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Policy Brief:

Trump's Trade Wars

Implications for the EU and China

Fritz Breuss, Elisabeth Christen

Research assistance: Irene Langer

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Abstract

Trump's trade wars hit a new dimension expanding from mini to global trade wars. They target sectors (e.g., aluminium and steel) for the protection of "national security" (according to Section 232 of the Trade Expansion Act of 1962) and countries (e.g., China) for unfair trade practices (according to Section 301 of the Trade Act of 1974). Both legal instruments give the US President the power to impose sanctions and protective measures. Since Trump came in office, he has cancelled most multilateral agreements or projects the USA were previously involved (TTIP, TPP, NAFTA, Paris Climate Agreement, JCPoA). Whereas the US trade conflict with China escalated dramatically and could ultimately – beginning with 1 September 2019 as President Trump has threatened – affect all bilateral trade flows, the tensions with the EU are currently limited to aluminium and steel. However, a trade war with respect to cars could follow if no agreement on an US-EU FTA-light is reached, besides the agreement on increasing the share of duty-free imports of hormone-free beef from the USA, signed on 2 August 2019. We analyse the trade wars already underway (aluminium and steel; USA–China) and possible new conflicts (cars) and agreements (FTA-light) with two methods: 1. a static CGE model and 2. a global dynamic economic macro model. The comprehensive US trade war with China results in the biggest impact for the involved countries, followed by a possible car conflict and an FTA-light agreement.

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1. Introduction

Since the Great Recession of 2009 trade restrictive measures have generally increased[1]). China (37 barriers) leads in the Report on Trade and Investment Barriers of the European Commission (2019), followed by Russia (34), India (25), Indonesia (25) and the USA (23).

When President Donald Trump took office on January 20, 2017 the US trade policy became dramatically more aggressive. With the slogans "Make America Great Again" and "America First" and his focus on trade deficits he embarked on a trade policy which very quickly led to trade wars. Instead of relying on multilateral cooperation within the framework of the WTO, he is playing a very dangerous non-cooperative game against almost all trading partners with whom the USA have a trade deficit (Breuss, 2018).

Although, both the EU and China seem to be the greatest enemies of the USA, China's importance for the US foreign trade in goods is not overwhelming. The US trade more with the EU (export share of 19%) and with its neighbours in the NAFTA (Canada, 18%; Mexico 16%) than with China (7%). On the other hand, China trades more with the USA (19%) than with the EU (7%).

In this Policy Brief we give a short overview of the US trade policy since Trump took office and evaluate its impact on the main world trading players and also on Austria. We apply two methods: (1) a static CGE approach with GTAP9 to study the sectoral impact, and (2) estimates with the Oxford Economics Global Economic model in order to study the dynamic impact on the business cycle.

[1]) Global Trade Alert (https://www.globaltradealert.org/), WTO (2018a), European Commission (2019).

2. What happened since Trump took office

The major political ambition of President Trump is to place the USA first; thus, in line with his Trade Policy Agenda of 2018 and 2019, US trade policy needs to strengthen national interests and to support the national security strategy. Over the last two years various actions implemented by the Trump administration have severely strained trade relations between the USA and its most important trading partners. President Trump pulled out of the Trans-Pacific Partnership Initiative, renegotiated the North American Free Trade Agreement[2]) and imposed tariffs on several products, contending that they threaten national security and comprise unfair trading practices. The imposed measures should encourage consumers to buy American products, but all targeted countries retaliated with tariffs on US goods and announced to file a formal WTO dispute. The further escalation of the US-China trade war has significantly deteriorated global economic expansion and had a domino effect on other countries. Additionally, trade tensions between the EU and the USA weakened the transatlantic pillar of the global, rules-based trading system. Only recently, President Trump threatened to target even more goods from China and Europe and impose tariffs against Mexico to address migration concerns, which suggests that continuing trade wars are an option seriously considered.

2.1 A brief history of protective US measures

The Trump administration is applying national trade laws to justify the implementation of trade restrictions (see also Chapter 3.3. for further details):

- Section 201 of the Trade Act of 1974 permits a temporary import relief for any US industry by raising import duties or imposing non-tariff barriers in order to facilitate positive adjustment of the industry to import competition.
- Section 301 of the Trade Act of 1974 allows retaliatory measures including tariffs and quotas in case of unfair trade practices that burden or restrict US commerce. Under this Section the USA imposed tariffs on a wide range of Chinese goods.
- Section 232 of the Trade Expansion Act of 1962 gives authority to impose or increase tariffs on imports that are thought to threaten national security. Under this Section Trump justifies tariffs on steel and aluminium products.

Starting in 2018 and in addition to the underlying MFN tariffs on imports the Trump administration imposed five sets of tariffs[3]):

- As imports of washing machines and solar panels injure US industries and justify global safeguard restrictions (under Section 201) Trump imposed safeguard tariffs of 30% on $ 8.5 bn imports of solar panels and of 20% on washing machines, worth $ 1.8 bn, in January 2018. As response South Korea and China filed WTO disputes.

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[2]) The North American Free Trade Agreement will be replaced by the US-Mexico-Canada Agreement (USMCA), which is awaiting congressional approval.

[3]) For an up-to-date and detailed timeline of Trump's trade disputes consider Bown and Kolb (2019); https://www.piie.com/blogs/trade-investment-policy-watch/trump-trade-war-china-date-guide.

- Under national security grounds (Section 232), Trump applied tariffs of 25% on steel and 10% on aluminium in March 2018, covering $ 10.2 bn and $ 7.7 bn of US steel and aluminium imports, respectively; selected countries were temporarily exempted (Canada and Mexico, as well as the EU, South Korea, Brazil, Argentina and Australia; see also Figure 1). However, since these tariffs applied to Chinese steel and aluminium exports (6% of US imports; worth $ 2.8 bn) in April 2018 China imposed retaliatory tariffs on specific US products amounting to $ 2.4 bn. As of June 2018, tariff exemptions for the EU, Canada and Mexico (together almost 50% of US imports) ended, while South Korea, Brazil and Argentina agreed to impose "voluntary" quotas on these products, Australia remaining the only trading partner without such trade restrictions. In response, retaliatory tariffs on specific US products including steel and aluminium products were imposed by the EU (totalling $ 3.2 bn)[4]) and Canada ($ 12.8 bn) and all targeted trading partners challenged the US tariffs through the WTO. In May 2019 the US, Canada and Mexico agreed to remove steel and aluminium tariffs as well as all retaliatory measures to push the ratification of the US-Canada-Mexico Agreement.
- Under unfair trade practices related to technology transfer, intellectual property and innovation (Section 301) in July 2018 the USA imposed tariffs of 25% on specific Chinese products (machinery, mechanical and electrical equipment) totalling $ 34 bn of US imports, predominantly intermediate inputs and capital goods, as highlighted in Figure 1[5]). As response China applied retaliatory tariffs, covering $ 34 bn of Chinese imports from the USA on vehicles, aircrafts and agricultural products. In course of this trade dispute the USA implemented further tariffs on $ 16 bn of imports from China, to which China immediately responded in a tit-for-tat trade war by imposing tariffs on US exports worth $ 16 bn. In further consequence Trump announced to expand the list of Chinese goods under Section 301 and finally tariffs of 10% on a list of $ 200 bn of Chinese imports become effective in September 2018, along with retaliatory measures by China on $ 60 bn of US imports. Between December 2018 and May 2019 both Presidents of the USA and China agreed to negotiate on trade concerns and temporarily paused the introduction of a new set of tariffs. In May 2019, however, the US-China trade war escalated further as Trump raised the tariff rate from 10% to 25% and in response China increased retaliatory tariffs up to 25%. In total US tariff actions against China under Section 301 sum up to $ 250 bn, while China imposed retaliatory tariffs on US goods covering $ 110 bn.

