EUROPEAN CENTRAL BANK
EUROSYSTEM

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The implications of rising protectionism*

LINK Meeting
17-19 June 2019

Long Island – New York

**based on an ECB Economic Bulletin article by V. Gunnella and L. Quaglietti – May 2019*

Motivation

The risk of a trade war came sharply into focus beginning 2018, as protectionist threats by the US Administration and retaliation by its trading partners were followed by concrete actions;

Tensions rose and are still high, followed by risks of further escalation;

We wanted to understand the implications of the trade war through the different impact channels.

We wanted to evaluate the macroeconomic implications of the recent surge in protectionism and evaluate the possible effects.

Facts (I)

	Tariffs imposed
January 2018	Tariffs on solar panels and washing machines
March 2018	25% on imports of steel and 10% on imports of aluminium
June 2018	Tariffs on steel and aluminium also applied to Canada, Mexico and the European Union
September 2018	10% tariffs on additional $200bn US imports from China
May 2019	US increases further imports tariffs from China from 10% to 25% as of 1st June 2019
June 2019	Adoption of 25% tariffs on additional $300bn of US imports from China to come into effect at the earliest around mid-July

Facts (II)

- US-Canada-Mexico Agreement 17th May: US would remove tariffs on steel and aluminium imported from Canada and Mexico; ratification of the final agreement expected before Fall 2019 in the US;

- 31st May: the announcement by President Trump to impose 5% tariffs on goods imported from Mexico as of 10th June could further derail the ratification process;

- Both Canada and Mexico declared that they plan to go ahead with the ratification process.

- The possibility of a 25% tariffs on cars and auto parts on EU and Japan (worth roughly $210bn) was postponed for 6 months - May 2019.

Nevertheless, there is still a strong risk of renewed escalation

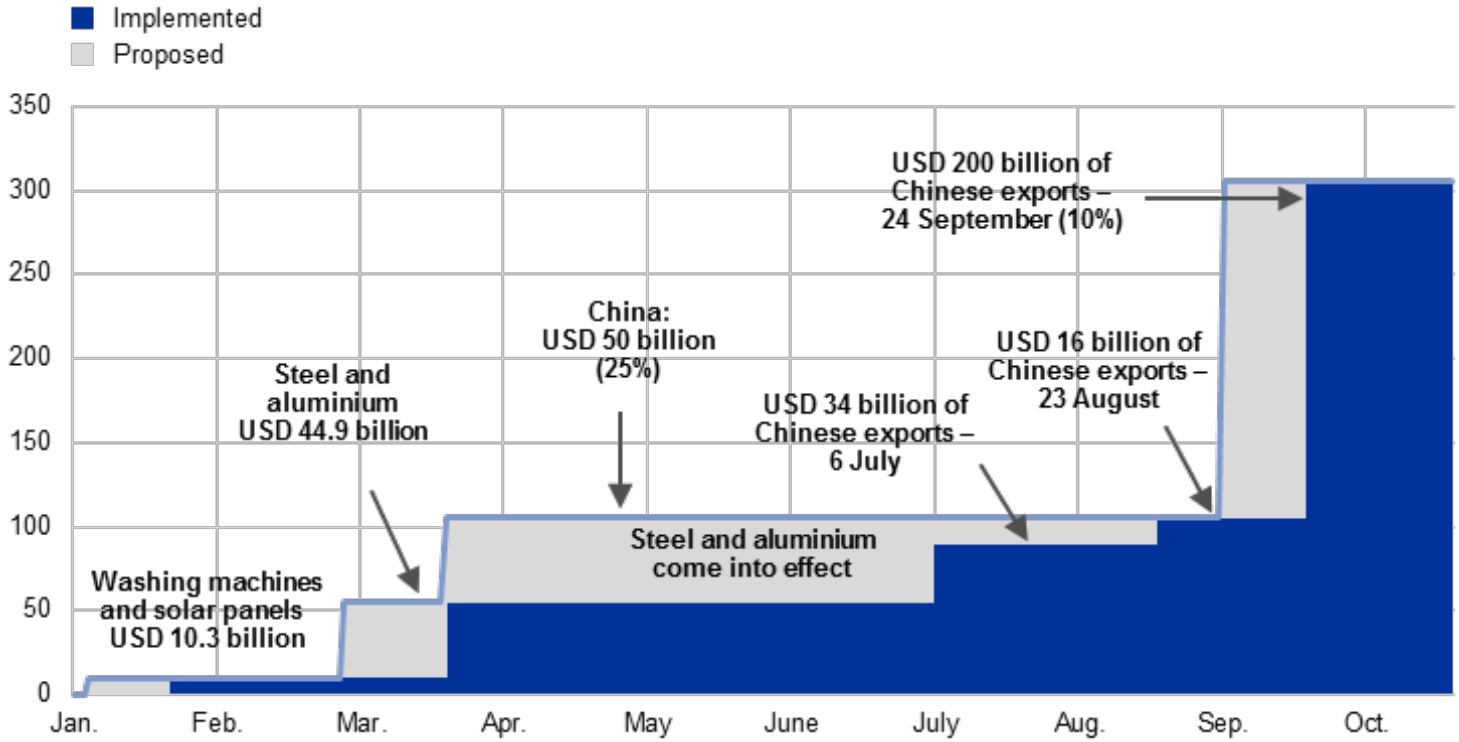
Facts (III)

- Retaliation measures:
  - June 2018 the European Union imposed a 25% duty on a range of US products worth $3.2 billion;
  - September 2018: China retaliates imposing 5-10% tariffs on additional $60bn imports from US;
  - May 2019: China retaliates by increasing to 10-25% tariffs on $60bn imports from US from 1st June.

