

America's new trade policy and its impact on the Belgian economy

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Introduction

On 20 January 2017, Donald Trump became the 45th President of the United States. Twenty months later, he had put up customs duties on washing machines and solar panels, on steel and aluminium, and on thousands of Chinese products. And he plans to impose higher taxes on imported motor vehicles too. These unilateral actions by the world's leading economy have aroused international consternation and led many trading partners to take retaliatory measures.

How can we explain the protectionist turn of the United States? What are the economic implications? Is the Belgian economy vulnerable? These are the main questions that this article tries to answer. The first part attempts to explain why the United States, fervent advocates of free trade since the Second World War, have done an about-turn today. The second part looks into the Trump Administration's vision of trade, its Trade Policy Agenda and its atypical approach to this subject. The third part sets out the actions that have been taken and the retaliatory measures they have triggered. It takes a look at their economic effects and discusses the costs of a potential trade war. Lastly, the fourth part analyses the Belgian economy's exposure to the trade restrictions adopted and to a possible protectionist spiral. It is based on the value added approach, which is the most relevant here.

1. America's protectionist turn

Wave of scepticism about free trade

American leaders in general – and the Republican Party in particular – have long since been in favour of opening up trade. The United States set themselves up as a spearhead for the post-war trading system and the resultant liberalisation of international trade. With the help of their allies, they established the GATT in 1947 and replaced it by the WTO in 1995⁽¹⁾.

(1) The General Agreement on Tariffs and Trade (GATT), which was signed in 1947 by 23 countries and entered into force in 1948, served as a multilateral framework for the liberalisation of world trade for almost 50 years. It was replaced in 1995 by the WTO, which today has 164 member states. One major difference between the GATT and the WTO lies in the dispute settlement system. When the WTO was established, a dispute settlement body with powers to hand down binding rulings was set up along with it. The latest round of multilateral trade negotiations under the auspices of the WTO was launched in Doha back in 2001. It is aiming for better integration of developing economies into the global trade system and a reform of the WTO. But it is far from complete. The most controversial subjects concern farm subsidies, intellectual property rights, and the reform of the dispute settlement mechanism. The difficulty of moving ahead at the multilateral level encountered in recent years has led to a multiplication of preferential trade liberalisation agreements.

By contrast, the last few years have been marked by an exacerbation of populism and nationalist sentiment, whereby a good many of the economic problems facing the working and middle classes are blamed on international trade and immigration (Handley and Limao, 2017). The traditional attachment to liberalisation of trade has fizzled out somewhat, triggering a wave of scepticism that Donald Trump not only drew on for his campaign, but actually fuelled himself in his run to the White House⁽¹⁾.

This distrust of free trade is partly due to the disillusion caused by an unequal distribution of the costs and benefits of economic globalisation. In the view of most economists, the economy as a whole benefits from an opening to trade: an economy is more efficient when it is exposed to international competition, which in turn boosts productivity. Moreover, consumers and producers alike can enjoy a wider variety of products and services. Lastly, specialisation and economies of scale encourage lower production costs and prices. They nevertheless acknowledge that some workers and regions generally bear a disproportionate share of the adjustment costs related to international trade. If it is to be equitable, globalisation should thus be coupled with an efficient redistribution and with employment and education policies that promote the professional reintegration of badly affected workers.

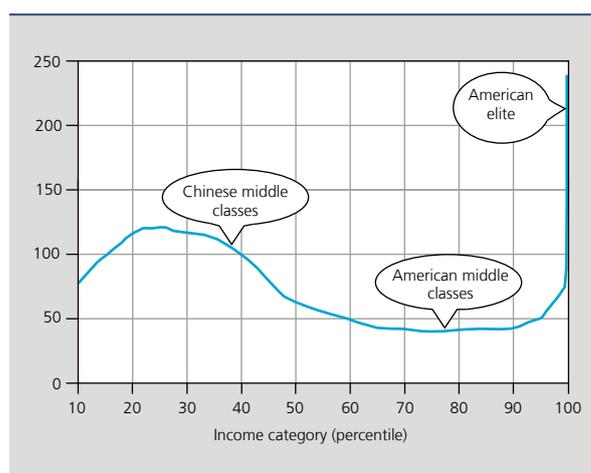
A well-known study by the World Bank (Lakner and Milanovic, 2013) has shown that, since the 1980s, the lower and middle classes in advanced economies scarcely saw any increase in their incomes. By contrast, the Chinese middle class and the economic elites became substantially wealthier (see chart 1).

Owing to its economic clout, its rapid growth and its economic activity geared towards exports, China's integration into the world economy in the 1990s and 2000s has had particularly important consequences for American workers (Senses, 2017). In another study that has received wide coverage, Acemoglu *et al.* (2016) reveal that, between 1999 and 2011, the rise in US imports from China brought about a net loss of 985 000 jobs in manufacturing and almost two million jobs throughout the economy. Out of a total 5.8 million jobs lost in manufacturing between 1999 and 2011, 17 % were estimated to have been caused by the rise in imports from China, the rest being down to technological progress, automation⁽²⁾ and the 2008-2009 economic and financial crisis.

Although international trade's direct responsibility for the loss of manufacturing jobs in the United States is relatively limited, its image has deteriorated, not least because of the sectoral and geographic concentration of its costs (Schneider-Petsinger, 2017).

CHART 1 DECLINE IN RELATIVE INCOME OF AMERICA'S MIDDLE CLASSES

(in %, growth of income per adult, 1980-2016 period)



Source : World Inequality Database.

(1) During the 2016 presidential election campaign, the Democrat candidates Hillary Clinton and Bernie Sanders also used language calling into question trade agreements that had already been concluded, such as NAFTA and the TPP.

(2) It is nevertheless not easy to make a distinction between the effects of trade and those of technological progress, as the two developments came together and could have fuelled each other.

Citizens with the lowest levels of education have been particularly affected, while job losses and slow wage growth in the manufacturing sector have rubbed off on the general economic situation in several regions (Senses, 2017). The concentration of undesirable effects of globalisation within certain communities has struck a particular chord with them⁽¹⁾.

The publicity surrounding the “unfair” trade practices of certain countries – dumping, subsidies, state-owned enterprises, or even currency manipulation – has also tarnished the image of the global trading system and entertained the idea that the ground rules were either not fair or not being respected, to the detriment of the United States. Chinese policies have been singled out for criticism in this respect.

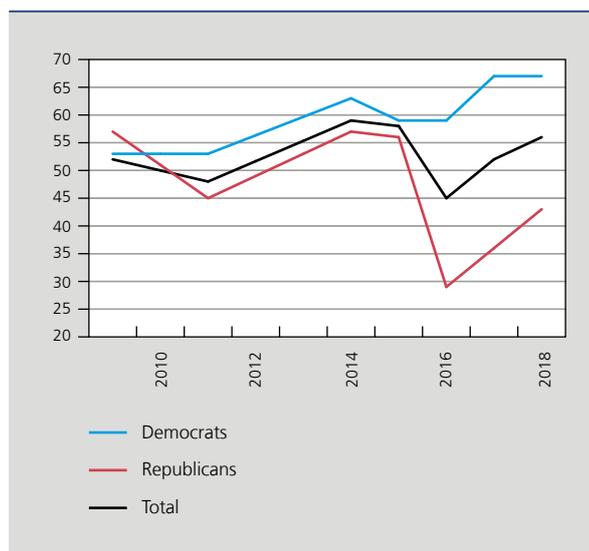
Lastly, with customs tariffs having stabilised at low levels since the 2000s, recent rounds of trade talks have focused more on non-tariff measures (regulations, standards, norms, etc.). And so, fears have emerged that trade agreements impinge more directly on the domestic prerogatives of governments and jeopardise the sovereignty of States. In this context, the general public’s scrutiny of international trade matters has grown (Schneider-Petsinger, 2017). The lack of transparency in recent negotiations on trade pacts by the US government has also reinforced suspicion of them.

All these different elements help to explain why support for free trade had fallen off before the 2016 presidential elections, a trend that has to be seen in the wider context of the American people calling into question the long-presumed convergence of its own interests with global prosperity (Kandel, 2018).

Strong partisan polarisation

It is interesting to note that the perception of free trade has evolved in conflicting ways among Republican and Democrat voters over the last decade. For a long time, the Republicans had ardently defended free trade⁽²⁾, while the Democrats had remained more reticent. Since 2010, however, Democrat voters have become more positive than their Republican counterparts, and the percentage of Democrats regarding trade pacts as beneficial for the country has even been on the rise (see chart 2).

CHART 2 SENTIMENT TOWARDS FREE TRADE IN THE UNITED STATES⁽¹⁾



Source: Pew Research Center.

(1) Percentage of positive replies to the question: “In general, do you think that free trade agreements between the US and other countries have been a good thing or a bad thing for the United States?”.

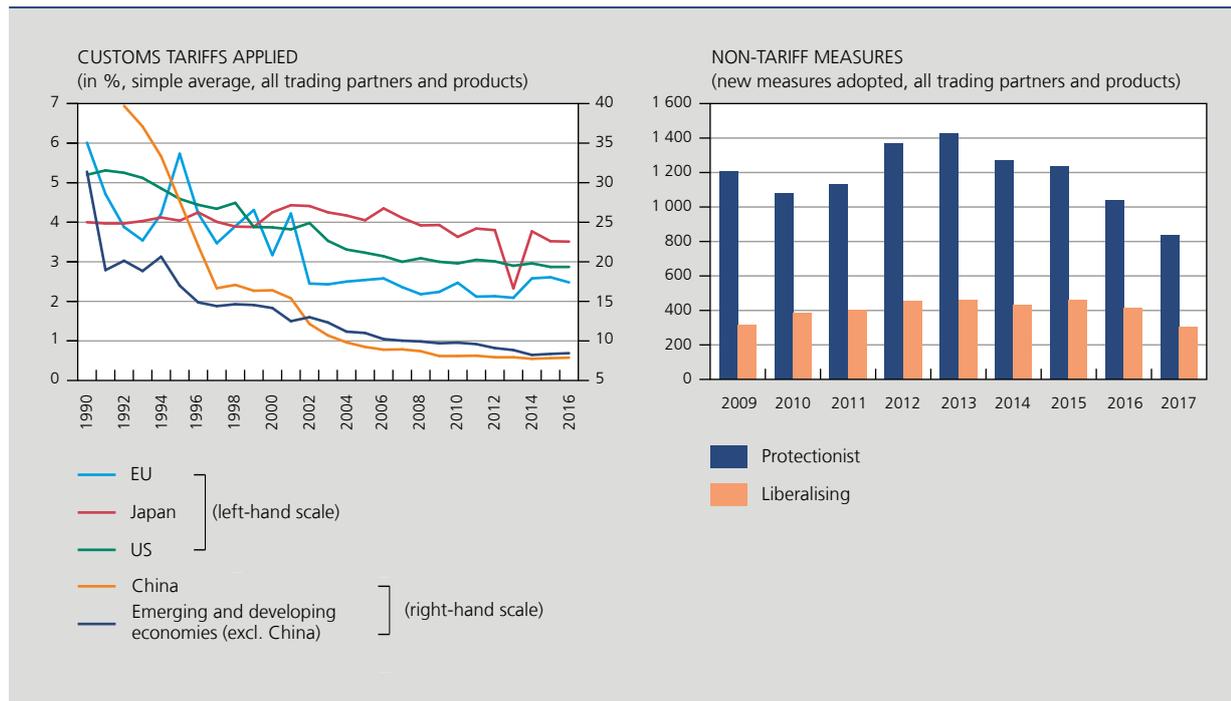
(1) According to Senses (2017), the communities affected the most by globalisation turned, more so than before, to more extreme candidates in the 2016 elections.