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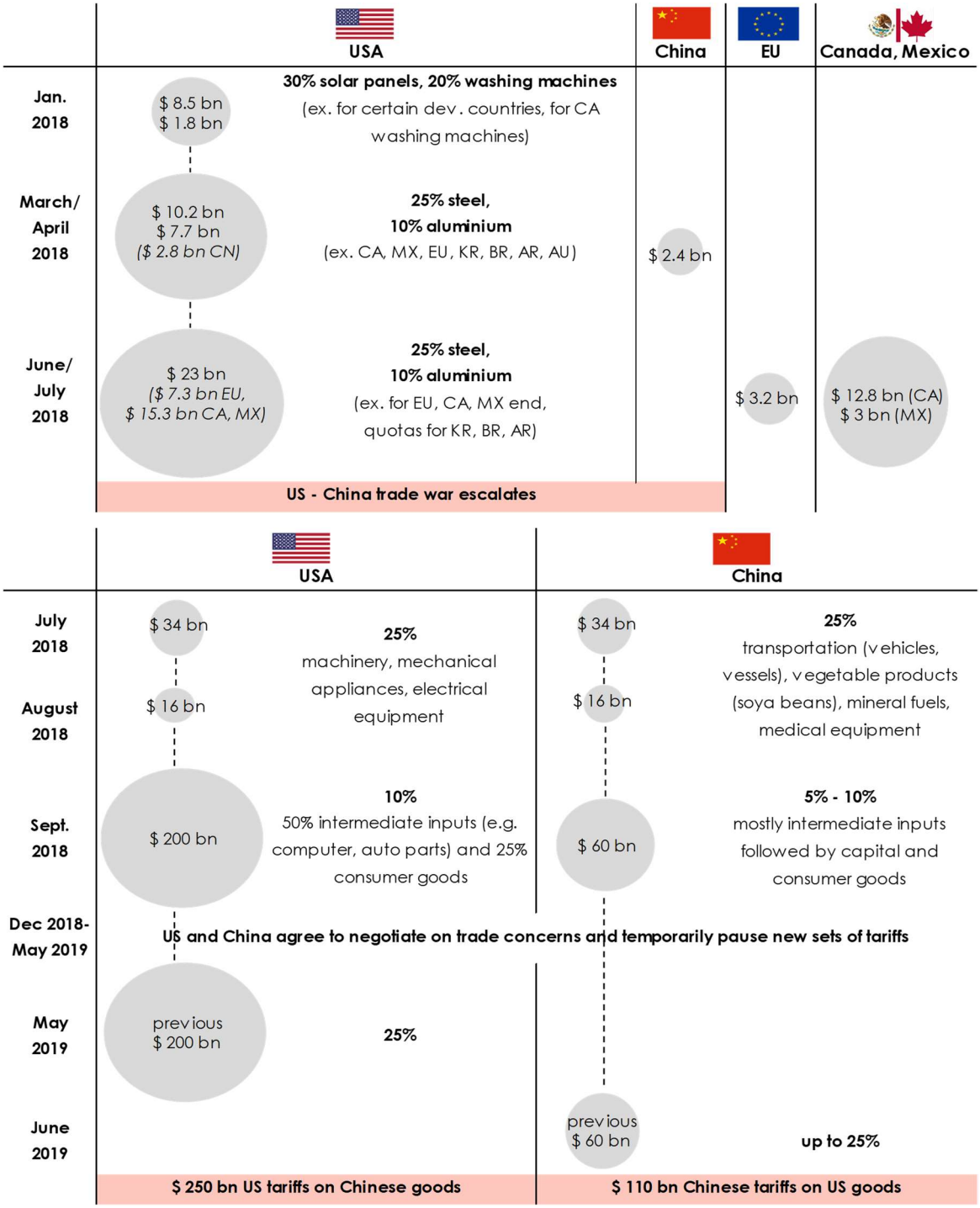
[4]) The EU's immediate rebalancing measures in response to the US tariffs include a 25% duty on steel and aluminium products (34% of the targeted products) and on symbolic US export goods, such as agricultural and food products (e.g. corn, peanut butter) as well as consumer goods (e.g. blue jeans, bourbon whiskey, motorcycles). The remaining retaliatory measures up to the value of affected steel and aluminium exports worth $ 7.3 billion will become effective after a positive finding in WTO dispute settlement; http://trade.ec.europa.eu/doclib/press/index.cfm?id=1868&title=EU-adopts-rebalancing-measures-in-reaction-to-US-steel-and-aluminium-tariffs.

[5]) For a detailed analysis on the US-China trade war see also Mildner et al. (2019).

Figure 1: Major events in the US trade disputes with China, the EU and NAFTA including their implemented retaliation measures

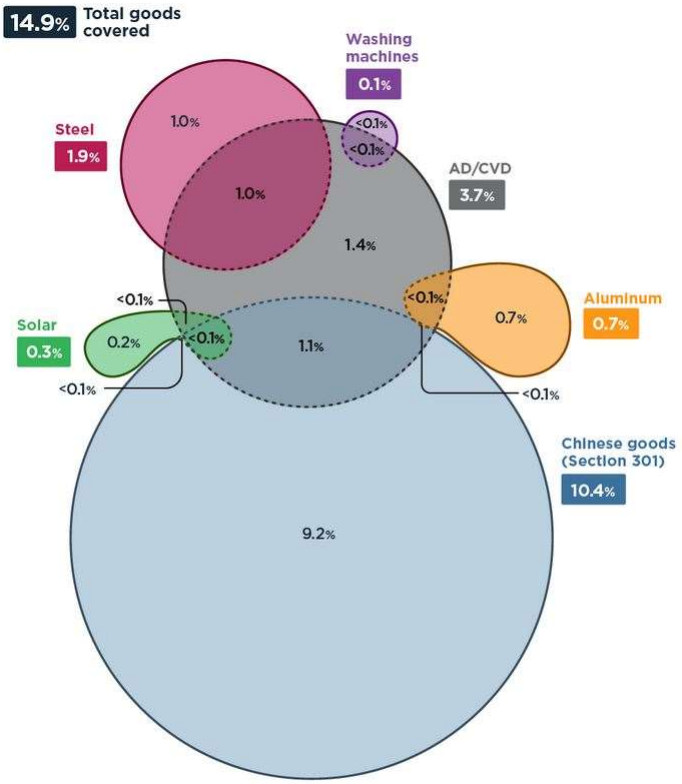


Source: WIFO calculations based on Bown and Kolb (2019), https://www.international.gc.ca/trade-commerce/controls-controles/steel_alum-acier_alum.aspx?lang=eng, http://europa.eu/rapid/press-release_IP-18-4220_en.htm.

The major developments in the US trade disputes with China and the EU are summarised in a condensed timeline presented in Figure 1. In 2018, all protective actions by Trump together covered $ 303.7 bn or 12.6% of US imports, but some products were hit by different measures more than once (Bown and Kolb, 2019). Antidumping and countervailing duties are already applied on a number of specific countries and products, such as steel, and thus, overlap with Trump's recently imposed import tariffs. Adding up all forms of protective US measures reveals that in 2018 14.9% of US imports are covered by Trump's trade wars.

The range of protective US measures is displayed in Figure 2. Tariffs against Chinese goods on the pretext of unfair trade practices accounts with 10.4% of US imports for the largest share, while targeted imports of steel (1.9%) and aluminium (0.7%) cover a smaller extent of US imports and imports of washing machines (0.1%) are only slightly affected.

Figure 2: US goods imports covered by special tariffs in effect, 2018



Source: Bown and Zhang (2019).

Regarding the coverage of trade disputes, several important trading partners bear most of the effects of the protective US measures, most prominently China, where more than 50% of Chinese exports to the US are hit by special import tariffs in 2018. But China is not the only trading partner targeted by US trade wars, also exports to the USA from Canada (7.3%), and Mexico

(2.4%)[6]) as well as the EU (2.5%), predominantly of steel and aluminium products, are affected by these protective actions. According to Bown and Zhang (2019) the special tariffs also target types of US import goods differently, with intermediate inputs being hit disproportionately hard. While almost 20% of total US imports of intermediate inputs face Trump's special tariffs, capital equipment goods (16.1%) and final goods (9.0%) are affected to a lesser extent.

2.2 From mini to global trade wars

Not only since President Trump entered office the USA are involved in trade conflicts. Between 1962 und 1963 the USA under President Lyndon B. Johnson fought a "Chicken trade war" with Germany and France, imposing 25% tariffs on potato flour, Dextrin, Whisky and light trucks in retaliation to tariffs on chicken imports from the USA to Germany and France.

Between 1984 and 1986 President Ronald Reagan was involved in a "steel conflict" with the EU: the uncompetitive US steel industry was protected with tariffs. The EU retaliated with tariffs on agricultural products imported from the USA.

Starting in the nineties, the USA were involved in several "mini trade wars" with the EU (Breuss, 2004a, 2004b, 2010). Since 1996 there has been a continuing conflict with the USA regarding hormones. The EU banned – and still does - imports of hormone treated meat. As the WTO Dispute Settlement Body has ruled against the EU, the USA imposed sanctions on the EU. The Banana case between 1993 and 2002 was another conflict. The old Banana market regulation was discriminatory, allowing the USA to sanction the EU. In 2002 a reform of the EU Banana regulation resolved this conflict. Since 1997 and 2004 the EU sued the USA at the WTO because of the discriminatory US Foreign Sales Corporation (FSC) arrangement which gave US companies unfair tax credits. The EU won and was allowed to sanction US imports. Lastly there was a steel war (8% to 30% tariffs), initiated by President G. W. Bush in 2002. After massive and coordinated sanctions against the EU (which applied "political tariffs": targeting exports from states, like Florida, that are vital for Bush's re-election campaign; Breuss, 2004a) and ten other partners, in 2003 Bush cancelled these measures.

The previous US trade conflicts could be called "mini trade wars" because of their small dimension. The Trump trade wars go far beyond a mini trade war, in particular with respect to China it can be called global trade war.

[6]) Before tariffs on steel and aluminium products were lifted for Canada and Mexico in May 2019.

3. What does Trump do differently?

The style of negotiating trade deals is the most significant difference with respect to former US Presidents. Trump acts much more aggressively and by means that commentators call "blackmailing". Trump considers himself a great "dealmaker" (Trump and Schwartz, 1987). This behaviour often leads to escalation of trade wars and eventually a chicken-game situation. Some commentators compare Trump's political style with the "Madman Theory" of President Nixon[7]). Trump believes that he can raise tariffs (without any retaliation). However, so far the EU and other affected trade partners have immediately hit back (tit for tat). On the other hand, according to Ossa (2014) the optimal tariff for large countries would be much higher (60% to 61% for the USA and EU) if their partners had not retaliated, while according to UNCTAD estimates, using a different approach, however, the optimal tariffs would be lower at 32% (Nicita et al., 2018). In case of mutual retaliation, the non-cooperative (Nash) tariffs would be at 59% to 60% (Ossa, 2014). In case of trade talks instead of trade wars (which all WTO members would favour, except President Trump), the cooperative tariffs would be zero and would improve welfare by 4% (Ossa, 2014).

3.1 Trump hates multilateralism

As a former real estate businessman, President Donald Trump feels more comfortable with bilateral agreements than with multilateral arrangements. Based on his slogan "America First", repeated over and over again ever since he has been in office, he annulled and quit several multilateral agreements of his predecessor's government: TTIP, TPP, the Paris Agreement on Climate Change and the JCPoA[8]) with the Iran. Altering the original NAFTA agreement, he negotiated a new deal, the USMCA (US-Mexico-Canada Agreement) which has not yet been ratified. Trump is also suspicious of the EU because he is not allowed to make trade deals with individual EU member states. Trump also has an ambivalent or critical relationship with the WTO because he believes WTO rules discriminate the USA. Nevertheless, both the USA as well as the EU are looking for ways to reform the WTO; the need for reforms has been reaffirmed by leaders of the G20 Osaka Summit 2019, held between June, 28 and 29 2019[9]).