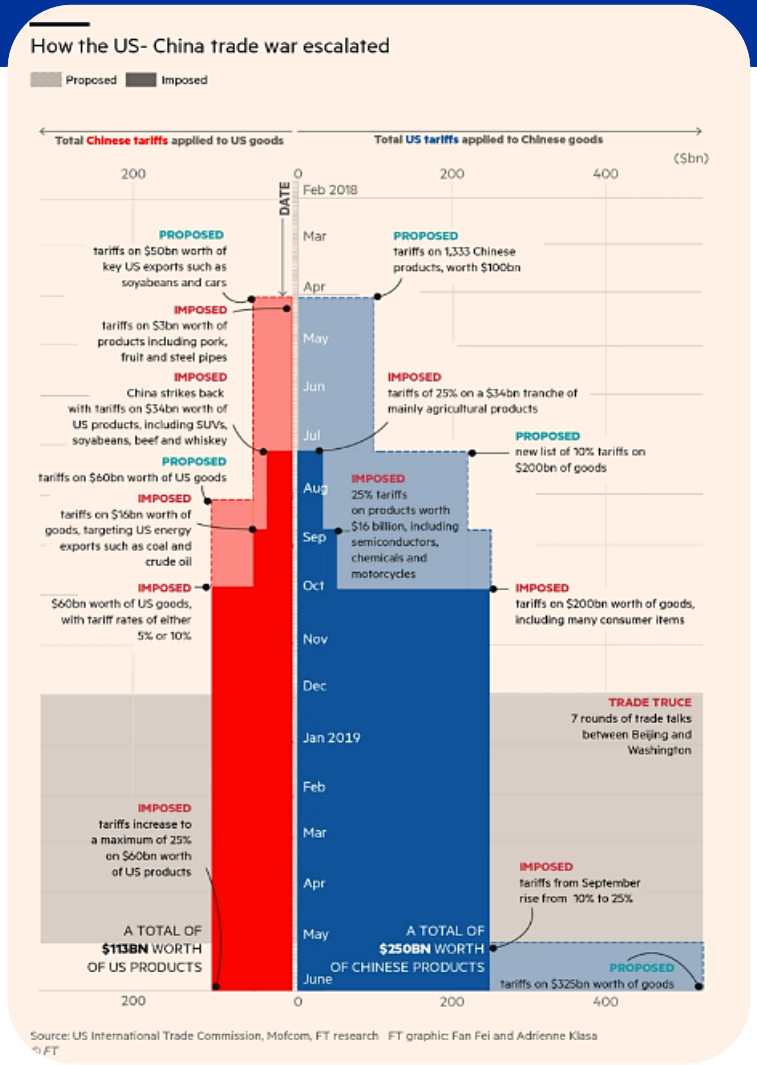
Protectionist threats have been followed by concrete actions

Timeline of tariffs proposed and implemented in 2018

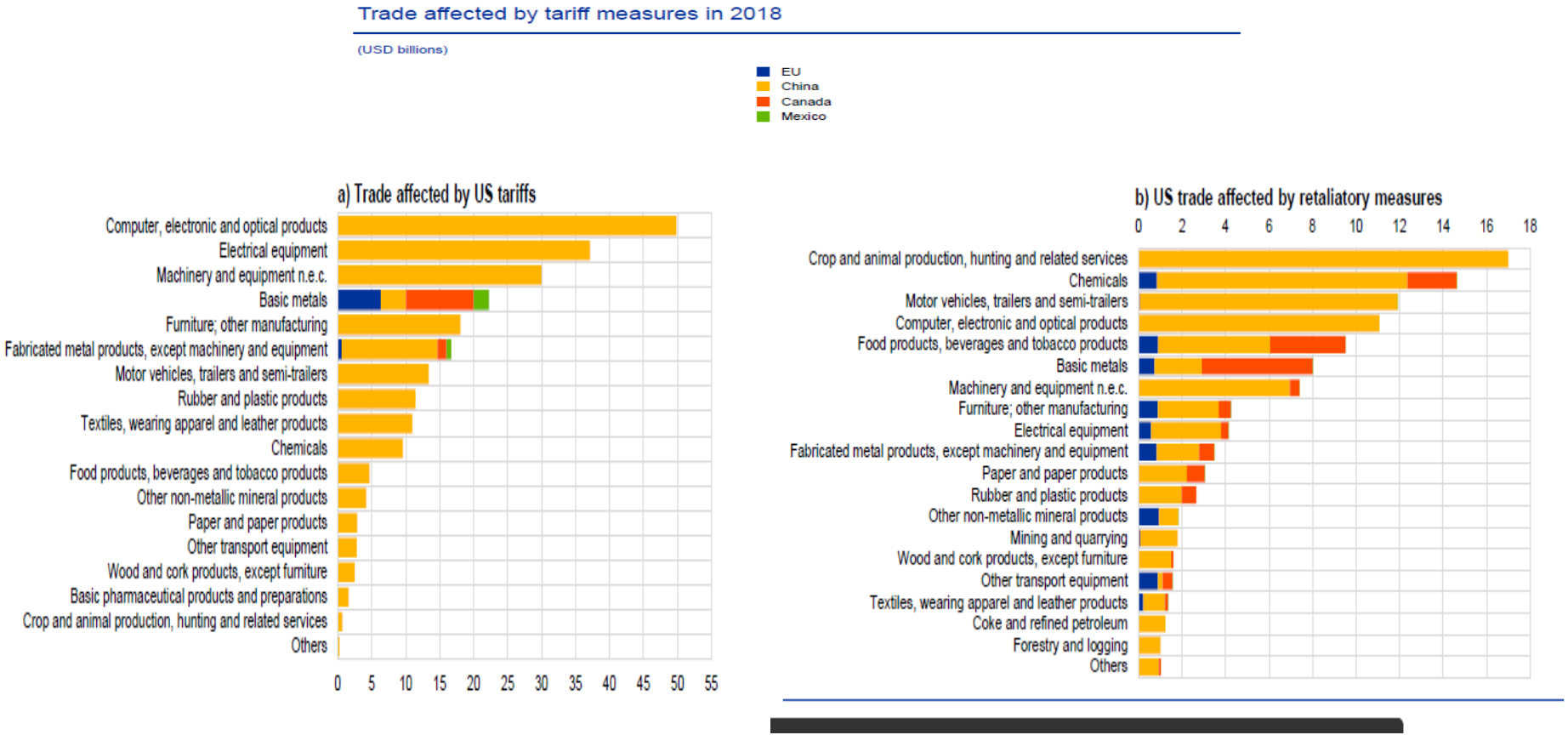
(USD billions)



Sources: Peterson Institute for International Economics, United States Trade Representative and ECB calculations.
Notes: The values of imports affected by the tariffs on washing machines and solar panels, and steel and aluminum refer to estimates produced by the Peterson Institute for International Economics. The percentages in brackets indicate the size of the applied tariffs.


