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Who wins from an FTA induced revival of world trade?

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Abstract

The last decade has been characterized by a slowdown in globalization, referred to by some as "slowbalisation" and "deglobalization". The COVID-19 pandemic has reinforced this impression. To overcome the deadlock in the Doha round negotiations at WTO the major players in world trade are negotiating or have already implemented several free trade agreements (FTAs) as a second-best solution. We analyze within a common framework nine mega FTAs, some of them are already in effect, others will be enacted soon. Overall, not the big players in world trade, the EU and the United States win by a simultaneous implementation of the nine FTAs. Japan would be the winner because it participates in four combinations (overlaps) of FTAs: EU-Japan, USA-Japan, CPTPP and RCEP. The United States hardly gain from further globalization. Similarly, the EU27 cannot profit much from further globalization.

JEL Classification: F13; F60; C54; C68

Keywords: Globalization; International trade policy; Model simulations

1. Introduction

One year before the COVID-19 pandemic broke out *The Economist* (Jan 24th, 2019) named the recent sluggishness of globalisation *"slowbalisation"*. The golden age of globalisation in the 1980s and 1990s came to an end after the Great Recession of 2009. Fuelled by Trump's "America first" policy and the retaliations by China (Bown, 2021), according to the *Global*

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Trade Alert,[1] the number of protectionist measures in world trade increased dramatically. The COVID-19 pandemics has again popularized old concepts of de-growth and political promises of boosting self-reliance. Hence, the term "slowbalisation" became replaced by "deglobalisation" (Titievskaia et al., 2020, p. 3).

The anti-corona policies with lockdowns and unlocks shaped globally the business cycle pattern with sharp falls in GDP, followed by rapid upswings (Salvatore, 2021). The economic losses were generously offset by massive fiscal stimuli in the US (Rogoff, 2021) and in the EU (see the NextGenerationEU programme).[2] A loose monetary policy had a supportive effect. As a result, the burden of public debt increased. The unusual quick recovery from the corona recession provoked a shortage economy with disruptions in global value chains and a rapid rise in prices.

As the global liberalization process in the WTO halts since the inception of the Doha Development Round in 2001, the major players in world trade push the second-best solution of globalization by negotiating more and more regional Free Trade Agreements (FTAs). The fate of the most recent mega FTAs, TTIP and TPP showed, however, that their implementation is politically sensitive or rejected by political leaders, like the former US president Trump.

Stiglitz (2021) discusses how globalization in the aftermath of the pandemic and Trump could look like. We contribute to this debate by analysing the possible impact of the already negotiated or implemented major FTAs. For this purpose, we analyse the impact of nine FTAs, some of them are mega FTAs. By doing so we can find out which country would be the winner of a simultaneous implementation. EU27 and Japan, both participate in four combinations (overlaps) of FTAs. However, Japan would be the winner. The novelty of our approach is that nine mega FTAs are analysed with the same methodology.

2. Dimension of nine mega FTAs

We analyze nine smaller and mega regional FTAs, most of them are already into force; some are still pending and one – TTIP light – depends on the will of the US government. We carry out standardized simulations with the GTAP simulation tool CGEBox.[3] We use the most actual data base of GTAP10 with the 2014 data set for 121 countries, and 65 sectors, aggregated by a 10×10 matrix (see Table A1 in the Appendix).

For all nine FTAs we assume the same maximum liberalization scenario of zero tariffs and subsidies. Only for three FTAs (CETA, EUJPEPA and TTIP light) we also consider the effects of a cut of 50% of NTBs. All standard simulations are carried out for the Armington (1969) and the Melitz (2003) version. Our static CGE model simulations do not consider changes in investments (FDIs).

In terms of GDP the most important FTA would be TTIP light with 42.1% of World GDP (see Table 1). Second comes the USA-Japan FTA (USAJPFTA) with 28,1%, followed by RCEP with 26,3%, the EUJPEPA (with 25.7%) and EU-Mercosur (23.8%). Measured by the coverage of trade, RCEP with a share of 31% of world trade would be the largest FTA, followed by TTIP light (29.8%) and EUJPEPA (21.8%). Looking on the potential of consumers, RCEP with a share of 30.3% of world population would be by far the largest FTA.

[1] See: https://www.globaltradealert.org/

[2] https://ec.europa.eu/info/strategy/recovery-plan-europe_en

[3] See: https://www.ilr.uni-bonn.de/em/rsrch/cgebox/cgebox_e.htm; see also: Britz and Van der Mensbrugghe (2018).

Table 1
The dimension of existing and planned FTAs, 2014.

	Into	Population		GDP		Trade	
	force since	Mio.	% world	Bio.USD	% world	Bio.USD	% world
CETA	21.09.2017 *	478.35	6.60	17,326.23	22.15	6869.54	19.89
CPTPP	30–12–2018	491.29	6.78	10,642.12	13.60	6016.42	17.42
EUJPEPA	01–02–2019	569.94	7.86	20,138.61	25.74	7540.68	21.83
AfCFTA	30–05–2019	1145.11	15.80	2459.54	3.14	1353.68	3.92
USAJPFTA	01–01–2020	446.04	6.15	21,944.27	28.05	6220.13	18.01
RCEP	01–01–2022	2194.31	30.27	20,537.24	26.25	10,700.02	30.98
EU-Mercosur	2020/21 * *	701.84	9.68	18,595.66	23.77	6569.42	19.02
EFTA-Mercosur	2020 * *	272.72	3.76	4283.97	5.48	1790.61	5.18
TTIP light	plan	761.72	10.51	32,890.56	42.05	10,280.53	29.77

* Provisionally applied; * * planned
Trade = exports and imports of goods and services; world trade includes only extra EU27 trade
Source: GTAP10 data base as of 2014
CETA = EU27 and Canada
CPTPP = 11 countries: Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, Vietnam.
EUJPEPA = EU27 and Japan
AFCFTA = 54 African States (except Eritrea)
USAJPFTA = USA and Japan
RCEP = 15 countries: Australia, Brunei, Cambodia, China, Indonesia, Japan, South Korea, Laos, Malaysia, Myanmar (Burma), New Zealand, Philippines, Singapore, Thailand, Vietnam.
Mercosur = Argentina, Brazil, Paraguay, Uruguay.
TTIP light = EU27 and USA

The European Union deals mainly with itself: EU intra-trade amounts to 51.5% (see Table 2). In all other mega FTAs (AfCFTA, CPTPP, RCEP) the members trade much less with itself. An exception is RCEP: with a share of 21.6%, the members of RCEP do most of their trading with themselves. The relationship between the EU and the UK is highly asymmetric. The UK is – after the United States - EU27′s second trading partner with a share of 14%. For the UK, however, the EU27 is the most important trade partner (46.2%).

Important for our analysis are the overlaps. That means how often a country participates in FTAs. In our study of 9 FTAs, Japan (EUJPEPA, USAJPFTA, CPTPP, RCEP) and the EU27 (CETA, TTIP, EUJPEPA, EU-Mercosur), each have four overlaps. All other countries have only two overlaps (see Table A2 in the Appendix). It can be assumed that those countries that have the most overlaps between the different FTAs will also benefit most from regional liberalization. This hypothesis is tested.

We analyse the nine FTAs in the order in which they come into force, starting with CETA and ending with a possible TTIP light.