3.2 The mania with trade deficits and unfair tariffs

Trump thinks that the USA have been betrayed by many trading partners. This is reflected in the high trade deficit with the major trading partners, specifically the EU und China. One reason behind this is the seemingly "unfair" tariff policy for several industrial products embedded in the

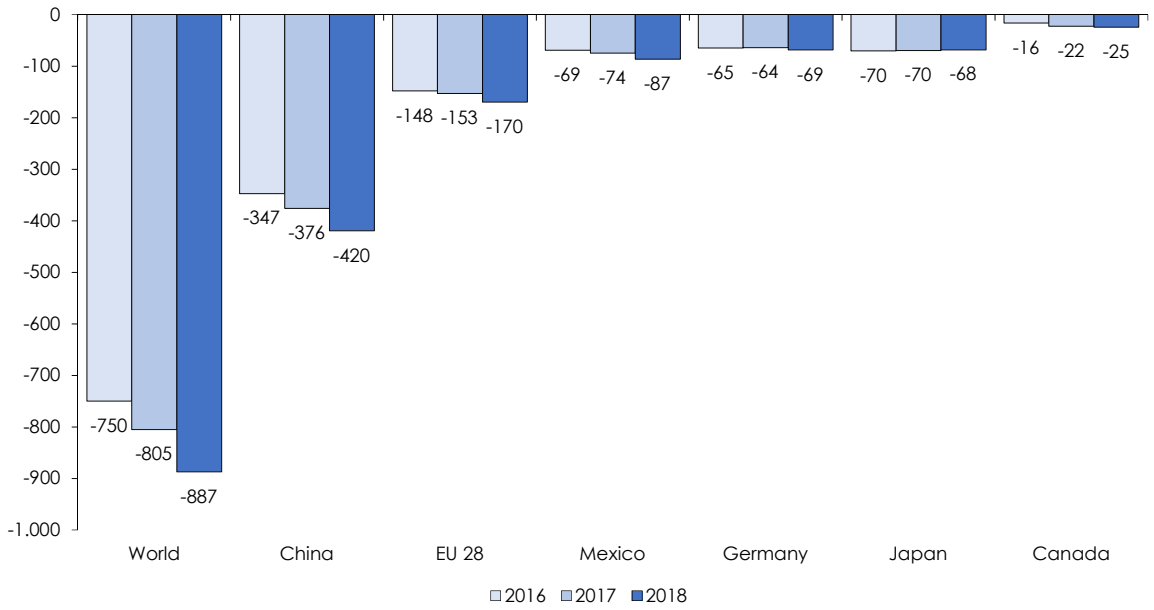
[7]) https://en.m.wikipedia.org/wiki/Madman_theory. See also the Madman Strategy applied to Game Theory (http://blogs.cornell.edu/info2040/2017/09/10/30860/).

[8]) JCPoA is the Joint Comprehensive Plan of Action, an Agreement by Iran and the P5+1 (China, France, Germany, Russia, the United Kingdom and the United States) on the Iranian nuclear program reached in Vienna on July 14, 2015.

[9]) https://g20.org/en/documents/final_g20_osaka_leaders_declaration.html.

Uruguay Round agreement. In this sense he thinks like an old mercantilist of the 16th to 18th century.

Figure 3: US trade balance with the most important creditors (bn $)



Source: BEA.

China is responsible for nearly one half of the total trade deficit of the USA (in 2018 $ 420 bn of $ 887 bn in total). The trade deficit with the EU ($ 170 bn) is comparably smaller. Additionally, since 2009, the bilateral US-EU current account exhibits – at least according to US statistics by BEA (Bureau of Economic Analysis) – a small surplus (2018: $ 4 bn). But even Trump's aggressive protectionist trade actions starting in 2018 have not brought any relief to the US trade deficits with the main trading partners (Figure 3). However, there has been a slight improvement in the trade balance with China and the EU in the first quarter of 2019. Overall, neither the trade deficit nor the current account deficit have improved significantly since Trump took over office[10]).

[10]) https://www.bea.gov/news/2019/us-international-transactions-first-quarter-2019-and-annual-update.

Table 1: Current account asymmetries in EU-US statistics (bn $)

		2016		2017		2018	
		EU 28 ⇒ USA	USA ⇒ EU 28	EU 28 ⇒ USA	USA ⇒ EU 28	EU 28 ⇒ USA	USA ⇒ EU 28
Current account	Credit	905.2	901.5	999.8	972.0	1,157.9	1,061.0
	Debit	747.5	891.9	836.9	957.2	917.2	1,057.1
	Balance	**157.7**	**9.6**	**162.9**	**14.8**	**240.6**	**3.9**
Goods	Credit	426.8	271.1	453.4	284.8	515.2	320.2
	Debit	258.1	419.0	267.0	437.7	295.3	489.8
	Balance	**168.7**	**-148.0**	**186.4**	**-152.9**	**220.0**	**-169.6**
Services	Credit	249.2	235.0	270.5	244.3	290.5	253.6
	Debit	251.2	179.6	252.3	192.6	266.8	198.6
	Balance	**-2.0**	**55.5**	**18.2**	**51.7**	**23.6**	**55.0**
Primary income	Credit	199.3	361.8	244.1	396.5	317.3	448.5
	Debit	209.0	263.0	273.5	288.4	315.9	336.5
	Balance	**-9.7**	**98.7**	**-29.4**	**108.1**	**1.4**	**112.0**
Secondary income	Credit	29.9	33.6	31.8	46.5	34.9	38.7
	Debit	29.2	30.3	44.2	38.6	39.2	32.2
	Balance	**0.7**	**3.4**	**-12.4**	**7.9**	**-4.4**	**6.5**

Source: Eurostat, BEA.

There is a big asymmetry in the current account statistics as estimated by BEA and Eurostat (Eurostat, 2019). Whereas BEA has reported a small surplus in the US-EU current account since 2009 (2017: $ 15 bn; 2018: $ 4 bn), Eurostat has published a surplus in the EU-US current account ($ 163 bn; $ 241 bn). The main asymmetries are related to services and primary income balances (Eurostat, 2019; see Table 1).

Based on BEA data[11]) the US current account deficit increased from $ 440 bn in 2017 to $ 491 bn in 2018. A big share is due to the bilateral deficit with China (2017: $ 358 bn, 2018: $ 404 bn). Apart from the statistical asymmetries (BEA vs Eurostat) the US current balance closed with a surplus against the EU of $ 15 bn in 2017 and $ 4 bn in 2018.

Since the Uruguay Round no new multilateral trade round has been concluded successfully. The Doha Round has stalled since its inception in 2001. Therefore, as a second-best solution, the major world trade players, the EU and the USA, have settled on regional trade agreements (RTAs). However, President Trump pulled out of several of those (multilateral) agreements; he revoked, for instance, the nearly completed TTIP-negotiations. Hence, the tariff asymmetry between the EU und the USA remained (see Table 2). Especially in the case of cars EU tariffs are higher than those of the USA. And while in the non-agricultural sectors no big divergence in tariffs occurs, the agricultural sector is much more protected in the EU than in the USA.

[11]) Bureau of Economic Analysis (BEA; https://apps.bea.gov/iTable/bp_download_modern.cfm?pid=11).

Table 2: "Unfair tariffs" – tariff asymmetries between the USA, EU, China and Japan

	MFN (applied) - simple average in %			
	USA	EU 28	China	Japan
Total	**3.4**	**5.1**	**9.8**	**4.0**
Agricultural products	5.4	10.8	15.6	13.3
Non-agricultural products	3.1	4.2	8.8	2.5
Transport equipment	2.9	4.7	12.3	0.0
Automobiles	**2.5**	**10.0**	**25.0**	**0.0**

Source: WTO (2018b), World Bank (WITS).

3.3 Two strong Presidential legal weapons: Section 232 and 301

The US trade acts allow the President in specific cases to act without the approval of Congress. Trump has taken full advantage of these privileges in two cases: tariffs on imports of aluminium and steel (Section 232) and tariffs against China (Section 301)[12]):

Section 232 of the Trade Expansion Act of 1962 (19 USAC. §1862) provides the President with the ability to impose restrictions on certain imports based on an affirmative determination by the Department of Commerce that the product under investigation *"is being imported into the USA in such quantities or under such circumstances as to threaten to impair the national security"*. The Commerce Department initiated a total of 31 Section 232 investigations between 1962 and 2019.

Under President Trump five Section 232 investigations have been initiated, two of which (aluminium and steel) have affirmed his position, while the other three are still in process (automobiles, uranium and titanium sponge).

Section 232 takes reference to the Article XXI, GATT 1994 (Security Exceptions) which allows GATT (now WTO) contracting parties to take autonomous measures to protect "national security". This article, however, was thought to be applied in war times, e.g. related to fissionable material and traffic in arms. Many US trading partners have thus sued the USA at WTO on grounds of an unjustified use of this instrument in the case of aluminium and steel.

On October 18, 2018, China requested the establishment of a panel in the case "United States – Certain Measures on Steel and Aluminium" (DS544). On January 25, 2019, a panel has been composed[13]). A long list of countries joined this complaint by China, e.g. EU, Brazil, Canada, United Kingdom, India, Japan, New Zealand etc.

