put it more bluntly, China or the United States? This question is key to the political agenda underlying the mega-regionals analyzed here beyond economic effects.

1. Introduction: Mega-regionals and the new world trade order

Free trade increases economic welfare and benefits everyone. This has been the credo of free-trade advocates who have promoted trade liberalization since Adam Smith and David Ricardo. After the Second World War, the time seemed ripe for an International Trade Organization (ITO) which was supposed to institutionalize free trade among its members through the Havana Charter in 1948. The project failed because the Charter was not ratified by the United States, of all nations. The General Agreement on Tariffs and Trade (GATT) was left over as a multilateral

framework, which focused on tariff reductions and later became one of the foundations for the current World Trade Organization (WTO) (VanGrasstek 2013: 10–11). Parallel to the failure of the ITO, regional trade agreements (RTA) increased. Their regulations partially went beyond those of the GATT, as with the European Coal and Steel Community (ECSC), for example, which was established in 1951. In other regions of the world as well, integrated areas were established for freer trade and freer markets such as the Latin American Free Trade Area (LAFTA) in 1960, the

Figure 1: Number of annually concluded regional trade agreements, 1948 – 2014

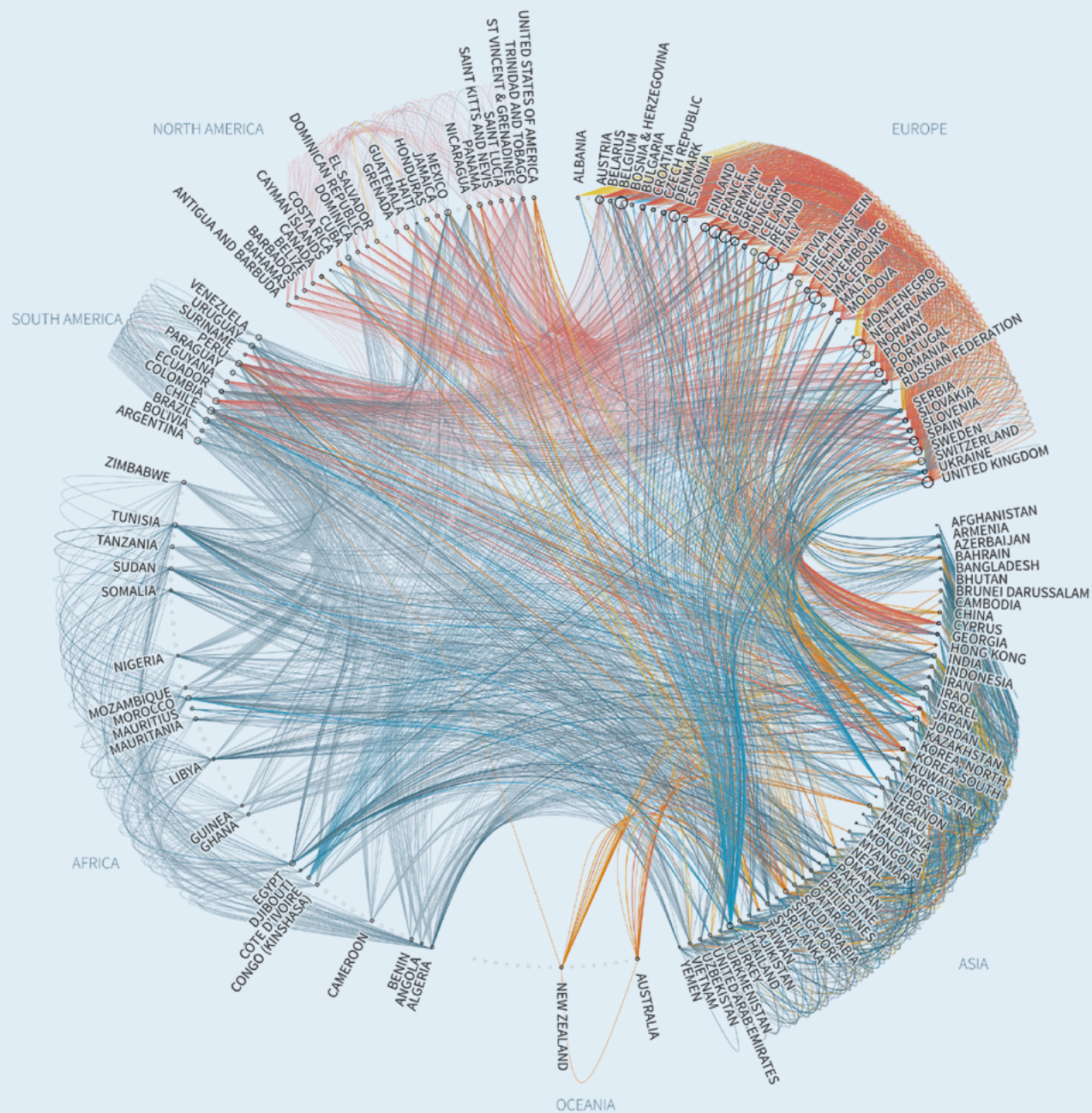


Source: FTA Vis. Access via: <http://ftavis.com> (accessed: April 28, 2016).

Note: See list of abbreviations for full name of RTAs.

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Figure 2: Increase in regional trade agreements, 1948 – 2014



How to read it?

Depth Index: N.A. ■ 0 Low ■ ■ ■ ■ ■ ■ ■ 7 High

Dot size: Total amount of agreements • 0 • 20 • 40 • 60 • 80 • 100

Source: FTA Vis. Access via: <http://ftavis.com> (accessed: April 28, 2016).

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Caribbean Community and Common Market (CARICOM) in 1973, the Asia-Pacific Trade Agreement (APTA) in 1975, and the Economic Community of Central African States (ECCAS) in 1983 (Figure 1).

At the same time, multiple rounds of GATT negotiations took place in the 1960s and 1970s, which brought more tariff reductions in their wake (including the Kennedy Round in 1964 and the Tokyo Round in 1973). The Uruguay Round (1986–1994) revived the idea of a World Trade Organization, which was eventually made possible by the movement of the Eastern bloc toward the West and ultimately the fall of the Iron Curtain among other things (VanGrassek 2013: 11, 24). During the second half of the Uruguay Round from 1991 in particular, when it ground to a halt due to disputes over agricultural trade (WTOa), there was also a boom in regional agreements. While, according to our research, only 41 RTAs were concluded from 1986 to 1990, there were 126 between 1991 and 1994 (FTA Vis). Since 1991, there has also been a slight increase in the depth of RTAs. Depth indicates the extent to which non-tariff barriers to trade are covered in an RTA.¹ As a result, the heterogeneity of the agreements has increased significantly. Economist Jagdish Bhagwati (1995) referred to this phenomenon as the “spaghetti bowl” (see also Figure 2). At the same time, Asian economists involved in the debate on RTAs in Asia called it the “noodle bowl” (Kawai and Wignaraja 2013). Nevertheless, in 1995 after the conclusion of the Uruguay Round, the WTO was established. The WTO was to form the basis for a multilateral world trade order and in this regard was supposed to be fair, non-discriminatory, inclusive and (theoretically) open to anyone that complied with the existing regulations. The different development levels of the initial 123 signatory states were taken into account with relevant transitional arrangements (WTOb). And proponents of multilateralism thus appeared to have moved a bit closer in the 20th century to their vision of a world trade order. The WTO reached a veritable high-point in 2001 through the accession of China, one of the world’s leading trading powers. But since then, the multilateral process has stalled. The Doha Round, which began in 2001 achieved a consensus in Bali (“Bali Package”) at the end of 2013, after 12 years and repeated disruptions to negotiations. There was significant disagreement in particular between industrialized countries and developing countries on issues of mutual market access for agricultural and industrial goods among others (Bell-

mann 2014). The Bali Package hung by a thread for another year because India—after its bilateral agreement with the United States—did not give its final approval until November 2014 (WTO 2014).

The progress of the Doha Round has once again shown how long the multilateral negotiation process takes and how difficult it is to reach a consensus in the WTO of all stakeholders with regard to deeper trade regulations. It is not surprising that this issue shifted during the Doha Round to negotiations on regional trade agreements. The depth of RTAs negotiated since 2001 has increased considerably (Figure 3). Richard Baldwin (2014) talks about “RTAs of the 20th century,” which have relatively low depth and are focused in particular on tariff reductions, and “RTAs of the 21st century,” which are aimed at greater depth in the context of international production processes.

