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CESifo Forum

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Suggested Citation: Felbermayr, Gabriel; Steininger, Marina (2019) : Trump's trade attack on China - who will have the last laugh?, CESifo Forum, ISSN 2190-717X, ifo Institut – Leibniz-Institut für Wirtschaftsforschung an der Universität München, München, Vol. 20, Iss. 1, pp. 27-32

This Version is available at: https://hdl.handle.net/10419/199025

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Gabriel Felbermayr and Marina Steininger Trump's trade attack on China – who will have the last laugh?

The dispute regarding trade issues between China and the United States dates back to a time before Trump had likely even thought about becoming the next president of the United States. Under US President Barack Obama, China was challenged 16 times, on issues regarding harmful dumping of products onto the US market, export restrictions on rare earths, overcapacities in the solar panel and steel industries, and illegal taxes on American steel and cars. But the approach to solving these issues was quite different from the most recent trade dispute. Barack Obama supported a multilateral trade agreement, including rules on stateowned enterprises, currency manipulation issues, and new guidelines on environmental and labor standards.¹

Trump's strategy clearly deviates from his predecessor's. It began in late 2017, when the US trade commission publicly expressed its concerns that imports of washing machines and solar panels from China are damaging US industries. The Sino-American trade dispute then escalated quickly in 2018. China and the United States found themselves in a spiral of never-ending tariff threats. A first constructive breakthrough was reached when both presidents declared a 90-day 'cease-fire' on December 1. Until March 1, the United States would not impose higher tariffs on Chinese imports valued at USD 200 billion. But despite these first signs of a more constructive Sino-American dialogue, the ongoing trade dispute remains largely unresolved. The United States and China still have major differences to overcome

After three days of negotiations in Beijing, China's trade ministry stated that the talks increased mutual understanding and created a basis for addressing the concerns of both sides. The Office of the United States Trade Representative substantiated the need for an agreement that satisfies both economies. Sino-American trade relations should be fair, reciprocal, and balanced to reach a long-term equilibrium on such issues as forced technology transfer, protection of intellectual property, non-tariff barriers, cyberattacks, and cyber theft of trade secrets. According to a statement by the US trade representative, China supposedly pledges to buy 'significant quantities' of products from US agriculture, manufacturing, and the energy sector, and to allow more services trade. Progress has also been made on such topics as additional imports and the opening of China's market to US capital. The Wall Street Journal states that the negotiations on additional imports and the opening of the Chinese market to US capital have made progress, but differences over more complicated issues, such as protection of intellectual property and subsidies to Chinese state-owned enterprises, remained unresolved. China's Ministry of Commerce (MOC) reported that consultations on structural trade issues moved forward. The MOC's spokesperson, Gao Feng, stated that the exchange of views was "broad, deep, and meticulous". China will, for instance, open its market to five additional genetically modified grains, which the US has been demanding for several years.

This article offers a quantitative analysis of the potential effects of the US-China trade dispute. China and the United States are currently in the process of negotiating an exit from the escalation spiral set in motion last year. We quantify the consequences of different trade dispute measures for the United States, China, the EU28, and the rest of the world. How will this play out in the modern world of fragmented global value chains, and what are the stakes? Does this conflict matter for outsiders? How much of the global downturn in economic activity can be plausibly explained by the trade conflict? This report sheds light on these questions.

QUANTIFICATION OF THE TRADE DISPUTE

The analysis is based on Aichele et al. (2014) and Aichele et al. (2016) and simulates two sets of counterfactual scenarios: the first set of scenarios quantifies the effects of tariff measures that the United States and China have already imposed. The second set quantifies the consequences of further potential trade escalations. The first four scenarios (S1a to S4a) include different stages of unilateral US tariff increases on Chinese products. The remaining four scenarios (S1b to S4b) additionally model different retaliation measures of China on US products. Scenario 2b replicates the current trade dispute. The simulation analysis provides us with general equilibrium-consistent effects on real income (i.e. GDP), bilateral trade, and sectoral value-added for the United States, China and the EU28. The quantitative framework accounts for national and international production networks by incorporating a global input-output table. The analysis covers more than 90 percent of global value-added and trade. The main channels of the protectionist



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¹ The multilateral agreement, called the Trans-Pacific Partnership Agreement, initially excluded China, but it was hoped that China would eventually join.

measures and their potential global impact can be analyzed.