For the fact that Article XXI is rarely used the USA claim that the WTO has no jurisdiction at all. However, in the recent case DS512[14]) (WTO Panel Russia against Ukraine: Measures concerning Traffic in Transit; requested in September 14, 2016) the WTO took a first decision in this case which could have consequences for the US case. On April 5, 2019, a WTO panel ruling clarified the use of "national security exceptions" to WTO rules as invoked in the trade dispute between

[12]) Congressional Research Service (2019a, 2019b).

[13]) https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds544_e.htm.

[14]) https://www.wto.org/english/news_e/archive_e/dscases_arc_e.htm?dscase=512.

Russia and the Ukraine over transit restrictions. This WTO decision implies that the WTO has (in contrast to the assertion by the USA) jurisdiction over such matters. Many experts fear that a WTO decision against the USA could lead to a retreat of the USA from the WTO.

Sections 301 through 310 of the Trade Act of 1974, as amended, are commonly referred to as "Section 301". It is one of the principal statutory means by which the USA enforce US rights under trade agreements and addresses "unfair" foreign barriers to US exports. Section 301 procedures apply to foreign acts, policies, and practices that the USTR determines; they either (1) violate, or are inconsistent with, a trade agreement; or (2) are unjustifiable and burden or restrict US commerce. The measure sets procedures and timetables for actions based on the type of trade barrier(s) addressed. Since March 22, 2018, Trump fights against China on the grounds of this legal instrument. In his memorandum, four broad Chinese policies justify US actions against China: (1) forced technology transfers from US companies to Chinese entities; (2) unfair licensing practices; (3) large-scale technology and IP transfers in support of China's "Made in China 2025" (MIC 2025) initiative; (4) cyberintrusions into US computer networks.

3.4 Other types of US protectionism

Trump "likes tariffs". Therefore, the measures used in the case of aluminium and steel (Section 232) and against China (Section 301) are tariffs. In the case of aluminium and steel not only "national security" plays a role but also overcapacities worldwide[15]). According to the US Customs and Border Protection (CBP) the total duties the USA have collected[16]) increased from $ 24.6 bn in 2017 to $ 41.6 bn in 2018. As of July 10, 2019, the following duties were assessed: Section 201 duties (washing machines: $ 0.166 bn; solar panels $ 0.74 bn), Section 232 duties (aluminium: $ 1.86 bn; steel: $ 5.88 bn) as well as Section 301 tariffs (China: $ 20.77 bn).

Another type of protective instruments are *sanctions.* In the case of the JCPoA the USA sanction the Iran via sanction threads against third countries: each company doing business with Iran is no longer allowed to do business with the USA.

Further protective measures include export restrictions. Specifically, the USA forbid exports of goods intended for Chinese companies like ZTE and Huawei. In retaliation, China has put foreign companies on a blacklist.

The USA have also imposed measures against countries which *manipulate their exchange rates* vis à vis the US-Dollar. Countries are being regularly evaluated by the US Treasury Office (2019) on the basis of three criteria: (1) a high bilateral trade surplus with the USA (more than $ 20 bn); (2) a current account surplus (more than 2% of GDP); (3) persistent one-sided interventions on foreign exchange markets. At present, nine countries are on the watch list (within the EU: Germany, Ireland and Italy).

[15]) Within G20 there is a „Global Forum on Steel Excess Capacity", which aims at ruling worldwide overcapacities.

[16]) https://www.cbp.gov/newsroom/stats/trade.

Trump also falsely applies *trade policy in his fight against migration*. As of June 10, 2019 he threatened Mexico with imposing tariffs if the country would not properly control illegal migration into the USA. After a deal with Mexico this threat did not materialise.

In a similar action Trump may punish *French wine* imports. In July 2019, France passed a 3% digital service tax which will affect firms such as Facebook and Google that draw about $ 28 mn or more in revenues from digital services in France. The Trump administration started an investigation under Section 301 of the Trade Act of 1974. If the USA determine the tax to be discriminatory or unreasonably targeting US firms, Trump could respond with a 100% tariff on French wine.

For several countries (e.g. Turkey and India), the USA cancelled *GSP trade preferences*. After Trump cancelled GSP arrangements on June 5, 2019 India announced to retaliate. For this reason, Bown (2019) considers the USA to be in a mini trade war with India.

4. An impact analysis on two main enemies of Trump: EU and China

In the viewpoint of President Trump, there are two major countries threatening the US economy with "unfair" trade practices: the EU and China. Both generate huge surpluses in trade with the USA.

4.1 The US-EU trade conflict is still in limbo

At present, the US-EU trade conflict is still at a low level. The EU has only been confronted with tariffs on aluminium and steel. However, an escalation towards tariffs on European cars is out of the question and respective Section 232 investigations are already underway. Nevertheless, the EU still hopes that a FTA-light will be agreed on eventually.

4.1.1 Aluminium and steel as a starter

After the investigation of the US Department of Commerce on the impact of steel imports (US Department of Commerce, 2018a) and aluminium imports (US Department of Commerce, 2018b) on January 11, 2018 and January 17, 2018, respectively, President Trump, in several steps, imposed extra tariffs on US imports of aluminium (10%) and steel (25%) from certain countries (Chapter 2.1 for details). As announced by the EU on June 22, 2018, five countries (EU[17]), Canada, Mexico, Turkey and China)[18]) initiated retaliatory measures in a tit-for-tat manner. As all five countries sued the USA at the WTO for illegal use of tariffs on the ground of "national security threats" (Section 232), the USA, for their part, sued the five countries on grounds of national security justification on July 16, 2018. On February 1, 2019, in order not to be flooded with aluminium and steel from third countries, the EU has published a regulation on safeguard measures[19]). These measures took effect February 2, 2019 and replaced the provisional ones in place since July 2018. They concern 26 steel product categories and consist of tariff-rate quotas above which a duty of 25% will apply. The tariff rate quotas still fully preserve the current levels of imports into the EU but will be increased progressively.

In the following we evaluate the macroeconomic consequences of the imposed aluminium and steel tariffs including the retaliation measures enacted as of May 2019 (when Canada and Mexico were finally excluded from the Section 232 sanctions)[20]). As each retaliating country

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[17]) On 20 June 2018, the EU adopted rebalancing measures in reaction to US steel and aluminium tariffs. It estimated the damage of lost exports of its steel and aluminium exports by the US measures, worth € 6.4 bn. Of this amount, the EU took rebalancing measures on € 2.8 bn exports immediately. The remaining rebalancing on trade valued at € 3.6 bn will take place at a later stage – in three years' time or after a positive finding in WTO dispute settlement if that should come sooner, http://trade.ec.europa.eu/doclib/press/index.cfm?id=1868&title=EU-adopts-rebalancing-measures-in-reaction-to-US-steel-and-aluminium-tariffs.

[18]) India followed with retaliation in June 2019.

[19]) http://trade.ec.europa.eu/doclib/press/index.cfm?id=1977&title=Commission-imposes-definitive-safeguard-measures-on-imports-of-steel-products.

[20]) First estimates about the impact of the 2018 US trade protectionism on the US economy have been made by Fajgelbaum et al. (2019) and Amiti et al. (2019). Both studies find that the sectoral tariffs (aluminium and steel) were fully passed through to domestic prices. Both studies estimate the welfare loss at $ 7.8 bn (0.04% of GDP; Fajgelbaum

targets different kinds of US import products and the list vary from country to country (e.g. the EU applies "political tariffs" which target primarily US products, like Harley Davidson, Whisky and steel, which hurts Trump voters) we simplified the input in the CGE model. Specifically, we do not target each specific sector with a 25% tariff (according to the retaliation lists) but distribute the overall retaliation sum to all commodities (with less than a 25% tariff). Moreover, it is unclear how long these measures will be in place or if they will be repealed whenever US industries become competitive again and overcapacities are reduced.

The estimation is executed by applying a global static computable general equilibrium model (CGE) programmed in Gams via the CGEBox of Britz and van der Mensbrugghe (2018). This model has been calibrated with GTAP9 data (base year 2011) and includes 20 sectors and 23 countries (see Table A1 in the Appendix for further details). It uses the standard GTAP approach based on Armington elasticities (Armington, 1969). In the model consumers are assumed to differentiate between goods based on origin (home versus foreign countries). Furthermore, Britz and van der Mensbrugghe (2018) have implemented "new-new trade theory" features in the model, following Melitz (2003), which take into account firm heterogeneity. Comparative studies have shown that pure Armington type models underestimate welfare gains from trade liberalisation and only a Melitz-type model allows for changes at the intensive and extensive margins simultaneously. However, in this Policy Brief, simulations do not reflect these features and are thus based on the standard Armington approach, as our model dimension exceeds the implemented Melitz model dimension and hence, does not solve properly. Our CGE model uses the default GTAP model closure rule.