(2) When NAFTA was adopted by Congress in 1993, the vast majority of Republican members voted in favour of it, while the Democrats on the whole rejected the agreement.

The sharp drop in the share of opinions in favour of free trade agreements in the Republican camp in 2016 alone is edifying and testifies to the reach of Donald Trump's discourse. The other Republican leaders have, on the whole, remained strongly attached to free trade, something which also points up the gulf between the party elite and its voter base. Donald Trump stood out as the working class voters' candidate and, more specifically, as their protectionist candidate (Stahl, 2016)⁽¹⁾.

Rise in protectionism

CHART 3 CHANGES IN AVERAGE TARIFFS AND NON-TARIFF MEASURES



Sources: World Bank, Global Trade Alert Database.

Despite the multiplication of trade agreements and contrary to popular belief, protectionism has gained ground across the world over the last two decades. The removal of tariff barriers has actually been more than offset by an increase in non-tariff barriers, which nowadays are the main source of trade protection (Gunessee *et al.*, 2018 – see chart 3). The rise of protectionism is to be seen against a background of wide balance of payments imbalances at the international level. In parallel with the slowdowns in investment, in trade liberalisation and in fragmentation of global production chains, it has contributed to a deceleration of growth in international trade over the last few years (IMF, 2016).

(1) Since the November 2016 presidential elections, sentiment about both international trade and free trade has improved, a trend most probably related to the economic upturn and, more particularly, to favourable developments on the jobs front. The partisan polarisation has nevertheless remained significant (Jones, 2018).

2. International trade as seen by the Trump Administration

The Trump Administration's Trade Policy Agenda seeks "to expand trade in a way that is freer and fairer for all Americans"⁽¹⁾. But hidden behind this wording is a distinctly more restrictive and more aggressive trade policy orientation, that promises to put American interests first.

A mercantilist vision

For many observers, President Trump and his advisers see international trade as a zero-sum game: what one country wins, the other one loses. Under this mercantilist view of trade, the US trade balance serves as a proxy for evaluating the success or failure of the global trading system and of US trade policy, as well as bilateral trade relations (Jackson, 2018).

The heavy US trade deficit is perceived in this context as a cost for the American economy. It would appear to portray a trading system that is detrimental to the United States, while bilateral deficits would simply reflect "unfair trade practices" on the part of trade partners who "abuse the system" and "distort competition".

(1) USTR (2017).

Box 1 – The US trade deficit: an effective economic yardstick ?

The US has posted a trade deficit since the second half of the 1970s. It grew considerably wider at the end of the 1990s and in the early 2000s. After contracting sharply during the recession, it took off again and, in 2017, had reached \$ 552.3 billion, or just under 3 % of America's GDP.

But hidden behind this consolidated figure is a largely positive services trade balance, of some \$ 255.2 billion, and an extremely negative trade balance for goods, to the tune of \$ 807.5 billion. American imports of goods are dominated by IT and telecommunications equipment, clothing, electronic appliances, motor vehicles and crude oil (see chart 6). US exports of services mainly concern tourism, intellectual property and financial services.

In the eyes of many economists, the United States' trade deficit stems largely from its macroeconomic policy, which causes a structural imbalance between financing requirements and domestic savings, making it necessary to borrow from abroad. The dollar's status as the global reserve currency also encourages the United States' external indebtedness – as a natural counterpart to the trade deficit – by enabling the country to borrow cheaply from the rest of the world (Pettis, 2011).

Among the main factors regularly cited to explain the explosion of the US trade deficit since the 1990s are: (1) a relatively stronger economic growth rate in the United States than in Europe or Japan, (2) the integration of China into the global economy, (3) a decline in savings by American households and firms, (4) a rise in the US budget deficit, and (5) bigger inflows of foreign capital into the United States after the 1997 Asian crisis.

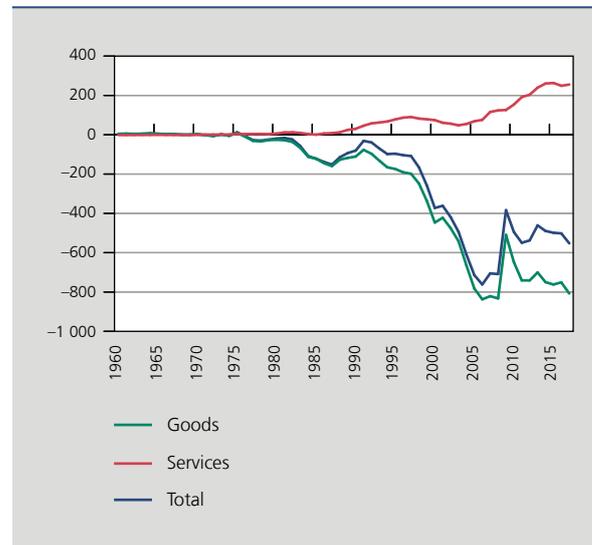
The Trump Administration puts the emphasis on bilateral goods trade balances. It has also launched a study into deficits run up with key countries like China, Germany, Mexico and Japan. Moreover, it places reduction in bilateral trade deficits at the heart of the renegotiation of the United States' trade agreements.

In 2017, the deficit in the balance on goods came to \$ 375 billion with China, \$ 151 billion with the EU – some \$ 64.3 billion of which was with Germany alone –, \$ 71 billion with Mexico and \$ 68 billion with Japan (see chart 5).



THE UNITED STATES' TRADE BALANCE

(in \$ billion)



Sources: OECD, US Census Bureau.

An economic diagnosis made on the basis of trade balances between two countries is not always reliable, for two basic reasons. On the one hand, these statistics are sometimes rather fragile. As proof, figures for Europe's trade surplus with the United States published respectively by Eurostat and the Bureau of Economic Analysis (BEA), its American counterpart in the field of trade statistics, differ considerably. On the other hand, this kind of analysis disregards global value chains, which are nonetheless an undeniable economic reality nowadays.

Fragile statistics

In principle, the United States' trade deficit with Europe as measured by the Europeans should be identical to that estimated by the Americans. But in reality, the official figures do not obey this theoretical self-evidence. These 'mirror' statistics, so-called because they reflect the same thing estimated by each of the counterparties involved in the transaction, are not always consistent. For the year 2017, for example, Eurostat reports a US deficit with the EU28 for trade in goods and services of € 187 billion, or \$ 211 billion. At the same time, the BEA notes a deficit of \$ 102 billion. This gives a difference of \$ 109 billion between the American and European figures, \$ 32 billion of which comes from trade in goods and \$ 77 billion from services.

Several elements⁽¹⁾ can help explain the divergences in 'mirror' statistics. Unlike exports, imports include the cost of transporting goods from the border of the exporting country to that of the importing country⁽²⁾. The value of the transaction can therefore be calculated differently by the importing country and by its exporting counterpart. Moreover, it is not always easy to identify the trade partner, especially when the product transits several countries

(1) Other elements than those cited here may contribute to divergences, such as the fact that some trade flows are confidential, or the exchange rates applied when the transaction is denominated in foreign currency are not necessarily harmonised (Javorsek, 2016).

(2) Exports are estimated at "free on board" prices, which includes the transaction value of the product and the cost of dispatching the product to the exporting country's border. On the import side, the price is calculated as "cost, insurance and freight", i.e., it also incorporates costs of transporting the goods from the border of the exporting country to that of the importing country.

before reaching its final destination. The widespread practice of re-exporting, which sometimes entails very large trade margins, compounds the difficulty of attributing the exact amounts to the country of origin and of final destination⁽¹⁾. Also, trade in services generally tends to involve billing for deliveries between subsidiaries and their parent companies, for which strategic or tax options may be involved (Felbermayr and Braml, 2018). The scale of the statistical difference is nevertheless striking. Either way, the difficulty of compiling balance of payments statistics points up the hazards of economic reasoning based on them.

Statistics that are difficult to interpret

Assuming that a country receives a positive income relative to a partner country when the bilateral trade balance is in its favour, may be misleading. It is also incorrect to think that more business activity – and consequently employment – is located in the country with the surplus. Such an interpretation does not take into account the fact that exports from a country very often contain foreign inputs, whether raw materials, semi-finished products, or services. As a result, income from exports, or in other words the domestic value added in a country's exports, is lower than the total value of exports. Crucially, that value added content differs greatly from one country to the other. In particular, it depends on the size of the country and its degree of openness to international trade (Baldwin and Lopez-Gonzales, 2013). However, it is that value added content only that reflects the business and job opportunities generated by the export activities. Re-exports are a case in point. For example, when Singapore, the Netherlands or Belgium re-export products, the total export value is credited to them, whilst their actual income is limited to any commercial or transport margins.