3. Simulation results

3.1. CETA

In 2020, Canada was the tenth largest partner for EU goods exports (a share of 1.7% of total EU27 extra-exports) and the 16th largest partner for EU goods imports (1.2%). Despite the huge challenges brought on by COVID-19, bilateral merchandise trade with Canada in 2020 was

Table 2
Trade Matrix 2014: Bilateral exports in % of total exports.

	USA	Canada	Mexico	EU27	UK	EFTA	Japan	China	Mercosur	AfCFTA	CPTPP	RCEP
USA	–	14.29	11.30	20.55	3.88	2.03	4.52	9.29	3.36	2.80	6.54	10.27
Canada	65.58	–	1.90	7.38	3.37	0.97	2.38	5.26	0.93	1.24	2.46	4.33
Mexico	69.25	6.55	–	6.08	0.69	0.57	1.09	2.75	1.91	0.44	2.26	21.58
European Union 27	7.46	1.14	0.67	**51.47**	6.77	4.23	1.71	5.01	1.47	3.41	2.75	4.58
EU27_extra exports	*15.37*	*2.35*	*1.39*	–	*13.95*	*8.72*	*3.52*	*10.33*	*3.02*	*7.03*	*5.66*	*9.44*
United Kingdom	11.15	2.40	0.46	46.24	–	7.50	1.99	6.01	1.60	3.15	4.60	6.90
EFTA	8.48	1.15	0.44	45.92	7.08	0.68	2.23	7.93	1.30	12.36	9.98	5.67
Japan	15.58	1.65	2.19	11.03	1.59	0.83	–	26.04	1.02	1.72	8.45	22.20
China	18.60	2.59	3.25	16.37	3.01	0.74	7.97	–	2.44	4.60	9.59	18.17
Mercosur	10.63	1.66	1.57	16.20	1.99	1.31	3.15	15.22	11.73	4.94	7.24	8.24
Africa_AfCFTA	7.05	0.92	0.25	30.87	3.44	–	2.60	12.54	2.46	**12.36**		
CPTPP	9.96	1.38	0.77	12.91	2.21	–	9.73	20.53	1.65		**9.98**	
RCEP	10.38	1.23	–	11.81	2.01	–	8.87	22.06	1.40	2.44		**21.58**

Source: GTAP10: trade = goods and services

15.5% higher than the pre-CETA level in 2016. The trade surplus with Canada was 13.4 bn EUR in 2020, those in services trade 8 bn EUR in 2019. EU firms invested more in Canada (FDI stocks: 399.3 bn EUR) than Canadian firms invested directly in the EU (239.4 bn EUR), giving a positive FDI balance of 159.9 bn EUR.[4] The EU27 is for Canada after the United States the second largest trading partner (export share in 2020: 9.5%; import share 10.8%). Despite the corona crisis, Canada-EU bilateral merchandise trade in 2020 was 12.5% higher than the pre-CETA level in 2016.[5]

The Comprehensive Economic and Trade Agreement (CETA) is a "New Generation" (or "Second Generation"[6]) Free Trade Agreement (FTA) between the European Union and Canada.[7] On 24 April 2009, the European Council authorized the European Commission to open negotiations for an Economic Integration Agreement with Canada.[8] The EU and Canada launched CETA negotiations in May 2009 and after several years of negotiations on 21 September 2017, it entered into force provisionally. CETA is the most progressive trade agreement the EU has ever adopted.[9] It has some of the strongest commitments ever included in a trade deal to promote labour rights, environmental protection, and sustainable development. CETA integrates the EU's and Canada's commitments to apply international rules on workers' rights, environmental protection, and climate action. And these obligations are binding.

It not only eliminates nearly 99% of pre-existing tariffs, but it allows firms to bid for public contracts (public procurement), makes firms to invest easier (FDIs), and allows for mutual recognition of some qualifications.

After entering into force provisionally, most of the agreement already applies. As it is a "mixed agreement", it must be ratified by each EU Member State[10] in addition to the European Parliament. Areas that are not yet in force are:

- investment protection
- investment market access for portfolio investment (but market access for foreign direct investment is an exclusive EU competence)
- the Investment Court System

4 See: https://ec.europa.eu/trade/policy/countries-and-regions/countries/canada/

5 See "An overview of Canada-EU trade performance under CETA" by the Second Canada-EU CETA Joint Committee Meeting, March 25, 2021 (https://www.international.gc.ca/trade-commerce/assets/pdfs/economist-economiste/statistics-statistiques/joint-ceta-statistics-report-ec_final-np-en.pdf).

6 These agreements extend the focus of only tariff eliminations to new areas, including intellectual property rights, services, and sustainable development. See: https://trade.ec.europa.eu/doclib/press/index.cfm?id=2071&title=EU-trade-agreements-delivering-new-opportunities-in-times-of-global-economic-uncertainties; Further developments in EU's trade policy were announced in European Commission (2021a) (2021b). With "Global Gateway" (European Commission, 2021b) the EU will counteract China's "Belt and Road Initiative (BRI or B&R).

7 See EU-Canada, the CETA Website of the European Commission: https://ec.europa.eu/trade/policy/in-focus/ceta/

8 On 15 December 2015, the European Council decided to declassify the directives given to the Commission to negotiate a comprehensive economic and trade agreement with Canada. See European Council Website: https://www.consilium.europa.eu/en/press/press-releases/2015/12/15/eu-canada-trade-negotiating-mandate-made-public/

9 See "CETA explained": https://ec.europa.eu/trade/policy/in-focus/ceta/ceta-explained/index_en.htm

10 As of December 2020, 16 Member States have notified the European Council of the completion of national ratification procedures for CETA. Austria, Croatia, Czech Republic, Denmark, Estonia, Finland, Latvia, Lithuania, Luxembourg, Malta, Portugal, Romania, Slovakia, Spain, Sweden, and the United Kingdom. The parliament of Cyprus voted against ratification on 31 July 2020. (See: https://www.consilium.europa.eu/en/documents-publications/treaties-agreements/agreement/?id=2016017)

During the CETA and TTIP negotiations many (NGOs and the public) – in particular in Germany and Austria – demonstrated against these comprehensive trade agreements. The major point of critique was the non-transparent Investor-State Dispute Settlement (ISDS)[11] system, but also the lack of transparency of negotiations. To address the ISDS criticism the Commission has set up a "New Investment Court System".[12] To counter the criticism of the lack of transparency of the negotiations, the Commission amended its trade strategy by the "Trade for All" strategy in 2015 (European Commission, 2015).