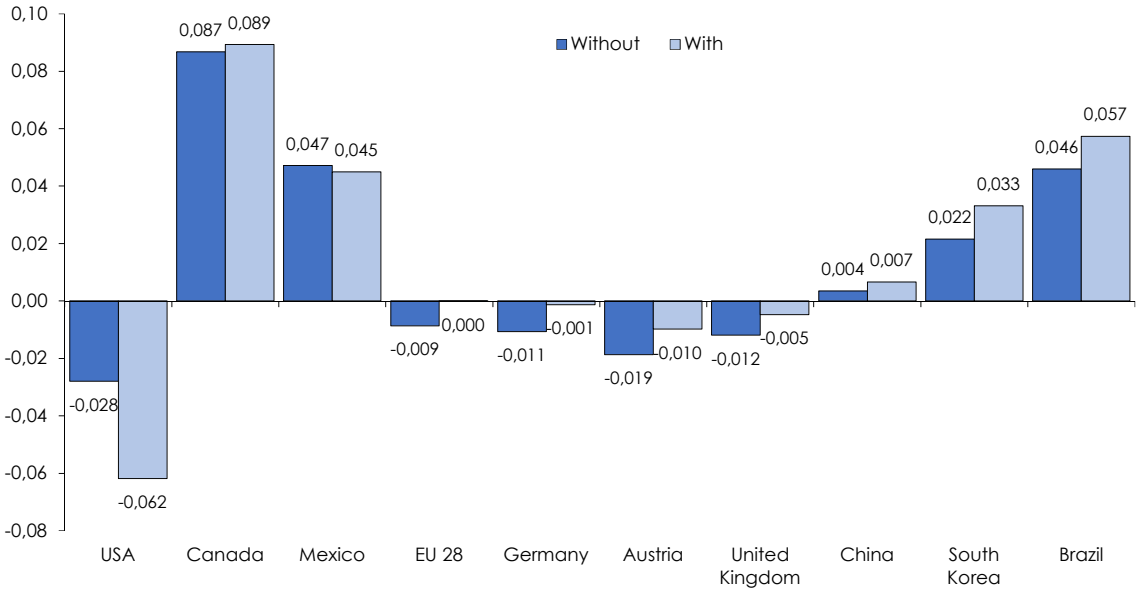
The results of our simulations of the US aluminium and steel tariff actions (Section 232) without and with retaliation measures of the five countries are presented for selected countries in Figure 4[21]). Without retaliation, the USA (-0.03 percentage points) and EU countries (-0.01 percentage points) lose in terms of real GDP. The winners are, as expected, those countries which were exempted from these measures - Canada, Mexico, South Korea and Brazil. Taking into account the already existing retaliations the USA (-0.06 percentage points) lose more, while the EU hardly faces an impact at all. In contrast, welfare in terms of real GDP improves for the exempted countries. However, the changes in real GDP are in any case very small (detailed results for all 23 countries can be found in the Appendix, Table A2). Overall trade with the USA exhibits nearly no effect, but there is a large impact on trade of aluminium and steel with the USA. The EU exports of steel to the USA are reduced by 64%, those of aluminium by 49%, whereas world exports to the USA shrink by 13% and 3%, respectively. However, the trade diversion effects feared by the EU (on which it justified safeguard measures) would not

et al., 2019) and $ 6.9 bn (Amiti et al., 2019) if the tariffs collected and transferred to US farmers are taken into account. Further studies analysing the impact on the US economy include Francois et al. (2018) and Hufbauer and Jung (2018).

[21]) Felbermayr et al. (2018) and Felbermayr and Steininger (2018) have made early estimations of impact of the US protectionism on the EU and Austria. Their results concerning the aluminium and steel war with the USA are comparable to our estimates.

occur according to our CGE simulations. Aluminium and steel trade from China or the World to the EU would even decrease by 0.6%.

Figure 4: The static impact of a US aluminium and steel trade war with and without retaliation on GDP of selected countries
(Deviations of real GDP in percentage points)



Source: Own simulations with GTAP9 (database 2011) and Gams (CGEBox).

4.1.2 The next possible trade war: cars and Boeing versus Airbus?

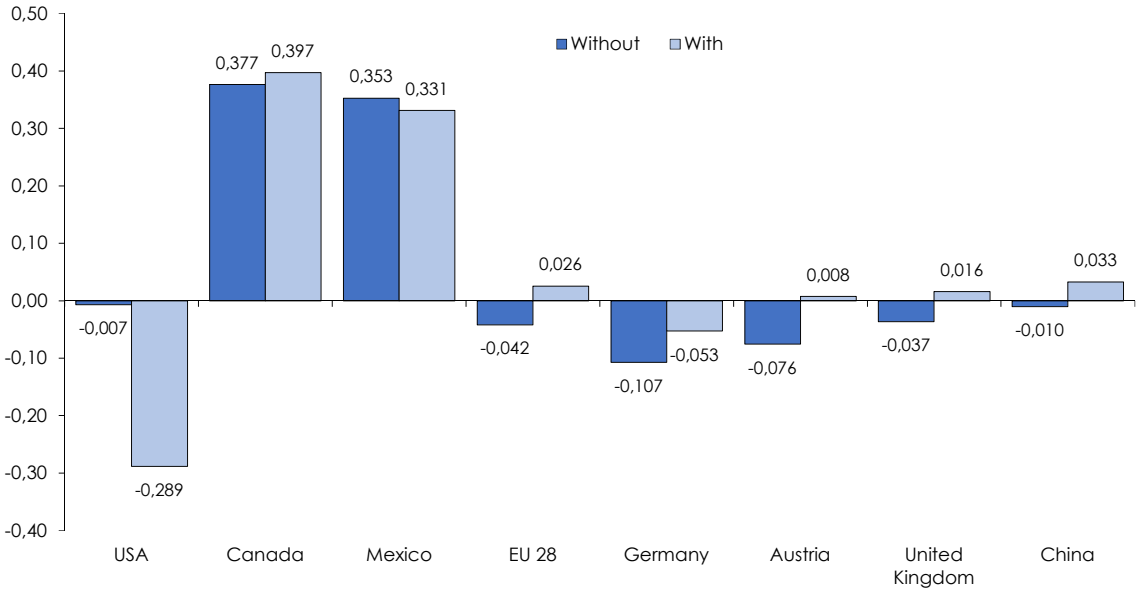
Besides the already ongoing aluminium and steel war with the USA, Europe faces two possible new trade wars with the USA of a similar dimension: (1) an announced car trade war based on Section 232 (national security); and (2) the Boeing-Airbus subsidy case with mutual retaliations.

1. *Car trade war:* After the Section 232 investigation (threat to national security) on aluminium and steel, another investigation on cars has been completed by the US Department of Commerce although the conclusions have not yet been published. Announced tariffs on these products of 25% would mainly target exports of cars and car parts and other motor vehicles by Japan, South Korea and Germany, as the revised USMCA trade agreement includes side letters that protect the partner countries from US national security tariffs on automobiles. However, in May 2019 Trump delayed his decision upon tariffs on car imports until November 13, 2019 in order to negotiate special agreements with the EU, Japan and

other countries. US tariffs on European cars could affect $ 53 bn worth of car and car part exports and may trigger retaliatory measures on US exports totalling $ 22.5 bn[22]).

The Peterson Institute for International Economics (PIIE) estimates that this measure would result in a loss of 195,000 jobs in the USA. If the trading partners retaliate, the number could increase by a factor of three. The car tariffs would affect imports worth $ 208 bn (Robinson et al., 2018). As the car war would have a much greater impact on the European industry than the aluminium and steel case, many studies have already attempted to estimate the potential impact on the EU and Austria (Felbermayr et al., 2018; Felbermayr and Steininger, 2018; Stehrer, 2018; Streicher, 2018; Oberhofer et al., 2018).

Figure 5: The static impact of US tariffs on car imports (25%) with and without retaliation on GDP of selected countries
(Deviations of real GDP in percentage points)



Source: Own simulations with GTAP9 (database 2011) and Gams (CGEBox).

Based on our CGE model we estimate a possible static impact of a US car war with the rest of the world. It is assumed that the USA levy a 25% additional tariff on all imported cars (partners of the USMCA are exempted). As in the aluminium and steel trade war, the major world car producing countries (EU, China, Japan, South Korea) are assumed to retaliate tit for tat. The volume of total retaliation accounts for $ 105 bn.

Figure 5 shows that the US car tariffs (without retaliation measures) would hurt the world economy significantly, in particular the EU countries. Incorporating announced retaliation

[22]) On 13 May 2019, EU Trade Commissioner Cecilia Malmstrom announced that the EU is ready to retaliate against possible US car import tariffs (https://www.bloomberg.com/news/articles/2019-05-13/eu-is-ready-to-retaliate-as-trump-s-auto-tariff-deadline-nears).

measures by targeted countries reveal that the USA would face a significant loss in real GDP by -0.29 percentage points, while the EU as a whole would gain, Germany would lose less than if no retaliation is assumed (-0.05 percentage points); Austria (0.01 percentage points) would slightly gain. In any case the big winners would be Canada and Mexico, the latter being one of the most important car producer and exporter to the USA. Again, overall trade with the USA exhibits nearly no effect, but there is a big impact on the volume of trade in cars with the USA. EU exports of cars to the USA are reduced by 60%, whereas world car exports to the USA shrink by 14%. In case of retaliation, overall bilateral trade flows between the EU and USA would shrink by 6%.

2. *Airbus-Boeing (subsidy) case at WTO:* This dispute between the USA and the EU lasts already since 2004/05. The WTO Dispute Settlement Board has ruled in both cases against each other:[23])

   DS316 (2004-2019) USA vs. EU (Airbus) and DS353 (2005-2019) EU vs. USA (Boeing): The WTO has found that both parties violate WTO law (the subsidy agreement) by unfairly subsidizing their aircraft industry.

   Only recently, in July 2019 the Trump administration announced that it would impose additional tariffs on EU exports worth $ 4 bn (100% extra tariffs on imports from the EU[24])) on top of the previous proposal in April to target goods worth $ 21 bn, pending the outcome of a WTO case. In April 2019 the EU also issued a preliminary list of US goods considered for countermeasures, overall representing around $ 20 bn of US exports into the EU[25]). In both cases the arbitrator of the WTO Dispute Settlement Body (DSB) has to decide on the appropriate level of countermeasures which subsequently would allow both sides to impose tariffs. In any case, the Boeing-Airbus trade war has the same dimension as the potential car trade war[26]).

4.1.3 The EU hopes for an US-EU trade deal - FTA-light

Shortly after President Trump took office, on February 20, 2017, he immediately repealed the long-lasting negotiations on TTIP (Transatlantic Trade and Investment Partnership) between the EU and the USA. Not least because TTIP was initiated by former President Barack Obama, Trump wanted to re-open new negotiations in a strive for a simpler deal. After TTIP negotiations were suspended, the Europeans wondered how a new deal would look like. Firstly, Trump threatened the EU (and some of its member states, e.g. Germany) because of the high trade surplus with the USA. Many attempts of EU representatives to calm him down failed and new tariffs on aluminium and steel were applied for the EU starting June, 1 2018.