We study the following scenarios based on unilateral actions by the US in goods trade:

- Scenario 1a: 25% tariff on 10% of US imports from China, worth approximately USD 50 billion (in place as of February 2019).
- Scenario 2a: as scenario 1a, plus a 10% tariff on 40% of US imports from China, worth approximately USD 200 billion (in place as of February 2019).
- Scenario 3a: 25% tariff on 50% of US imports from China, worth approximately USD 260 billion (threatened by the United States).
- Scenario 4a: 25% tariff on 100% of US imports from China, worth USD 520 billion (threatened by the United States).

We complement this analysis with scenarios that allow for Chinese countermeasures:

- Scenario 1b: as scenario 1a, plus a 25% tariff on 40% of Chinese imports from the United States, worth approximately USD 50 billion (in place as of February 2019).
- Scenario 2b: as scenario 2a, plus a 25% tariff on 40% of Chinese imports from the United States, worth approximately USD 50 billion; additional 10% tariff on 50% of Chinese imports from the United States, worth USD 60 billion (in place as of February 2019).
- Scenario 3b: as scenario 3a, plus a 25% tariff on 90% of Chinese imports from the United States, worth approximately USD 100 billion (threatened).
- Scenario 4b: 25% tariff on 100% of US imports from China, worth USD 520 billion; 25% tariff on 100% of Chinese imports from the United States, worth USD 120 billion (threatened).

ECONOMIC COSTS

Changes in real income

Table 1

Table 1 shows the change in real income (i.e. GDP) for the United States, China, the EU28, and the rest of the world. This number reflects both factor income (such as wage income) and government tariff income.

Scenarios 1a to 4a show that, under the assumption that China does not retaliate, the United States can hope for an increase in GDP if it does not overplay its hand. The point is that unilateral US tariffs will lead to an improvement of US terms of trade, which benefits producers (but damages consumers and other users of imports) and raises US government income. Higher tariffs reduce the purchasing power of households, which decreases domestic consumption. At the same time, however, higher import costs can lead to consumers replacing imported products with domestic products, which then increases domestic sales and decreases imports, which is the case in these scenarios (see Table 3). That gain amounts to EUR 3.5 billion in S2a, which corresponds to the current status quo without Chinese retaliation, but it turns negative when the United States imposes high tariffs on all imports from China (scenario S4a). China, in contrast, loses EUR 9.3 billion in GDP under scenario S2a-a loss that would rise to a whopping EUR 34 billion if the United States imposes a 25% tariff on all goods imported from China.

If the US overplays and imposes tariffs on intermediate goods imports, such as in scenario 4a, they would face higher domestic production costs. One consequence of this would be a loss in international competitiveness and a reduction of exports, which would intensify the negative effects on real income. This explains why the change in real income deteriorates from scenario 2a to 3a to 4a, even without retaliatory measures by China. Additional effects such as the deterioration of consumer or business confidence, for instance due to increased uncertainty, could exacerbate the negative impact but are not captured in our simulations. China's retaliatory tariffs, however, then turn the American gain into a EUR 2.6 billion loss, while China's loss narrows to EUR 5.7 billion - see scenario S2b, the representation of the current status quo of the US-China trade conflict. Thus, Chinese real income still shrinks about twice as much as the American figure.

The various scenarios have only a marginal impact on global economic activity. However, a trade dispute escalation could potentially have larger global effects. The EU28 can be seen as the winner of this spiral of tariff increases, even though the

| | EUR million | | | | | | | | | |
|------------|-------------|--------|---------|---------|--------|--------|---------|---------|--|--|
| | S1a | S2a | S3a | S4a | S1b | S2b | S3b | S4b | | |
| Germany | - 22 | 43 | 102 | 191 | 132 | 264 | 428 | 495 | | |
| France | - 3 | 74 | 103 | 217 | 9 | 14 | 123 | 193 | | |
| Italy | 93 | 108 | 215 | 352 | 103 | 46 | 239 | 347 | | |
| Rest of EU | 27 | 36 | 115 | 179 | - 12 | 21 | 74 | 149 | | |
| EU28 | 95 | 260 | 534 | 939 | 233 | 345 | 864 | 1184 | | |
| US | 1697 | 3468 | 2864 | - 2236 | - 2911 | - 2585 | - 4032 | - 9458 | | |
| China | - 5197 | - 9298 | - 21282 | - 33749 | - 1920 | - 5698 | - 17789 | - 30350 | | |
| RoW | 509 | 854 | 3083 | 5293 | 1097 | 1428 | 2481 | 5409 | | |

Source: ifo simulations. Scenario S2b models the status quo of the current trade conflict. The aggregate Rest of EU excludes Germany, Italy, and France. The detailed results for all EU28 countries can be found in the Appendix.