There is an economic concept by which exports and the income generated through exports can be reconciled with each other. This is the concept of trade in value added (Johnson 2014; Koopman *et al.*, 2014). Contrary to gross trade (imports and exports) which includes the foreign value content, these data isolate the domestic value added component of exports. Compared with the bilateral import/export balance, the value added balance is a more relevant indicator of the profits (or losses) from trade in terms of income and employment (Foster-McGregor and Stehrer, 2013; Timmer *et al.*, 2013). Albeit useful, the data on trade in value added have a couple of weaknesses. They only become available with a considerable time lag⁽²⁾. For example, 2011 is the latest year for which the TiVA data cited in this article are available. They are also derived from an international input-output matrix, the composition of which needs to be weighed up against the official figures published by national statistics offices (Ahmad, 2013; Timmer *et al.*, 2016).

A reverse diagnosis for Belgium

As can be seen from table 1 on page 24, for the period 2015-2017, Belgium had an annual trade surplus with the United States of € 3.5 billion. That is substantial, considering that Belgium's total balance of trade (including all trading partners) was approximately € 5 billion. From these figures, it could be hastily concluded that the United States is more of a customer of Belgium than a supplier, which would imply that the latter would stand to lose the most in case of a trade war.

However, the diagnosis is reversed if one analyses the amounts traded in value added over the period 2009-2011 (see chart). The surplus with the United States turns into a small deficit. Belgian value added in American imports is not higher than American value added in Belgian imports. The United States' weight as a supplier is at least equal to its weight as a customer. This point cannot be ignored, as it means that both economies' mutual exposure is very similar.

(1) Ideally, it is the country of origin of the product that should be reported on the import side, and not the country from which it was finally imported and through which the goods may have simply transited. Likewise, on the export side, the country of known final destination should be declared if the goods are first sent to a transit country.

(2) After all, they are based on input-output matrices that are published only once every five years, with a delay of three years.

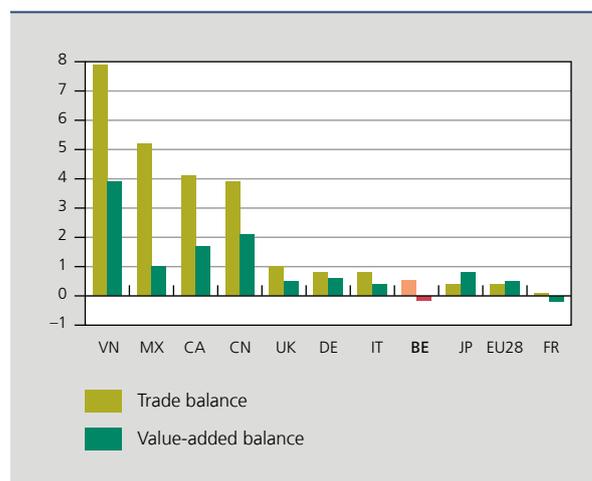


An obvious question is therefore why the balance in trade and the balance in value added produce two such different results. The answer to this enigma lies in the divergent value added content. Contrary to the United States, the productive capacity of a small open economy such as Belgium relies a great deal on imported resources. The share of the value added in exports is smaller in Belgium than in the United States. In simple terms, the United States primarily exports products that are 100 % American. Belgium, on the other hand, exports products of which only certain stages of the production chain take place on its territory whilst the earlier stages of production take place abroad. Going from the gross concept to that of value added entails a far greater correction in Belgium than in the United States, which automatically reduces Belgium's balance of trade against that of the United States.

By means of comparison, the balances of trade in value added of Vietnam, Mexico and China with the United States are lower than the corresponding balances of gross trade. This can be explained by the fact that those countries are specialised in certain stages of production into which many foreign components are integrated. That is not the case however for Japan and the EU28 as a whole.

BALANCE WITH THE UNITED STATES

(in % GDP⁽¹⁾ of the country concerned, average 2009-2011)



Source : Own calculations based on TiVA data.

(1) After deducting taxes minus subsidies on products.

Clarification : These balances were calculated on the basis of trade in goods and services. The balance for trade in value added is calculated on the basis of the flows that feed into domestic demand and exports. It differs from the TiVA data which only takes into account the flows that feed into domestic demand.

Most economists agree that a bilateral trade deficit has only minor relevance from an economic perspective : a surplus/deficit simply means that a country is very/not at all specialised in the production of goods or services that the other country wishes to buy. The bilateral balances reflect a country's economic characteristics more than its trading practices. Those trade balances are also inflated by the development of global production chains and by the way in which international trade is measured (see box 1).

An economy's total trade deficit is more relevant and in the long term potentially problematic⁽¹⁾. After all, it is an indication of growing foreign debt and increasing vulnerability to potential economic shocks from outside. Conventional

(1) The long-term impact of external indebtedness is greatly determined by the use of its proceeds. It is certainly problematic if the external debt in question is used to finance consumption rather than productive investments that contribute to raising the future standard of living.

wisdom has it, however, that this deficit is rather the consequence of a country's macroeconomic policy and the effects of that policy on savings, consumption and investment, than its trade policy or that of its partners.

The static vision of the world according to which the higher the production realised in the United States, the stronger its export position, is in direct opposition to David Ricardo's theory of comparative advantage⁽¹⁾, as well as to the current organisation of global production. More specifically, the considerable development of global value chains over the past few decades has made it possible to benefit from greater specialisation and the associated economies of scale.

Protectionist agenda

The current US Administration's trade agenda rests on three cornerstones that should help curb the country's trade deficit:

Firstly, it wants to impose stricter compliance with the existing trade agreements and to punish "unfair" practices such as for example dumping, state aid, currency manipulation, or the imposition of duties considered excessive compared to the equivalent US tariffs. The actions that are adopted or envisaged in this respect aim to protect US industry and repatriate production to the United States.

It should be noted that, on average, customs duties do not differ that much between the advanced economies⁽²⁾, even though significant differences can sometimes be seen for specific products. Emerging and developing economies usually apply higher duties. However, those countries have agreed to the greatest relative reductions over the last two decades.

Secondly, the Trump Administration plans to put an end to – or start new negotiations for – some trade agreements if "the goals are not reached". The purpose of this is to restore trade balances by favouring production in the United States and encouraging exports from the United States.

Thirdly and finally, he is planning to reform the operations of the WTO and more specifically its mechanism for dispute settlement, which is criticised for "judicial activism", deemed disadvantageous to US interests⁽³⁾, and blamed for not enforcing the rules. To express its hostility towards the institution, the US government is currently refusing to appoint new judges, which directly compromises the operations of the institution.

The concept of national sovereignty plays a key role in the current US President's argument against the operations of the WTO and of the multilateral trading system. The reference in Donald Trump's trade policy agenda to President George Washington's farewell address, which warned against any form of interference by foreign powers and spoke about the United States' isolation, is revelatory in that respect.

Other elements of American economic policy could go against the objective of reducing the trade deficit. On the one hand, the expansionary fiscal reform adopted early 2018 tends to foster imports. On the other hand, the introduction of tariffs, which can fuel inflation, could lead to a tighter monetary policy. An increase in interest rates by the Federal Reserve would contribute to the appreciation of the dollar, thereby penalising exports. In such a case, the US trade deficit could rise even more.

An assertive and demanding approach

The US Administration is determined to use its vast discretionary power⁽⁴⁾, and its approach means an unprecedented turnaround in US trade policy. Its measures are based on a broad interpretation of American laws, which authorise unilateral actions to restrict imports and to circumvent international rules. Three laws in particular are invoked, which allow the

(1) According to the theory of comparative advantage, a country benefits from specialising in the production of goods for which its opportunity costs are the lowest (irrespective of the absolute production costs), exporting those products, and importing the goods for which its opportunity costs are higher. According to this theory, specialisation and free trade are mutually beneficial to trade partners.

(2) In 2016, the simple average of the effective tariffs for all sorts of trading partners together was 2.9% for the United States, 2.5% for the EU, 3.5% for Japan and 7.9% for China (see chart 3). Excluding private trade agreements, the simple average of tariffs applied by the United States under the non-discrimination principle to the other members of the WTO (most-favoured nation tariff) was 3.5%, compared to 5.2% in the EU, 4% in Japan and 9.9% in China (WTO and UNCTAD). The United States on average applies exceptionally low non-discriminatory tariffs, which are only infrequently adjusted. They do however regularly take trade defence measures (anti-dumping measures, compensatory arrangements, safeguard measures, etc.) (Bown, 2017).

(3) The perception of a bias against the United States could chiefly be explained by the methodology used to calibrate the retaliatory measures in the framework of trade remedies, i.e. "zeroing" (for more information see Keynes and Bown, 2018). However, in practice, the WTO has ruled in favour of the United States in the large majority of its complaints (Lester and Manak, 2018).

(4) The US President has extended powers in the area of trade. He can fully autonomously, without approval from Congress, impose customs duties or quotas to restore payment imbalances, to punish a country that does not meet its international commercial obligations, or when imports threaten national security. The President has also broad powers to withdraw from, or renegotiate, an international agreement. For more details on the commercial powers of the US President, see Hufbauer and Jung (2016).

President to take measures if a country applies “unfair” commercial practices (Section 301 of the US Trade Act of 1974), to take safeguard measures if the import of a product threatens to injure domestic industries (Section 201 of the US Trade Act of 1974), and to restrict imports if they threaten national security (Section 232 of the Trade Expansion Act of 1962). It should be noted that, in the past, those laws have seldom, if at all, been invoked to justify tariff barriers⁽¹⁾ (Bown, 2017).

In general, a bilateral approach is favoured to make maximum use of the economic weight of the world’s largest economy in negotiations and to serve US interests as much as possible.

According to some (see, *inter alia*, Fisher, 2018) President Trump’s threats could form part of his negotiation tactics, directly inspired from his book on how to negotiate (“The Art of the Deal”) published in 1987. In that book, the winning strategy seems to consist of aiming very high, sowing confusion, showing indifference as to reaching an agreement and using all possible means at your disposal for your benefit. Behind the scenes and after escalating matters, he recommends moderating your position to obtain concessions and make decisions. This is how President Trump would seek to better serve American interests, but also to close deals.

3. America’s protectionist actions and retaliatory measures

Twenty months into his term of office, President Trump has not carried out the most extreme of his campaign threats. He has neither put customs duties on China up to 45 %, nor those on Mexico up to 35 % as threatened. Nor has he withdrawn the United States from NAFTA or the WTO, nor ‘officially’ labelled China as a currency-manipulating country. America’s 45th President has nevertheless clearly consolidated his protectionist stance with concrete actions and intimidation. These have fuelled trade tensions, which have occasionally turned into open conflict as trading partners affected have taken retaliatory measures. Below, we take a look at some of the main decisions.