For each "New Generation" trade agreement the European Commission commissions Trade Sustainability Impact Assessments (Trade-SIAs) which assess the potential impacts of proposed trade liberalisation agreements on all pillars of sustainable development in order to optimise policy decision-making/trade negotiations.[13]

Our first CETA simulation with zero tariffs and subsidies results in modest GDP and welfare gains (see Table 3a). As a rule, the Melitz version delivers at least three times larger effects. Accordingly, Canada would gain 0.06% more real GDP, whereas the increase in EU27 would only be 0.01%. Given the asymmetry of both partners concerning their power (population in million: EU27 443, Canada 36) and trade relations it is no wonder that Canada, the smaller partner of CETA is the winner, because it allows Canada to participate in the large EU market. The distribution of welfare is similarly, with Canada in the lead. The current account would deteriorate in both partners. Bilateral exports would increase in Canada (+5.3%) and in the EU (+5.9%) with the same speed. Total exports and imports are nearly unchanged in the EU but increase somewhat in Canada. Most of the third countries of CETA lose – although in a small dimension - welfare and trade.[14]

With CETA, many NTBs should be eliminated or adjusted. In contrast to tariffs and export subsidies, the GTAP10 data base does not include NTBs explicitly. As the CETA treaty deals with the "Mutual recognition of some qualifications", it is difficult to quantify the reduction of NTBs. In our case we assume that the bilateral NTBs which Egger et al. (2015) have estimated for the case of TTIP (EU-USA) also apply grosso modo in the case of EU27-Canada. The NTBs in all sectors are similar in both countries. As it is not clear whether all existing NTBs are eliminated completely or only some of those, we make a further assumption in our simulations. We cut 50% of the existing NTBs across all sectors in both countries. This is implemented in the model by an equivalent reduction of the existing tariffs in our 10 sectors of the GTAP10 data base.

Taking all liberalization steps together (zero tariffs and subsidies plus 50% cut of NTs) the results of Table 3b show that in case of the Melitz version, real GDP would increase in Canada by 3.5%, but in the EU only by 0.04%. Canada can improve its welfare strongly. However, the current account in Canada deteriorates, whereas it improves in the EU. Bilateral trade could be

[11] While ISDS is often associated with international arbitration under the rules of ICSID (the International Centre for Settlement of Investment Disputes of the World Bank), it often takes place under international arbitral tribunals governed by different rules or institutions, such as the London Court of International Arbitration (LCIA), the International Chamber of Commerce (ICC), the Hong Kong International Arbitration Centre (HKIA), or the UNCITRAL Arbitration Rules (see: https://en.wikipedia.org/wiki/Investor-state_dispute_settlement).

[12] See: https://ec.europa.eu/trade/policy/in-focus/ceta/ceta-explained/index_en.htm

[13] European Commission and Canada (2008); Development Solutions Europe (2011), p. 14. Many other studies evaluated the impact of CETA, such as: European Commission (2017); Aichele and Felbermayr (2014); Raza et al. (2016).

[14] Upon request, the detailed results for the partner countries of CETA and the impact on third countries can be obtained from the author. See also the appendices of Breuss (2020). This also applies to the following simulations of the nine FTAs.

Table 3a
The impact of zero tariffs and subsidies in CETA.

	Real GDP %-chg		Welfare: USD change pc		Current account, chg, Bio$	
	Armington	Melitz	Armington	Melitz	Armington	Melitz
EU27	0.00	0.01	1.90	4.20	**-0.39**	**-1.09**
Canada	**0.01**	**0.06**	**18.41**	**23.81**	-1.81	-1.89
	Bilateral exports, %-chg		Total exports, %-chg		Total imports, %-chg	
EU27– > Canada	7.67	5.31	0.02	0.04	0.03	0.06
Canada-- > EU27	6.73	5.85	0.06	0.18	0.44	0.47

Bold = best performer
A = Armington; M = Melitz.

Table 3b
The impact of zero tariffs and subsidies plus 50% cut of NTBs in CETA.

	Real GDP %-chg		Welfare: USD change pc		Current account, chg, Bio$	
	Armington	Melitz	Armington	Melitz	Armington	Melitz
EU27	0.01	0.04	8.62	16.04	**1.07**	**3.04**
Canada	**1.68**	**3.53**	**954.21**	**1532.02**	-27.08	-51.65
	Bilateral exports, %-chg		Total exports, %-chg		Total imports, %-chg	
EU27– > Canada	38.84	33.07	0.11	0.30	0.15	0.26
Canada-- > EU27	33.50	26.47	-1.32	-1.67	4.36	6.14

increased by 33% in the case of EU27 to Canada and by 26% of Canada trade with the EU27. Total trade is asymmetrically influenced. Exports rise in both regions, but imports increase strongly in Canada, whereas they decrease in the EU. Whereas CETA creates strong trade creation between its partners, the third countries, and after the Brexit, also the UK belongs to this group would be negatively affected by trade diversion (for details, see Breuss, 2020, Appendices).

3.2. CPTPP

The Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP), also known as TPP11 or TPP-11, is a trade agreement between 11 countries: Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, and Vietnam. It evolved from the Trans-Pacific Partnership (TPP), which never entered into force due to the withdrawal of the United States.[15] At the time of its signing (8 March 2018), the eleven countries' combined economies represented 13.4% of world GDP (approximately US$13.5 trillion).

The TPP was signed on 4 February 2016, but never entered into force, as Donald Trump withdrew the US on 23 January 2017 from the agreement soon after being elected. All original TPP signatories except the US agreed in May 2017 to revive it and reached agreement in

[15] See for the following: https://en.wikipedia.org/wiki/Comprehensive_and_Progressive_Agreement_for_Trans-Pacific_Partnership

January 2018 to conclude the CPTPP. The formal signing ceremony was held on 8 March 2018 in Santiago, Chile. The CPTPP incorporates most of the TPP provisions by reference but suspended 22 provisions the US favored to other countries opposed and lowered the threshold for enactment, so the participation of the US is not required.[16] The agreement specifies that its provisions become effective 60 days after ratification by at least 50% of the signatories (six of the eleven participating countries). On 30 December 2018, the agreement came into force for the initial six ratifying countries Australia, Canada, Japan, Mexico, New Zealand, and Singapore. On 1 January 2019, Australia, Canada, Mexico, New Zealand, and Singapore implemented a second round of tariff cuts. Japan's second tariff cut took place on 1 April 2019. The ratification in Chile is still pending. On 14 January 2019, the agreement entered into force for Vietnam. United Kingdom, after the Brexit is interested in joining CPTPP. On May 2020, also China announced interest in becoming a member of CPTPP.

Two-thirds of the provisions in the signed CPTPP are identical to the TPP draft at the time the US left the negotiating process. The chapter on state-owned enterprises (SOEs) is unchanged, requiring signatories to share information about SOEs with each other, with the intent of engaging with the issue of state intervention in markets. It includes the most detailed standards for intellectual property of any trade agreement, as well as protections against intellectual property theft against corporations operating abroad.

CPTPP is primarily concentrated on the mutual market access by the elimination of tariffs. Our scenario with a maximum liberalization between the 11 members of CPTPP implies zero tariffs and subsidies in all 10 sectors.[17] We simulated separately the consequences for Canada, Mexico, and Japan and CPTPP8 as a group of Asian and Latin American countries. The biggest winner is Japan with an expected increase of real GDP (Melitz version) of 0.4% (see Table 4). the other partners of CPTPP gain less income. If one sums all 11 countries, CPTPP11 would increase its real GDP by 0.12%. Bilateral trade of CPTPP11 would increase by around 10%.

For all third countries, the trade diversion would also result in a decline in real GDP (for details, see Breuss, 2020, Appendices).

3.3. EUJPEPA

The EU-Japan EPA negotiations were officially launched on 25 March 2013, after the release of an EU-Japan Impact Assessment (2012) on the future Economic Partnership Agreement in July 2012. An in-depth analysis of the EU-Japan EPA (EU-Japan Analysis, 2016), carried out for the European Commission, was published in 2016. Furthermore, based on the outcome of the negotiations, the European Commission produced an EU-Japan Economic Impact Report (2018) in July 2018. The EU and Japan's Economic Partnership Agreement (EUJPEPA) entered into force on 1 February 2019. It is – after the EU-South Korea FTA and CETA – the third comprehensive "New Generation" FTA.