 Table 2

 Changes in sectoral value-added in the United States, China and the EU28

| | Percent | | | | | | | | |
|---------------|---------|--------|--------|--------|--------|--------|--------|--------|--|
| US | S1a | S2a | S3a | S4a | S1b | S2b | S3b | S4b | |
| Manufacturing | 0.09 | 0.21 | 0.42 | 0.75 | - 0.06 | 0.04 | 0.23 | 0.56 | |
| Services | - 0.02 | - 0.03 | - 0.08 | - 0.16 | - 0.02 | - 0.04 | - 0.09 | - 0.17 | |
| Agri-food | - 0.15 | - 0.29 | - 0.62 | - 0.95 | - 0.30 | - 0.48 | - 0.88 | - 1.22 | |
| Total | - 0.01 | - 0.02 | - 0.06 | - 0.10 | - 0.04 | - 0.05 | - 0.10 | - 0.14 | |
| China | S1a | S2a | S3a | S4a | S1b | S2b | S3b | S4b | |
| Manufacturing | - 0.10 | - 0.18 | - 0.41 | - 0.64 | - 0.19 | - 0.30 | - 0.55 | - 0.78 | |
| Services | - 0.02 | - 0.04 | - 0.09 | - 0.14 | - 0.05 | - 0.09 | - 0.15 | - 0.20 | |
| Agri-food | 0.05 | 0.09 | 0.18 | 0.26 | 0.10 | 0.16 | 0.27 | 0.35 | |
| Total | - 0.03 | - 0.05 | - 0.12 | - 0.19 | - 0.06 | - 0.09 | - 0.18 | - 0.25 | |
| EU28 | S1a | S2a | S3a | S4a | S1b | S2b | S3b | S4b | |
| Manufacturing | - 0.01 | - 0.01 | - 0.03 | - 0.04 | 0.02 | 0.02 | 0.02 | 0.00 | |
| Services | 0.00 | 0.00 | 0.01 | 0.02 | 0.00 | 0.00 | 0.01 | 0.01 | |
| Agri-food | 0.00 | -0.01 | - 0.01 | - 0.02 | - 0.01 | -0.01 | - 0.02 | - 0.03 | |
| Total | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.01 | 0.01 | |

Source: ifo simulations. Scenario S2b models the status quo of the current trade conflict. The detailed value-added effects for all EU28 member states can be found in the Appendix.

gains are very small. Germany is the main benefiter in the EU28. These effects are driven by the increase in EU28 exports to the United States and China. This analysis does not cover all relevant channels through which the trade conflict affects economic activity, but it does suggest that the trade dispute alone does not fully explain the current downturn in the global economy.

Table 2 shows the sectoral value-added changes of the United States, China, and the EU28. Both the United States and China will be confronted with a decrease in value-added in all scenarios. The negative extent increases with the number of products hit by a tariff increase (S1a to S4a). US value-added will additionally suffer from China's countervailing tariff increases (S1b to S4b). Similarly, Chinese value-added would be negatively impacted if China retaliated against the United States. The tariffs that are already in place (S2b) increase US sectoral value-added in the manufacturing industry by 0.04%, while shrinking the value-added in the agri-food sector by 0.48% and in the services sector by 0.04%. These trends increase with the extent of the retaliation scenario (S3b and S4b).

Next, one can take a closer look at the changes in the trade structure. The upper part of Table 3 shows the change in bilateral trade among the United States, China and the EU28. The lower part of the table shows the change in domestic sales of the respective countries and the EU28. The simulations suggest negative effects on US exports to China in all scenarios (between - EUR 1.4 billion and - EUR 51.0 billion). Retaliation measures by China decrease exports even further. US exports to the EU28 also shrink, but to a much lesser extent than those to China (between - EUR 0.2 billion and - EUR 11.3 billion). Chinese exports to the United States decrease with the intensity of the trade dispute. A similar picture is evident on the import side. Retaliation measures worsen this downturn. China partly compensates the decrease of exports to the United States with new trade linkages with the EU28. The United States can compensate the decrease in exports and imports with an increase in domestic sales. But substituting domestic production provides only limited compensation because the overall effects of higher tariffs imply a decrease in real income.