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23) https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds316_e.htm, https://www.wto.org/english/tratop_e/dispu_e/cases_e/ds353_e.htm.

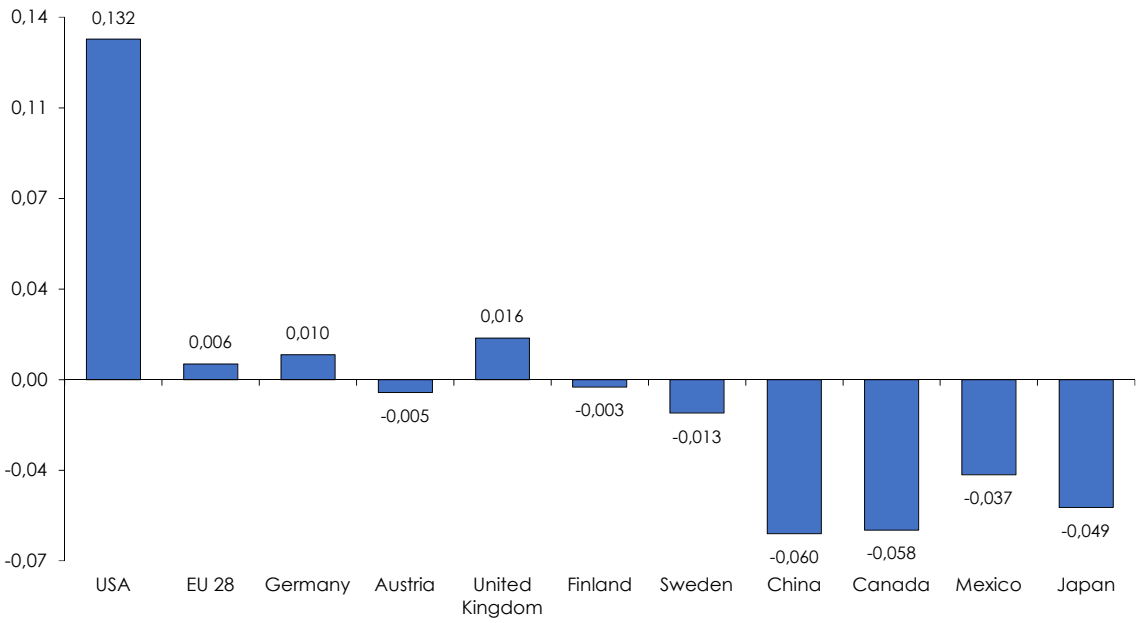
24) https://ustr.gov/about-us/policy-offices/press-office/press-releases/2019/july/ustr-proposes-additional-products.

25) http://trade.ec.europa.eu/doclib/press/index.cfm?id=2011.

26) As the outcome of the WTO Dispute is still pending we refrain from simulating the impact of this trade dispute.

Only the visit of EU Commission President Jean-Claude Juncker to President Trump on July 25, 2018 resulted in a pause of the US-EU trade conflicts when they agreed on starting negotiations for a new bilateral trade deal. In the meantime, Juncker offered Trump to buy more soya beans and liquefied natural gas. 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[27]). One concrete example is the agreement on the increase of the share of a duty-free tariff rate quota of 35.000 tonnes – phased over a seven years period - for US exports of hormone-free beef to the EU market. On August 2, 2019, the USA and EU signed this agreement. It is a concession which provides a solution to the longstanding dispute in the WTO regarding the use of certain growth-promoting hormones in beef production (the "hormone case")[28]).

Figure 6: The static impact of a US-EU FTA-light on GDP of selected countries
(Deviations of real GDP in percentage points)



Source: Own simulations with GTAP9 (database 2011) and Gams (CGEBox).

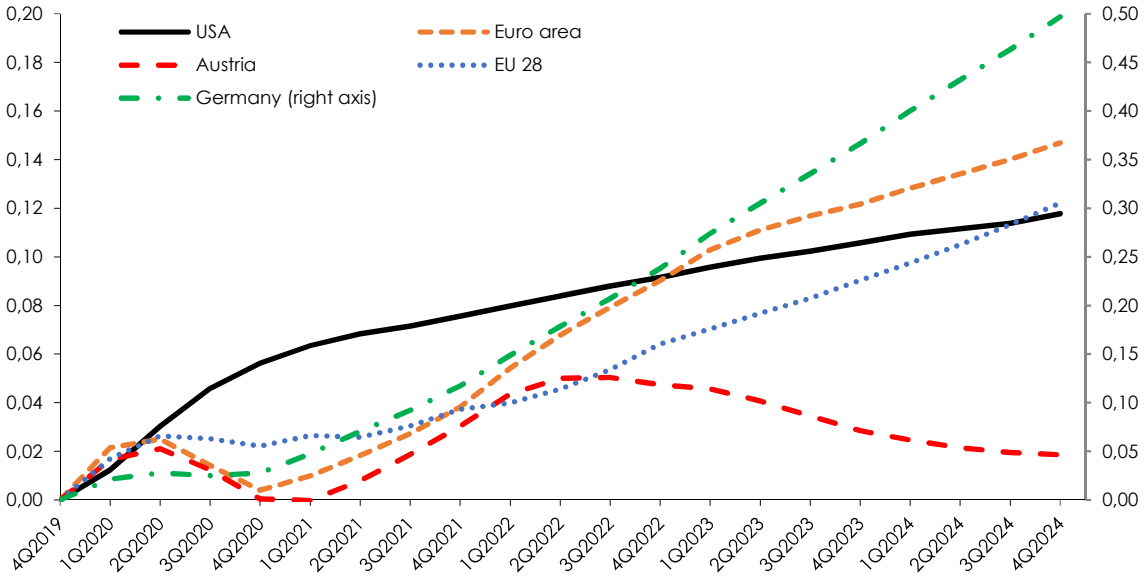
[27]) See the recent progress report by the European Commission (https://europa.eu/rapid/press-release_IP-19-4670_en.htm).

[28]) See the remarks by President Trump (https://www.whitehouse.gov/briefings-statements/remarks-president-trump-signing-u-s-eu-trade-agreement/) and the statement by the European Commission (https://europa.eu/rapid/press-release_IP-19-5010_en.htm).

We evaluate this FTA-light employing two approaches, the CGE model and the Oxford Global Economic model[29]). Whereas the advantage of the CGE model lies in estimating sectoral impacts of the trade conflict, the Oxford Global Economic model focuses more strongly on macroeconomic outcomes and their dynamics over time. We employ the Oxford Global Economic model only for simulating the impact of the two most relevant scenarios in economic terms – the possible EU-US trade agreement and the US-China trade war.

The simulations consider tariff reductions only. If the US-EU FTA-light also includes reductions of NTMs the effects would certainly be higher. Due to the asymmetry in industrial tariffs, the USA gains most from a FTA-light and our estimates reveal an increase in real GDP by 0.13 percentage points. Based on the CGE simulation, the EU only slightly profits from the agreement (+0.01 percentage points, Figure 6), while due to trade creation overall trade flows from the USA to the EU would increase by 7%, and vice versa from the EU to the USA by 5%. Due to trade diversion, third countries, like Canada and Mexico, are the losers. In order to evaluate the dynamic impact of a US-EU FTA-light we analyse the possible impact with the Oxford Global Economic model, assuming the FTA-light enters into force in the first quarter of 2020 already. This exhibits an interesting result. Similar to the CGE outcome, the USA would gain a little bit more than the EU (Euro area), but over time positive real GDP changes will be disproportionately higher in Germany (Figure 7).

Figure 7: The dynamic impact of a US-EU FTA-light on GDP of selected countries
(Deviations of real GDP in percentage points)



Source: Own simulations with the Global Economic model of Oxford Economics (database July 2019)

[29]) A detailed description of the Oxford Global Economic model can be found at Oxford Economics (https://www.oxfordeconomics.com/global-economic-model).

4.2 The US-China battle for IT supremacy

Not only the USA, but also the EU, are accusing China of being an unfair trading partner within the WTO (China became a member of the WTO on December 11, 2001). Whereas the EU is more diplomatic in negotiating with China about the necessary measures to open Chinese markets, President Trump puts more pressure on China. More recently, at the EU-China Summit on April 9, 2019 in Brussels, a Joint Statement was issued in this respect[30]): *"The EU and China commit to build their economic relationship on openness, non-discrimination, and fair competition, ensuring a level playing field, transparency, and based on mutual benefits*". In contrast, since US President Trump took office, diplomacy is substituted by political pressure. Using the Section 301 instrument, President Trump forces China to negotiate and aim for a "deal" which should rebalance the disadvantages which the USA believe they suffer from.