The trade EU-Japan agreement – according to the EU,[18] the trade EU-Japan agreement (i) removes tariffs and other trade barriers (also in trade in services) and creates a platform to

[16] The consolidated TTP Text, the "CPTPP Treaty" can be found on the website of the Government of Canada: https://www.international.gc.ca/trade-commerce/trade-agreements-accords-commerciaux/agr-acc/tpp-ptp/text-texte/toc-tdm.aspx?lang=eng

[17] An impact analysis for Canada can be found on: https://www.international.gc.ca/trade-commerce/trade-agreements-accords-commerciaux/agr-acc/cptpp-ptpgp/index.aspx?lang=eng

[18] See: https://ec.europa.eu/trade/policy/in-focus/eu-japan-economic-partnership-agreement/index_en.htm; for details

Table 4
The impact of zero tariffs and subsidies in CPTPP.

	Real GDP %-chg		Welfare: USD change pc		Current account, chg, Bio$	
	Armington	Melitz	Armington	Melitz	Armington	Melitz
Canada	0.02	0.04	63.34	60.48	-3.88	-0.78
Mexico	0.00	0.02	5.89	8.58	**-0.73**	**-0.07**
Japan	**0.03**	**0.35**	**29.79**	**89.83**	-4.14	-13.61
CPTPP	0.02	0.09	14.29	15.03	-2.98	-0.43
CPTTP11	0.02	0.12	28.33	43.48	-2.93	-3.72
	Bilateral exports, %-chg		Total exports, %-chg		Total imports, %-chg	
CPTPP–>CPTPP	2.50	1.16	0.46	0.97	0.89	1.25
CPTPP11–>CPTPP11	10.66	9.42	0.34	1.06	0.94	1.75

CPTPP11 = CPTPP+Canada+Mexico+Japan

cooperate in order to prevent obstacles to trade;(ii) liberalizes areas of public procurement, state owned enterprises, intellectual property rights; and (iii) promote investment between the EU and Japan. The agreement does not cover the protection of investment.

Around the negotiations of the EUJPEPA a variety of studies with different methods evaluated this trade deal.[19] Our first EUJPEPA simulation with zero tariffs and subsidies results in a slight loss of GDP and slight welfare gains (see Table 5a) for the EU27, but considerable gains for Japan: real GDP (Melitz version +0.26%) and strong welfare gains. Bilateral exports from EU27 to Japan increase by 17% and by 11.7% from Japan to EU27. Total trade goes up – stronger on the import than on the export side in Japan. This leads to a deterioration in the current account. The asymmetry in the liberalization is due to the higher share of Japanese exports to the EU27 (11%), than those of EU27 exports to Japan (3.5%). Japan is smaller (population in million: 127) than EU27 (443).

Whereas EUJPEPA creates strong trade creation between its partners, the third countries would be negatively affected by trade diversion (for details, see Breuss, 2020, Appencices).

In its Trade Sustainability Impact Assessment of the FTA between the EU and Japan (EU-Japan Analysis, 2016, p. 20) the European Commission stressed the fact that the NTM hurdles in Japan are higher than those in the EU.

We implemented asymmetric NTBs into our 10 sectors relying on estimates by Copenhagen Economics and ECORYS, quoted in Francois et al. (2011). Accordingly, total NTBs in the EU amount to 13.3% (estimated total trade costs), in Japan 15.6%. As in the case of CETA we assume that NTBs are cut by 50% across all sectors and in both countries.

Taking both scenarios together (zero tariffs and subsidies plus 50% cut in NTBs), EU27′s real GDP improves only slightly (see Table 5b). Welfare would increase compared to the tariff-only scenario (Table 5a). In Japan, however, real GDP would increase between 1.3% (Armington) and 3% (Melitz). Welfare gains would be substantial, but the current account balance would deteriorate as Japan imports increase much stronger than exports. However, as the higher

(*footnote continued*)
of the agreement, see also the "Key Elements of the EU-Japan Economic Partnership Agreement": https://ec.europa.eu/commission/presscorner/detail/en/MEMO_18_6784

[19] E.g., see: Francois et al. (2011); EU-Japan Impact Assessment (2012); EU-Japan Analysis by the European Commission (2016); EU-Japan Economic Impact Report (2018); Grübler et al. (2018); Felbermayr et al. (2017).

Table 5a
The impact of zero tariffs and subsidies in EUJPEPA.

	Real GDP %-chg		Welfare: USD change pc		Current account, chg, Bio$	
	Armington	Melitz	Armington	Melitz	Armington	Melitz
EU27	-0.01	-0.02	2.06	-0.93	**-2.11**	**3.83**
Japan	**0.03**	**0.26**	**23.07**	**55.72**	-3.51	-9.27
	Bilateral exports, %-chg		Total exports, %-chg		Total imports, %-chg	
EU27– > Japan	19.07	16.95	0.01	0.01	0.08	0.08
Japan– > EU27	15.83	11.72	0.80	2.04	1.34	2.81

Table 5b
The impact of zero tariffs and subsidies plus 50% cut of NTBs in EUJPEPA.

	Real GDP %-chg		Welfare: USD change pc		Current account, chg, Bio$	
	Armington	Melitz	Armington	Melitz	Armington	Melitz
EU27	0.01	0.00	11.84	10.12	**-0.91**	**9.94**
Japan	**1.31**	**2.96**	**523.30**	**929.02**	-37.28	-77.54
	Bilateral exports, %-chg		Total exports, %-chg		Total imports, %-chg	
EU27– > Japan	53.87	50.00	0.17	0.40	0.28	0.38
Japan– > EU27	39.61	30.18	0.42	2.04	5.28	8.72

NTBs in Japan would be reduced, the EU27 could export (over 50%) more to Japan than vice versa (over 30%).

Whereas EUJPEPA creates strong trade creation between its partners, the third countries, and after the Brexit, also UK belongs to this group would be negatively affected by trade diversion (for details, see Breuss, 2020, Appendices). We did not like Francois et al. (2011) consider (artificial) positive spill over effects.

3.4. AfCFTA

The African Continental Free Trade Area (AfCFTA) is a free trade area covering 54 of the 55 African Union (AU) nations.[20] The free-trade area is the largest in the world in terms of the number of participating countries since the formation of the World Trade Organization. Accra, Ghana serves as the Secretariat of AFCFTA and was commissioned and handed over to the AU by the President of Ghana His Excellency Nana Addo Dankwa Akuffo Addo on August 18, 2020 in Accra.

The agreement was brokered by the African Union (AU) and was signed on by 44 of its 55 member states in Kigali, Rwanda on 21 March 2018. The agreement initially requires members to remove tariffs from 90% of goods, allowing free access to commodities, goods, and services across the continent. The United Nations Economic Commission for Africa estimates that the agreement will boost intra-African trade by 52% by 2022. The proposal was set to come into

[20] See: https://en.wikipedia.org/wiki/African_Continental_Free_Trade_Area

Table 6
The impact of zero tariffs and subsidies in AfCFTA.