How the US- China trade war escalated
Proposed
Imposed
Total Chinese tariffs applied to US goods
Total US tariffs applied to Chinese goods
($bn)
200
0
200
400
DATE
Feb 2018
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Jan 2019
Feb
Mar
Apr
May
June
PROPOSED tariffs on $50bn worth of key US exports such as soyabeans and cars
IMPOSED tariffs on $3bn worth of products including pork, fruit and steel pipes
IMPOSED China strikes back with tariffs on $34bn worth of US products, including SUVs, soyabeans, beef and whiskey
PROPOSED tariffs on $60bn worth of US goods
IMPOSED tariffs on $16bn worth of goods, targeting US energy exports such as coal and crude oil
IMPOSED $60bn worth of US goods, with tariff rates of either 5% or 10%
IMPOSED tariffs increase to a maximum of 25% on $60bn worth of US products
A TOTAL OF $113BN WORTH OF US PRODUCTS
PROPOSED tariffs on 1,333 Chinese products, worth $100bn
IMPOSED tariffs of 25% on a $34bn tranche of mainly agricultural products
PROPOSED new list of 10% tariffs on $200bn of goods
IMPOSED 25% tariffs on products worth $16 billion, including semiconductors, chemicals and motorcycles
IMPOSED tariffs on $200bn worth of goods, including many consumer items
TRADE TRUCE 7 rounds of trade talks between Beijing and Washington
IMPOSED tariffs from September rise from 10% to 25%
A TOTAL OF $250BN WORTH OF CHINESE PRODUCTS
PROPOSED tariffs on $325bn worth of goods
Source: US International Trade Commission, Mofcom, FT research FT graphic: Fan Fei and Adrienne Klasa
©FT

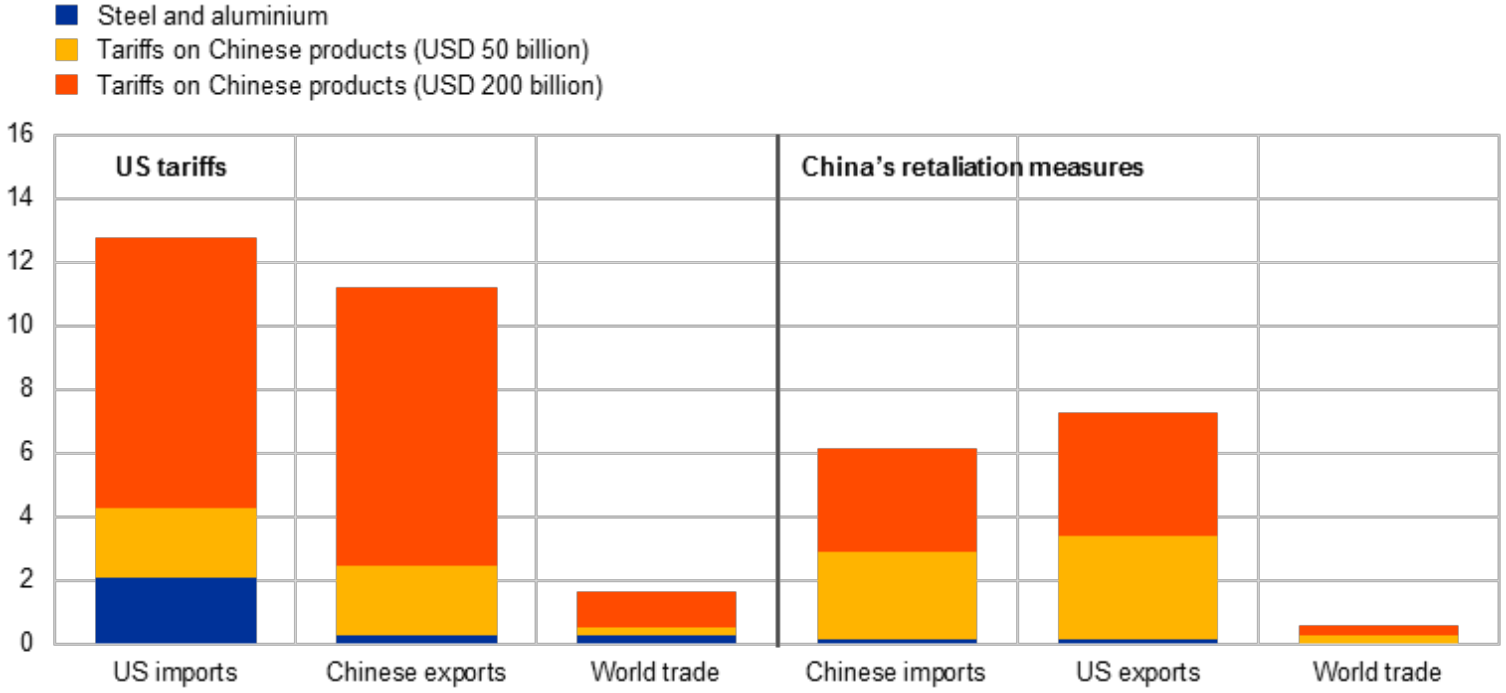
US tariffs against China target, in particular, the electronics and machinery



US-China trade largely affected, globally still limited

US tariffs and China's retaliation measures: shares of US, Chinese and global trade affected

(percentage of total goods trade for the United States, China and the world)



Sources: IMF and ECB staff calculations.

Channels of transmission of rising protectionism (I)

- Import duties increase trade costs;
- Trade costs affect financial flows and credit conditions, through increased uncertainty over future trade policy;
- The above impacts are amplified by the existence of GVC;

We identify two core factors:

1. (i) will trading partners retaliate? and
2. (ii) will the dispute remain confined to a small number of countries or will it develop into a full-blown trade war?

Channels of transmission of rising protectionism (II)

A country imposes import tariffs:

- Import prices rise and relative prices change;
- Higher inflation: lowers households' real disposable income;
- Impacts on consumption, investment and employment;
- Higher prices of imported goods: switch from imported to domestically produced goods.

Important: the degree of substitutability between domestically produced goods and imported goods.

Channels of transmission of rising protectionism (III)

Retaliation

If the trading partners hit by the tariffs retaliate – as is often the case – any potential benefit could be reversed;

Domestic firms lose competitiveness in foreign markets as a result exports and activity fall;

As such, rising trade distortions imply higher trade costs for all countries involved, which may hinder the optimal allocation of resources;

All economies involved are, in the end, worse off.

Channels of transmission of rising protectionism (IV)

In a trade dispute involving two countries, third countries may temporarily benefit from rising protectionism.

E.G.: in a trade dispute concerning exclusively the United States and China, euro area goods would gain competitiveness vis-à-vis US goods in China and vis-à-vis Chinese goods in the United States.