4.2.1 Escalation of the US-China trade war

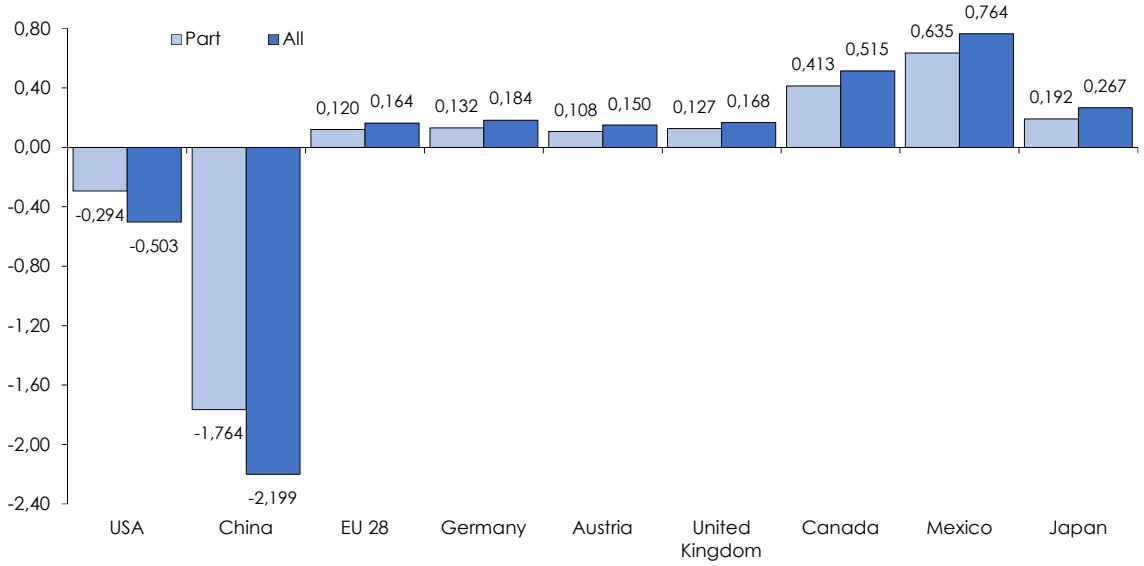
Until now, $ 250 bn out of $ 539.5 bn, amounting to 46% of US imports from China in 2018, are currently subject to US tariffs up to 25%. In comparison, Chinese imports from the USA subjected to extra tariffs of 25% make up 70.3% of total imports from the USA, totalling $ 110 bn out of $ 156.3 bn. Hence, the USA have still more leeway for further tariff measures than China has.

In the following we evaluate this extensive trade war with our two models (CGE and Oxford Economics) and simulate macroeconomic impacts of the trade regime at its current status: 25% US tariffs on $ 250 bn of Chinese imports; 25% Chinese tariffs on $ 110 bn US imports. Furthermore, we assume that present and retaliatory tariffs stay in place for some time.

On August 1, 2019, President Trump – after failed trade talks with China –announced a further escalation. The USA will start imposing a small additional tariff of 10% on the remaining $300bn products coming from China on September 1, 2019. Later, Trump said in remarks to reporters at the White House that he might still ratchet tariffs up to 25% – or even higher – as he has previously threatened. It can be assumed that China will immediately retaliate tit for tat on all US imports with 25% tariffs. In view of this new development we alternatively simulated a total US-China trade war, covering all bilateral imports with a 25% tariff (see Figure 8 for the CGE model simulations and Figure 9 for the simulations with the Oxford model).

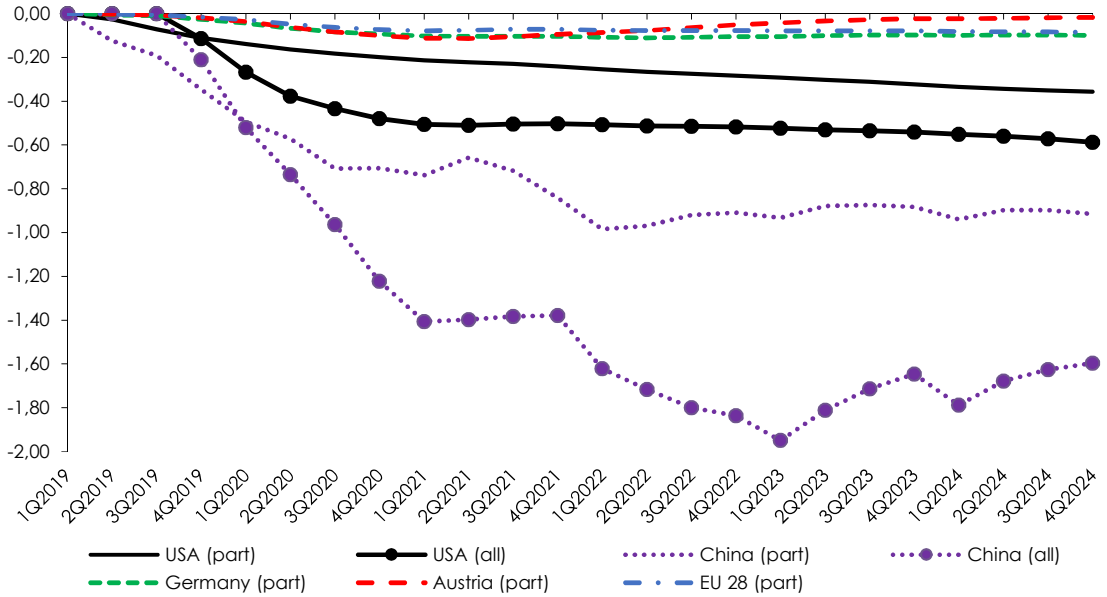
[30]) https://www.consilium.europa.eu/en/press/press-releases/2019/04/09/joint-statement-of-the-21st-eu-china-summit/. In a recent report (see European Commission, 2018) the EU heavily criticizes China for the lack of protection of intellectual property rights.

Figure 8: The static impact of the US-China trade war on GDP of selected countries
(Deviations of real GDP in percentage points)



Source: Own simulations with GTAP9 (database 2011) and Gams (CGEBox).
Notes: Part = 25% US tariffs on $ 250 bn of Chinese imports; 25% Chinese tariffs on $ 110 bn US imports. All = 25% tariffs on all bilateral US-China imports (total US-China trade war).

Figure 9: The dynamic impact of the US-China trade war on GDP of selected countries
(Deviations of real GDP in percentage points)



Source: Own simulations with the Global Economic Model of Oxford Economics (Database July 2019).
Notes: Part = 25% US tariffs on $ 250 bn of Chinese imports; 25% Chinese tariffs on $ 110 bn US imports; model input 1Q2019. All = 25% tariffs of all bilateral US-China imports (total US-China trade war); model input 4Q2019.

Firstly, in the CGE model, the impact on bilateral trade is massive. In the scenario where only a part of bilateral US-China trade is burdened with 25% tariffs (scenario "Part"), US exports to China decline by 50%, those of China to the USA by 60%. In case of a total US-China trade war (scenario "All") bilateral trade flows would decline by 72% for both countries. Overall world trade will be reduced in both scenarios by around 0.6%. Trade between the USA and EU increases: EU to USA by 7%, USA to EU by 0.3% (1.2% in the case of a total US-China trade war). Similarly, China's trade with the EU would increase by 9% (11%). Figure 8 shows the static GDP effects of the US-China trade war. China (-1.76 percentage points; -2.20 percentage points in the case of a total US-China trade war) loses much more than the USA (-0.30 and -0.50 percentage points respectively) in terms of real GDP. All third countries are winners, the biggest of these being Canada and Mexico again.

Secondly, the dynamic impact of the US-China trade war – simulated with the Global Economic Model of Oxford Economics – reveals the same patterns as the CGE simulations (Figure 9). The biggest loser is China with a long-term reduction of real GDP by 1 percentage point; if all bilateral imports are covered by tariffs GDP would decline by 1.6 percentage points. But the US economy is also suffering from a decline in real GDP of around 0.4 percentage points, in case of a total US-China trade war GDP would decline by 0.6 percentage points. While all other trading partners – e.g. the EU and its member states – are hardly affected (decline of GDP by 0.1 percentage points) from the current status of the US-China trade dispute, GDP in the EU, however, could decline by 0.2 percentage points in a total US-China trade war scenario.

4.2.2 China's potential non-tariff weapons against the USA

Besides the classical instruments, tariffs and export restraints, China has several potential non-tariff weapons available.

Firstly, China owns the largest part of US Treasuries (17% of foreign holdings and 7% of total Treasuries outstanding). China, the largest foreign creditor to the US government with total Treasury holdings in excess of $ 1.2 tn, sold $ 20 bn of securities with a maturity exceeding one year in March[31]).

Secondly, China is the secret raw material power concerning modern ores (rare-earth elements, 80% of these elements rest in China[32]).

Thirdly, the new long-term policy targets to conquer the supremacy in modern technology is a great challenge for the USA: "*One Belt, One Road*" – *OBOR*/"*Belt and Road Initiative*" – *BRI* and in particular, the ambition to become the leading high-tech nation in the world in 2025 according to the "*Made in China 2025 - MIC 2025*" strategy.

[31]) Financial Times, May 23, 2019. Breuss and Roeger (2009) with the QUEST model of the European Commission simulated the consequences of a shift of foreign reserves of China from US-Dollars to Euros.

[32]) Neue Zürcher Zeitung, May 27, 2019, p. 19.

Fourthly, in a tit-for-tat manner, China also hinders activities of foreign investors, e.g. Apple's plan for a global value-added chain. Therefore, many investors think about relocating their activities from China to Vietnam (e.g. Foxconn for Apple) as China – like the USA – blacklists "dangerous" foreign companies. These ambitions would lead to a massive reorganisation of activities in the global economy (Baldwin and Venables, 2013).

4.2.3 China gradually opens its markets

Under the pressure of further tariff measures against China, negotiations on an arrangement to open Chinese markets for foreign (US) companies are under way. On the occasion of the G20 Osaka Summit 2019 (June 28 and 29, 2019) a meeting between US President Donald Trump and Chinese President Xi Jinping brought a "ceasefire" in the ongoing trade war. Both presidents agreed to continue with the ongoing trade talks. Therefore, the USA postponed the introduction of extra tariffs on those US imports from China that have not been targeted yet, amounting to $ 300 bn of US imports. Furthermore, export restraints in the case of Huawei have been suspended. However, the US Senate wants to prevent Trump from using the Huawei boycott in the trade poker with China as a bargaining chip[33]).