The bottom line: in the *status quo* situation (scenario 2b), the US trade deficit in goods with China falls

Table 3

| | | • | | |
|-------|-----|----|-----|-----|
| Chan | ave | ın | tra | d D |
| Cilan | ges | | ua | ue |
| | 0 | | | |

| | | | Changes in bilateral trade, EUR billion | | | | | | | | | |
|---------|---------|--------|---|---------|---------|--------|--------|---------|---------|--|--|--|
| Exports | Imports | S1a | S2a | S3a | S4a | S1b | S2b | S3b | S4b | | | |
| US | China | - 1.4 | - 2.6 | - 5.6 | - 8.7 | - 29.0 | - 37.1 | - 47.5 | - 51.0 | | | |
| US | EU28 | - 1.9 | - 3.4 | - 7.4 | - 11.3 | 0.7 | - 0.2 | - 3.4 | - 7.4 | | | |
| China | EU28 | 2.3 | 4.1 | 9.5 | 15.4 | 0.1 | 1.4 | 6.0 | 11.6 | | | |
| China | US | - 25.8 | - 46.8 | - 105.6 | - 167.9 | - 30.4 | - 52.1 | - 110.7 | - 171.3 | | | |
| EU28 | China | - 2.2 | - 4.0 | - 9.1 | - 14.2 | 0.4 | - 0.6 | - 4.9 | - 10.0 | | | |
| EU28 | US | 4.0 | 7.1 | 16.3 | 26.1 | 0.4 | 2.5 | 10.5 | 19.9 | | | |
| | | | Changes in domestic sales, EUR billion | | | | | | | | | |
| | | S1a | S2a | S3a | S4a | S1b | S2b | S3b | S4b | | | |
| US | | 45.2 | 81.0 | 180.7 | 280.2 | 1.3 | 25.4 | 110.6 | 207.3 | | | |
| China | | - 52.5 | - 94.1 | - 214.2 | - 339.3 | 8.6 | - 16.8 | - 118.1 | - 239.0 | | | |
| EU28 | | - 1.8 | - 3.6 | - 6.5 | - 8.8 | 8.8 | 9.7 | 10.0 | 8.1 | | | |

Source: ifo simulations. Scenario S2b models the status quo of the current trade conflict. The results for all EU28 member states can be found in the Appendix.

by about USD 15 billion (4% of the current deficit). In a full-fledged trade war, the US trade deficit in goods with China goes down by some USD 120 billion (33% of the current deficit).

CONCLUSION

China and the United States are currently in the process of negotiating an exit from the escalation spiral set in motion last year. If there is no agreement by March 1, the threat of an escalating trade dispute could hit China, the United States, and other regions, such as the European Union. Our quantitative analysis of the potential effects of the Sino-American trade dispute reveals a number of insights.

First, the tariffs and counter-tariffs implemented as of today cost the United States EUR 2.6 billion and China EUR 5.7 billion in GDP. Both economies lose, but China loses much more, both absolutely and relatively. Europe, in contrast, could register a GDP gain of EUR 345 million — a positive but statistically negligible number. Chinese exports to the United States go down by EUR 52.1 billion while US exports to China fall by EUR 37.1 billion, slightly improving the US trade balance.

Second, a full-blown tariff war, where both parties require an additional 25 percent tax on all imports, would lower US GDP by EUR 9.5 billion and Chinese GDP by EUR 30.4 billion. If President Trump's objective is to use trade policy to increase the economic distance between the US and China, such an escalation would help. However, as is the case with every war, such a strategy comes with high costs.

Third, a full-blown trade war would increase value-added in the US manufacturing sector by 0.6%, while the agri-food sector would shrink by 1.22%. In China, manufacturing would decline by 0.8%. Again, Trump could hail victory as the US manufacturing sector grows while China's shrinks. The bilateral trade balance between the United States and China would also improve: Chinese exports to the United States would fall by a whopping EUR 171.3 billion, while US exports to China would contract by EUR 51.0 billion.

Fourth, while Europe may benefit slightly from trade diversion effects, its trade surplus with the United States would become even larger, threatening further transatlantic conflict.

REFERENCES

Aichele, R., G. Felbermayr and I. Heiland (2014), *Going Deep: The Trade and Welfare Effects of TTIP*, CESifo Working Paper 5150.

Aichele, R., G. Felbermayr and I. Heiland (2016), *Going Deep: The Trade and Welfare Effects of TTIP Revised*, ifo Working Paper 219.

Bown, C. and M. Kolb (2018), *Trump's Trade Wars Timeline: An Up-to-date Guide*, Peterson Institute for International Economics, https://piie.com/blogs/trade-investment-policy-watch/trump-trade-war-china-date-guide.