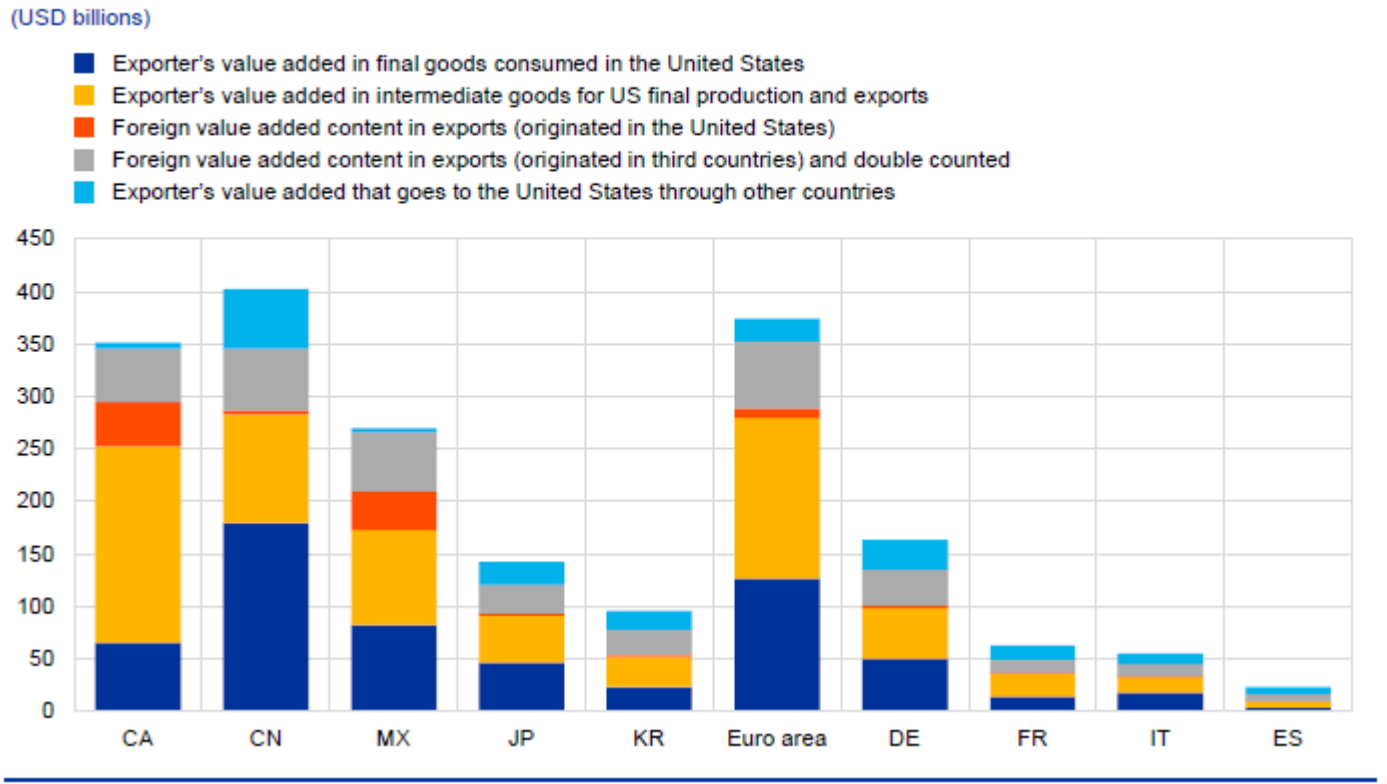
The extent to which third countries benefit from this trade diversion depends on how easily a country can substitute imported goods from different countries.

Higher substitutability implies more trade diversion.

Channels of transmission of rising protectionism (V)

The role of GVCs: they can amplify the impact of tariffs on trade and activity.

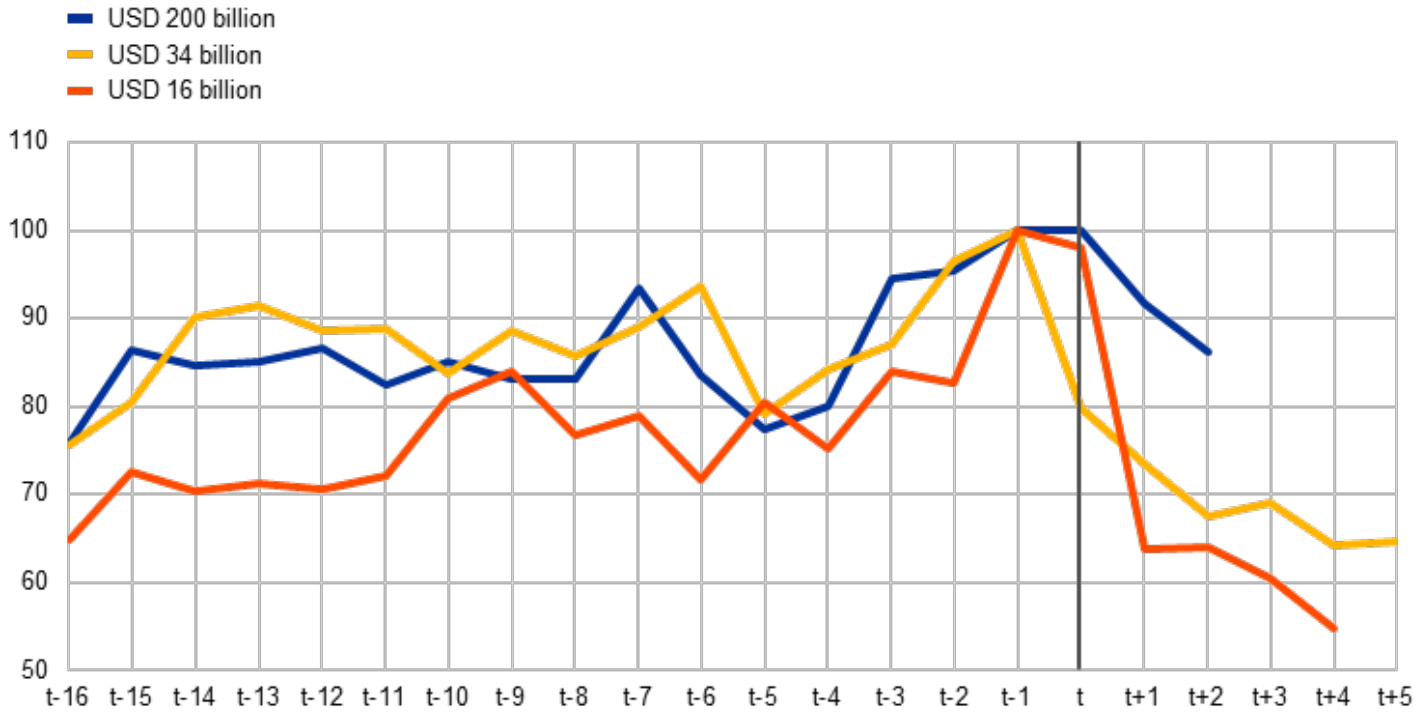
Production chain linkages in exports to the United States



What is the evidence until now? US firms circumvented tariffs by frontloading imports from China

US imports from China and tariff implementation

(t = months of tariff implementation)