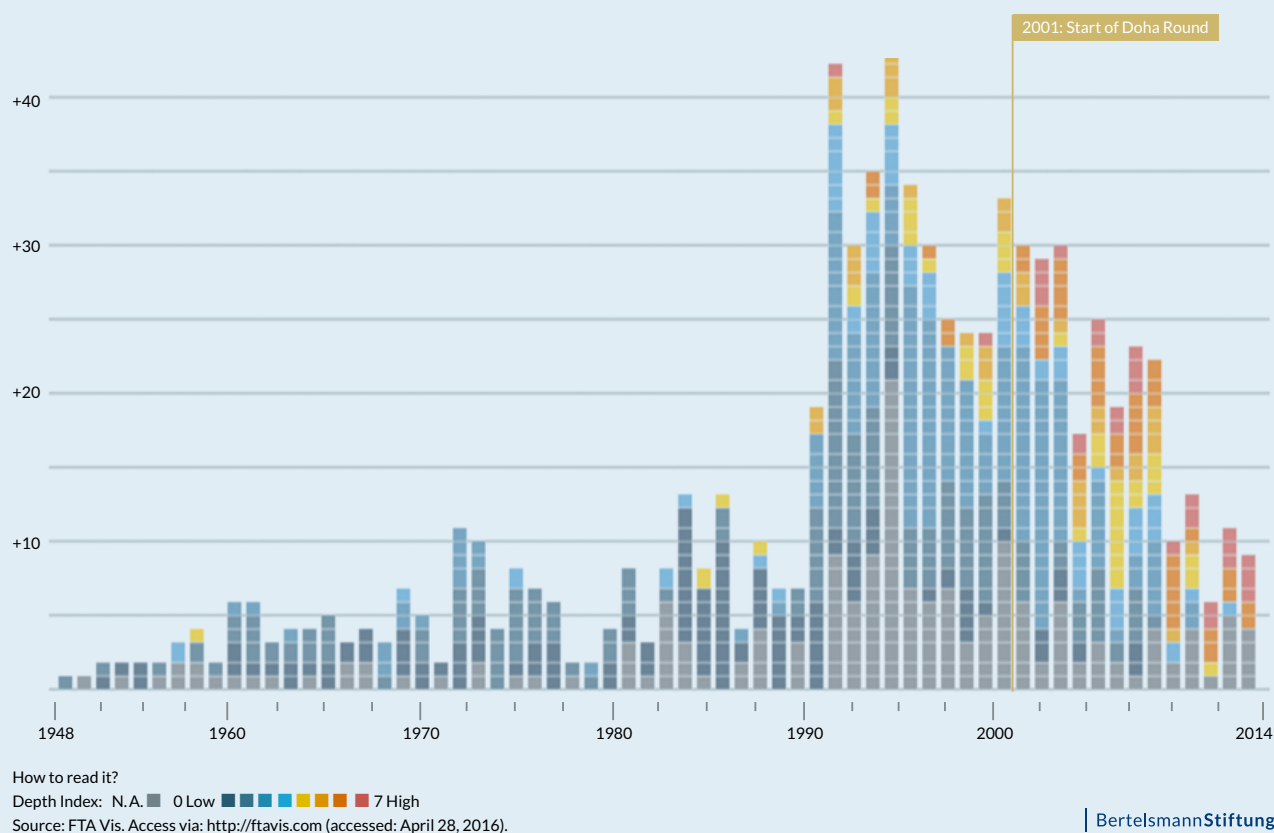
Another trend can be seen at the same time, which can be interpreted as an attempt to bypass the barriers of multilateralism: In this sense, the much-discussed Transatlantic Trade and Investment Partnership (TTIP) is representative of a new generation of RTAs, which are called mega-regional agreements because of their geographical scope (World Economic Forum 2014). Targeted initiatives on transpacific integration, the Trans-Pacific Partnership (TPP) and the Free Trade Area of the Asia-Pacific (FTAAP), as well as the Regional Comprehensive Economic Partnership (RCEP), can also be included among these agreements.

The impact of these developments on the multilateral world trade order represented by the WTO is contentious in literature. While Baldwin (2014), for example, talks about regional multilateralism representing an opportunity for global trade, others see it as a threat to the principle of multilateralism, which was hard-won in the 20th century (Kawai and Wignaraja 2013: 3). What is clear is that the current world trade order is undergoing change. It will and has to recreate itself in the 21st century. In particular, the question is whether the “peaceful coexistence” of multilateralism and regionalism is possible, or whether these two phenomena are incompatible. What will be crucial here is whether the above-mentioned mega-regional trade agreements will lead to competing trading blocs or whether in the long term they can even have a positive effect on the WTO’s multilateral integration process.

1 Using an index developed by Andreas Dür, Leonardo Baccini and Manfred Elsig (2014), depth can be measured on a scale of 0–7, which takes seven criteria into account: tariff reductions, intellectual property rights (IPR), public procurement, technical barriers to trade, services, investments and competition (see also FTA Vis).

To assess the consequences of these agreements, it is first necessary to deal with the economic effects that they have on different regions of the world. The question also arises of how the exclusivity of the agreements—in contrast with

Figure 3: Trend of depth in trade agreements, 1948 – 2014



those of the WTO—affect non-members, and what the parallel existence of several such mega-agreements might mean. These aspects are highlighted in this Focus Paper Series by the Bertelsmann Stiftung and the Ifo Institute for Economic Research on the Effects of Mega-Regional Trade Agreements. This part of the series deals with the implications for Asian countries² and the role of Asia in a new world trade order.

In the following section, we briefly discuss the development of RTAs in Asia and then move on to the backgrounds and economic effects of the TPP, the FTAAP and the RCEP on Asian countries. As important players in Asia, China and Malaysia will also be the subject of more detailed case studies.

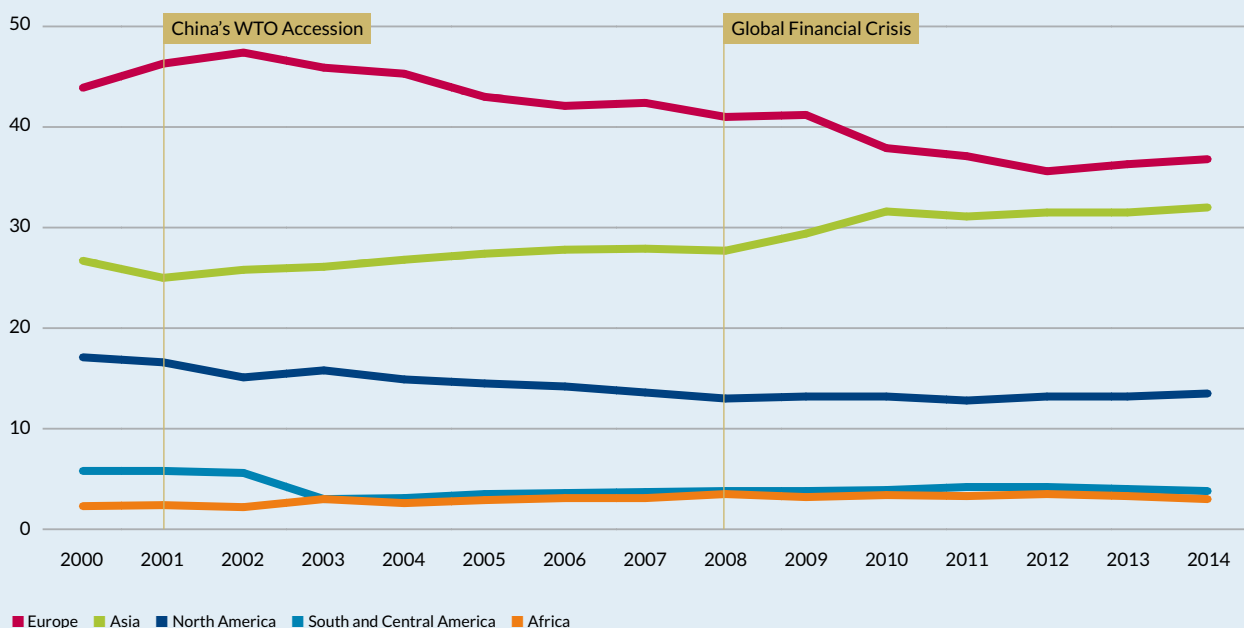
² For reasons of scope, we concentrate our analysis on the countries of East, South and Southeast Asia as they appear in the list of geographical regions according to the United Nations (regional codes: 030, 034, 035). Taiwan is not listed independently and will be counted here as part of East Asia. United Nations Statistics Division (2013). Due to data restrictions in the Global Trade Analysis (GTAP) database, the following countries are lumped together in regional aggregates: Afghanistan, Bhutan, Brunei Darussalam, Democratic People's Republic of Korea, Macau (Special Administrative Region of the People's Republic of China), Maldives, Myanmar, Timor-Leste. Consequently, country-specific results for these countries cannot be reported.

2. Asia in world trade: A look at the “noodle bowl”

Asia has the potential to become the most important region in world trade in the 21st century. This is suggested by its development over the last 15 years. Since 2001, the Asian share of world exports has continuously approached the European share. While Europe was able to claim more than 40 percent up to this point, its share has plummeted in particular since the global financial crisis, and in 2014 amounted to approximately 36.8 percent. Asia's share, by contrast, rose from 25.0 percent to 32.0 percent. The region was able to benefit from the crisis to the disadvantage of Europe (Figure 4). The development of global imports is similar (WTO Statistics Database). Europe's share amounted

to 36.4 percent in 2014 (2001: 41.3 percent), while Asia's share was 33.5 percent (2001: 22.0 percent). Almost 60 percent of the world's population live in Asia (World Development Indicators). The world's fastest-growing consumer market is developing there due to a dynamic middle class. The importance of Asian countries in international production networks and global value chains is continuously increasing (Bauer et al. 2014: 4). Three of the 10 largest economies measured by gross domestic product (GDP) are in Asia: China, Japan and India. In 2014, they accounted for about 22 percent of world GDP, 13 percentage points of which can be attributed to China. The Asian Development

Figure 4: Share in world total exports (merchandise trade) by selected continent/region, 2000-2014 (in percent)



Source: WTO Statistics Database. International Trade Statistics, various years.

Notes: For 2000-2002, South and Central America include Mexico. From 2003 onwards, Mexico is included in North America.

For 2000-2002, Europe includes the Commonwealth of Independent States. From 2003 onwards, they are listed as a separate region.