Bown, C., E. Jung and Z. Lu (2018), *Trump and China For*malize Tariffs on \$260 Billion of Imports and Look Ahead to Next Phase, Peterson Institute for International Economics, https://piie.com/blogs/trade-investment-policy-watch/ trump-and-china-formalize-tariffs-260-billion-imports-and-look

Caliendo, L. and F. Parro (2015), "Estimates of the Trade and Welfare Effects of NAFTA", *Review of Economic Studies* 82, 1-44.

Dizioli, A. and B. van Roye (2018), "Macroeconomic Implications of Increasing Protectionism", *ECB Economic Bulletin* 6/2018, 35-38.

Felbermayr, G. and B. Zoller-Rydzek (2018), *Who Is Paying for the Trade War with China*?, EconPol POLICY BRIEF 11.

APPENDIX

Table A1

Changes in real income of EU28 member states

| | | | | EUR | million | | | |
|----------------|---------|--------|--------|--------|---------|---------|--------|--------|
| | S1a | S2a | S3a | S4a | S1b | S2b | S3b | S4b |
| Austria | - 0.07 | 0.07 | 0.49 | 0.84 | 0.62 | 0.23 | 0.67 | 1.10 |
| Belgium | 0.14 | 0.28 | 0.48 | 0.83 | 0.40 | 0.91 | 1.25 | 1.59 |
| Bulgaria | 0.01 | 0.03 | 0.09 | 0.15 | - 0.03 | - 0.02 | 0.03 | 0.09 |
| Croatia | 0.02 | 0.02 | 0.06 | 0.10 | 0.00 | 0.01 | 0.02 | 0.07 |
| Cyprus | 0.00 | 0.01 | 0.02 | 0.03 | 0.00 | 0.00 | 0.01 | 0.01 |
| Czech Republic | 0.34 | 0.25 | 0.82 | 1.62 | 0.53 | 0.48 | 1.08 | 1.78 |
| Denmark | 0.07 | 0.28 | 0.53 | 0.95 | 0.25 | 0.28 | 0.70 | 1.07 |
| Estonia | 0.00 | 0.01 | 0.02 | 0.03 | 0.00 | 0.00 | 0.01 | 0.03 |
| Finland | 0.14 | 0.18 | 0.29 | 0.54 | 0.28 | 0.10 | 0.42 | 0.53 |
| France | - 3.30 | 74.14 | 102.77 | 217.33 | 9.25 | 13.58 | 122.86 | 192.71 |
| Germany | - 21.74 | 42.67 | 102.10 | 190.67 | 131.59 | 264.35 | 428.02 | 495.47 |
| Greece | 0.31 | 0.51 | 0.86 | 1.36 | -0.11 | 0.22 | 0.23 | 0.85 |
| Hungary | 0.18 | 0.39 | 0.91 | 1.37 | 0.16 | 0.22 | 1.03 | 1.43 |
| Ireland | - 0.14 | - 0.42 | - 1.01 | - 1.35 | 1.05 | 1.18 | 0.95 | 0.46 |
| Italy | 92.57 | 107.63 | 214.60 | 351.80 | 103.49 | 46.38 | 239.35 | 346.92 |
| Latvia | 0.00 | 0.01 | 0.02 | 0.03 | - 0.01 | 0.00 | 0.01 | 0.02 |
| Lithuania | 0.01 | 0.02 | 0.05 | 0.09 | 0.00 | 0.01 | 0.04 | 0.07 |
| Luxembourg | - 0.02 | - 0.04 | - 0.09 | - 0.13 | 0.02 | 0.01 | - 0.02 | - 0.06 |
| Malta | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.00 |
| Netherlands | 1.54 | 2.23 | 6.31 | 11.44 | 2.55 | 5.59 | 9.29 | 13.80 |
| Poland | 2.90 | 4.12 | 9.38 | 14.79 | 2.51 | 5.16 | 7.62 | 12.60 |
| Portugal | 0.24 | 0.19 | 0.48 | 0.85 | - 0.19 | 0.13 | 0.26 | 0.46 |
| Romania | 0.08 | 0.64 | 1.24 | 1.54 | 0.28 | 0.90 | 0.93 | 1.77 |
| Slovakia | 0.01 | 0.01 | 0.05 | 0.09 | 0.05 | 0.06 | 0.15 | 0.18 |
| Slovenia | 0.01 | 0.03 | 0.06 | 0.10 | 0.01 | 0.03 | 0.05 | 0.09 |
| Spain | 11.95 | 10.87 | 30.19 | 32.43 | 1.62 | 15.58 | 13.90 | 29.17 |
| Sweden | 0.15 | 0.19 | 0.58 | 1.04 | 0.90 | 0.93 | 1.51 | 2.00 |
| UK | 9.36 | 15.90 | 63.08 | 110.40 | - 22.69 | - 10.84 | 33.39 | 79.74 |
| EU28 | 95 | 260 | 534 | 939 | 233 | 345 | 864 | 1184 |

Source: ifo simulations. Scenario S2b models the *status quo* of the current trade conflict.