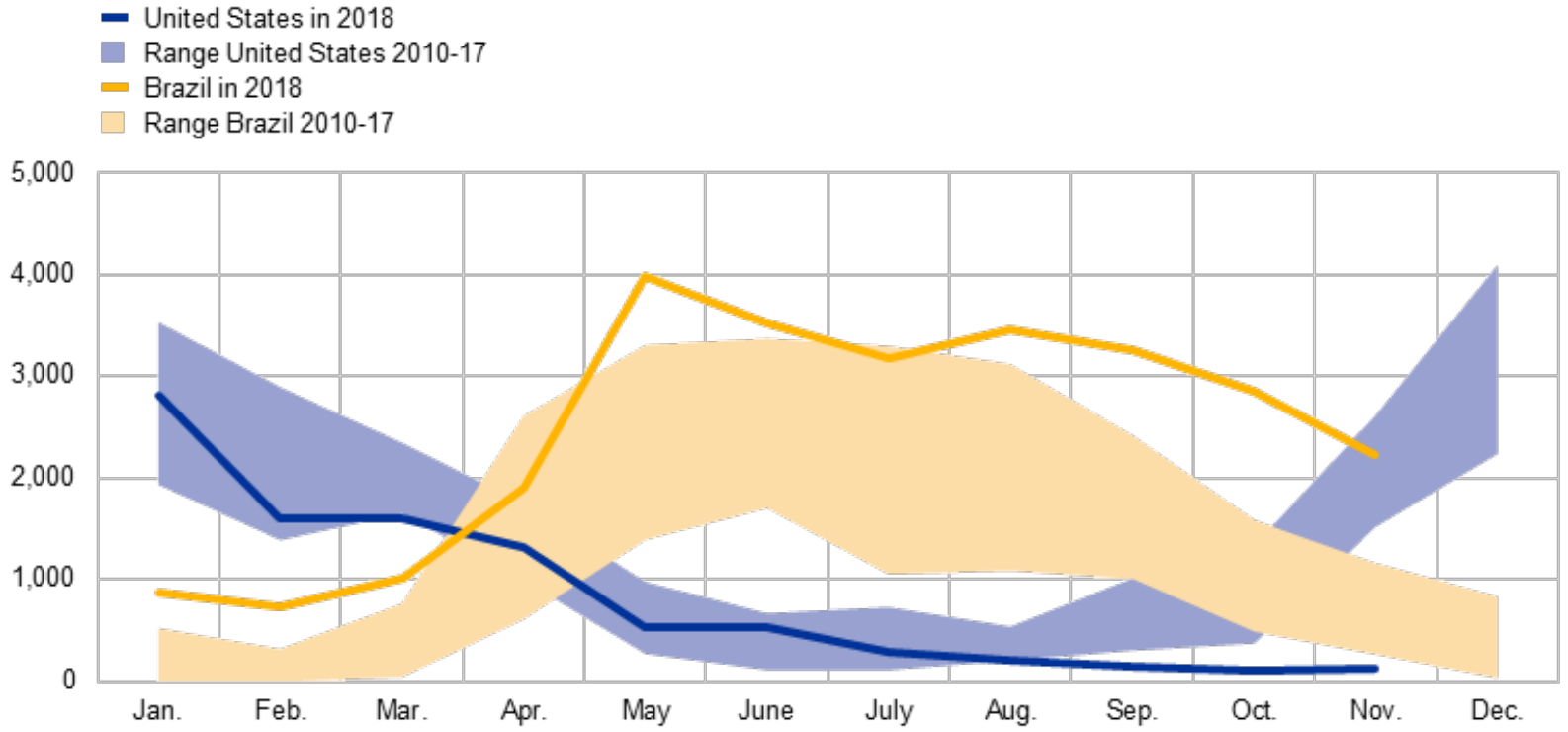


Sources: Census and ECB staff calculations.
Note: The data shown in the chart are for nominal imports.

What is the evidence until now? Indications for trade diversion - 25% on US soybeans

Chinese imports of vegetable products by counterparty

(USD millions)

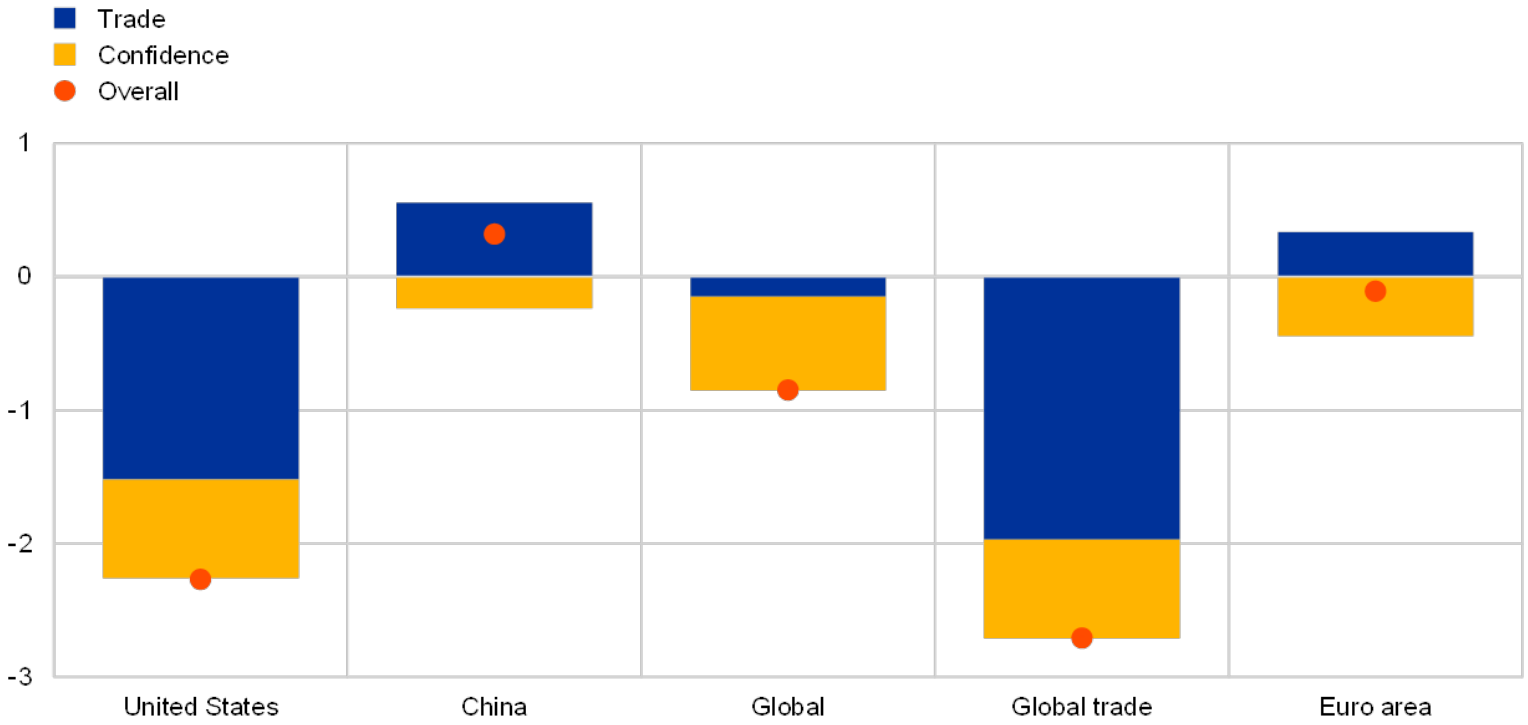


Sources: CEIC and ECB staff calculations.
Notes: The shaded areas show the range of values for imports of vegetable products from the United States and Brazil for each month of the year in the period 2010-17, in order to show the typical seasonal pattern. The latest observation is for September 2018.