	Real GDP %-chg		Welfare: USD change pc		Current account, chg, Bio$	
	Armington	Melitz	Armington	Melitz	Armington	Melitz
EU27	0.00	-0.02	-3.89	-7.57	1.40	**2.77**
USA	0.00	0.00	-1.93	-2.32	**1.65**	1.53
AfCFTA	**0.02**	**0.44**	**3.22**	**8.33**	-7.09	-9.44
	Bilateral exports, %-chg		Total exports, %-chg		Total imports, %-chg	
AfCFTA–>AFCFTA	36.82	29.26	2.14	2.67	2.97	3.44
AFCFTA–>EU27	-2.68	-1.22	-0.01	-0.03	-0.04	-0.07

force 30 days after ratification by 22 of the signatory states. On 2 April 2019, Gambia became the 22nd state to ratify the agreement, and on 29 April the Saharawi Arabic Democratic Republic made the 22nd deposit of instruments of ratification; the agreement went into force on 30 May 2018 and entered its operational phase following a summit on July 7, 2019.

Our simulations assume a complete liberalization of the Intra-Africa trade between the 54 African States participating in the AfCFTA. GDP and Welfare in Africa would increase, stronger in the Melitz version than in the Armington case (see Table 6). Intra-Africa trade could be stimulated to increase by 30–37%. Trade diversion would result in a negative impact in all third countries (for details, see Breuss, 2020, Appendices).

3.5. USAJPFTA

The United States and Japan have achieved a trade agreement regarding market access for certain agricultural and industrial goods, with plans to pursue subsequent negotiations for an expanded free trade agreement. On October 17, 2019, the United States and Japan reached an agreement on market access for certain agriculture and industrial goods. The United States looks forward to further negotiations with Japan for a comprehensive agreement that addresses remaining tariff and non-tariff barriers and achieves fairer, more balanced trade. The Japanese Legislature approved the agreement on December 5, 2019. Presidential Proclamation 9974 was issued on December 26, 2019 establishing an entry into force date of 1 January 2020.[21] On 30 December 2019, the Federal Register Notice (84 FR 72187) was issued to implement the Agreement.[22]

The United States will provide tariff elimination or reduction on 241 tariff lines. The affected agricultural products include perennial plants and cut flowers, persimmons, green tea, chewing gum, and soy sauce. The United States will also reduce or eliminate tariffs on certain industrial goods from Japan such as certain machine tools, fasteners, steam turbines, bicycles, bicycle parts, and musical instruments.

The trade agreement between the United States and Japan is far from being complete. For the time being both parties reached only a partial liberalization. More is planned in the future. Our liberalization scenario of zero tariffs and subsidies must therefore be understood as a maximum. Anyhow, the results in Table 7 show that Japan would be the winner of a complete bilateral trade liberalization. The United States could increase its bilateral exports to Japan by around 24%,

[21] See the U.S.-Japan Trade Agreement text: https://ustr.gov/countries-regions/japan-korea-apec/japan/us-japan-trade-agreement-negotiations/us-japan-trade-agreement-text
[22] See: https://www.cbp.gov/trade/free-trade-agreements/japan

Table 7
The impact of zero tariffs and subsidies in USAJPFTA.

	Real GDP %-chg		Welfare: USD change pc		Current account, chg, Bio$	
	Armington	Melitz	Armington	Melitz	Armington	Melitz
USA	0.00	0.02	14.60	19.95	-7.66	-2.09
Japan	**0.03**	**0.26**	**15.29**	**58.43**	-2.39	-8.88
	Bilateral exports, %-chg		Total exports, %-chg		Total imports, %-chg	
USA–> Japan	23.09	24.10	0.12	0.48	0.55	0.69
Japan–> USA	7.58	6.98	0.92	1.91	1.21	2.61

whereas the Japanese exports to the US would only raise by around 7%. Again, third countries would be negatively affected by the USAJPFTA (for details, see Breuss, 2020, Appendices).

3.6. RCEP

The Regional Comprehensive Economic Partnership (RCEP) is a free trade agreement in the Indo-Pacific region between the ten member states of the Association of Southeast Asian Nations (ASEAN), namely Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam, and five of ASEAN's FTA partners—Australia, China, Japan, New Zealand, and South Korea. India, which is also ASEAN's FTA partner, opted out of RCEP in November 2019.[23]

RCEP negotiations were formally launched in November 2012 at the ASEAN Summit in Cambodia. The RCEP was signed by the 15 member countries on 15 November 2020. In 2018, the 16 negotiating parties accounted for about half of the world's population and 39% of the world's GDP. Without India, the 15 negotiating parties account for 30% of the world's population and just under 30% of the world's GDP. In terms of population and trade RCEP is by far the largest mega FTA (see Table 1). The RCEP agreement entered into force on 1 January 2022.[24]

RCEP has been criticized by free culture activists for containing "quite simply the worst provisions on copyright ever seen in a trade agreement." Global health care activists have criticized the agreement for potentially forcing India to end its inexpensive supply of generic medications to poor countries. In November 2019, India pulled out of the deal primarily due to concerns of dumping of manufactured goods from China and agricultural and dairy products from Australia and New Zealand, potentially affecting its own domestic industrial and farming sectors.

The RCEP is comprehensive,[25] as it aims at progressively eliminating tariff and non-tariff barriers on substantially all trade in goods in order to establish a free trade area among the parties, consistent with the WTO, including GATT Article XXIV and GATS Article V. The RCEP will also eliminate restrictions and/or discriminatory measures with respect to trade in services, consistent with GATS. It will create a liberal, facilitative, and competitive investment environment in the region. Further elements of the comprehensive RCEP agreement comprises economic and technical cooperation, intellectual property regulations, competition, and dispute settlement.

[23] See: https://en.wikipedia.org/wiki/Regional_Comprehensive_Economic_Partnership
[24] See: https://rcepsec.org/
[25] See: https://asean.org/summary-regional-comprehensive-economic-partnership-agreement/?highlight=RCEP

Table 8
The impact of zero tariffs and subsidies in RCEP.

	Real GDP %-chg		Welfare: USD change pc		Current account, chg, Bio$	
	Armington	Melitz	Armington	Melitz	Armington	Melitz
China	0.12	0.59	2.60	31.40	**-23.81**	**-29.11**
Japan	**0.06**	**0.97**	**211.87**	**356.54**	-26.05	-48.02
RCEP	0.06	0.97	21.56	68.06	-25.95	-38.98
RCEP15	0.08	0.85	78.67	152.00	-25.27	-38.70
	Bilateral exports, %-chg		Total exports, %-chg		Total imports, %-chg	
RCEP–>RCEP	3.43	7.28	2.85	5.19	4.45	7.01
RCEP15–>RCEP15	7.64	11.21	2.95	5.30	5.03	7.88

RCEP15 = RCEP+China+Japan

In our maximum liberalization scenario (see Table 8) Japan and the rest of the RCEP countries would be the winners. China would gain only half of that of Japan. Interestingly, however, the bilateral trade of the RCEP member states would not be higher than around 10%.[26] As RCEP is the biggest mega FTA, the trade diversion effects for the third countries are considerable (for details, see Breuss, 2020, Appendices). As the RCEP trade liberalization is an ongoing process over several years, the impact results in Table 8 must be understood as a medium-term effect.