In return to the Osaka "ceasefire", China is opening its markets for foreign investors. The number of forbidden or restricted FDIs has been revised. In the list for Free Trade Zones (FTZ) only 37 sectors (of formerly 45) face restrictions in terms of FDIs. In the list for firms not acting in FTZ in China only 40 sectors (formerly 48) are subject to such restrictions. Furthermore, on March 15, 2019, China passed a new FDI bill which includes several reliefs for foreign investors. One year earlier than planned, China opens its financial markets for foreign investors and any limits of participation for foreign financial companies for bonds, insurances and funds will be eliminated[34]). However, all these small concessions are not enough for the USA. Therefore, after the recent US-China trade talks in Shanghai on July 31, 2019 ended with no deal in sight, President Trump increased pressure on China by announcing further 10% tariffs, starting on September 1, 2019. A further escalation with higher tariffs is not excluded.

[33]) Therefore, six members of the Senate introduce a strong bill. The "United States 5G Leadership Act of 2019" aims at draconic punishment of Huawei. This company should not only be excluded from the US market, but the already installed LTE equipment in the USA should be deinstalled (https://www.congress.gov/bill/116th-congress/senate-bill/1625).

[34]) Der Standard, July 22, 2019, p. 11.

5. Conclusions

Trump's trade wars have reached a new dimension. They have expanded from mini to global trade wars. They target sectors (e.g. aluminium and steel) for the protection of "national security" (according to Section 232 of the Trade Expansion Act of 1962) and countries (e.g. China) for unfair trade practices (according to Section 301 of the Trade Act of 1974). Both legal instruments give the US President the power to impose sanctions and protective measures. Since President Trump came into office, various actions implemented have severely strained trade relations between the USA and their most important trading partners. Specifically, he suspended most multilateral agreements or projects the USA were involved in previously (TTIP, TPP, Paris Climate Agreement, JCPoA with the Iran), renegotiated NAFTA and imposed tariffs on several products, contending that they threaten national security and comprise unfair trading practices. In 2018, all protective actions by Trump together covered $ 303.7 bn or 12.6% of US imports, but some products were hit by different measures more than once. Adding-up all forms of protective US measures reveals that almost 15% of US imports are covered by Trump's trade wars in 2018. The imposed measures should encourage consumers to buy American products, but all targeted countries, predominantly China and the EU, retaliated with tariffs on US goods and announced to file a formal WTO dispute. The two central arguments that are brought into play in the US trade disputes are the high trade deficits of the USA with their major trading partners, especially the EU and China, and "unfair" tariff levels. While China is responsible for nearly one half of the total trade deficit of the USA, the deficit with the EU is quite smaller. Additionally, since 2009, the bilateral US-EU current account exhibits – at least according to US statistics by BEA – a small surplus (2018: $ 4 bn). But even Trump's aggressive protectionist trade actions, starting in 2018, could not bring a relief to the US trade deficit with its main trading partners. The last tariff negotiations between the EU and the USA trace back to the Uruguay Round and reveal some tariff asymmetries. Especially, agricultural products and cars are much more protected in the EU than in the USA, whereas no big divergence apply for non-agricultural products. With the two legal instruments President Trump fights against the EU and China. Whereas the US trade conflict with China escalated dramatically and could ultimately – beginning with September 1, 2019 as President Trump has threatened – affect all bilateral trade, the tensions with the EU are currently limited to aluminium and steel. However, a trade war with cars could follow if no agreement on an US-EU FTA-light is reached, besides the agreement on increasing the share of duty-free imports of hormone-free beef from the USA, signed on August 2, 2019.

In this paper we analysed the nature of the trade wars already underway (aluminium/steel; US-China) and the possible new conflicts (cars) and agreements (FTA-light) applying two methods to estimate the potential macroeconomic consequences: (1) a static CGE model and (2) a global dynamic economic macro model. The comprehensive US trade war with China results in the biggest impact for the involved countries, followed by a possible car conflict and a FTA-light agreement.

Until now, $ 250 bn out of $ 539.5 bn, amounting to 46% of US imports from China in 2018 are subjected to US tariffs up to 25%. In comparison, the Chinese imports from the USA on which extra tariffs of 25% are imposed make up 70.3% of total US imports to China, totalling $ 110 bn out of $ 156.3 bn. However, this trade war might escalate, as on August 1, 2019, President Trump threatened to impose a small additional tariff of 10% on the remaining $ 300 bn products coming from China beginning with September 1, 2019. Simulating the impacts of both scenarios of this trade dispute with the CGE model shows that the impact on bilateral trade volumes is massive. In the current trade dispute, US exports to China decline by 50%, while Chinese exports to the USA shrink by 60% and overall world trade will be reduced by 6%. However, in case of a total US-China trade war bilateral trade flows would decline by more than 70% for both countries, while trade flows between the USA and the EU and China and the EU would increase substantially. In terms of real GDP, China (-1.76 percentage points, or 2.20 percentage points in the case of a total US-China trade war) loses much more than the USA (-0.30 and -0.50 percentage points respectively), while all third countries turn out to be winners.

An escalation of the US-EU trade war imposing car tariffs and announced retaliation measures (totaling $ 22.5bn) by targeted countries reveals that the USA would face a significant loss in real GDP by -0.29 percentage points, while the EU would gain slightly (0.03 percentage points). In any case the big winners would be Canada and Mexico. The latter is one of the most important car producer and exporter to the USA. Moreover, also trade of cars with the USA will be severely affected. EU exports of cars to the USA decline by 60%, whereas global car exports to the USA shrink by 14%. In case of retaliation, overall bilateral trade flows between the EU and USA will shrink by 6%.

However, Trump's decision upon tariffs on car imports has been delayed until November 13, 2019, in order to negotiate special agreements with the EU, Japan and other countries. Employing the CGE model to evaluate the impact of an EU-US FTA-light shows that due to the asymmetry in industrial tariffs, the USA gains most from such an agreement, leading to an increase in real GDP by 0.132percentage points. Based on the CGE simulation, the EU hardly profits from the agreement (+0.01 percentage points), while due to trade creation overall trade flows from the USA to the EU will increase by 7% and vice versa from the EU to the USA by 5%. Due to trade diversion, third countries, like Canada and Mexico, will lose in terms of GDP.

6. Appendix

Table A1: CGE model 23x20

23 regions/countries	USA, Canada, Mexico, EU 22, Ireland, United Kingdom, Germany, Austria, Finland, Sweden, Switzerland, rest of EFTA, Turkey, Russia, CEEC, China, India, Japan, South Korea, Taiwan, Australia, Brazil, rest of world
20 sectors	Grain crops, wheat, meat and liv estock, extraction, oil and gas, processed food, bev erages, textiles, clothing, cars, motorcycles, light manufacturing, heav y manufacturing, chemicals, electronics, iron and steel, aluminium, utility and construction, transport and communication, other serv ices
5 factors of production	Land, unskilled labour, skilled labour, capital, natural resources

Source: GTAP9 (database 2011; with 57 sectors and 140 regions/countries).

Table A2: US trade wars – impact on real GDP
(Deviations of real GDP in percentage points)

	US alu/steel trade war		**US car trade war**		**US-EU FTA-light**	**US-China trade war part**	**US-China trade war all**
	Without retaliation	With	Without retaliation	With			
World	-0.003	-0.005	-0.019	-0.035	0.007	-0.129	-0.179
USA	-0.028	-0.062	-0.007	-0.289	0.132	-0.294	-0.503
Canada	0.087	0.089	0.377	0.397	-0.058	0.413	0.515
Mexico	0.047	0.045	0.353	0.033	-0.037	0.635	0.764
EU 28	-0.009	0.000	-0.042	0.026	0.006	0.120	0.164
Ireland	0.001	0.002	-0.008	0.037	0.066	0.128	0.170
United Kingdom	-0.012	-0.005	-0.037	0.016	0.016	0.127	0.168
Germany	-0.011	-0.001	-0.107	-0.053	0.010	0.132	0.184
Austria	-0.019	-0.010	-0.076	0.008	-0.005	0.108	0.150
Finland	-0.011	-0.003	-0.025	0.032	-0.003	0.093	0.130
Sweden	-0.023	-0.015	-0.038	0.022	-0.013	0.107	0.141
Switzerland	-0.006	0.005	-0.007	0.088	-0.065	0.171	0.231
Rest of EFTA	-0.020	-0.013	-0.001	0.056	-0.033	0.070	0.102
Turkey	-0.010	-0.004	-0.019	0.033	-0.032	0.048	0.074
Russia	-0.053	-0.048	0.019	0.059	-0.024	0.081	0.117
CEEC	-0.057	-0.048	-0.001	0.061	-0.031	0.058	0.084
China	0.004	0.007	-0.010	0.033	-0.060	-1.764	-2.199
India	-0.018	-0.013	-0.006	0.033	-0.033	0.177	0.231
Japan	-0.004	0.006	-0.246	-0.161	-0.049	0.192	0.267
South Korea	0.022	0.033	-0.169	-0.127	-0.043	0.250	0.344
Taiwan	-0.024	-0.008	-0.050	0.069	-0.048	0.384	0.535
Australia	0.027	0.037	0.028	0.110	-0.044	0.077	0.134
Brazil	0.046	0.057	0.034	0.123	-0.057	0.207	0.309
Rest of world	0.013	0.018	0.005	0.046	-0.028	0.161	0.215

Source: Own simulations with GTAP9 (database 2011) and Gams (CGEBox).
Notes: EU 28 is calculated as weighted average of EU 22, Ireland, United Kingdom, Germany, Austria, Finland and Sweden. Part = 25% US tariffs on $ 250 bn of Chinese imports; 25% Chinese tariffs on $ 110 bn US imports. All = 25% tariffs on all bilateral US-China imports (total US-China trade war).

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