Infobox: Methodology

The Ifo trade model, which is described in Rahel Aichele, Gabriel Felbermayr and Inga Heiland (2014) and is an extended version of the Lorenzo Caliendo and Fernando Parro (2015) model, is a multi-sector trade model that features tariff and non-tariff trade barriers, goods and services trade flows and carefully accounts for global input-output linkages to capture global value chains. The model (like other modern quantitative trade models introduced in Arnaud Costinot and Andrés Rodríguez-Clare 2014) can be parameterized based on simple econometric equations that emerge as equilibrium relationships from the model itself. In the Ifo trade model, two types of industry-level parameters matter most: the elasticity at which tariff changes affect trade flows and the effect of preferential trade agreements (PTAs) on those same flows. In the latter, we distinguish between shallow and deep agreements, borrowing a detailed classification from Rahel Aichele, Gabriel Felbermayr and Inga Heiland (2014). These trade elasticities and the matrix of trade costs are econometrically estimated sector by sector. The model is applied to the data provided by the Global Trade Analysis Project (GTAP), baseline 2007. It covers 17 merchandise industries and 15 services industries (one of which, “dwellings,” is non-traded) as well as 134 countries and regions. The GTAP data provides the input-output tables for each country or region, which indicate how much any industry (domestic or foreign) supplies inputs to the production of other industries (domestic or foreign) and how much primary factors of production (i.e., labor) are used. The database also contains consistent output data and trade flow information on the bilateral industry level. The effects of mega-deals are simulated in the following thought experiment. In the world as we observe it today, what would sectoral trade flows, industry-level outcomes, and aggregate welfare look like if the respective mega-deal countries had counterfactually a deep

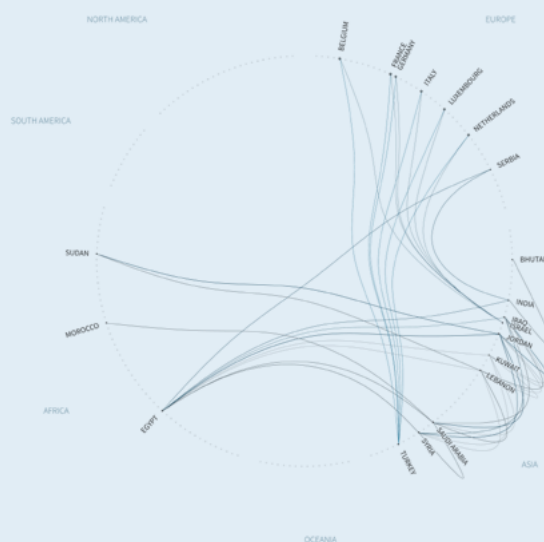
(TTIP) or shallow (TPP, RCEP, FTAAP) preferential trade agreement of the type observed in the data? Essentially, this means that the TTIP is assumed to have similar effects on trade costs as existing deep agreements; and the TPP, RCEP and FTAAP are assumed to have similar effects on trade costs as existing shallow agreements. All predicted effects are general equilibrium effects. They take into account the adjustment of incomes in all 134 countries, the reaction of trade flows between those countries in all industries, the changes in value added in all industries and countries and changes in government revenues that result from a mega-deal. The results can be interpreted as a long-run level effect (i.e., they will be realized after 10-12 years).

Figure 5: Increase in regional trade agreements within Asia, 1948 – 2014

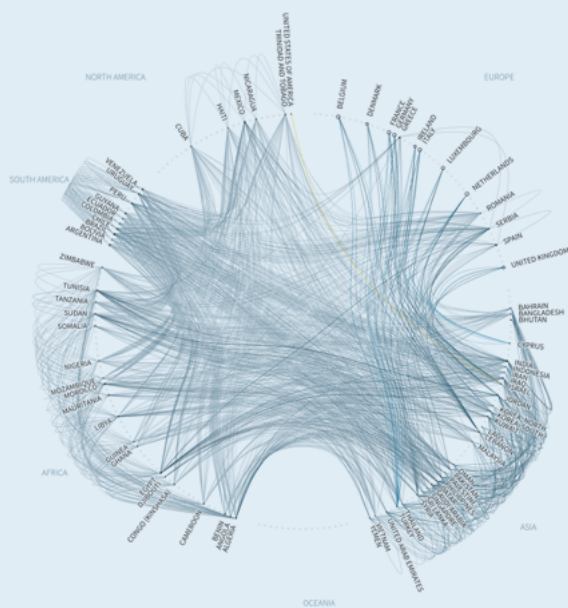
Regional Trade Agreements within Asia, 1949



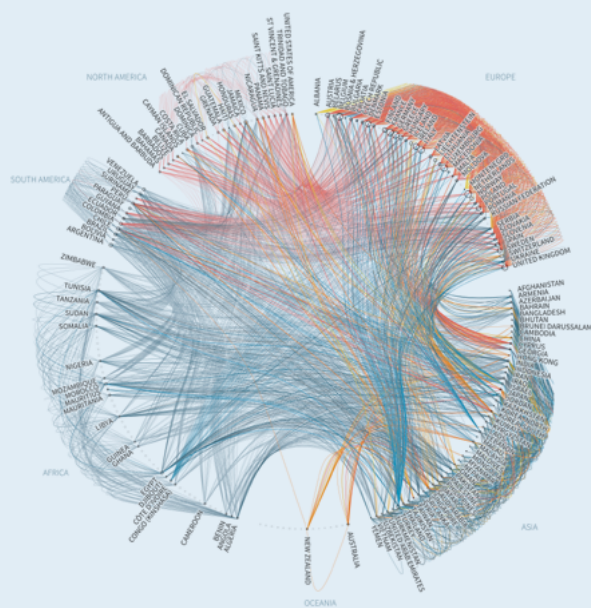
Regional Trade Agreements within Asia, 1970



Regional Trade Agreements within Asia, 1990



Regional Trade Agreements within Asia, 2014



Source: FTA Vis. Access via: <http://ftavis.com> (accessed: April 28, 2016).

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Bank (2011: 3) estimates that Asia's share of global gross domestic product (GDP) will increase to 52 percent by 2025. So it seems to be just a matter of time until Asia becomes the center of the global economy, and leaves Europe behind in international trade.³

China's accession to the WTO in 2001 played a crucial role in pushing Asia's integration into the multilateral trade system. At the same time, Asian countries such as China and Japan also started to play an increasingly active role in the negotiation of RTAs. In 2001, neither country had signed a single regional trade agreement. By 2014, there were already 13 (China) and 15 (Japan). Through the rising number of RTAs, Asian countries have become more intertwined with each other but also with the rest of the world. As shown by Figure 5, there is good reason to call the developments of RTAs in Asia as an analogy to the "spaghetti bowl" (Bhagwati 1995) a "noodle bowl" (Kawai and Wignaraja 2013). And then there are also the three initiatives targeting mega-regional integration: the TPP, FTAAP and RCEP. The TPP and FTAAP strive for closer integration of the Asia-Pacific region. The RCEP opts for closer integration between Asia and Oceania with the Association of Southeast Asian Nations (ASEAN) as the center.

Since the three mega-regional trade agreements differ in the composition of their members, their economic effects consequently differ with respect to both member states and third countries within Asia. In addition, scenarios are possible where several agreements exist at the same time. In the next section, we analyze the economic effects of these three mega-regional trade agreements on Asian countries. On the methodology we use in our analysis, see the infobox below. An in-depth explanation can be found in Rahel Aichele, Gabriel Felbermayr and Inga Heiland (2014).

3 Further developments in China, whose economy it is feared may experience a "hard landing" in the future, and their global impact will have an important influence on this, but will not be discussed in more depth here.

3. Mega-regionals in the Asia-Pacific region and their effects on Asian countries

The stalling of the Doha Round and dissatisfaction with the multilateral process are among the reasons why mega-regional trade initiatives have gained momentum in recent years. While a number of Asian countries are involved in the TPP, RCEP or FTAAP, the EU and the United States are negotiating the TTIP in order to form a transatlantic economic bloc. On both sides of the Atlantic, there is concern that standards and regulations for trade and investment might be determined in Asia, especially China, in the future should the historic opportunity for the TTIP remain unrealized. Western, primarily European, industrialized countries would lose even more international importance and influence than has already been anticipated for the 21st century. This debate could be summed up with the slogan “Asia’s rise, Europe’s decline.”⁴ The TTIP can consequently be seen as an attempt by the West to become a pioneer in the establishment of deep standards for a new world trade order.

Within Asia, the interest is by no means uniform. The ASEAN countries want to work on ASEAN-led integration through the RCEP, which includes China and thereby also subjects it to the regulations of the agreement. Japan is involved in the RCEP, too, but also relies on the TPP, which China is not (yet) involved in, but which has included the United States since 2008. Japan hopes the initiative will deliver an effective economic counterweight to China’s growing importance in the region (see e.g., Basu Das 2014 or Hamanaka 2014 for a more detailed discussion). Chinese reactions towards the TPP have been oscillating between suspecting the TPP to be a containment attempt led by the United States and the consideration to join the agreement later on (Chinese Academy of Social Sciences 2012). In addition to the RCEP, China also favors the more comprehensive FTAAP, which is supposed to merge all member states of the Asia-Pacific Economic Cooperation (APEC) into a large free-

trade zone, although the FTAAP was originally proposed by the United States before it joined the TPP.

In this section, we briefly look at the backgrounds of the three trade initiatives and then move to the effects they could have on real income in Asian countries, members and non-members alike.

3.1 The Trans-Pacific Partnership (TPP): The United States’ “pivot to Asia” in trade

The idea of a TPP is based on the Trans-Pacific Strategic Economic Partnership (TSEP), which has existed since 2006 between Brunei Darussalam, Chile, New Zealand and Sin-

Table 1: Countries participating in the Trans-Pacific Partnership

Country	TPP participation since
Australia	2008
Brunei Darussalam (ASEAN)	2005
Canada	2012
Chile	2002
Japan	2013
Malaysia (ASEAN)	2010
Mexico	2012
New Zealand	2002
Peru	2008
Singapore (ASEAN)	2002
United States	2008
Vietnam (ASEAN)	2008

Source: TPP: History

⁴ See for example Frankfurter Allgemeine Zeitung, June 10, 2012 or Sandschneider 2011.

Table 2: Change in real income in different TPP scenarios (in percent)

Country	TPP participation	APEC / ASEAN membership	Shallow TPP	TPP tariff-only	Deep TPP
Vietnam	yes	APEC, ASEAN	5.38	0.70	16.50
Malaysia	yes	APEC, ASEAN	3.11	-0.09	24.93
Japan	yes	APEC	2.17	0.08	3.45
Singapore	yes	APEC, ASEAN	0.86	0.01	9.09
Mongolia	no		0.24	-0.02	0.15
Pakistan	no		0.13	-0.01	0.10
Nepal	no		0.08	0.01	0.11
Sri Lanka	no		0.06	-0.01	-0.03
Iran	no		0.05	0.01	0.12
Philippines	no	APEC, ASEAN	0.05	-0.03	-0.51
India	no		0.03	-0.01	0.01
Indonesia	no	APEC, ASEAN	0.02	0.00	0.09
Bangladesh	no		0.01	-0.02	-0.12
South Korea	no	APEC	-0.01	-0.02	-0.25
Hongkong	no	APEC	-0.06	0.00	0.27
Cambodia	no	ASEAN	-0.06	-0.12	-0.75
Taiwan	no	APEC	-0.07	-0.05	-0.72
China	no	APEC	-0.08	-0.04	-0.32
Laos	no	ASEAN	-0.12	0.00	0.18
Thailand	no	APEC, ASEAN	-0.12	-0.09	-0.41

Source: Calculation by ifo

Note: Countries are sorted according to the most likely shallow scenario. See footnote 2 for an explanation of country selection.

gapore, i.e., the Pacific Four (P4).⁵ Between 2008 and 2013, eight more countries engaged in talks with the P4 on trade liberalization (Table 1). Negotiations were concluded on October 5, 2015, but the agreement still has to be ratified by the member states. The TPP12 would account for 37 percent of global GDP (\$28 trillion), 25 percent of world trade (\$11.6 trillion) and 11 percent of the world's population (802 million) (Aichele and Felbermayr 2015: 4).