3.1 Withdrawal from and renegotiation of existing trade pacts

In keeping with his election campaign discourse, President Trump made clear soon after arriving at the White House on 20 January 2017 that the United States would be pulling out of the Trans-Pacific Partnership (TPP) that had been negotiated by his predecessor, Barack Obama, along with eleven Asia-Pacific countries. Furthermore, in August 2017, the new US Administration started a review of NAFTA with Canada and Mexico⁽²⁾ and, in late March 2018, it wrapped up its renegotiation of the terms of the Free Trade Agreement between South Korea and the United States (KORUS).

3.2 Washing machines and solar panels

In January 2018, import tariffs were slapped on \$ 8.5 billion worth of solar panels and \$ 1.8 billion worth of washing machines. These are safeguard measures adopted as a follow-up to an inquiry carried out in 2017 at the request of the US manufacturing sector. Of a temporary nature, they should give the domestic industry some breathing space, whilst it adjusts to international competition. The new customs tariffs have been set initially at 20 %⁽³⁾ and are degressive over time.

These restrictions do not cover very large volumes, but the decision is symbolic in that it was the first time since 2001 that Section 201 of the 1974 Trade Act had been invoked for protectionist reasons⁽⁴⁾.

3.3 Steel and aluminium

The US steel and aluminium sectors only account for a very small share of the United States’ trade deficit and its economic activity (see chart 6). They are nevertheless politically sensitive industries, whose employment and production are concentrated in a handful of “swing States” where election results are typically uncertain, and which consequently are given a lot of

(1) For example, Section 201 was last invoked in 2002, when the Bush Administration temporarily imposed customs duties on steel. The latest investigation based on Section 301 dates from 1995 and did not lead to any concrete measures at all. Finally, Section 232 has so far never been used within a trade dispute.

(2) The desire to renegotiate NAFTA is nothing new; the idea had already been put forward by Barack Obama and by Hillary Clinton during the 2008 presidential election campaign. According to Lester and Manak (2018), a new NAFTA should herald future relations between the United States and its other trading partners. At the end of August 2018, Donald Trump announced that a new trade agreement had been worked out with Mexico. Negotiations with Canada were still ongoing at the time of writing.

(3) The import tariff on washing machines was set at 20 % on the first 1.2 million units and 50 % on volumes above that. The import tariff on solar panels was initially set at 20 %.

(4) Subsequently, South Korea and China both started proceedings against the United States in the WTO, accusing these tariffs of violating international trade rules.

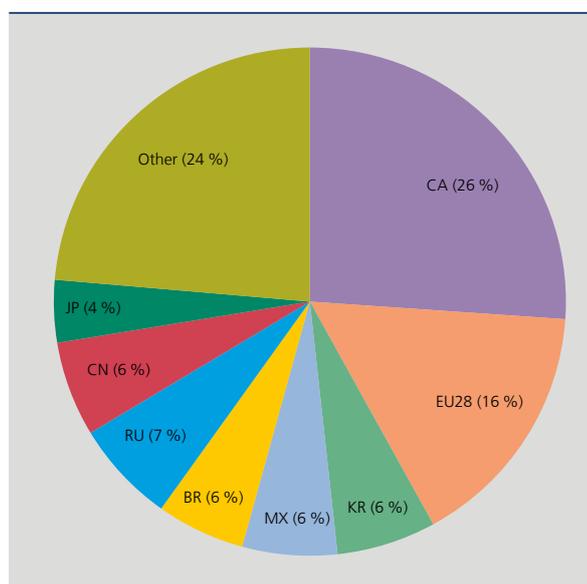
attention by presidential election candidates. Big steel-producing States like Ohio, Michigan and Pennsylvania, that had voted for Barack Obama back in 2012, helped Donald Trump on his road to victory in 2016. Historically, the US steel sector has frequently been protected and, at the end of 2017, 60 % of steel imports were subject to specific tariffs (Bown, 2018c).

Between 2000 and 2017, the US steel and aluminium industries registered a decline in employment and production, while imports were on the rise. Although the fall in the number of workers reflects to some extent the automation of production tools, these clear trends did not fail to fuel political debates and motivate these industries to seek protection.

Against this backdrop, in April 2017, President Trump launched two investigations to assess the threat to national security posed by imports of steel and aluminium. The conclusions, which were presented in February 2018, pointed out that the US steel and aluminium industries had fallen victim to “unfair” trade practices by other countries as well as to global over-production. It was recommended adopting protectionist measures in order to preserve “viable” sources of supply and guarantee “national security”.

So, on 1 March 2018, the United States announced that additional customs tariffs of respectively 25 and 10 % would apply, for an unspecified period of time, to US imports of steel and aluminium, which had totalled \$ 48 billion in value terms in 2017. Although all the United States’ trading partners had originally been targeted, various countries were given temporary exemptions, made conditional on their willingness to respond to the American trade concerns. This is the case for Canada, Mexico, Australia, the EU, Argentina, Brazil and South Korea. For all the other countries, the measures came into force on 23 March.

CHART 4 ORIGIN OF US IMPORTS OF STEEL AND ALUMINIUM
(in % of the total, 2017)



Source: Bown (2018a).

Taken into consideration that the trade talks with the EU were not going well, the US Administration stopped its exemptions with effect from 1 June 2018. Canada and Mexico also lost their privileges, which had been expressly made conditional on a favourable outcome to the NAFTA renegotiations. In the end, Brazil, Argentina and South Korea kept some exemptions, subject to certain restrictions. Australia is the only one to have been spared unconditionally. Although justified on national security grounds, the tariffs basically affect the United States’ traditional allies, the country’s main suppliers of steel and aluminium.

Most of the trading partners concerned have hit back with retaliatory measures targeting American products, good for a total of more than \$ 24 billion⁽¹⁾. As early as April 2018, China⁽²⁾, whose exports of steel and aluminium were estimated at \$ 2.8 billion in 2017, imposed import tariffs ranging from 15 to 25 % on American products, with an export value of \$ 2.4 billion. In reaction to the € 6.4 billion (\$ 7.5 billion) of European exports affected, the EU has opted for “rebalancing measures”⁽³⁾ on € 2.8 billion (\$ 3.2 billion) worth of US products that have been subject to customs duties of between 10 and 25 % since the end of June 2018. The list includes steel and aluminium products, agricultural products and various iconic US items (like Harley-Davidson motorbikes, jeans, bourbon, peanut butter, etc.)⁽⁴⁾. Canada, Mexico and Turkey have also taken retaliatory measures, affecting respectively \$ 12.8, 3.6 and 1.8 billion worth of US exports based on 2017 figures. Overall, the reactions have been proportionate and have targeted politically sensitive export products that are produced in States inclined to the Republican President’s camp⁽⁵⁾.

3.4 China

Economic ties between the United States and China have gradually strengthened since the end of the 1970s, but the real upswing came when China joined the WTO in 2001. Nowadays, the ‘Middle Kingdom’ is the United States’ main trading partner. It singlehandedly represents almost half of the country’s goods trade deficit (see chart 5).

Although the economic integration between the two countries is generally perceived as mutually beneficial, there is rising dissent in the United States as regards some of China’s policies, which are qualified as protectionist and damaging to US interests (Morrison, 2018). Among the oft-criticised “unfair” practices over the last few years are the artificial devaluation of the currency, forced technology transfer, theft of intellectual property, industrial subsidies, and State involvement in business. These objections are also shared by other countries: between 2006 and 2018 approximately 20 % of complaints submitted to the WTO related to China (Bown, 2018d).

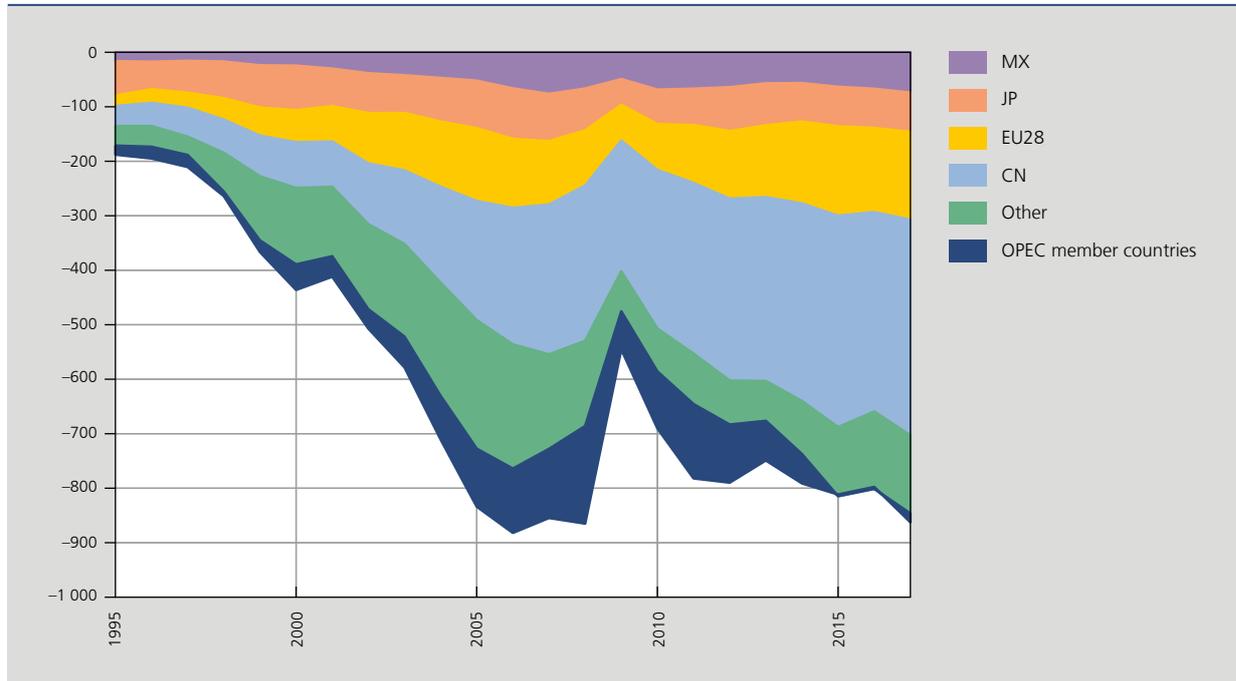
Despite regular bilateral dialogue in the mid-2000s between Washington and Beijing, recently it has proved impossible – despite many attempts at reconciliation – to reach a satisfactory agreement to resolve the economic and commercial conflicts between both countries. In this context, pleas for changes in China’s behaviour have received increasingly large support from the political and economic world on the other side of the Atlantic.