Model-based estimates: hypothetical trade war

Estimated impact of an escalation in trade tensions – first year effects

(GDP response, deviation from baseline levels in percentage)

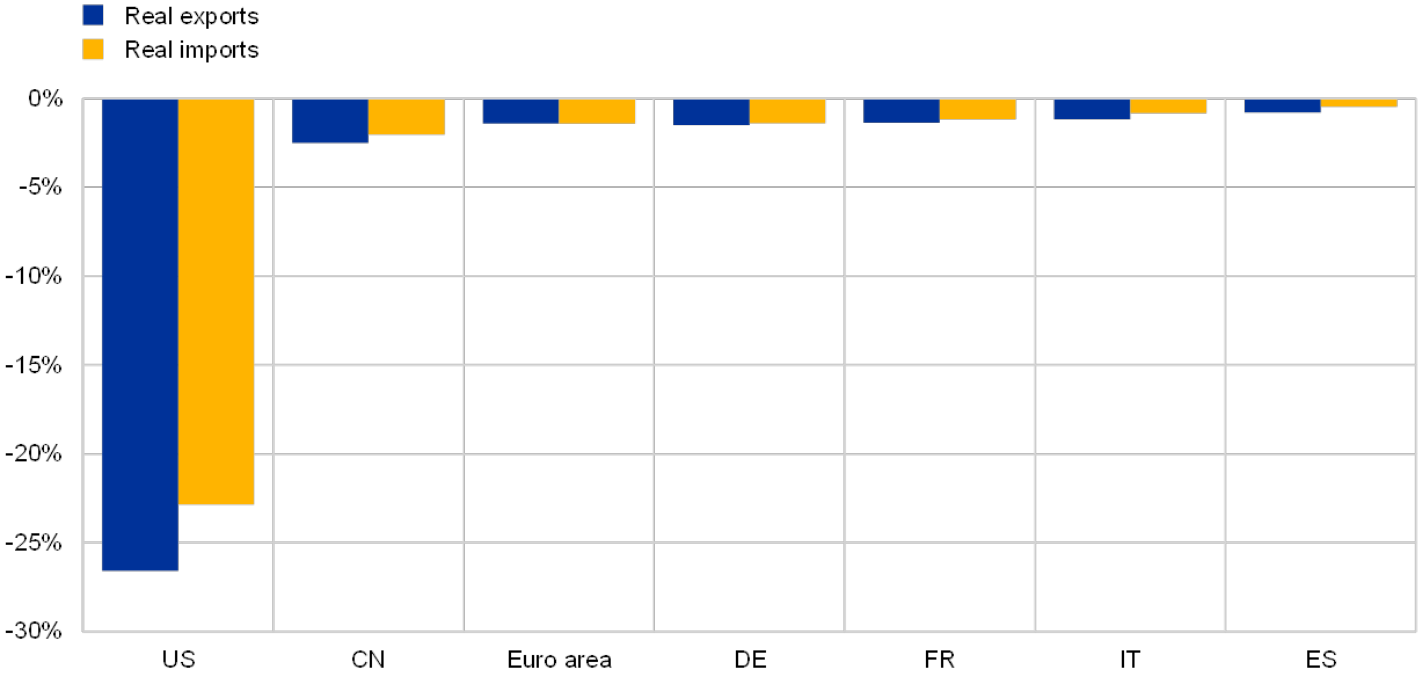


Source: ECB calculations.
Notes: The results are a combination of the direct trade effects derived from the GIMF model and the confidence effects modelled using the ECB's global model.

Trade tensions have long-term effects on US trade

Estimated impact of an escalation in trade tensions on trade – long-term effects

(x-axis: sectoral trade openness as a percentage; y-axis: cumulated percentage return after six tariff announcements)



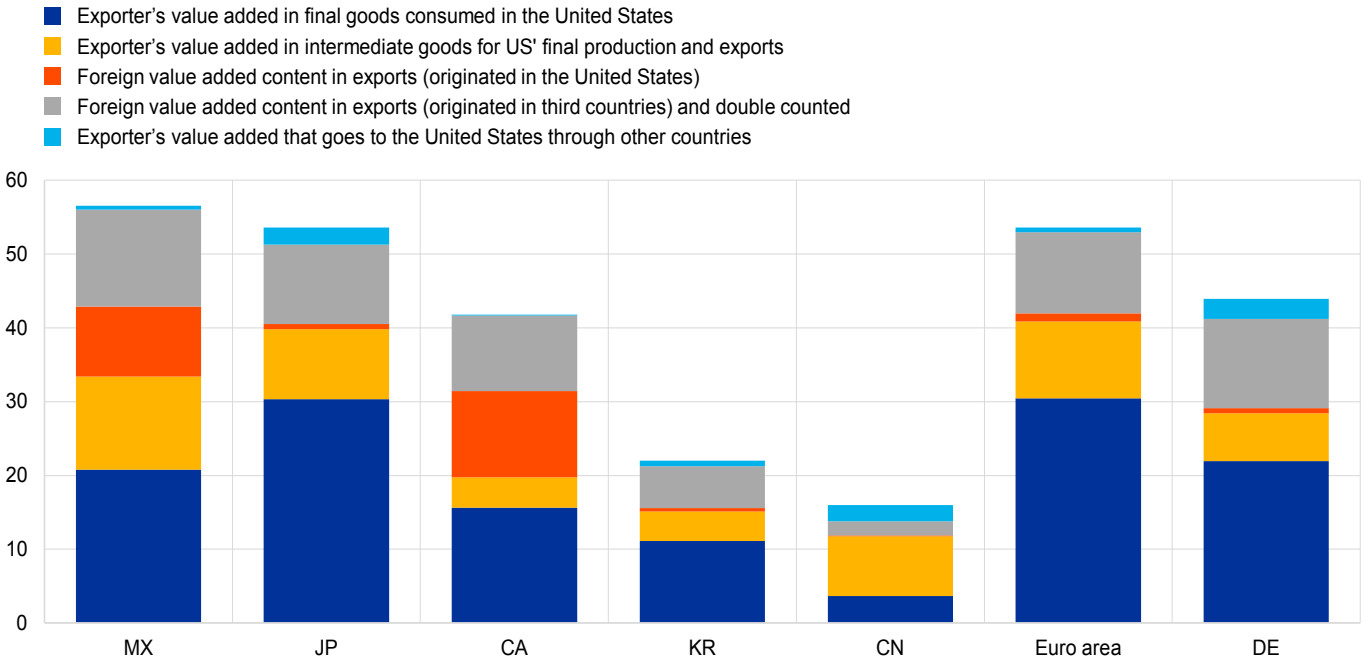
Sources: World Input-Output Database (2016 release) and ECB staff calculations.
Notes: Changes in total real exports and imports have been aggregated from changes in sector-level real bilateral trade by using shares of corresponding nominal values. Nominal bilateral sector-level trade changes have been deflated by the respective price changes. The euro area includes both intra- and extra-euro area trade. CN is used as an abbreviation for China.