3.7. EU-MERCOSUR

After 20 years of negotiations, on 28 June 2019, a political "agreement in principle" was reached between the EU and the four founding members of the Common Market of the South (Mercosur) – Argentina, Brazil, Paraguay, and Uruguay – on the trade pillar (free trade agreement (FTA)) as part of a wider Association Agreement (AA) including political dialogue and cooperation. The latter part was agreed upon in June 2018.

The EU-Mercosur FTA has a significant geopolitical relevance and is a strong sign against protectionism and unilateralism. If ratified, the FTA would establish the largest free trade zone the EU has ever created, covering a population of over 780 million, and consolidate the close political, economic, and cultural ties between the two regions. Negotiations on the bi-regional AA started in 2000 based on Council negotiating directives of 1999.[27] Currently, EU-Mercosur relations are governed by the 1995 Interregional Framework Cooperation Agreement. Once the final text has been translated into all official EU languages, it will - as it is a "mixed agreement" à la "New Generation" type FTA - require ratification at EU and Member State levels. The trade pillar, however, can be put into effect provisionally by the European Commission with the approval of the European Parliament.

Economically, the EU-Mercosur trade agreement is asymmetric. Mercosur is only the number 11 trade in goods partner for the EU (export/import shares: Argentina 0.3%/0.4%,

[26] Nicita (2021) by analysing the tariff concessions in RCEP finds an increase of trade among its members by 2%, with trade diversion dominating trade creation effects. In contrast, Stehrer and Vujanovic (2022) find much stronger trade creation effect among RCEP members. (+30%), but small trade diversion effects.
[27] See: https://ec.europa.eu/trade/policy/in-focus/eu-mercosur-association-agreement/agreement-explained/

Brazil 1.5%/1.4%, Paraguay 0%/0%, Uruguay 0.1%/0.1%; Mercosur 1.9%/1.9%).[28] The EU is Mercosur's second biggest trade in goods partner after China, accounting for 17.1% of the bloc's total trade in 2019.

The FTA would eliminate customs duties on 91% of EU goods exports to Mercosur. Mercosur would remove high import duties on industrial products from the EU such as cars, car parts, machinery, chemicals, clothing, pharmaceuticals, leather shoes, and textiles. Import duties on EU food and drink exports such as wine, chocolate, whiskey and other spirits, biscuits, canned peaches, and soft drinks would be eliminated progressively.[29] The FTA would also protect about 350 of the EU's geographical indications (GIs) on the Mercosur market. Moreover, the Mercosur countries would open their government procurement market to EU companies. The EU would remove import duties on 92% of Mercosur goods exported to the EU. For sensitive agricultural goods limited tariff rate quotas (TRQs), in-quota duties and long staging periods as well as a safeguard instrument have been incorporated. The FTA would contain a chapter on sanitary and phytosanitary (SPS) measures, trade and sustainable development, bilateral safeguards, e-commerce, small and medium-sized enterprises (SMEs), dispute settlement, and others.

The "agreement in principle" is the result of compromises and hence it presents benefits and challenges. While it has been highly welcomed by many EU industrial associations and agricultural associations of the Mercosur countries, it has also prompted significant criticism. Some EU agricultural associations have been outspoken in their negative assessment of the FTA, including in terms of food security standards. This is mostly the case in EU Member States that could be affected by the envisaged liberalisation steps in favour of imports of highly competitive agricultural goods from Mercosur such as beef. Civil society groups have expressed their strong opposition to the FTA arguing that it would foster large-scale deforestation and an expansion of agricultural land in the Mercosur countries, which would be incompatible with the climate change goals under the Paris Agreement and would also have serious implications for indigenous people.

In June 2020, five NGOs submitted a complaint to the European Ombudsman criticising that the external sustainability impact assessment for the trade pillar negotiations was finalised only after the "agreement in principle" was reached and that it does not contain up-to-date environmental data, notably on deforestation.

Several EU members states oppose the FTA with the Mercosur: Austria, the Netherlands, and Wallonia in Belgium. Also, the agricultural lobby in France and Germany is strongly against this agreement. Like the Austrian Federal Government, German's Federal Environment Ministry criticizes the environmental regulations of the planned EU treaty with Mercosur and calls for improvements and re-negotiations of the EU-Mercosur trade agreement. "One of the weaknesses of the agreement is that violations of environmental rules are not sanctioned as strictly as violations of trade rules." (see: DIE ZEIT online, 10 October 2020[30]).

As in the case of other FTAs of the "New Generation" type, the European Commission commissioned also in the case of the EU-Mercosur trade agreement a Sustainability Impact

[28] For the following trade statistics, see: https://ec.europa.eu/trade/policy/countries-and-regions/regions/mercosur/

[29] See: https://www.europarl.europa.eu/legislative-train/api/stages/report/current/theme/a-balanced-and-progressive-trade-policy-to-harness-globalisation/file/eu-mercosur-association-agreement; and: https://ec.europa.eu/trade/policy/in-focus/eu-mercosur-association-agreement/

[30] https://www.zeit.de/politik/ausland/2020-10/eu-mercosur-abkommen-svenja-schulze-spd-amazonas-abholzung-nachverhandlungen

Assessment (SIA).[31] Our simulations assume a maximum liberalization of all goods and hence, are more comparable to LSE's ambitious scenario. We simulate the impact of zero tariffs and subsidies. In contrast to LSE, in our simulations the EU27 would gain more (in terms of real GDP and Welfare) than Mercosur. Bilateral exports would increase in quite similar dimensions (see Table 9). The EU-Mercosur FTA, however, would increase total trade more in the Mercosur countries than in EU27. All third countries would be negatively affected by trade diversion (for details, see Breuss, 2020, Appendices).

3.8. EFTA-MERCOSUR

On 23 August 2019, Member States of the European Free Trade Association (Iceland, Liechtenstein, Norway, and Switzerland) and of Mercosur (Argentina, Brazil, Paraguay, and Uruguay) concluded in substance the negotiations on a comprehensive Free Trade Agreement.[32]

As a comprehensive and broad-based Free Trade Agreement, the EFTA-Mercosur Agreement covers trade in goods, trade in services, investment, intellectual property rights, government procurement, competition, trade and sustainable development, legal and horizontal issues including dispute settlement.

Negotiations towards the comprehensive Free Trade Agreement were preceded by a Joint Declaration on Cooperation, signed in December 2000, under which an exploratory dialogue with a view to possible future trade negotiations was initiated in March 2015 and concluded in January 2017. This was followed by the launch of negotiations with a first round in June 2017 in Buenos Aires, Argentina. Since then, 9 rounds of negotiations were held.

Due to the COVID-19 crisis, the process of coordinating an agreement about the final text of the EFTA-Mercosur FTA has been delayed. This FTA may come into effect later. In the medium-term, with this agreement almost 95% of Swiss exports to the Countries Argentina, Brazil, Uruguay, and Paraguay should become duty-free.

Our simulation with a maximum liberalization scenario would result in gains only for the EFTA (see Table 10). However, bilateral trade would improve considerably. Overall, trade between EFTA and Mercosur is negligible because it amounts only to 1.3% of both parties's total trade. Therefore, also the losses for third countries are minimal (for details, see Breuss, 2020, Appendices).