China has inevitably drawn the attention of the new US Administration, which is keen to reduce the trade deficit and safeguard fair trading conditions. As a result, in August 2017, President Trump ordered an investigation into China’s “unfair” practices in the areas of intellectual property and technology transfer. The report, published in March 2018, concluded that “China’s acts, policies and practices related to technology transfer, intellectual property, and innovation are unreasonable and discriminatory, and burden U.S. commerce” (USTR, 2017)^{(6) (7)}.

Based on this, President Trump decided to impose a 25 % tariff on Chinese goods, for an amount representing \$ 50 billion worth of imports. The first tranche (\$ 34 billion) was introduced on 6 July 2018, whilst the tariffs for the second tranche (\$ 16 billion) were increased on 23 August. Close to 95 % of the imports in question are semi-finished products and industrial equipment. The hardest hit sectors include machinery, mechanical equipment and electrical equipment.

- (1) Under WTO rules, a member country is authorised to take retaliatory measures against another country’s trade practices when those practices have no legal basis. Compensation may then relate to no more than an amount corresponding to the value of lost exports. However, the WTO dispute settlement process can sometimes take several years, which forces member countries to get around it, by contesting the justification for the protective measures. In this context, a trading partner may request immediate compensation provided that its sales of the newly protected product have not increased in absolute terms. For more details, see Bown (2018a).
- (2) Although China produces half of the world’s steel and aluminium, it only accounted for 6 % of US imports in these sectors in 2017. More than 90 % of its products were in fact already subject to antidumping and countervailing duties, most of which were imposed before Donald Trump took office (Bown, 2018d).
- (3) The European Commission argues that the American decisions are tantamount to “disguised” safeguard measures and are not justified on national security grounds. It has therefore adopted a customs tariff on an amount equal to the export value of its products whose exported volumes had not increased between 2016 and 2017 (Bown, 2018b).
- (4) On 1 June 2018, the EU also initiated proceedings against the United States in the WTO, to contest US justification for customs tariffs. It also said it was reserving the right to impose additional rebalancing duties on €3.6 billion (\$4.3 billion) worth of US imports “in three years’ time or after a positive finding in WTO dispute settlement if that should come sooner” (EC, 2018).
- (5) In mid-July, the United States announced that they would launch WTO proceedings to contest the customs tariffs adopted in retaliation to their own measures on steel and aluminium.
- (6) Four types of practices were particularly scrutinised in the report: firstly, Chinese policies implicitly or explicitly oblige American companies that wish to enter the Chinese market to establish joint ventures with Chinese companies and transfer their technology to them. Secondly, Chinese laws and regulations oblige American companies that wish to sell their technology in China to cede their licences at prices lower than their economic value. Thirdly, the Chinese government’s industrial policy includes an investment plan that encourages the purchase of sensitive American technology. Fourthly, the Chinese government supports cyber intrusions into American companies to fish for commercial secrets and other confidential information.
- (7) In addition to their differences regarding intellectual property, Washington is apparently also concerned about the rise of Beijing. The Made in China 2025 plan to promote the manufacturing industry and the Belt and Road Initiative to boost connections between China and the rest of the world are also perceived as threats to the United States’ economic, technological and financial hegemony.

CHART 5 GEOGRAPHIC DISTRIBUTION OF US TRADE DEFICIT
(in \$ billion, goods, 1995-2017)



Source: UNCTAD.

In line with its tit-for-tat strategy, China approved an identical 25% tariff on the same day for equivalent amounts on American goods. Contrary to the US measures, the Chinese tariffs were chiefly directed at consumer goods, and especially agricultural and transport-related products.

Against a backdrop of retaliatory action by Beijing, the US President asked the Trade Representative to identify Chinese products for a value of \$ 200 billion on which additional tariffs could be applied. Tariffs of 10% and then 25% were cited. China reacted by threatening a new tariff hike of 5% to 25% on \$ 60 billion of American imports. President Trump revealed that in the event of further retaliatory actions, he could increase the value of the affected products to \$ 400 billion, and even impose new tariffs on all Chinese products⁽¹⁾.

In mid-September 2018, the American government formally approved the introduction of additional duties on a new list of 5 745 Chinese products, with an import value of approximately \$ 200 billion. The tariff was initially established at 10%, to be applied from 24 September 2018 onwards. If no agreement is reached, these tariffs are set to increase to 25% starting from 1 January 2019. In response, China announced that it would go ahead with its retaliatory actions.

3.5 Threats to the automotive sector

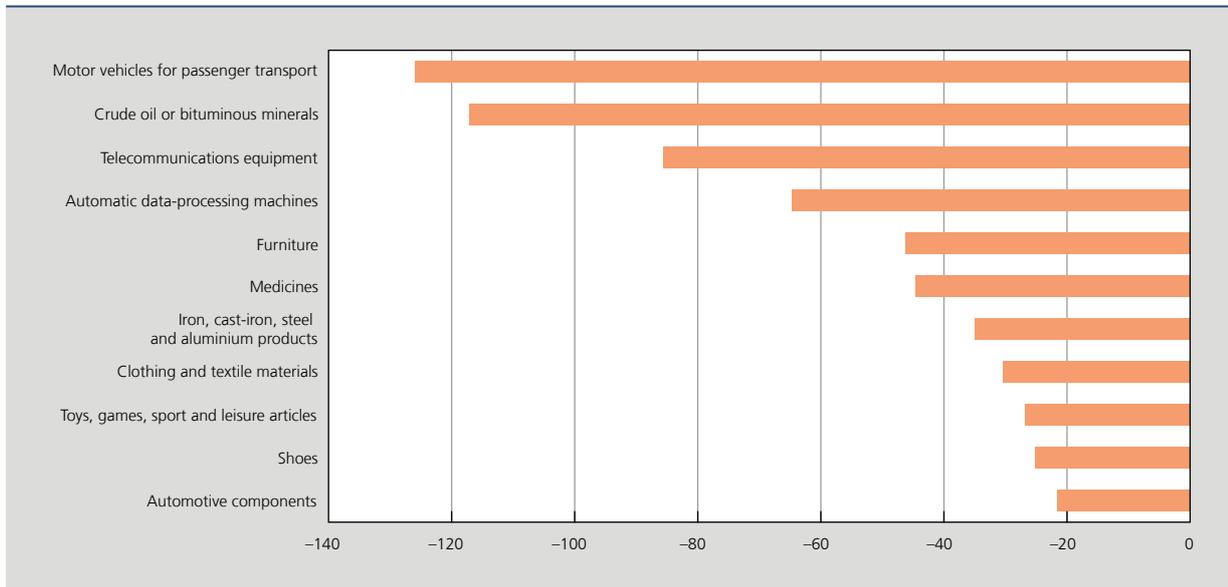
The automotive industry is from a sector-specific point of view what China is from a geographical point of view: the primary source of the US trade deficit. Since the 1970s, this sector has seen a trade deficit in the United States, which has greatly compounded over the past decade. In 2017, the deficit for the sector as a whole reached \$ 165 billion, \$ 125 billion of which was for motor vehicles destined for passenger transport (see chart 6). The Trump Administration additionally considers that US vehicle exports to China and the EU are disadvantaged by higher tariffs than those imposed by the US⁽²⁾.

(1) Apart from the tariff measures, in March 2018, the United States also commenced proceedings against China before the WTO for discriminatory practices with respect to licence transfers. They equally took specific measures to restrict Chinese investment in some industries and technologies deemed essential by the United States. After trade talks between the United States and China were suspended in June 2018, they were resumed at the end of August.

(2) Customs duties on private vehicles are 10% in the EU and 2.5% in the United States. However, since 1964, the tariff on light-duty trucks and commercial vehicles in the United States is 25% compared to 22% in the EU. In May 2018, China agreed to lower its tariffs from 25% to 15%, taking effect from July 2018.

As a reaction to the retaliatory measures for the steel and aluminium tariffs, President Trump threatened to put up tariffs on imports of vehicles to the United States, with this specifically targeting the EU.

CHART 6 MAIN PRODUCTS THAT CONTRIBUTE TO THE US TRADE DEFICIT
(in \$ billion, 2017)



Source: UNCTAD.

Against this backdrop, on 23 May 2018, the US Department of Commerce launched an investigation into the national security implications of imports of vehicles, SUVs, vans, light-duty trucks and spare parts. This probe could culminate in customs duties of approximately 20% to 25% on a total import value of about \$ 300 billion in 2017.

That decision was immediately condemned, not only by the main exporting countries (Mexico, Canada, Germany, South Korea and Japan), but also by manufacturers based in the United States. The latter considerably benefit from the integration of their production into global value chains and are concerned both about a rise in prices for semi-finished products and potential retaliatory measures from trading partners of the US. The EU and Canada already announced that they would react proportionately to the new customs duties.

Fears of an increase in customs duties to the detriment of the automotive sector somewhat ebbed in the summer of 2018, following the favourable progress of various trade talks. On 25 July, the United States and the EU announced that they had reached an agreement to intensify trade cooperation⁽¹⁾. They agreed not to introduce any new customs duties whilst talks were underway and stated that a solution would be sought to their differences as regards steel and aluminium tariffs.

At the end of August, President Trump announced that a deal had been reached with Mexico to revise NAFTA. Although talks with Canada were still ongoing at the moment of writing, that agreement augurs well for a conciliation of trade relations in North America.

(1) The EU and the United States plan to work together towards ending tariff and non-tariff barriers as well as subsidies of non-automotive industrial goods. They additionally plan to work towards intensifying trade in services, chemicals, pharmaceuticals, medical products and soya. They have also agreed on strategic bilateral cooperation with respect to energy. Finally, at an international level, they decided it was necessary to address unfair trade practices and reform the WTO. Contrary to the TTIP (for which negotiations – which have in the meantime reached a deadlock – started back in 2013), this agreement is limited to industry, leaving out the far more sensitive sectors such as agriculture and services. Equally, it does not encompass investment matters. Somewhat paradoxically, the automotive sector is also excluded as it is the subject of separate negotiations. At the end of August 2018, the European Commissioner for Trade, Cecilia Malmström, said that the EU was prepared to agree to zero car tariffs on the condition that the United States would do the same, but her request was rejected by the US President.