Impact of the threat of auto tariffs

Vehicle production is organised in very complex cross-border supply chains

Production chain linkages in vehicle exports to the United States

(exports to the United States; USD billions)

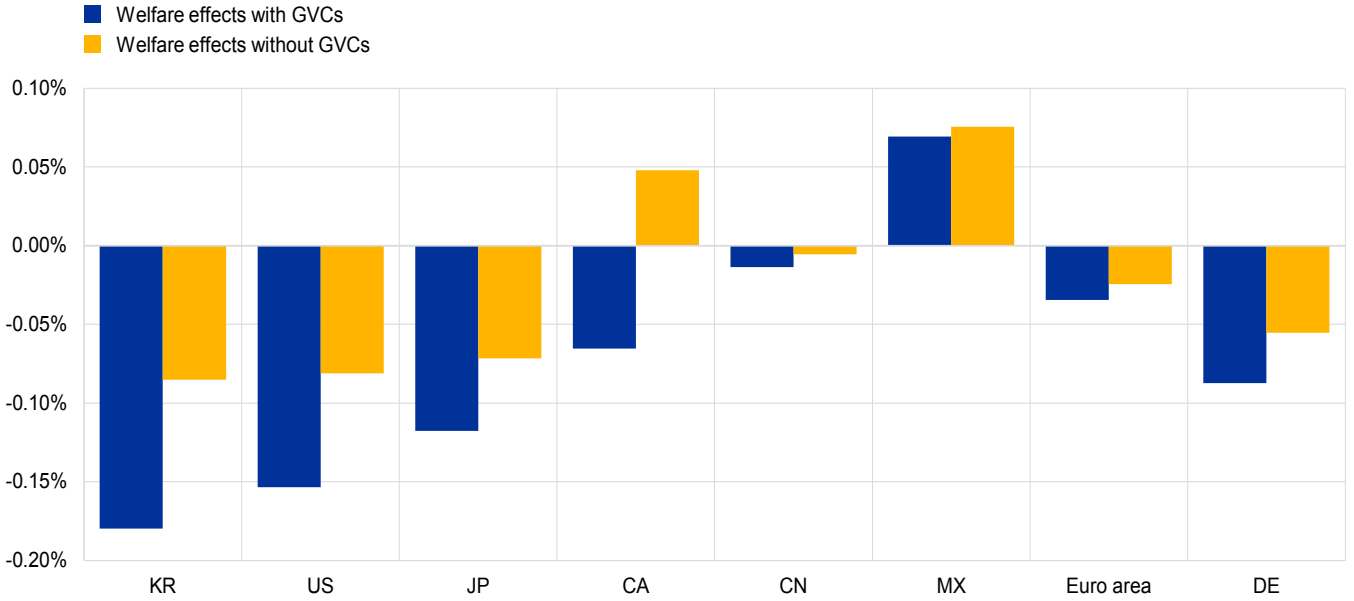


Sources: World Input-Output Database (2016 release), Wang, Z., Wei, S.J. and Zhu, K., (2013) and ECB staff calculations.
Notes: The latest observation is for 2014. The chart shows the breakdown of gross nominal exports to the United States into value added components. "Exporter's value added in final goods consumed in the United States" refers to an exporter's value added contained in final products exported to the United States; "Exporter's value added in intermediate goods for US final production and exports" refers to an exporter's value added contained in intermediate products which are used as input for US domestic production or the production of US exports; "Foreign value added content in exports" refers the foreign value added (either from the United States or from third countries) contained in exports; "double counted" refers to the value added of intermediate products which cross the borders several times; and "Exporter's value added that goes to the United States through other countries" is the value added in intermediate products produced by an exporter which is used by third countries to produce goods to be exported to the United States. For the euro area aggregate, only extra-euro area countries are considered as other countries.

Effects are more pronounced for the US and car exporting countries

Welfare effects of 25% tariffs on cars

(deviation from non-tariff welfare as a percentage)



Sources: World Input-Output Database (2016 release) and ECB staff calculations.
Notes: Welfare is defined as real household income. The following abbreviations are used: CA for Canada, CN for China, MX for Mexico, JP for Japan and KR for South Korea.