Table A2

Changes in sectoral value-added of EU28 member states

| | Percent | | | | | | | |
|-------------|---------|---------|---------|---------|---------|---------|--------|---------|
| | S1a | S2a | S3a | S4a | S1b | S2b | S3b | S4b |
| Austria | 0.001 | 0.002 | 0.004 | 0.007 | 0.005 | 0.001 | 0.005 | 0.007 |
| Belgium | 0.000 | 0.000 | 0.000 | - 0.001 | 0.000 | 0.002 | 0.002 | 0.003 |
| Bulgaria | 0.000 | 0.000 | 0.002 | 0.003 | - 0.001 | - 0.001 | 0.001 | 0.003 |
| Cyprus | 0.004 | 0.007 | 0.017 | 0.027 | 0.001 | - 0.002 | 0.008 | 0.016 |
| Czech Rep. | 0.003 | 0.005 | 0.012 | 0.021 | 0.005 | 0.002 | 0.011 | 0.020 |
| Germany | 0.001 | 0.001 | 0.003 | 0.006 | 0.002 | 0.003 | 0.007 | 0.009 |
| Denmark | 0.002 | 0.004 | 0.009 | 0.015 | 0.001 | 0.001 | 0.008 | 0.013 |
| Spain | 0.003 | 0.005 | 0.010 | 0.014 | 0.001 | 0.004 | 0.007 | 0.012 |
| Estonia | 0.005 | 0.007 | 0.016 | 0.028 | 0.002 | 0.004 | 0.012 | 0.023 |
| Finland | 0.001 | 0.002 | 0.005 | 0.007 | 0.005 | 0.002 | 0.006 | 0.010 |
| France | 0.000 | 0.001 | 0.003 | 0.006 | 0.002 | 0.000 | 0.005 | 0.006 |
| UK | 0.001 | 0.003 | 0.009 | 0.015 | - 0.002 | 0.000 | 0.006 | 0.012 |
| Greece | 0.001 | 0.002 | 0.005 | 0.009 | - 0.003 | 0.002 | 0.003 | 0.006 |
| Croatia | 0.002 | 0.003 | 0.007 | 0.011 | - 0.001 | 0.001 | 0.003 | 0.008 |
| Hungary | 0.003 | 0.005 | 0.015 | 0.026 | 0.005 | 0.005 | 0.015 | 0.024 |
| Ireland | - 0.009 | - 0.016 | - 0.035 | -0.052 | 0.012 | 0.011 | -0.004 | - 0.020 |
| Italy | 0.001 | 0.003 | 0.006 | 0.012 | 0.005 | 0.001 | 0.006 | 0.011 |
| Lithuania | 0.002 | 0.005 | 0.010 | 0.017 | - 0.002 | 0.001 | 0.006 | 0.013 |
| Luxembourg | - 0.015 | - 0.029 | - 0.062 | - 0.093 | 0.009 | 0.002 | - 0.03 | - 0.05 |
| Latvia | 0.002 | 0.003 | 0.008 | 0.013 | - 0.002 | 0.000 | 0.003 | 0.010 |
| Malta | 0.003 | 0.007 | 0.015 | 0.025 | 0.001 | 0.006 | 0.013 | 0.023 |
| Netherlands | 0.002 | 0.005 | 0.012 | 0.020 | 0.001 | 0.006 | 0.013 | 0.019 |
| Poland | 0.003 | 0.005 | 0.012 | 0.021 | 0.001 | 0.005 | 0.009 | 0.016 |
| Portugal | 0.000 | 0.001 | 0.003 | 0.006 | - 0.001 | 0.002 | 0.003 | 0.005 |
| Romania | 0.001 | 0.002 | 0.005 | 0.008 | 0.003 | 0.004 | 0.004 | 0.008 |
| Slovakia | 0.000 | 0.001 | 0.002 | 0.004 | 0.002 | 0.002 | 0.007 | 0.007 |
| Slovenia | 0.004 | 0.007 | 0.017 | 0.027 | 0.002 | 0.006 | 0.012 | 0.021 |
| Sweden | 0.000 | 0.001 | 0.002 | 0.004 | 0.004 | 0.003 | 0.006 | 0.007 |