Box 2 – What are the economic effects of trade disputes ?

In the 1930s, in the midst of the economic depression, the Smoot-Hawley Tariff enacted by US Congress led to a rise in customs duties of an average of approximately 8 percentage points on almost 900 products imported into the United States⁽¹⁾. US trading partners did not take kindly to these decisions, and reprisals abounded. The trade war that followed led to an almost 40 % fall in global trade volumes between 1930 and 1932 (Grossman and Meissner, 2010).

Today's scenario is a completely different one. The global economy is doing well overall, average customs duties are considerably lower today, and international economic, financial and commercial relations have nothing in common with those that existed in the 1930s. The channels through which a wave of protectionism can influence trade and the global economy are more numerous and diffuse than ever, which only makes the question of its economic impact even more relevant.

Limited macroeconomic impact

The protectionist measures taken in 2018, albeit unprecedented, only cover a minor part of international trade. Outside the safeguard measures, they relate to approximately \$ 432 billion in manufacturing exports, taxed at 5 % to 25 %. That represents less than 3 % of international trade. It should be emphasised that imposing tariffs does not necessarily lead to the extinction of these trade flows but rather to a contraction of them. The so far adopted tariff measures therefore have a limited macroeconomic scope.

Even if the threats already made were actually carried out, they would affect approximately 8 % of global trade. Many companies could nevertheless try to work through intermediaries, change trade routes or reorganise production geographically to circumvent the customs duties.

According to macroeconomic models, economic impact would remain limited, even if an extended trade war would lead to a tariff rise for the import of all goods between the United States and its main trading partners. According to Bollen and Rojas-Romagosa (2018), such a scenario of a blanket tariff increase of 15 % would not shrink global trade by any more than 11 % to 12 % or lead to a decline of any more than 2.5 % in global GDP between now and 2030. According to Krugman (2018), customs tariffs of 30 % to 60 % could make international trade fall by 70 % but the cost to the world's economy would not be more than 2 % to 3 % of GDP.

In light of an estimated 3.9 % growth in global GDP for 2018 and 2019 (IMF, 2018), the overall effects of a genuine trade war seem to remain relatively limited. That scenario may appear utopic though. Its rather reassuring elements need to be nuanced and clarified on various points.

The costs of protectionism are not evenly distributed

Just like the advent of globalisation, its opposite – deglobalisation – has its winners and losers. The ones that stand to lose the most are the sectors and countries directly hit by the tariff barriers. The sharp fall in German car manufacturers' share prices immediately after the US President's threats is revelatory in this respect. On a more general level, export industries already firmly entrenched in the global value chains are more likely to lose, while industries that are competing with imports are more likely to win.

The US steel and aluminium sectors have benefited the most from the recent measures, which have caused a huge increase in prices for these metals. On the other hand, the industries that rely heavily on steel and aluminium, for example manufacturing of cans or canned goods, have suffered. The same goes for US soya producers, whose

(1) At the time, the tariffs were specific, i.e. per unit of product, which led to a sharp *ad valorem* increase in the context of the Great Depression, a period characterised by deflation.



exports have been affected by retaliatory measures from China. US car makers are an interesting case, in the sense that they could be disadvantaged by a tariff hike for the import of vehicles insofar as they manufacture a great deal of the vehicles sold in the US abroad. They are already suffering under the strain of the measures for steel and aluminium, and duties on car parts would only add to this. Finally, one could say that the EU may stand to gain if a full-blown US-China trade war flares up⁽¹⁾. After all, this situation could open up opportunities for some European sectors to the detriment of their American counterparts, for example in aviation.

Reorganising production is expensive and time-consuming

To reorganise global manufacturing, resources need to be overhauled. New factories need to be created, whilst others need to be taken down as they are no longer profitable or useful. This entails fixed costs that do not necessarily contribute to more growth and that can put pressure on productive investments. New trade barriers also force some companies to establish new trade relations, or look for new suppliers and sales markets, which takes time.

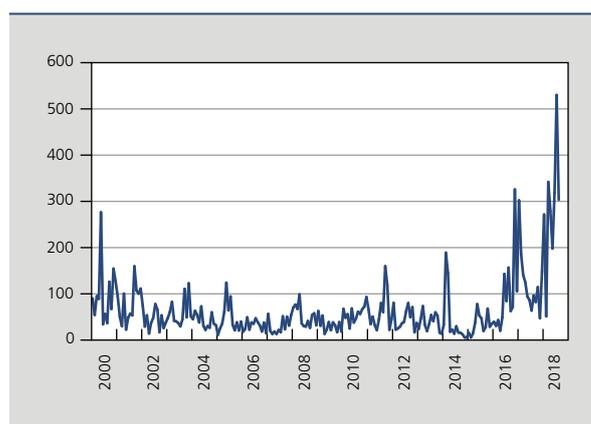
As a reaction to the European retaliatory measures, US company Harley Davidson revealed that it would move part of its manufacturing activity to factories outside the United States to circumvent the new European 25% tariffs on motorbikes imported from the United States. It indicated that this plan requires new investments and could take up to 18 months.

A protectionist climate is a source of uncertainty

Apart from the measures that are actually implemented, a protectionist climate creates uncertainty, which is difficult to take into account in macroeconomic models. That uncertainty has implications for consumer confidence and causes companies to suspend their investment and recruitment plans, or even to cancel them. At a meeting in June 2018, the US Federal Reserve's Federal Open Market Committee specifically raised the issue of signals going in such direction in the United States (FOMC, 2018). More generally, uncertainty risks contributing to risk aversion. It therefore also weighs on economic activity through tightening financial conditions.

UNCERTAINTY ABOUT US TRADE POLICY

(index⁽¹⁾, January 2000-August 2018)



Sources: Policy Uncertainty. Baker, Bloom and Davis (2016).

(1) Number of articles in US newspapers discussing uncertainty regarding trade policy.

(1) Bollen and Rojas-Romagosa (2018) demonstrate that the EU could reap some benefits from a trade war between the United States and China.

The protectionist measures that have been introduced, just like the retaliatory measures in reaction thereto, appear to be in contrast with the rules of international trade, and certainly go against the spirit of those rules. In the event of an escalation, there is a risk that the commercial system based on shared rules, which precisely contributes to stability, could come under discussion. Reiterated threats from President Trump that he will withdraw the United States from the WTO only add to these fears. Such a decision could mean an end to the post-war international trade system as we know it and could have much greater consequences than the duties and tariff threats that are currently on the table.

More broadly, taking into account the geopolitical role of trade and the current course of US foreign policy, the future of international relations and of the world order could be rightly called into question.

Tariffs support inflation

Tariffs drive some prices up: the rise in aluminium prices is reflected in the price of cans, which in turn affects the price of the drinks in these cans. That additional inflation could end up affecting consumer confidence as well as consumption. Low-income individuals would be the most severely hit as they usually allocate a larger proportion of their income to the products that have reduced in cost the most thanks to free trade.

If inflation is sufficiently stimulated, monetary policy could moreover become more restrictive than it is in the absence of tariffs, which would drag down economic activity. According to Carney (2018), an all-out trade war could accelerate inflation in the United States by approximately 1 %.

Deglobalisation is a threat to productivity

Just as specialisation and economies of scale boost productivity, any disintegration of world trade would stall productivity growth over the longer term, not least because of reduced competition and a slower spread of new technology. According to some estimates, a 20 % fall in trade could push down productivity over the long term by 5 % (Carney, 2018).

4. What is the impact on Belgium ?

To estimate an economy's degree of exposure to the imposition of international trade barriers, export and import data are typically used. In the case in hand, these statistics are of particular interest, to the extent that they are used by the US Administration to make its diagnosis and thus serve as a barometer for its decision-making.

Trade data nevertheless have their limitations (see box 1). Nowadays, exports are in fact largely disconnected from the income they generate. For sourcing their export production, firms frequently rely on foreign inputs, whether they be raw materials, components or specific services. This imported content rewards foreign factors of production, breaking the equivalence between the amounts exported and the revenue earned for a country. If, in order to export 100, it is first necessary to import 40, the income generated comes to 60. This figure corresponds to the value added invested in exports. It measures the business activity undertaken, and thus the jobs created.

The fragmentation of production chains at the global level is now a well-established economic fact (see, *inter alia*, Elms and Low, 2013). It is increasingly frequent for the same product to cross several borders and go through various stages of processing along its way. For our risk analysis elaborated in section 4.2, we prefer to use the value-added approach. Although it does have some weaknesses, notably in terms of timeliness of the data (see box 1),

this approach is the most appropriate for attaining our objective of assessing as precisely as possible an economy's exposure to its trading partners⁽¹⁾.

Barriers to trade primarily affect exporting firms. They also have ripple effects. When exporters sell less, they cut back their purchases from their suppliers. The latter therefore suffer too and, in turn, also buy less, and so on. The strength of the value added analysis lies precisely in the fact that it considers the entire production chain, taking account of all content that is successively accumulated throughout the chain. It therefore includes the contribution of each Belgian firm involved in the production of exported goods and services.

4.1 Extent of trade with the United States

Over the period running from 2015 to 2017, almost 4 900 Belgian firms exported goods directly to the United States worth around € 14 billion on average each year, making the US Belgium's fifth main trading partner, after Germany, France, the Netherlands and the United Kingdom. Featuring high on the list of products exported across the Atlantic are mainly chemicals and pharmaceuticals products (€ 7.2 billion), machinery (€ 2 billion) and transport equipment (€ 1 billion). Exports of steel and aluminium, directly targeted by the Trump Administration's recent protectionist measures, amounted to respectively € 150 and 60 million.

Over the same period, 16 800 Belgian firms⁽²⁾ bought a total of € 13.3 billion worth of American goods a year. These imports mainly consisted of chemicals and pharmaceuticals products (€ 5.5 billion), machinery (€ 2.6 billion) and instruments (€ 1.7 billion), particularly medical and orthopaedic instruments.