Since the United States has been involved in the TPP, the agreement has also received more attention in the Western media. While the TTIP is supposed to establish the future framework conditions for the transatlantic economic relations of the United States, the TPP has become the transpacific counterpart and symbolizes the economic side of the

United States' "pivot to Asia." Since Japan joined the agreement in 2013, China has been wary of these developments. Among ASEAN countries, there has been skepticism, too. An economic division is feared because only four members are involved in the TPP (Hamanaka 2014: 14).

Nevertheless, the TPP makes a good deal for the member states from an economic perspective, because they would mainly benefit from the agreement (Petri, Plummer and Zhai 2014: 6). In the following section, we analyze how the TPP specifically would affect Asian countries, particularly in a comparison between members and non-members.

Economic effects of the TPP on Asian countries

In our calculations, we go into three versions of the TPP, which differ in their treatment of non-tariff trade barriers, i.e. in their depth. Due to the heterogeneity and different stages of development of the member countries, a shallow

⁵ In 2002, Chile, New Zealand and Singapore began negotiations at the APEC Summit in Mexico on a Closer Economic Partnership between the three Pacific countries (P3-CEP). Brunei Darussalam was a founding member of the TSEP in 2005, which evolved from the P3-CEP initiative. New Zealand Ministry of Foreign Affairs and Trade (2005).

version would be the most realistic in our opinion. The welfare effects of the respective versions diverge significantly. Generally speaking, merely removing tariffs through the TPP would have minimal effects, since the tariffs between the countries considered are already relatively low (standing at an unweighted average of 4.9 percent in 2007, compared with 7.2 percent in the world). In the 21st century, non-tariff barriers to trade are far more important than the largely low tariffs, anyway. Things therefore look different with the reduction of non-tariff barriers in the shallow and deep scenarios: Here, some of the changes are in the double-digit range and show large fluctuations depending on the country and scenario (Table 2). The four countries involved in the TPP, Japan, Malaysia, Vietnam and Singapore, benefit most from the removal of non-tariff barriers. The losers include ASEAN members not involved in the TPP: Cambodia and Thailand. The feared economic split of the ASEAN states into TPP members, which reap considerable benefits, and non-members, which experience welfare gains close to zero or are even negatively affected, can be seen clearly in the shallow and deep TPP scenarios. If the TPP involved only a tariff elimination, Malaysia would stand out: The country would have to suffer a slight loss despite TPP membership (-0.09 percent). It also shows the largest fluctuation among the countries considered, with welfare changes between -0.09 and +24.9 percent depending on the scenario, followed by Vietnam, where the effects are between +0.7 percent and +16.5 percent. In the tariff-only case, both countries experience a substantial loss of tariff income without noticeable changes of wages or prices. The removal of non-tariff barriers outweighs this loss in the shallow scenario and substantially increases real income in the deep scenarios. Fluctuations in income change between the scenarios also depend on the treatment of individual sectors and their role for the economy of the respective country. In the shallow scenarios of the three mega-regionals, the effects of the removal of non-tariff barriers are much lower than in the deep scenarios. So the agreements may have a substantial impact only in the deep scenarios.

3.2 The Free Trade Area of the Asia-Pacific (FTAAP): An inclusive alternative?

The idea of a FTAAP goes back to discussions at the end of the 1980s, the goal of which was greater economic integration in the Asia-Pacific region. European integration and negotiations on a North American Free Trade Agreement (NAFTA) were important drivers in this respect (Australian Financial Review, February 21, 1989). These developments, however, did not result in a free-trade area but in

Table 3: APEC members

Country	APEC member since
Australia	1989
Brunei Darussalam (ASEAN)	1989
Canada	1989
Chile	1994
China	1991
Hong Kong	1991
Indonesia (ASEAN)	1989
Japan	1989
Malaysia (ASEAN)	1989
Mexico	1993
New Zealand	1989
Papua New Guinea	1993
Peru	1998
Philippines (ASEAN)	1989
Russia	1998
Singapore (ASEAN)	1989
South Korea	1989
Taiwan	1991
Thailand (ASEAN)	1989
United States	1989
Vietnam (ASEAN)	1998

Source: APECb

the Asia-Pacific Economic Community (APEC), which was founded in 1989 by 12 of the littoral states (Table 3). The APEC aims to “increase the prosperity of the people of the region by promoting balanced, inclusive, innovative and secure growth and accelerating regional economic integration” (APECa).

In 2004, the APEC Business Advisory Council, the private sector advisory council of APEC, brought the idea of a formal free-trade area in the form of the FTAAP to the table. And since 2010, the FTAAP has been one of the “main instruments for advancing the APEC agenda of regional economic integration” (APEC 2010). Ongoing processes such as ASEAN+3 and ASEAN+6 (see section 3.3) are supposed to serve as a basis for the RCEP and the TPP, which will potentially emerge from them. The United States initially led the advances in the direction of a FTAAP, but from 2008 it focused on the TPP and wanted to complete it before engaging in concrete negotiations on an FTAAP. China has

recently favored the FTAAP, especially since Japan joined the TPP. Under the leadership of Xi Jinping, the APEC members committed themselves to the concrete implementation of the FTAAP at the 2014 APEC meeting in Beijing (APEC 2014). However, the establishment of a fixed timetable was successfully prevented by the United States (Solís 2014).

In the long term, the FTAAP offers the Asia-Pacific region a more inclusive option than the TPP because all APEC countries are involved, including the three major players: the United States, China and Russia. The FTAAP would consequently account for 56 percent of global GDP (\$42 trillion), roughly 45 percent of world trade (\$21 trillion) and 39 percent of the world's population (2.8 billion) (World Development Indicators). However, the FTAAP, just like the TPP, could also cause an economic split within the ASEAN because three of the ASEAN members are not included. Nor is India, the second largest country in Asia, which could be

disadvantageous for intra-Asian integration. In what follows we take a closer look at the predicted effects.

Economic effects of the FTAAP on Asian countries

The shallow scenario is also the most likely of the three FTAAP versions that were modelled. The states involved are at least as different as the TPP members in their levels of development. And now eight additional countries, 21 in total, have to reach a consensus. The interests here are significantly more heterogeneous than with the TTIP, due to the participation of Russia, China and the United States, and therefore more difficult to integrate.

The small number of negative effects (Table 4) is striking for the anticipated welfare effects brought about by the FTAAP: In the shallow scenario, which is most likely, none

Table 4: Change in real income in different FTAAP scenarios (in percent)

Country	FTAAP	APEC / ASEAN membership	Shallow FTAAP	FTAAP tariff-only	Deep FTAAP
Mongolia	no		14.70	-0.09	23.70
Taiwan	yes	APEC	10.77	1.94	30.38
Vietnam	yes	APEC, ASEAN	8.18	0.40	37.80
Malaysia	yes	APEC, ASEAN	7.62	1.86	42.26
Thailand	yes	APEC, ASEAN	5.93	1.61	23.73
China	yes	APEC	5.89	0.95	17.67
Iran	no		5.00	0.51	8.93
Hong Kong	yes	APEC	4.45	0.39	21.01
Cambodia	yes	ASEAN	4.42	-3.26	10.36
South Korea	yes	APEC	4.33	0.77	13.46
Japan	yes	APEC	3.82	0.46	7.73
India	no		3.63	0.14	8.18
Pakistan	no		3.62	-0.33	6.79
Singapore	yes	APEC, ASEAN	3.31	0.82	19.17
Nepal	no		3.23	0.26	6.80
Indonesia	yes	ASEAN	3.20	0.95	11.05
Sri Lanka	no		3.15	-0.12	7.65
Philippines	yes	APEC, ASEAN	2.87	0.18	18.53
Laos	yes	ASEAN	2.49	-0.53	9.16
Bangladesh	no		1.81	-0.99	4.19

Source: Calculation ifo

Note: Countries are sorted according to the most likely shallow scenario. See footnote 2 for an explanation of country selection.

of the Asian countries considered would suffer a loss of welfare. Mongolia, as a non-member, has the highest welfare gain at +14.70 percent. This is mainly due to an expected boom in Chinese demand for mining products, which Mongolia specializes in. Despite its non-membership, India does not suffer a welfare decline in any scenario. Nor does a deep scenario create negative effects for any of the Asian countries considered. They are all able to improve their welfare here, but the degree is subject to significant variations: In the case of Bangladesh, it is just +4.19 percent, but Malaysia shows almost a tenfold increase with +42.26 percent. 12 countries in total, all members of the FTAAP, except Mongolia, show double-digit growth rates in the deep scenario. These high welfare gains are mainly attributed to large trade-cost reductions that are imposed on a substantial part of world trade. Small countries are likely to experience disproportionately large gains. The pure tariff-elimination scenario would, as with the TPP, result in the lowest effects, where six countries would be negatively affected, including the non-participating ASEAN states, Cambodia (-3.26 percent) and Laos (-0.53 percent). As with the TPP, Malaysia and Vietnam show the greatest fluctuations in the FTAAP scenarios, with welfare changes between +1.86 and +42.26 percent or +0.40 and +37.80 percent depending on the scenario.