Key messages

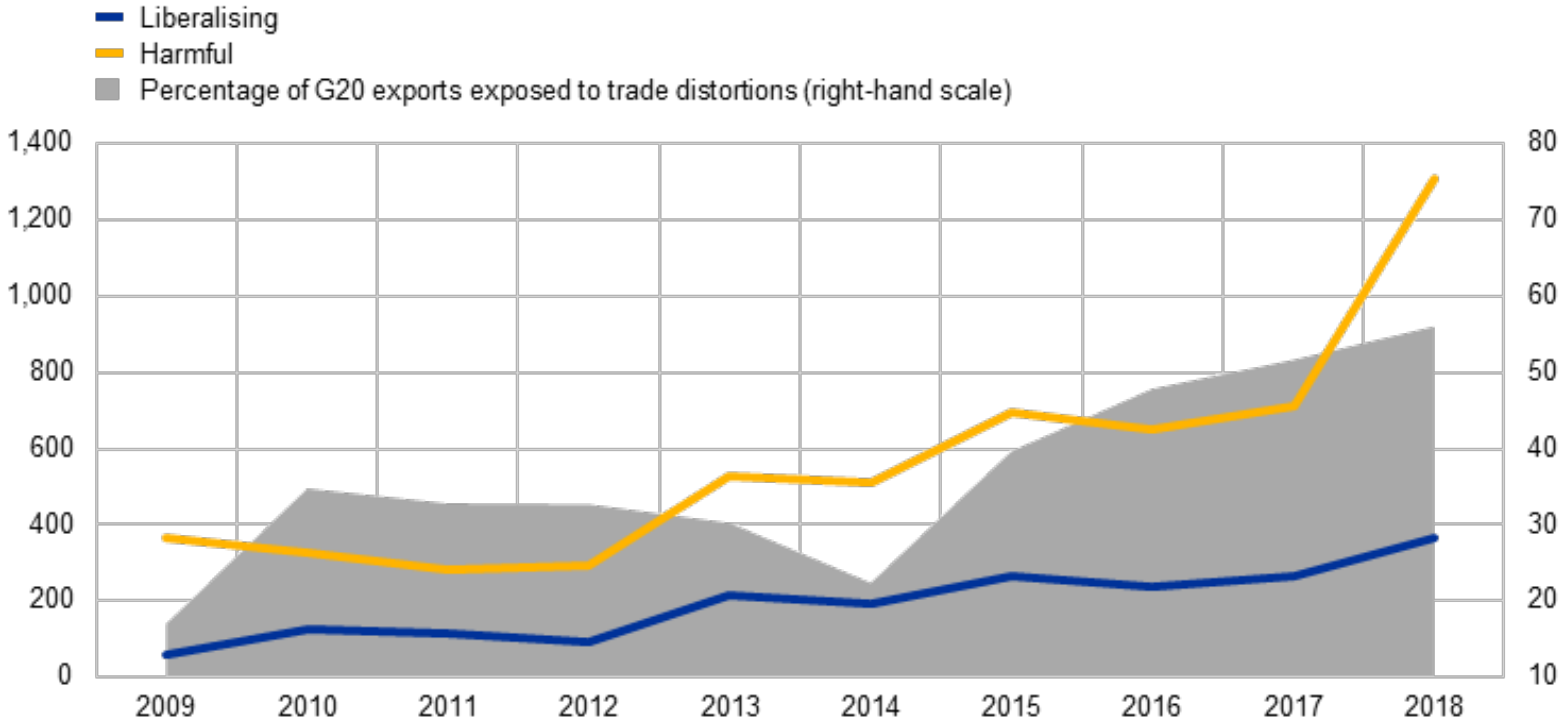
- The impact on economic activity in the country imposing tariffs depends on a) whether imported goods can be substituted by domestic production, and b) whether trading partners retaliate.
- In a trade dispute involving two countries, third countries may temporarily benefit from rising protectionism. However, an increase in uncertainty, coupled with financial stress, could also amplify the adverse impact of rising protectionism on economic activity.
- Taken in isolation, the repercussions of the tariffs implemented in 2018 pose only a modest adverse risk to the global and euro area outlooks.
- If trade tensions were to escalate once again, however, the impact would be larger.

Thank you

Trade landscape has undergone transition

New trade measures announced

(left-hand scale: number; right-hand scale: percentages)



Sources: Global Trade Alert database.
Notes: Data have been adjusted for reporting lags. The cut-off date for each year is 31 December.

Channels of transmission of rising protectionism (VI)

rising protectionism coupled with financial stress: increase in uncertainty,,

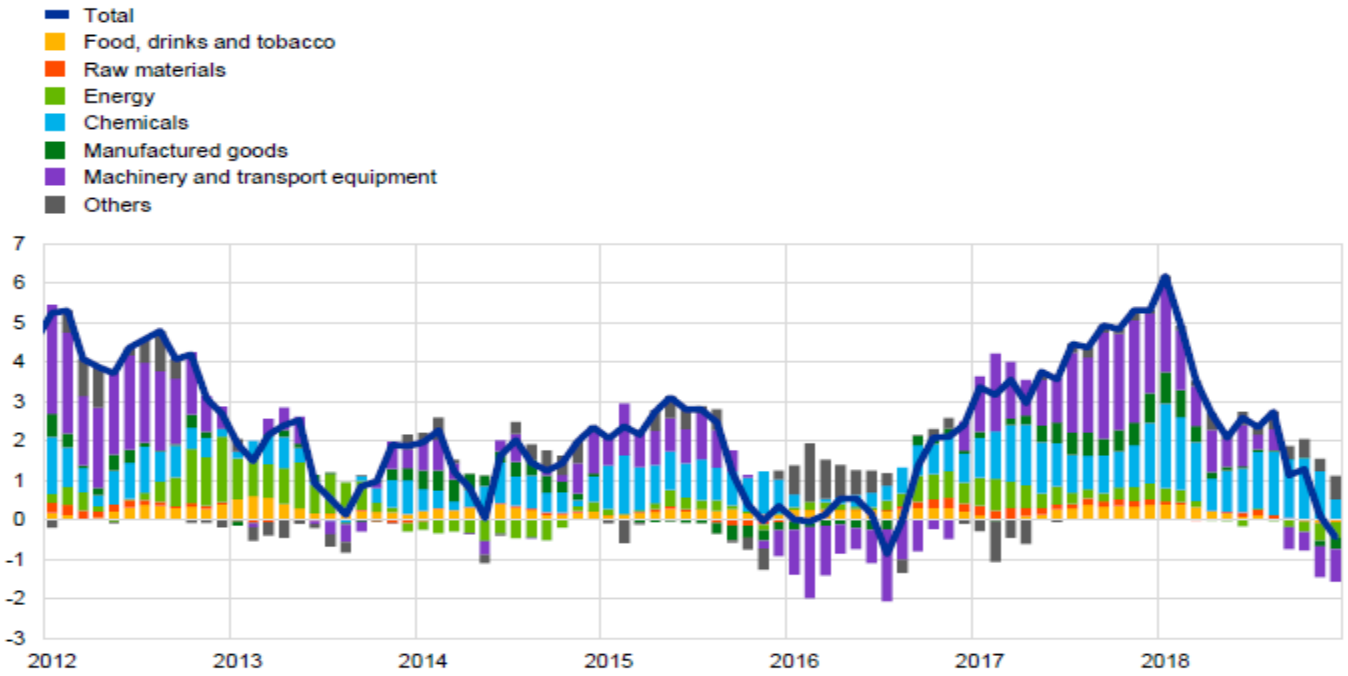
- households may delay spending
- firms may reassess their economic prospects taking a “wait and see” approach and postponing investment.
- firms can delay entering a foreign market or upgrading their technology.
- uncertainty may push up borrowing costs for households and firms as investors demand greater compensation to protect themselves against future risks.
- investors may shift their portfolios to safe-haven currencies, with implications for the allocation of capital flows across countries.

Channels of transmission of rising protectionism (VIII)

Higher trade costs can also weigh on productivity. The tighter financing conditions associated with rising uncertainty can raise the cost of capital, with a negative impact on investment that could hinder productivity growth in the countries affected by the tariffs. Trade barriers can also lead to the misallocation of production factors across firms and countries. Less-open markets diminish global competition, thereby reducing incentives for innovation and technological advances, and keeping less-productive firms in the market. As a result, aggregate productivity may decline

Euro area exports

(volume; three-month moving average of year-on-year growth rates and contributions)



Sources: Eurostat and ECB staff calculations.
Note: The latest observation is for December 2018.