Trade in services between the two countries is also significant. Belgian exports to the United States reached € 10.3 billion, compared with € 7.6 billion of imports. Services trade, in both directions, basically concerns services that fall in the "other business services" category, notably including consultancy and research and development services provided on behalf of parent companies or subsidiaries within a multinational group.

TABLE 1 TRADE IN GOODS AND SERVICES BETWEEN BELGIUM AND THE UNITED STATES
(in € billion, average for 2015-2017)

	Belgian exports to the United States (X)	Belgian imports from the United States (M)	Bilateral trade balance (X-M)
Goods (B)	14.0	13.3	0.7
<i>Number of firms</i>	4 900 ⁽¹⁾	16 800 ⁽¹⁾	
of which: steel	0.15		
<i>Number of firms</i>	90 ⁽¹⁾		
of which: aluminium	0.06		
<i>Number of firms</i>	180 ⁽¹⁾		
Services (S)	10.3	7.6	2.8
Total (B+S)	24.3	20.8	3.5

Sources: NAI (external trade data according to the national concept) and NBB (balance of payments).

(1) Rounded off to the nearest ten.

Note: For rounding-off reasons, the totals may not correspond to the sum of the components.

(1) See also Vandenbussche *et al.*, 2017, who use the same approach for measuring the impact on Belgian jobs of tariffs of respectively 5 and 15 % on US imports.

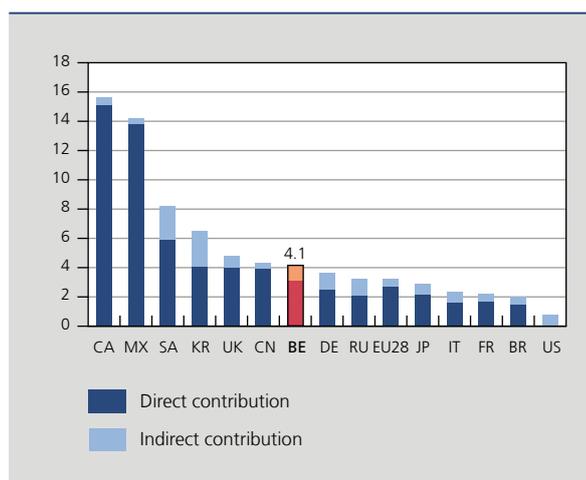
(2) The difference between the number of importers and the number of exporters seems to be specific to Belgium, owing to its role as gateway to the European market.

4.2 Risk analysis for Belgium

Out of the total US imports of goods and services, Belgium's value added at stake came to around 4.1 % of the country's GDP over the period 2009-2011⁽¹⁾. This percentage is below that of the United States' traditional trading partners like Canada, Mexico or the United Kingdom, but it turns out to be relatively high when compared with other European countries, notably Germany or France.

CHART 7 CONTRIBUTION TO US IMPORTS

(in % of GDP⁽¹⁾ of the country in question, average 2009-2011)



Source: Own calculations based on TiVA data.

(1) Net of taxes less subsidies on products.

This percentage of 4.1 % is made up of the total of all contributions from Belgian firms to US imports. It of course includes the value added involved in direct exports from Belgium to the United States, which came to 3.1 % of GDP⁽²⁾. It also contains the indirect Belgian contribution to US imports, which represented about 1 % of GDP⁽³⁾. Some Belgian firms produce components, or even provide specialised services, that go into the manufacturing of foreign products intended for the US market. A case in point would be spare parts made in Belgium and integrated into the assembly chains for German cars exported to the United States.

However, the degree of exposure does not give a precise idea of the Belgian economy's sensitivity to a shock like the imposition of a new customs tariff. To do this, it is necessary to have a model consisting of a whole range of selected mechanisms. In real terms, it is a question of determining, with the help of parameters, the vulnerability of the production chains' structure to this shock. We have carried out simulations on the basis of a model derived from Tintelnot *et al.* (2018)⁽⁴⁾. This in turn is based on individual firms and integrates all trading relations that they have with each other. It therefore takes into consideration not only the direct effects on firms that have trade relations with the United States, but also the indirect effects on their chain of Belgian suppliers and customers. Moreover, this general equilibrium model estimates the decline in income recorded in the companies concerned, and it reduces the economy's total final demand correspondingly. So, even a firm that has no direct or indirect connection with the United States is affected when demand for its products from workers who have been hit by the shock decreases.

(1) In this article, we always refer to a GDP net of taxes less subsidies on products. For the record, this concept is the equivalent of total value added, which in Belgium was worth €339.6 billion in 2011. By adding taxes less subsidies on products, which came to €39.5 billion in 2011, it makes up GDP, which therefore amounted to €379.1 billion in 2011.

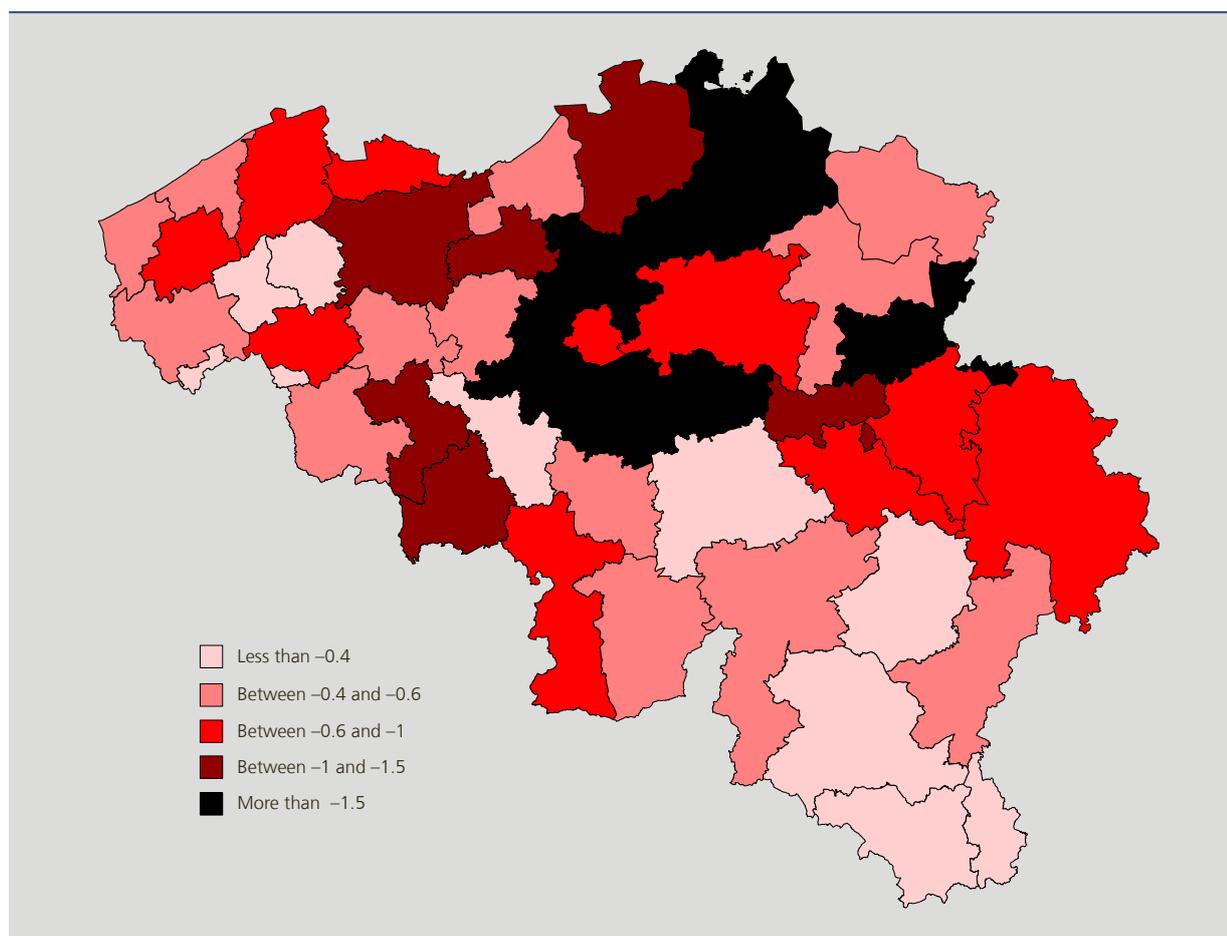
(2) This figure gives the total of all contributions from Belgian exporters to the US and those of their entire chain of Belgian suppliers.

(3) This figure gives the total of all contributions from Belgian exporters to foreign firms that export to the US and those of their entire chain of Belgian suppliers.

(4) It should be noted that the simulation does not take account of the indirect effects that filter in through third countries, and especially the fall in demand from trading partner countries following the imposition of a customs tariff.

CHART 8 MAP OF THE SIMULATED EFFECTS OF A RECIPROCAL TARIFF OF 10%⁽¹⁾ ON TRADE BETWEEN BELGIUM AND THE UNITED STATES

(percentage changes in private sector value added, reference year = 2012)



Source: Own calculations derived from Tintelnot *et al.* (2018).

(1) Applied uniformly to all products, with the exception of steel, for which a customs tariff of 25% on exports from Belgium has been applied to comply with the measure currently in force.

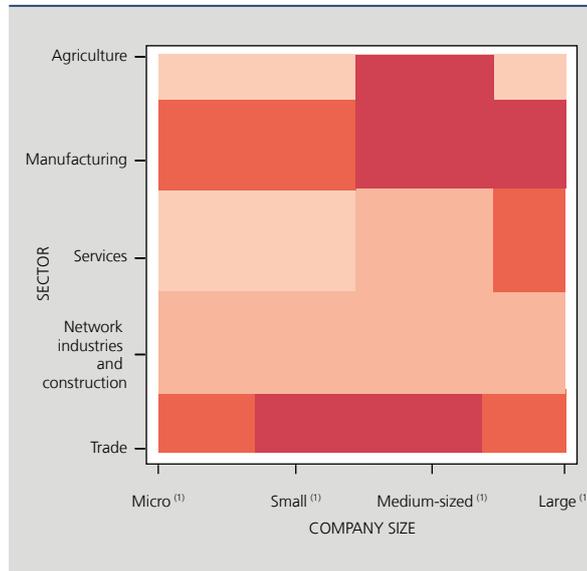
Chart 8 maps out the estimated effects of a 10% tariff on Belgian exports to the United States and on Belgian imports from the United States. Among the most sensitive geographical areas are the districts of Antwerp, Ath, Ghent, Hal-Vilvorde, Mechelen, Mons, Nivelles, Dendermonde, Tongeren, Turnhout and Waremme. The aggregate impact on the Belgian economy is estimated at -1.0% of value added.