Source: ifo simulations. Scenario S2b models the status quo of the current trade conflict.

| Table A3 |
|--|
| Changes in EU28 exports to the United States |

| | EUR billion | | | | | | | | |
|-------------|-------------|------|------|------|--------|------|------|------|--|
| | S1a | S2a | S3a | S4a | S1b | S2b | S3b | S4b | |
| Austria | 0.10 | 0.18 | 0.41 | 0.66 | 0.02 | 0.08 | 0.28 | 0.52 | |
| Belgium | 0.14 | 0.25 | 0.57 | 0.91 | - 0.03 | 0.04 | 0.31 | 0.63 | |
| Bulgaria | 0.00 | 0.01 | 0.02 | 0.03 | 0.00 | 0.00 | 0.01 | 0.03 | |
| Cyprus | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Czech Rep. | 0.04 | 0.08 | 0.17 | 0.27 | 0.01 | 0.04 | 0.12 | 0.22 | |
| Germany | 1.30 | 2.25 | 5.38 | 8.61 | 0.18 | 0.82 | 3.55 | 6.64 | |
| Denmark | 0.08 | 0.16 | 0.34 | 0.54 | 0.01 | 0.06 | 0.21 | 0.41 | |
| Spain | 0.13 | 0.23 | 0.53 | 0.85 | - 0.01 | 0.05 | 0.30 | 0.61 | |
| Estonia | 0.01 | 0.01 | 0.02 | 0.03 | 0.00 | 0.01 | 0.02 | 0.03 | |
| Finland | 0.07 | 0.14 | 0.30 | 0.49 | 0.01 | 0.06 | 0.20 | 0.38 | |
| France | 0.36 | 0.66 | 1.49 | 2.39 | 0.02 | 0.23 | 0.94 | 1.80 | |
| UK | 0.57 | 1.04 | 2.33 | 3.70 | 0.01 | 0.33 | 1.42 | 2.73 | |
| Greece | 0.01 | 0.01 | 0.02 | 0.04 | 0.00 | 0.00 | 0.01 | 0.03 | |
| Croatia | 0.01 | 0.01 | 0.02 | 0.03 | 0.00 | 0.00 | 0.01 | 0.02 | |
| Hungary | 0.05 | 0.09 | 0.21 | 0.34 | 0.01 | 0.04 | 0.15 | 0.27 | |
| Ireland | 0.22 | 0.42 | 0.91 | 1.43 | - 0.01 | 0.12 | 0.53 | 1.03 | |
| Italy | 0.44 | 0.77 | 1.86 | 3.03 | 0.10 | 0.33 | 1.29 | 2.42 | |
| Lithuania | 0.01 | 0.02 | 0.05 | 0.09 | 0.00 | 0.00 | 0.03 | 0.06 | |
| Luxembourg | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.01 | |
| Latvia | 0.00 | 0.00 | 0.01 | 0.01 | 0.00 | 0.00 | 0.00 | 0.01 | |
| Malta | 0.00 | 0.00 | 0.00 | 0.01 | 0.00 | 0.00 | 0.00 | 0.01 | |
| Netherlands | 0.17 | 0.32 | 0.71 | 1.12 | 0.00 | 0.11 | 0.43 | 0.83 | |
| Poland | 0.04 | 0.08 | 0.18 | 0.29 | 0.01 | 0.03 | 0.12 | 0.23 | |
| Portugal | 0.03 | 0.04 | 0.11 | 0.18 | 0.00 | 0.02 | 0.07 | 0.13 | |
| Romania | 0.02 | 0.03 | 0.07 | 0.12 | 0.00 | 0.02 | 0.05 | 0.09 | |
| Slovakia | 0.01 | 0.02 | 0.06 | 0.10 | 0.00 | 0.01 | 0.04 | 0.07 | |
| Slovenia | 0.01 | 0.01 | 0.03 | 0.04 | 0.00 | 0.01 | 0.02 | 0.03 | |
| Sweden | 0.13 | 0.23 | 0.52 | 0.83 | 0.03 | 0.11 | 0.35 | 0.65 | |

Source: ifo simulations. Scenario S2b models the status quo of the current trade conflict. Further bilateral trade changes can be obtained from the authors.