3.3 The Regional Comprehensive Economic Partnership (RCEP): The ASEAN initiative

The RCEP aims to unite the so-called ASEAN+1 initiatives under one roof (Ministry of Trade and Industry of Singapore 2012). This concerns existing free-trade agreements between the ASEAN and four Asian countries as well as Australia and New Zealand (ASEAN+6): China, Japan and South Korea (also: ASEAN+3) as well as India, Australia and New Zealand (Table 5). The RCEP would account for approximately 29 percent of global GDP (\$21 trillion), 27 percent of world trade (\$12.6 trillion) and 48 percent of the world's population (3.4 billion) (World Development Indicators).

The RCEP initiative goes back to two different proposals by China and Japan for regional economic cooperation, which pursued different strategic agendas (Hamanaka 2014: 9f.). While China envisioned a restriction on trade in goods and fewer negotiating partners under its leadership, Japan consequently wanted to incorporate a greater number of partners and topics in order to restrict Chinese influence. The ASEAN tried to mediate in the dispute between China and Japan. But this did not succeed until 2011 when the two countries were able to agree on a joint proposal for eco-

nomic integration in the region (ibid.). The official decision to establish the RCEP was finally made at the 19th ASEAN Summit in November 2011 in Bali. The ASEAN also made its leadership clear in this process, which was supposed to be "ASEAN-led" (ASEAN 2011). Since then, there have been a total of 12 negotiating rounds. The last round of negotiations took place in April 2016 in Australia. Negotiations are scheduled for completion by the end of 2016 (RCEP News, December 3, 2015). The RCEP is the only agreement that covers all ASEAN states as well as Asia's two largest countries, China and India. Consequently, it goes the farthest toward intra-Asian integration, but it has no transpacific dimension in contrast with the TPP and the FTAAP.

Economic effects of the RCEP on Asian countries

All signs also point to a shallow scenario for the RCEP due to the different interests among its members, particularly

Table 5 ASEAN members and ASEAN+ participants

Country	ASEAN member or ASEAN+ participation since
Australia (ASEAN+6)	2005
Brunei Darussalam (ASEAN)	1984
Cambodia (ASEAN)	1999
China (ASEAN+3/+6)	1997/2005
India (ASEAN+6)	2005
Indonesia (ASEAN)	1967
Japan (ASEAN+3/+6)	1997/2005
Laos (ASEAN)	1997
Malaysia (ASEAN)	1967
Myanmar (ASEAN)	1997
New Zealand (ASEAN+6)	2005
Philippines (ASEAN)	1967
Singapore (ASEAN)	1967
South Korea (ASEAN+3/+6)	1997/2005
Thailand (ASEAN)	1967
Vietnam (ASEAN)	1995

Source: ASEANa; ASEANb; ASEANc

Note: ASEAN+6 refers to the founding states of the East Asia Summit (EAS), which was established in 2005 by ASEAN and its six most important trading partners (Australia, China, India, Japan, New Zealand, South Korea).

China and Japan. In the case of a shallow scenario, Vietnam (+4.31 percent) and Laos (+3.4 percent) would benefit the most (Table 6). Only one of the countries considered here would be negatively affected, namely Taiwan (−0.43 percent), which is not a member of the RCEP. All others experience at least mild increases in prosperity. It is striking that the Philippines, despite RCEP membership, experience the second lowest growth at +0.09 percent. This is mainly due to the loss in value added in the agricultural sector, which cannot be compensated by gains in other sectors in the shallow scenario. With a deep RCEP, the situation would look differently: Here the Philippines would benefit significantly (+9.51 percent), and six of the RCEP members could even display double-digit growth, with Malaysia (+24.5 percent) and Vietnam (+22.82 percent) at the top again. Taiwan is also at the bottom here with even greater losses (−2.32 percent), while a large part of the other non-members could experience growth in prosperity higher than in the shallow scenario. Should the RCEP only involve

tariff elimination, it would negatively affect three members, the Philippines (−0.05 percent), Vietnam (−0.54 percent) and Cambodia (−1.43 percent), and so potentially be less attractive. In the RCEP scenarios, Malaysia and Vietnam again exhibit the largest fluctuations with welfare changes between +1.31 and +24.5 percent or −0.54 and +22.82 percent depending on the scenario (Table 6). The negative effects, regardless of the scenario, would be especially problematic for Taiwan, which is closely involved in intra-Asian production processes and value chains and experiences a setback through its exclusion from the intra-Asian integration process and the trade diverting effects derived from this. Nevertheless, the negative effects for Asian non-RCEP countries stay within limits.

Table 6: Change in real income in different RCEP scenarios (in percent)

Country	RCEP participation	APEC / ASEAN membership	Shallow RCEP	RCEP tariff-only	Deep RCEP
Vietnam	yes	APEC, ASEAN	4.31	−0.54	22.82
Laos	yes	ASEAN	3.40	0.24	12.76
China	yes	APEC	2.26	0.04	7.98
Malaysia	yes	APEC, ASEAN	2.22	1.31	24.50
South Korea	yes	APEC	2.19	0.53	9.84
Cambodia	yes	ASEAN	2.03	−1.43	18.17
Indonesia	yes	ASEAN	1.33	0.82	6.91
Japan	yes	APEC	1.29	0.27	4.06
India	yes		1.05	0.34	5.76
Singapore	yes	APEC, ASEAN	0.58	0.50	12.70
Thailand	yes	ASEAN	0.42	0.50	10.75
Nepal	no		0.39	0.33	0.69
Mongolia	no		0.39	−0.05	1.55
Sri Lanka	no		0.36	0.33	0.50
Iran	no		0.26	0.08	0.76
Bangladesh	no		0.10	0.06	
Pakistan	no		0.10	0.01	0.23
Philippines	yes	ASEAN	0.09	−0.05	9.51
Hongkong	no	APEC	0.01	−0.01	1.87
Taiwan	no	APEC	−0.43	−0.37	−2.32

Source: Calculation ifo

Note: Countries are sorted according to the most likely shallow scenario. See footnote 2 for an explanation of country selection.

4. Case studies

4.1 China: The world's leading trading nation need not fear the TPP

China is the world's second largest economy in terms of absolute GDP and the world's largest trading nation with a trade volume of US\$4,303 billion in 2014. The country experienced high, partly double-digit, growth rates from the early 1990s and despite declining domestic growth in recent years still is an important driver of the global and regional economy. Asia makes up the lion's share in Chinese trade (about 53 percent in 2014), with Japan and Korea as its most important trading partners in Asia. The United States and Germany are China's most important trading partners outside Asia (Ministry of Commerce of the People's Republic of China 2015. See also Figure 6). As the "factory of the world", China focuses on the export of manufactured goods, especially electronics and textiles, and on the import of intermediates and raw materials. China has concluded FTAs with ASEAN, Australia, Chile, Hong Kong, India, New Zealand, Peru, Singapore and South Korea⁶, among others, all of which are also part of one or more of the mega-regionals discussed here (WTO RTA-IS). So China already has close ties with these countries and is likely to profit more from agreements including trading partners which have not yet concluded FTAs with China.

Under the TPP, China experiences welfare losses (-0.32 to -0.04 percent) as a non-member country and a decline in total value added (-0.99 to -0.08 percent), regardless of the scenario. But these effects stay within very narrow limits. In the most likely shallow scenario, effects on value added in the 10 main sectors are well below one percent. The overall structure of China's most important trading partners hardly changes under the TPP. Nor is a general trend in trade with TPP members evident. China imports less from Japan, but

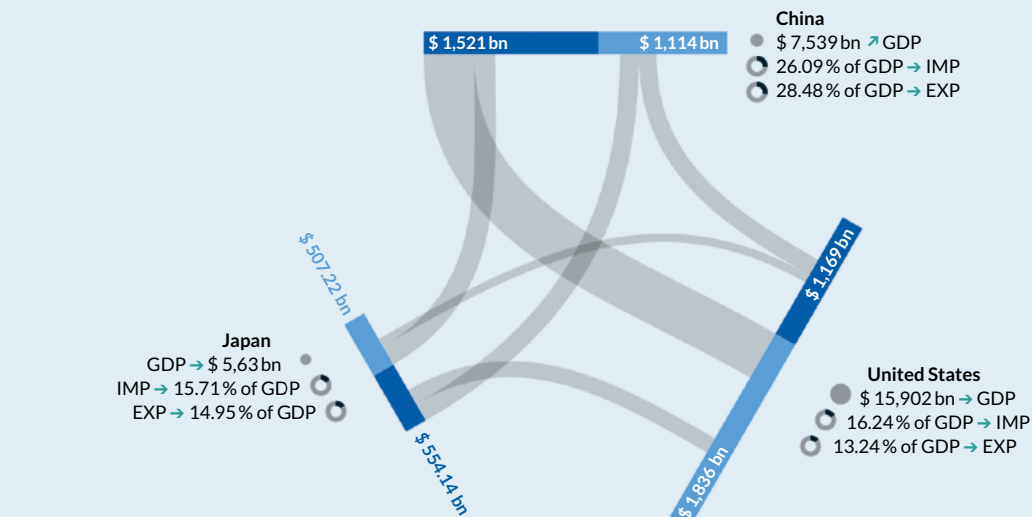
more from the United States, while Chinese exports to Japan increase and Chinese exports to the United States decline. The latter is mainly due to the electronics sector and textiles, where TPP members seem to gain competitiveness on the US market vis-à-vis China. Since these are core sectors in China's trade, this could be a development with a more long-term impact.

The situation is very much different with the FTAAP and RCEP, in which China participates. In all FTAAP scenarios, China experiences considerable welfare gains (+0.95 to +17.67 percent). Especially the reduction of non-tariff barriers gives China a real boost, which may be ascribed to China's most important trading partner, the United States, being part of the pact. Moreover, the reduction of trade cost leads to considerable trade creation among FTAAP members. China also trades more with non-member countries. Its exports to some African countries show a considerable increase. Chinese products, which are already heavily sought after on the African continent because of their low price, would increase in price competitiveness again through a liberalization of trade within the FTAAP.⁷ India is able to increase imports to China substantially, which can mainly be attributed to increasing demand for business services on the Chinese side. On the sectoral level, the FTAAP clearly increases total value added (+1.87 percent to +11.85 percent). Eight of 10 main sectors show an increase in all scenarios. Only two sectors are consistently affected negatively: The chemical industry has to accept losses between -0.49 (tariff elimination) and -4.26 percent (deep). In the mining sector, they are even in the double-digits, ranging from -14.85 percent (tariff elimination) to -65.98 (deep). This may be explained by the fact that these industries are classified as strategic sectors in China and are con-

6 There have been attempts towards a China-Japan-Korea FTA, but negotiations have not gone smoothly due to Sino-Japanese friction. The result was a bilateral agreement between China and South Korea in 2015 (South Korean Ministry of Trade, Industry and Energy 2015).