3.9. TTIP light

The European Union and the United States have the largest bilateral trade and investment relationship and enjoy the most integrated economic relationship in the world. In 2020, 18.3% of EU exports went to the USA and 11.8% of EU's imports stem from the USA. Although overtaken by China in 2021 as the largest EU import source for goods, the US remains the EU's largest trade and investment partner by far. Taken together, the economies of both territories amount to more than 40% of world GDP and more than 40% of global trade in goods and services. In 2020, the EU reached a trade balance surplus of 150.5 bn EUR. The USA have an advantage in the trade in services, resulting in an EU deficit of 16.5 bn EUR in 2019. The FDI

[31] See: London School of Economics (LSE, 2020). Reiter and Grübler (2020).

[32] See: https://www.efta.int/free-trade/ongoing-negotiations-talks/mercosur

Table 9
The impact of zero tariffs and subsidies in EU-Mercosur.

	Real GDP %-chg		Welfare: USD change pc		Current account, chg, Bio$	
	Armington	Melitz	Armington	Melitz	Armington	Melitz
EU27	**0.05**	**0.18**	**23.45**	**55.80**	-2.30	-15.60
MERCOSUR	0.02	0.10	12.82	4.59	-11.48	-6.54
	Bilateral exports, %-chg		Total exports, %-chg		Total imports, %-chg	
EU27– > Mercosur	53.00	37.39	0.27	0.53	0.41	0.83
Mercosur– > EU27	52.22	40.88	3.63	5.88	6.28	7.51

Table 10
The impact of zero tariffs and subsidies in EFTA-Mercosur.

	Real GDP %-chg		Welfare: USD change pc		Current account, chg, Bio$	
	Armington	Melitz	Armington	Melitz	Armington	Melitz
EFTA	**0.01**	**0.14**	**40.57**	**86.92**	**-0.30**	-0.75
MERCOSUR	0.00	0.00	-0.61	-0.87	-0.46	**-0.36**
	Bilateral exports, %-chg		Total exports, %-chg		Total imports, %-chg	
EFTA– > Mercosur	48.61	30.45	0.13	0.49	0.32	0.63
Mercosur– > EFTA	26.65	16.19	0.24	0.29	0.26	0.29

balance is slightly positive in favour of the EU (+158.3 bn EUR). Both partners FDI stocks amount to around more than 2000 bn EUR each.[33]

Former President Trump with his "America first" policy was very hostile towards Europe. Firstly, he broke off the TTIP negotiations. They were formally closed in 2019 after being considered obsolete. Then he introduced tariffs on Aluminium and Steel and threatened tariffs on car imports from Europe (see Breuss & Christen, 2019).

On April 15, 2019, the European Council gave the European Commission a mandate for new trade negotiations with the USA. This "FTA-light" aims at liberalising industrial goods only. The USA, however, still insist on including the agricultural sector in the trade talks which makes speedy progress unlikely. After one year of EU-US trade talks progress has been made in some areas. In a "Joint Statement of the United States and the European Union on a Tariff Agreement" as of 21 August 2020[34] selected tariff reductions were announced. The EU has eliminated these tariffs on a Most Favoured Nation (MFN) basis, retroactive to begin 1 August 2020. The EU tariffs will be eliminated for a period of five years and the European Commission will promptly initiate procedures aimed at making the tariff changes permanent. The United States will reduce by 50% its tariff rates on certain products exported by the EU worth an average annual trade value of $160 million, including certain prepared meals, certain crystal glassware, surface preparations, propellant powders, cigarette lighters and lighter parts. The U.S. tariff reductions were also be made on an MFN basis and retroactive starting 1 August 2020. All these steps could lead to a more comprehensive trade deal EU-USA in the near future. We call it "TTIP light".

[33] See: https://ec.europa.eu/trade/policy/countries-and-regions/countries/united-states/
[34] See the Website of the European Commission: https://trade.ec.europa.eu/doclib/press/index.cfm?id=2178

In January 2021, when Joe Biden with his slogan "America is back" became president, the hostility with Europe ended. However, the protectionist measured (Aluminium and Steel) stayed in place. The extra tariffs were only suspended but not abolished.

After the 2021 EU-US summit on 15 June 2021, the European Union and the United States released a *Joint Statement*[35] announcing a renewed transatlantic partnership in the post-pandemic era. This agenda centres on global health challenges, green growth, strengthening trade relations, and fostering democratic values for a more secure world. Three major new trade initiatives were launched: (i) creation of a Cooperative Framework for Large Civil Aircraft[36]; (ii) engage in discussions to resolve differences on measures regarding steel and aluminium by the end of the year; (iii) establishment of an EU-US Trade and Technology Council (TTC).

In our first TTIP light simulation with the maximum liberalization scenario - zero tariffs and subsidies - results in modest GDP and welfare gains (see Table 11a). In the Melitz version the trade gains are nearly the same for the EU27 (+0.04%) and for the USA (+0.05%). The welfare gains are higher in the USA. Both partners can expect a deterioration of the current account, stronger in the USA. Bilateral exports increase similarly in the USA (+6.2%) and in the EU27 (+5.1%). Total exports and imports are nearly unchanged in the EU but increase somewhat in the USA. Both parties are of similar size (population in million: EU27 443, USA 319), but the US trade more with EU27 (export share 20.6%) than EU27 with the USA (15.4%). Most of the third countries of a TTIP light lose – although in a small dimension - welfare and trade (for details, see Breuss, 2020, Appendices).

With TTIP, many NTBs would have been eliminated or adjusted. As it is unknown how NTBs would be dealt with in a TTIP light we make our standard assumption: cut of 50% of the existing NTBs. We refer to the estimated NTBs between the USA and the EU by Egger et al. (2015). Taking all liberalization steps together (zero tariffs and subsidies plus 50% cut of NTs) the results of Table 11b show that in both versions (Armington and Melitz), real GDP would increase in the USA between 1.9% and 3.9%, but in the EU27 only between 0.05% and 0.06%. The United States would considerably improve their welfare. The current account in the USA would deteriorate, whereas it improves in the EU27. The EU27 could increase bilateral exports to the USA (+38%) at a higher rate than the USA to the EU27 (+24%). The strong import increase in the USA explains the deterioration in the current account. The strong trade creation between the two parties are contrasted with trade diversion vis à vis third countries. The UK and EFTA would suffer the most (for details, see Breuss, 2020, Appendices).

3.10. Summing up: who is the winner?

The implementation of the nine regional FTAs analysed above is an alternative strategy to foster globalization in times of the COVID-19 crisis. It is, however, only a second-best solution and a substitute for the first-best solution of a global free trade solution. Because the Doha Round negotiations stall, only the FTA solution remains, if one is willing to advance globalization and not turn it back further.

[35] See: https://www.consilium.europa.eu/en/press/press-releases/2021/06/15/eu-us-summit-statement-towards-a-renewed-transatlantic-partnership/

[36] In 2019–2020, a long-lasting dispute between Airbus and Boing has been concluded by the WTO authorization to retaliated each other: United States - Boing case (DS353): https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds353_e.htm; and the EU – Airbus case (DS316): https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds316_e.htm

Table 11a
The impact of zero tariffs and subsidies in a TTIP light.