| Changes in EU28 imports from the United States |
|--|
| Table A4 |

| | EUR billion | | | | | | | | |
|-------------|-------------|--------|--------|--------|------|--------|--------|--------|--|
| | S1a | S2a | S3a | S4a | S1b | S2b | S3b | S4b | |
| Austria | - 0.03 | - 0.05 | - 0.10 | - 0.16 | 0.01 | 0.00 | - 0.05 | -0.11 | |
| Belgium | - 0.11 | - 0.21 | - 0.45 | - 0.69 | 0.04 | - 0.01 | - 0.21 | - 0.45 | |
| Bulgaria | 0.00 | - 0.01 | - 0.01 | - 0.02 | 0.00 | 0.00 | - 0.01 | - 0.01 | |
| Cyprus | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Czech Rep. | - 0.02 | - 0.03 | - 0.07 | - 0.10 | 0.00 | 0.00 | - 0.03 | - 0.07 | |
| Germany | - 0.39 | - 0.72 | - 1.55 | - 2.40 | 0.13 | - 0.06 | - 0.75 | - 1.58 | |
| Denmark | - 0.02 | - 0.04 | - 0.09 | - 0.14 | 0.01 | 0.00 | - 0.04 | - 0.09 | |
| Spain | - 0.08 | - 0.15 | - 0.31 | - 0.48 | 0.03 | - 0.01 | - 0.15 | - 0.32 | |
| Estonia | 0.00 | 0.00 | - 0.01 | - 0.01 | 0.00 | 0.00 | 0.00 | - 0.01 | |
| Finland | - 0.02 | - 0.04 | - 0.10 | - 0.15 | 0.01 | 0.00 | - 0.04 | - 0.09 | |
| France | - 0.28 | - 0.51 | - 1.10 | - 1.69 | 0.10 | - 0.03 | - 0.51 | - 1.10 | |
| UK | - 0.32 | - 0.59 | - 1.27 | - 1.96 | 0.09 | - 0.07 | - 0.63 | - 1.31 | |
| Greece | - 0.01 | - 0.01 | - 0.03 | - 0.04 | 0.00 | 0.00 | - 0.01 | - 0.03 | |
| Croatia | 0.00 | 0.00 | - 0.01 | - 0.01 | 0.00 | 0.00 | 0.00 | - 0.01 | |
| Hungary | - 0.02 | - 0.03 | - 0.06 | - 0.10 | 0.01 | 0.00 | - 0.03 | - 0.06 | |
| Ireland | - 0.11 | - 0.19 | - 0.42 | - 0.64 | 0.07 | 0.03 | - 0.15 | - 0.37 | |
| Italy | - 0.11 | - 0.20 | - 0.44 | - 0.67 | 0.04 | - 0.01 | - 0.21 | - 0.44 | |
| Lithuania | 0.00 | 0.00 | - 0.01 | - 0.01 | 0.00 | 0.00 | 0.00 | - 0.01 | |
| Luxembourg | - 0.04 | - 0.07 | - 0.15 | - 0.23 | 0.02 | 0.01 | - 0.05 | - 0.13 | |
| Latvia | 0.00 | 0.00 | 0.00 | - 0.01 | 0.00 | 0.00 | 0.00 | 0.00 | |
| Malta | 0.00 | 0.00 | - 0.01 | - 0.01 | 0.00 | 0.00 | 0.00 | - 0.01 | |
| Netherlands | - 0.21 | - 0.38 | - 0.83 | - 1.28 | 0.08 | - 0.02 | - 0.39 | - 0.83 | |
| Poland | - 0.02 | - 0.04 | - 0.09 | - 0.15 | 0.01 | - 0.01 | - 0.05 | - 0.10 | |
| Portugal | - 0.01 | - 0.01 | - 0.02 | - 0.04 | 0.00 | 0.00 | -0.01 | - 0.02 | |
| Romania | - 0.01 | - 0.01 | - 0.03 | - 0.04 | 0.00 | 0.00 | -0.01 | - 0.03 | |
| Slovakia | 0.00 | - 0.01 | - 0.02 | - 0.03 | 0.00 | 0.00 | - 0.01 | - 0.02 | |
| Slovenia | 0.00 | 0.00 | - 0.01 | - 0.01 | 0.00 | 0.00 | 0.00 | - 0.01 | |
| Sweden | - 0.05 | - 0.08 | - 0.18 | - 0.28 | 0.02 | 0.00 | - 0.08 | - 0.18 | |

Source: ifo simulations. Scenario S2b models the status quo of the current trade conflict. Further bilateral trade changes can be obtained from the authors.