7 This development is not just positive for the countries concerned. Consumers may benefit from cheaper goods, but local producers will also be exposed to cutthroat competition, which can have significant negative effects on the local economy and trade, for example, by eliminating stores, jobs and even whole sectors of the economy (for a detailed discussion, see Nhlabatsi 2014).

Figure 6: China's trade relations with two of its major trading partners, the United States and Japan, 2013



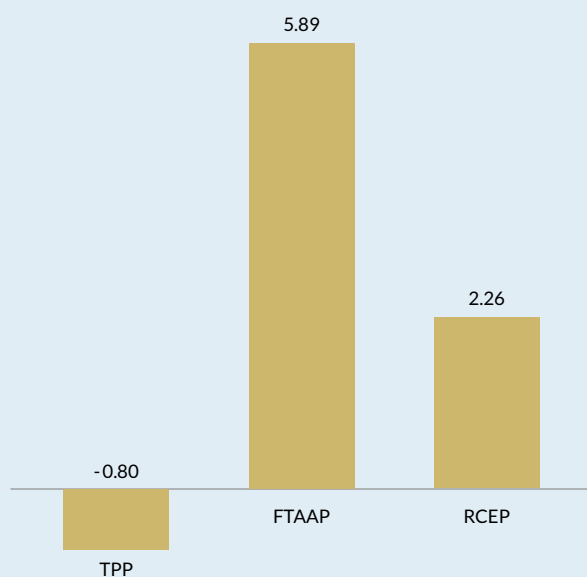
How to read it

- 2013 Merchandise exports/imports to/from all available countries in billion US-\$ (current prices) as reported by import countries' statistics.
- Bar lengths relative to largest sum of imports and exports (among displayed countries for all years).
- Merchandise exports/imports in billion US-\$ (current prices)
- Bubble size relative to largest indicator value. **GDP**: Gross Domestic Product, in billion US-\$ (constant prices, base 2010) max. size \$ 15,902 bn
- Ring segment indicates percentage. **IMP**: Total Imports, in percent of GDP max. size 26.09% of GDP. **EXP**: Total Exports, in percent of GDP max. size 32.80% of GDP
- Tendency arrows indicate change to previous year's value (i) for absolute values: relative change; (ii) for percentage values: difference in percent points.

Source: GED Viz. Access via: <https://viz.ged-project.de> (accessed: April 28, 2016).

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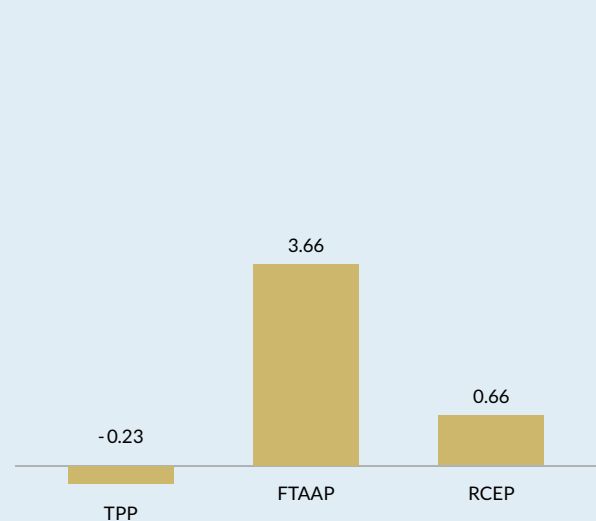
Figure 7: Change in China's real income in the most likely shallow scenarios of TPP, FTAAP and RCEP



Source: Calculation ifo

BertelsmannStiftung

Figure 8: Change in China's total value added (32 sectors) in the most likely shallow scenarios of TPP, FTAAP and RCEP



Source: Calculation ifo

BertelsmannStiftung

sequently still state-dominated (Bertelsmann Transformation Index 2016a: 14). The major companies in the chemical and mining industries are mostly state-owned companies that are directly controlled by the Central Government (so-called yangqi) and so enjoy a special position with associated privileges (State-owned Assets Supervision and Administration Commission 2015).⁸ With further trade liberalization, this situation in its current form would probably be unsustainable. An at least partial removal of privileges would be necessary. As for the mining sector, another factor also plays a role. In our scenarios, this sector does not receive non-tariff barriers reductions. So relative to other sectors, which receive cost reductions because non-tariff barriers are lowered, the mining sector becomes more expensive and therefore loses ground in liberalizing countries.

Under the ASEAN-initiated RCEP, which does not include the United States, China's welfare gains are modest if tariffs only are eliminated (+0.04 percent). Since China already has FTAs with most RCEP members, tariffs are already low. Welfare gains are much higher with non-tariff barriers being removed (+2.26 to +7.98 percent). Total value added increases in all scenarios (+0.15 to +4.22 percent). But in the most likely shallow scenario it is only +0.66 percent. The deep scenario would bring much more growth at +4.22 percent. The electronics industry in particular would benefit from such an extensive elimination of non-tariff barriers to trade with double-digit growth. It may be assumed that the intermediate products traded among RCEP members in this sector are especially burdened by non-tariff trade barriers, so significant price reductions are possible. China's chemical industry is the only sector that consistently has to endure a loss in value added under the RCEP. As mentioned above, this could be due to the state monopoly, which would have to be softened by the agreement.

The biggest changes in China's trade spread only to RCEP members. With an elimination of non-tariff barriers, New Zealand, Laos and Cambodia in particular could significantly expand their imports to China. This could be due to a rise in Chinese demand for intermediate products from these countries among other things. Also, Laos and Cambodia do not have a free trade agreement (FTA) with China. So for them, the RCEP could be an important means to deepening trade with China. India is at the top in all three scenarios involving increasing exports from China. The demand for Chinese products in India, for example, in mechanical engi-

neering or the automotive industry, has already increased continuously in recent years (Hauschild et al. 2015: 53, 55). It is assumed that an elimination of trade barriers between the two countries would further promote this development.

Our analysis shows that, as can be expected, China profits most from those mega-regional trade deals in which it participates. The effects of the FTAAP with China and the United States as members clearly exceeds those of the RCEP in terms of welfare gains and increase in total value added. Regarding the TPP, China need not fear any significant adverse effects for now, despite not being a member. The impact of the agreement on Chinese welfare and value added is comparatively manageable.

4.2 Malaysia: The "Asian Tiger Cub" profits from deeper transpacific integration

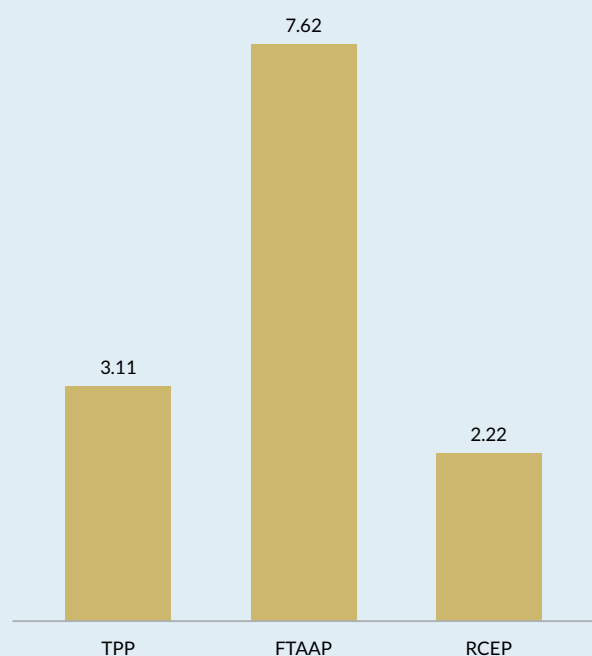
Malaysia as one of the four "Tiger Cub Economies"⁹ belongs to the most dynamic economies in the region and is well integrated into the international division of labor. Among the ASEAN states, Malaysia is the third largest economy in terms of GDP behind Indonesia and Thailand and the third largest trading nation with a trade volume of US\$443 billion in 2014 behind Singapore and Thailand (WTO RTA-IS). Malaysia's manufacturing industry has a strong focus on processing semi-finished imported goods, with electronics and electro-technics as most important sectors (Müller 2015: 340f.). Malaysia trades most within Asia, with China and Singapore being its most important trading partners. Outside Asia, the United States ranks first. Malaysia has concluded bilateral FTAs with Australia, Chile, India, Japan and New Zealand, among others (WTO RTA-IS). It also is part of all three mega-regionals discussed here.

Malaysia profits most from the removal of non-tariff barriers to trade. Welfare gains and increase in value added are double-digit in the less likely deep TPP, FTAAP and RCEP scenarios. A shallow FTAAP as the most inclusive agreement has the greatest effects (real income: +7.68 percent; value added: +3.8 percent). A shallow TPP also yields considerable income gains and a small increase in value added (real income: +3.11 percent; value added: +1.3 percent), even

⁸ Detailed explanations of the yangqi can be found in Jungbluth (2015: 124–125), for example.

⁹ The term "Tiger Cub Economies" was coined to refer to Indonesia, Malaysia, the Philippines and Thailand. It is an analogy to the "Four Asian Tigers", which include Hong Kong, Singapore, South Korea and Taiwan. These countries/regions experienced fast economic growth in the 1960s, 1970s and 1980s based on an export-driven growth model. The "Tiger Cubs" may be regarded as following in the footsteps of the four adult "Tigers" in regard to their development path (see e.g., The Manila Times, May 26, 2014).