	Real GDP %-chg		Welfare: USD change pc		Current account, chg, Bio$	
	Armington	Melitz	Armington	Melitz	Armington	Melitz
EU27	0.01	0.04	5.94	13.50	**-2.10**	**-3.63**
USA	**0.00**	**0.05**	**20.31**	**23.45**	-12.01	-13.16
	Bilateral exports, %-chg		Total exports, %-chg		Total imports, %-chg	
EU27– > USA	6.74	5.11	0.14	0.27	0.20	0.33
USA-- > EU27	8.35	6.16	0.00	0.90	1.16	1.16

Table 11b
The impact of zero tariffs and subsidies plus 50% cut of NTBs in a TTIP light.

	Real GDP %-chg		Welfare: USD change pc		Current account, chg, Bio$	
	Armington	Melitz	Armington	Melitz	Armington	Melitz
EU27	0.05	0.06	32.90	41.36	**25.28**	**62.32**
USA	**1.92**	**3.89**	**1176.23**	**1909.65**	-210.16	-396.12
	Bilateral exports, %-chg		Total exports, %-chg		Total imports, %-chg	
EU27– > USA	40.42	37.96	1.19	2.39	0.99	1.48
USA-- > EU27	31.44	24.00	-1.49	-0.50	9.06	12.43

The starting hypothesis was that the country that has the most overlaps from the FTAs should be the winner. We consider in this comparison only the results of zero tariffs and subsidies because NTB scenarios are only carried out four CETA, EU-Japan and USA-Japan and TTIP-light trade agreements. Japan and EU27 have both four overlaps (see Table A2 in the Appendix). Nevertheless, Japan is the overall winner.

Table 12
Summing-up: The impact of nine FTAs when all are in effect simultaneously.

	Real GDP %-chg		Welfare: USD change pc		Current account, chg Bio$	
	Armington	Melitz	Armington	Melitz	Armington	Melitz
EU27	0.03	-0.10	4.60	17.72	15.79	24.79
UK	-0.03	-0.24	-54.52	-70.15	9.05	12.61
USA	-0.01	-0.09	-24.06	-14.89	26.46	43.42
Canada	-0.01	-0.12	-6.24	7.99	1.17	5.56
China	0.09	0.43	-4.51	21.38	-12.43	-13.39
Japan	**0.15**	**1.78**	**271.10**	**545.96**	-32.76	-75.24
MERCOSUR	-0.02	-0.06	-0.38	-10.66	-5.46	1.04
World	0.02	0.16	2.16	17.41	0.00	0.00
EFTA	-0.02	-0.35	-45.14	-48.66	20.65	38.23
Mexcico	-0.02	-0.18	-31.42	-35.98	4.45	6.74
ROW	-0.03	-0.25	-6.64	-8.44	**30.01**	**44.33**
CPTPP	0.02	0.09	14.29	15.03	-2.98	-0.43
AfCFTA	0.00	0.37	1.79	7.54	-4.54	-6.06
RCEP	0.06	0.97	21.56	68.06	-25.95	-38.98

The EU27 which has also four overlaps, however, would only gain welfare but could rarely realize more GDP from the implementation of all nine FTAs (see Table 12). The EU27 can expect the biggest GDP gains only from the controversial EU-Mercosur trade agreement. China (and RCEP) would be the second-best performer when all nine FTAs would come into effect simultaneously.

The United States are besides the UK (if it does not replicate all the FTAs from which it benefited as an EU member) the big losers from globalization via FTAs.

4. Conclusions

After the Great Recession in 2009, the trend towards steadily increasing globalization was broken. Since then, one speaks of “slowbalisation” or “deglobalization”. The COVID-19 pandemics has reinforced this development by insisting on self-reliance. Boosting self-reliance in some critical medical products makes sense to counter the next crisis. However, a complete break of the well-functioning system of global value chains would only be counterproductive.

A breakthrough in the Doha negotiations to liberalize world trade at WTO would be a game changer for the globalization. In the meantime, the second-best solution of regional FTAs may help to revive world trade. But contrary to a global first-best solution, regional FTAs are only second-best because they lead to benefits of those who participate and losses to third countries. Our analysis of nine (mostly) mega FTAs underlines this hypothesis. Overall, not the big players in world trade, the EU and the United States are the winners of a simultaneous implementation of the nine FTAs. Japan would be the winner because it participates in four combinations (overlaps) of FTAs: EU-Japan, USA-Japan, CPTPP and RCEP. The United States hardly gains from further globalization. Similarly, the EU27 cannot profit much from further globalization.

Appendix

Tables A1 and A2

Table A1
Sectoral and regional aggregation.

	Secotoral aggregation		Regional aggregations			
			A	B	C	D
1	Grains and Crops	1	USA	USA	USA	USA
2	Livestock and meat Products	2	Canada	Canada	Canada	Canada
3	Mining and Extgraction	3	Mexico	RCEP	Mexico	Mexico
4	Processed Food	4	EU-27	EU-27	EU-27	EU-27
5	Textiles and Clothing	5	UK	UK	UK	UK
6	Light Manufacturing	6	EFTA	AfCFTA	CPTPP	AfCFTA
7	Heavy Manufacturing	7	Japan	Japan	Japan	Japan
8	Utilities and Construction	8	China	China	China	China
9	Transport and Communication	9	Mercosur	Mercosur	Mercosur	Mercosur
10	Other Services	10	ROW	ROW	ROW	ROW

Regional aggregation, used for analysing the following FTAs:
A = CETA, TTIP, EUJPEPA, EU-Mercosur, EFTA-Mercosur, USAJPFTA; B = RCEP: 15 Asian and pacific countries; C = CPTPP: 11 Asian and pacific countries (substitute for TPP); D =AfCFTA: 54 African states.
Source: GTAP 10, data base of 2014. Complete dataset comprises 65 sectors and 121 regions. See GTAP website: https://www.gtap.agecon.purdue.edu/databases/v10/index.aspx

Table A2
Overlaps of existing and planned FTAs (Spaghetti bowl).

	No of overlaps	EU27	UK	EFTA	CETA	TTIP light	EUJPEPA	EU-MERC	EFTA-MERC	USAJPFTA	CPTPP	RCEP	AfCFTA
Members		**27**	**1**	**4**	**2**	**2**	**2**	**5**	**5**	**2**	**11**	**15**	**54**
%-share in world trade		30.24	3.27	2.67	32.74	39.81	34.47	32.00	4.43	13.80	14.62	18.07	3.13
(extra-EU27)		17.38	3.88	3.16	20.34	28.71	22.39	19.47	5.25	16.34	17.32	21.40	3.70
EU27	4				**x**	**x**	**x**	**x**					
UK	0												
USA	2					x				**x**			
Canada	2				**x**						**x**		
Mexico	0										**x**		
China	0											**x**	
Japan	4						**x**			**x**	**x**	**x**	
EFTA	0								**x**				
Australia	2										**x**	**x**	
Brunei	2										**x**	**x**	
Chile	0										**x**		
Malaysia	2										x	x	
New Zealand	2										x	x	
Peru	0										x		
Singapore	2										x	x	
Vietnam	2										x	x	
Cambodia	0											x	
India	0												
Indonesia	0											x	
Laos	0											x	
Myanmar	0											x	
Philippines	0											x	
Thailand	0											x	
South Korea	0											x	
Argentina	2							x	x				
Brazil	2							x	x				
Paraguay	2							x	x				
Uruguay	2							x	x				

MERC = Mercosur

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