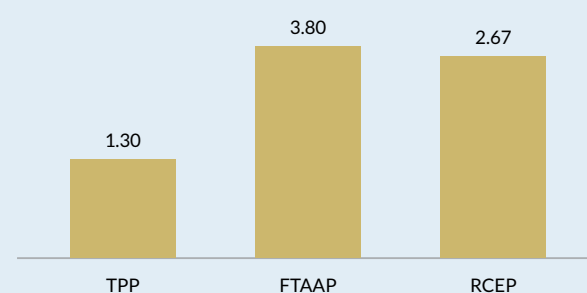
Figure 9: Change in Malaysia's real income in the most likely shallow scenarios of TPP, FTAAP and RCEP



Source: Calculation ifo

BertelsmannStiftung

Figure 10: Change in Malaysia's total value added (32 sectors) in the most likely shallow scenarios of TPP, FTAAP and RCEP



Source: Calculation ifo

BertelsmannStiftung

though it does not include China, one of Malaysia's most important trading partners (Bertelsmann Transformation Index 2016b: 18). This may be due to the fact that Malaysia's trade will be given an extra boost by deeper transpacific integration, especially with the United States. With a shallow RCEP, Malaysia experiences the lowest welfare gain, whereas the increase in value added is higher than in the TPP scenario (real income: +2.22 percent; value added: +2.67 percent). Being a member of ASEAN and, thus, ASEAN FTAs, Malaysia already is well integrated within Asia. The TPP includes more countries that are not yet Malaysian FTA partners. This may explain the difference in real income gain. The difference in the increase in value added is, among others, due to the fact that major sectors are differently affected by the respective mega-deal.

In the shallow scenarios, value added increases in seven of 10 main sectors under the TPP and RCEP, and in eight under the FTAAP. Machinery and chemicals see the highest, partly double-digit, increases under all three agreements. It is assumed that both industries can benefit from cheaper

intermediate products and a greater choice of providers. The mining sector is a clear outlier: While the shallow TPP and FTAAP lead to a massive loss in value added (-11.26 and -22.81 percent, respectively), the shallow RCEP even results in a substantial increase by +7.72 percent. The mining industry in Malaysia is underdeveloped due to lack of knowhow and capital, which results in low competitiveness for this sector (Müller 2015: 341f.). This can at least partially explain the high losses in value added for the mining sector in the TPP and FTAAP scenario. As mentioned above, this sector also receives no cost reductions because non-tariff barriers are lowered. The different situation under the shallow RCEP may be attributed to the fact that Malaysia's mining sector is more competitive in the Asian context, and somewhat fewer industrial countries with high expertise are involved in the RCEP. The reverse pattern emerges for the electronics industry, Malaysia's most important trading sector: The electronics industry sees an increase in value added under the FTAAP (+3.8 percent) and TPP (+1.64 percent), but has to accept slight losses under the RCEP (-1.85 percent). It can be assumed here that prod-

ucts from other Asian members of the RCEP will become more price competitive and will consequently be in greater demand than Malaysian products in the integrated area.

A look at Malaysia's main trading partners shows that the TPP mainly leads to trade creation among the member states. In all three scenarios, they show the highest increases in imports to Malaysia with some triple-digit growth rates (e.g., Australia). The same is true for Malaysia's exports. There is a clear trade diversion effect towards TPP members in the most likely shallow scenario. Some of Malaysia's major trading partners, which are not part of TPP, therefore have to accept moderate losses in their exports to Malaysia (e.g., China, Thailand). In turn, they see slight increases in their imports from Malaysia, which may be due to cheaper prices of Malaysian products following the trade cost reduction through the TPP.

As Malaysia already trades most with potential FTAAP members, these links are further intensified under the agreement in terms of absolute volume, especially with the removal of non-tariff barriers. Apart from considerable trade creation among member states, the FTAAP strengthens trade between Malaysia and African countries across all scenarios. Kenya and Rwanda, for example, see a massive increase in their exports to Malaysia. This is assumed to be due to Malaysia's increasing demand for raw materials and intermediaries from these countries in order to satisfy higher demand for its processed export goods within the FTAAP area. Countries like Namibia and Cameroon on the other hand import much more from Malaysia than before. This could be because Malaysian products will be considerably more competitive in terms of price through liberalization under the FTAAP and will consequently be in more demand in these countries.

A similar picture emerges for the RCEP scenarios: Malaysian imports from some African and Arab countries increase in relative terms in the double-digit range. Malaysia would potentially need more intermediate products from these countries (e.g., raw materials) because the demand for Malaysian products increases in certain sectors in the integrated RCEP area. The greatest gains in Malaysian exports are almost invariably spread across the RCEP members. They dominate Malaysia's trade structure in any case due to ongoing integration through ASEAN and ASEAN+. The RCEP intensifies this process as intended.

Our analysis shows that the "Tiger Cub" can reap considerable profits from all three mega-deals in terms of welfare gains and increases in value added. The RCEP supports Malaysia's already deep integration within Asia. The TPP and FTAAP with their transpacific dimension, however, would substantially strengthen the country's ties with important trading partners outside Asia.

5. Parallel scenarios: Asian-Pacific trade deals as counterweight to the TTIP

TPP and RCEP differ from each other in their regional composition as well as in their objectives. Consequently, it is possible that both agreements could be concluded and could exist parallel to the TTIP as well. In what follows, we analyze the economic effects of two parallel scenarios for the TPP, RCEP and TTIP. We examine the most likely form of the respective mega-regional, which is a shallow TPP and RCEP

and a deep TTIP. Since the TPP and the RCEP can be seen as a prerequisite for a FTAAP (see e.g., Hamanaka 2014: 16; Kawai and Wignaraja 2013: 53; or Petri and Plummer 2012: 5), we do not consider the latter separately.

In scenario 1, we assume that both the RCEP and TPP are concluded as shallow agreements. The clear winners are

Table 7: Change in real income in scenario 1: shallow RCEP und shallow TPP (in percent)

Country	TPP participation	RCEP participation	APEC / ASEAN membership	Shallow TPP and shallow RCEP
Vietnam	yes	yes	APEC, ASEAN	5.240
Malaysia	yes	yes	APEC, ASEAN	4.849
Laos	no	yes	ASEAN	3.635
Japan	yes	yes	APEC	3.005
China	no	yes	APEC	2.351
Südkorea	no	yes	APEC	2.282
Kambodscha	no	yes	ASEAN	2.127
Singapur	yes	yes	APEC, ASEAN	1.508
Indonesien	no	yes	APEC, ASEAN	1.347
Indien	no	yes		1.163
Mongolei	no	no		0.571
Thailand	no	yes	APEC, ASEAN	0.503
Nepal	no	no		0.454
Sri Lanka	no	no		0.410
Iran	no	no		0.266
Pakistan	no	no		0.209
Philippinen	no	yes	APEC, ASEAN	0.188
Bangladesch	no	no		0.101
Hongkong	no	no	APEC	-0.015
Taiwan	no	no	APEC	-0.387

Source: Calculation ifo

Note: See footnote 2 for an explanation of country selection.

Table 8: Change in real income in different TTIP scenarios (in percent)

Country	TTIP participation	APEC / ASEAN membership	Deep TTIP	TTIP tariff only	Shallow TTIP
Hongkong	no	APEC	0.156	0.01	0.10
Nepal	no		0.124	0.00	0.08
Laos	no	ASEAN	0.111	0.00	0.06
India	no		0.072	0.00	0.09
Pakistan	no		0.067	0.00	0.10
Singapore	no	APEC, ASEAN	0.014	-0.02	0.33
Iran	no		-0.002	0.00	0.06
Sri Lanka	no		-0.044	0.00	0.07
Vietnam	no	APEC, ASEAN	-0.052	-0.01	0.25
Indonesia	no	APEC, ASEAN	-0.083	-0.01	0.00
Japan	no	APEC	-0.115	0.00	-0.08
Bangladesh	no		-0.130	-0.01	0.07
South Korea	no	APEC	-0.185	0.00	-0.08
Philippines	no	APEC, ASEAN	-0.237	-0.01	0.02
China	no	APEC	-0.255	-0.01	0.04
Mongolia	no		-0.301	-0.01	-0.06
Thailand	no	APEC, ASEAN	-0.326	-0.01	-0.05
Taiwan	no	APEC	-0.394	-0.01	-0.02
Malaysia	no	APEC, ASEAN	-0.456	-0.01	-0.04
Cambodia	no	ASEAN	-0.907	-0.04	0.23

Source: Calculation ifo

Note: Countries are sorted according to the most likely deep scenario. See footnote 2 for an explanation of country selection.

Malaysia and Vietnam with welfare gains of +5.24 and +4.85 percent, respectively (Table 7). These two countries are the only Asian developing and emerging markets that are involved in both the TPP and RCEP. Singapore (+1.51 percent) and Japan (+3.0 percent) as developed countries record much lower growth despite their dual membership. The welfare gains of Thailand and the Philippines are +0.5 and +0.1 percent, which is significantly lower than for the other RCEP members. So the findings here replicate those of the RCEP scenario analyzed above. Overall, the parallel scenario has a positive effect on Asian countries, even without direct participation in the two agreements. Only Bangladesh (-0.03 percent) and Taiwan (-2.5 percent) suffer welfare losses. For the vast majority of Asian countries, the scenario is therefore significantly more favorable than a pure TPP scenario. Compared to a pure RCEP scenario, in terms of welfare gains the parallel scenario appears more favorable for most Asian countries, too. For the winner, Vietnam, dual membership in the TPP and RCEP pays off, while the Philippines fares the worst in both scenar-

ios compared with the other ASEAN states. Interestingly, India, Cambodia, Laos, China, Indonesia, Thailand and even the Philippines benefit somewhat more from the parallel scenario than from a pure RCEP scenario, even though they only participate in the RCEP and, with the exception of India, Indonesia and the Philippines, would even have to experience negative effects in a purely TPP scenario (Table 2 and Table 7). This may be attributed to the fact that the conclusion of two mega-regional trade deals generally leads to higher increases in income and, consequently, demand in the region. Member states and non-members can thus enjoy higher benefits than in the single scenarios.

In scenario 2, we combine a shallow RCEP and TPP with a deep TTIP. The TTIP is supposed to create a (free-trade) bridge across the Atlantic between the United States and the EU. Looking briefly at a TTIP-only scenario with no Asian "counterweight" to it, we find negative welfare effects (even if they are only slight) in 14 of the 20 countries considered here (Table 8). The situation is quite different if the

Table 9: Change in real income in scenario 2: shallow RCEP and TPP, deep TTIP (in percent)

Country	TPP participation	RCEP participation	APEC / ASEAN membership	Shallow TPP, shallow RCEP, deep TTIP
Vietnam	yes	yes	APEC, ASEAN	5.126
Malaysia	yes	yes	APEC, ASEAN	4.423
Laos	no	yes	ASEAN	3.797
Japan	yes	yes	APEC	2.755
China	no	yes	APEC	2.105
South Korea	no	yes	APEC	2.093
Cambodia	no	yes	ASEAN	1.439
Singapore	yes	yes	APEC, ASEAN	1.339
Indonesia	no	yes	APEC, ASEAN	1.272
India	no	yes		1.228
Nepal	no	no		0.601
Sri Lanka	no	no		0.395
Mongolia	no	no		0.318
Iran	no	no		0.292
Pakistan	no	no		0.292
Thailand	no	yes	APEC, ASEAN	0.183
Hongkong	no	no	APEC	0.137
Bangladesh	no	no		-0.009
Philippines	no	yes	APEC, ASEAN	-0.043
Taiwan	no	no	APEC	-0.788

Source: Calculation ifo

Note: See footnote 2 for an explanation of country selection.

TPP and RCEP are concluded parallel to the TTIP. The top-10 winners would be in exactly the same order as in the shallow RCEP-TPP scenario. The welfare effects are also similarly high and are only slightly weakened by the TTIP in 13 countries. A total of seven countries could even experience slightly higher growth under a parallel TPP, RCEP and TTIP (Table 9). For Asian countries, it is thus vital to push for mega-regional trade deals in which as many countries from the region as possible are included.

6. Conclusion: Asia as the driver for trade integration in the 21st century

Since the turn of the century, Asia has increasingly gained heft in world trade and could become the most important region in terms of trade volume in the 21st century. Our analysis has shown that mega-regional trade deals such as the TPP, FTAAP and RCEP could play a crucial role in achieving this and constitute an important counterweight to the TTIP as a “West-only” initiative. Since the three agreements differ in regard to the members and regions covered, they show different effects on real income, value added and trade integration.

The TPP includes the least number of Asian countries. Also, China, the world’s most important trading nation, is excluded. This results in more negative effects on real income in the region than the other two trade pacts. These effects stay within narrow limits, though. The TPP could also lead to an economic split among ASEAN states, since only four out of 10 members are part of the TPP, and might hamper the ASEAN integration process in the long run. It therefore makes sense for the ASEAN states to push their own integration initiative in the form of the RCEP. Our analysis of the TPP further shows that despite its non-participation, China need not fear any significant adverse effects from the TPP. The impact of the agreement on welfare, value added and trade structure is comparatively manageable. But the exclusion of China, regardless of its importance in global and regional trade, can be assessed as an economic loss for the negotiating TPP countries. Peter A. Petri, Michael G. Plummer and Fan Zhai (2014: 6f.), for example, have shown that Chinese TPP membership would bring higher welfare gains to all members, especially the United States. From an economic perspective, the exclusion of China from the TPP is therefore neither useful nor comprehensible. The political dimension is and remains the key factor here.

The FTAAP as the most inclusive initiative could have significant positive effects and provide major momentum for trade in the region and beyond for non-participating Asian countries as well, especially through the elimination of non-tariff barriers to trade. An important difference from the TPP is the participation of China. Under the TPP, Asian non-members have to accept welfare effects close to zero or are even negatively affected. The Asian countries involved in the TPP would also benefit far more from the FTAAP. An economic division of the ASEAN states is also more likely under the TPP, since only four ASEAN members participate in the TPP. Considered over the medium to long term, the FTAAP is consequently a more sustainable path to economic integration for Asia due to its broader inclusiveness.

As can be seen with the FTAAP, according to our calculations the RCEP has positive economic effects for most countries in Asia, including non-members. The more Asian countries that are involved, the more advantageous are the effects on intra-Asian integration. The TPP is therefore the least favorable of the three mega-regional agreements considered for Asia, although the individual increase in real income for some Asian countries (e.g. Malaysia) might be higher in the TPP scenario than in the RCEP scenario. Since it is unlikely that the FTAAP will be concluded in the near future, the TPP and the RCEP could be concluded parallel to one another and could possibly pave the way for the FTAAP, which would then integrate India as well.

Our analysis of the parallel scenarios with the TPP and RCEP indeed shows that Asia would profit most if both agreements were concluded. Also, both agreements could be an effective “antidote” to the TTIP, in which the region is only a passive observer, and help Asian countries mitigate the negative effects of the transatlantic initiative to some degree.

The participation or non-participation in 21st century trade deals, which aim to create new rules especially in regard to non-tariff barriers to trade, will influence the role of Asian countries in the setting of international standards. Who will actively shape the world trade order of the 21st century—East or West? Or to put it more bluntly, China or the United States? This question is key to the political agenda underlying the mega-regionals analyzed here beyond economic effects.

Appendix

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List of abbreviations

AFTA	ASEAN Free Trade Area	NAFTA	North American Free Trade Area
APEC	Asia-Pacific Economic Cooperation	PTA	Preferential trade agreement
APTA	Asia-Pacific Trade Agreement	P3-CEP	Pacific Three Comprehensive Economic Partnership
ASEAN	Association of Southeast Asian Nations	P4	Pacific Four
CARICOM	Caribbean Community and Common Market	RCEP	Regional Comprehensive Economic Partnership
CASS	Chinese Academy of Social Sciences	RTA	Regional trade agreement
CEFTA	Central European Free Trade Agreement	SAFTA	South Asian Free Trade Area
COMESA	Common Market for Eastern and Southern Africa	TPP	Trans-Pacific Partnership
EAEC	Eurasian Economic Community	TSEP	Trans-Pacific Strategic Economic Partnership
EAS	East Asia Summit	TTIP	Transatlantic Trade and Investment Partnership
EC	European Community	WTO	World Trade Organization
ECCAS	Economic Community of Central African States		
ECSC	European Coal and Steel Community		
EEC	European Economic Community		
EFTA	European Free Trade Association		
FTA	Free trade agreement		
FTAAP	Free Trade Area of the Asia-Pacific		
GTAP	Global Trade Analysis Project		
GATT	General Agreement on Tariffs and Trade		
GDP	Gross domestic product		
IPR	Intellectual property rights		
ITO	International Trade Organization		
LAFTA	Latin American Free Trade Area		
MERCOSUR	Mercado Común del Sur		

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List of the 20 Asian countries under consideration

For reasons of scope, we concentrate the analysis on the countries of East, South and Southeast Asia, as they appear in the list of geographical regions according to the United Nations (regional codes: 030, 034, 035). Taiwan is not listed independently and will be counted here as part of East Asia. United Nations Statistics Division (2013). Due to data restrictions in the GTAP database, the following countries are lumped together in regional aggregates: Macau (Special Administrative Region of the People's Republic of China), Democratic People's Republic of Korea, Afghanistan, Bhutan, Maldives, Brunei Darussalam, Myanmar, Timor-Leste. Consequently, country-specific results for these countries cannot be reported. The following 20 countries are included in our analysis (alphabetical order):

1. Bangladesh
2. Cambodia
3. China
4. Hong Kong (Special Administrative Region of the People's Republic of China)
5. India
6. Indonesia
7. Iran
8. Japan
9. Laos
10. Malaysia
11. Mongolia
12. Nepal
13. Pakistan
14. Philippines
15. Singapore
16. South Korea
17. Sri Lanka
18. Taiwan
19. Thailand
20. Vietnam

Links to the fact sheets of the 20 Asian countries under consideration

1. Bangladesh:
<http://ged-project.de/wp-content/uploads/2016/01/15-country-factsheets.pdf>
2. Cambodia:
<http://ged-project.de/wp-content/uploads/2016/01/35-country-factsheets.pdf>
3. China:
<http://ged-project.de/wp-content/uploads/2016/01/43-country-factsheets.pdf>
4. Hong Kong (Special Administrative Region of the People's Republic of China):
<http://ged-project.de/wp-content/uploads/2016/01/87-country-factsheets.pdf>
5. India:
<http://ged-project.de/wp-content/uploads/2016/01/91-country-factsheets.pdf>
6. Indonesia:
<http://ged-project.de/wp-content/uploads/2016/01/93-country-factsheets.pdf>
7. Iran:
<http://ged-project.de/wp-content/uploads/2016/01/95-country-factsheets.pdf>
8. Japan:
<http://ged-project.de/wp-content/uploads/2016/01/103-country-factsheets.pdf>
9. Laos:
<http://ged-project.de/wp-content/uploads/2016/01/115-country-factsheets.pdf>
10. Malaysia:
<http://ged-project.de/wp-content/uploads/2016/01/127-country-factsheets.pdf>
11. Mongolia:
<http://ged-project.de/wp-content/uploads/2016/01/137-country-factsheets.pdf>
12. Nepal:
<http://ged-project.de/wp-content/uploads/2016/01/145-country-factsheets.pdf>
13. Pakistan:
<http://ged-project.de/wp-content/uploads/2016/01/159-country-factsheets.pdf>
14. Philippines:
<http://ged-project.de/wp-content/uploads/2016/01/167-country-factsheets.pdf>
15. Singapore:
<http://ged-project.de/wp-content/uploads/2016/01/185-country-factsheets.pdf>
16. South Korea:
<http://ged-project.de/wp-content/uploads/2016/01/109-country-factsheets.pdf>
17. Sri Lanka:
<http://ged-project.de/wp-content/uploads/2016/01/195-country-factsheets.pdf>
18. Taiwan:
<http://ged-project.de/wp-content/uploads/2016/01/201-country-factsheets.pdf>
19. Thailand:
<http://ged-project.de/wp-content/uploads/2016/01/205-country-factsheets.pdf>
20. Vietnam:
<http://ged-project.de/wp-content/uploads/2016/01/227-country-factsheets.pdf>

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