It should be noted, however, that firms within the same district are not all exposed in the same way. Generally speaking, large manufacturing firms and wholesale and retail trade firms would appear to be the most vulnerable. Big services, agriculture and network companies are also believed to be affected, albeit to a lesser extent. These findings point up the interconnection of firms among each other. Barriers to international trade do not just hit exporters or importers, mostly industrial companies who are on the front line, but also affect whole swathes of the Belgian production network.

These initial findings provide a global risk analysis triggered by barriers to trade with the United States. However, the US Administration has actually targeted specific products or countries of origin. So, this article will now turn to these production chains, in particular, steel and aluminium, US-China trade, and the automotive industry.

CHART 9 SIMULATED EFFECTS OF A RECIPROCAL TARIFF OF 10 % ⁽¹⁾ ON TRADE BETWEEN BELGIUM AND THE UNITED STATES: BREAKDOWN BY MAJOR SECTOR AND COMPANY SIZE

(percentage changes in value added, reference year = 2012)



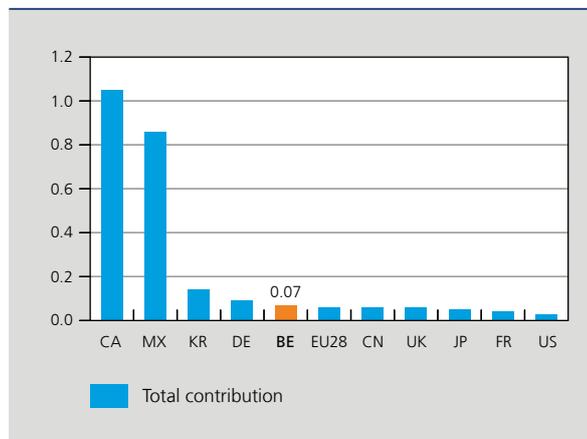
Source: Own calculations derived from Tintelnot *et al.* (2018).

(1) Applied uniformly to all products, with the exception of steel, for which a customs tariff of 25 % on exports from Belgium has been applied to comply with the measure currently in force.

Note: Firms are classified by size: micro-companies (less than 10 employees), small firms (between 10 and 49 employees), medium-sized enterprises (between 50 and 249 employees) and large enterprises (more than 250 employees).

CHART 10 CONTRIBUTION TO US IMPORTS OF BASE METALS

(in % of GDP ⁽¹⁾ of the country in question, average 2009-2011)



Source: Own calculations based on TiVA data.

(1) Net of taxes less subsidies on products.

Note: The figures given include direct and indirect contributions. It should be pointed out that, in the case of base metals, contributions are mostly direct.

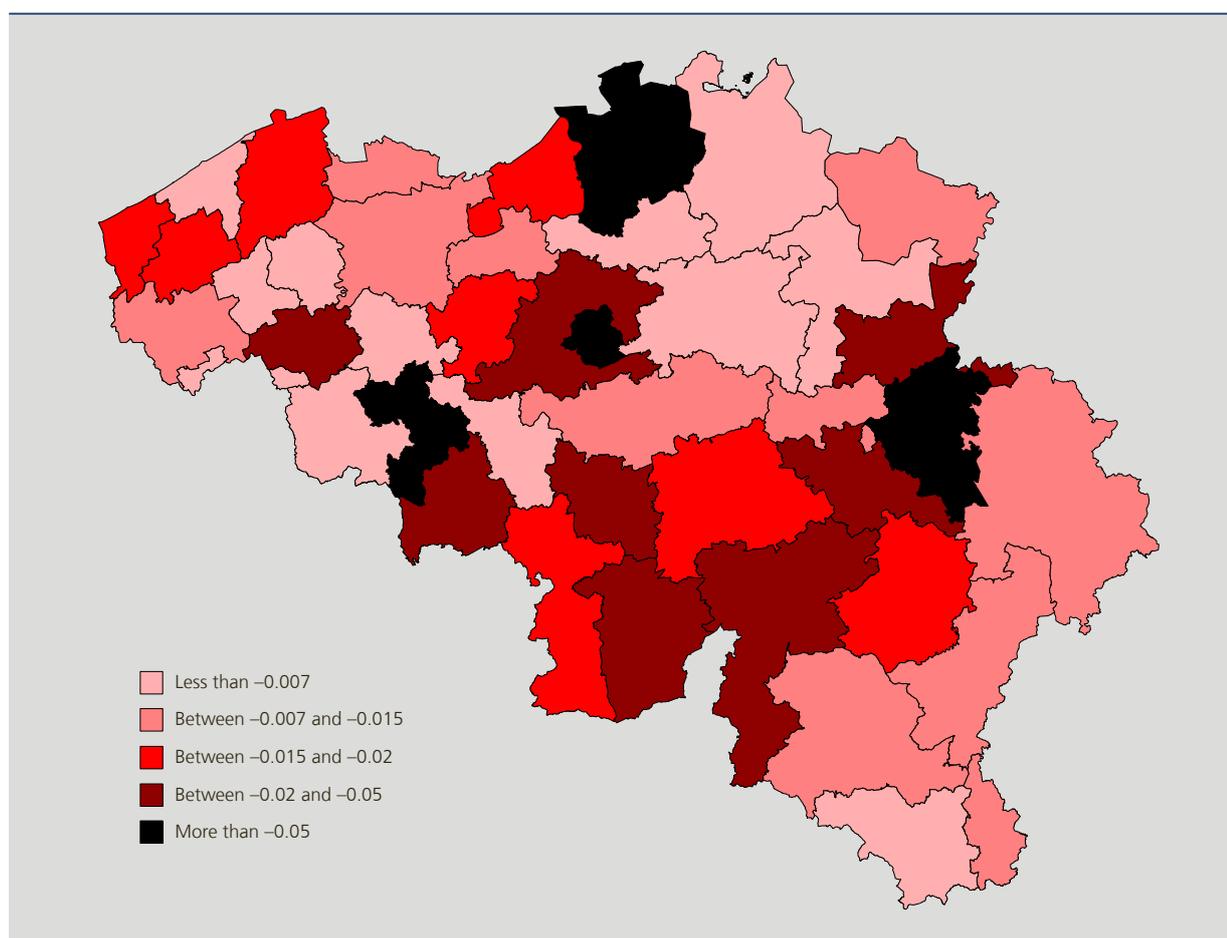
Steel and aluminium

Belgian value added involved in US imports of base metals accounted for around 0.07 % of Belgium's GDP over the period 2009-2011. Yet, steel and aluminium make up roughly half of all Belgian exports of base metals to the United States, which also cover copper, nickel, zinc, etc. So, there is a smaller degree of exposure specifically to steel and aluminium. At the end of the day, while the negative impact of a customs duty on the steel and aluminium sectors should not be underestimated, it must be concluded that the macroeconomic effect of these trade barriers is very limited.

According to our simulation exercise, the geographical areas most sensitive to the customs duties of 25 % on steel and 10 % on aluminium are the districts of Antwerp, Ath, Brussels, Charleroi, Kortrijk, Dinant, Hal-Vilvorde, Huy, Liège, Mons, Philippeville and Tongeren (see chart 11). The aggregate impact on the Belgian economy is estimated at -0.04 % of value added.

CHART 11 MAP OF THE SIMULATED EFFECTS OF CUSTOMS DUTIES OF 25 % ON STEEL AND 10 % ON ALUMINIUM ON BELGIAN EXPORTS TO THE UNITED STATES

(percentage changes in private sector value added, reference year = 2012)



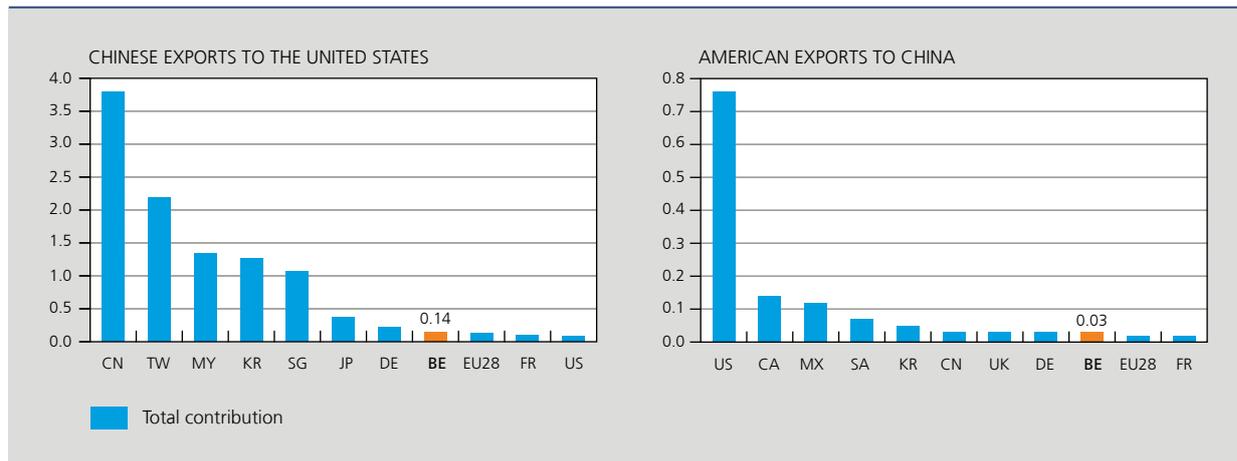
Source: Own calculations derived from Tintelnot *et al.* (2018).

Sino-American trade

As a supplier of China and the United States, Belgium is indirectly involved in commercial transactions between these two countries. It contributed to Chinese exports to the United States to the tune of 0.14 % of GDP over the period 2009-2011. It should be noted that this contribution is partly indirect, for instance when Belgium exports components to a partner supplier to China. It is more specifically involved in Chinese sales of (electrical, IT and optical) equipment destined for the American market.

When it comes to American exports to China, the Belgian contribution mainly involves chemical and pharmaceutical products. On the whole, the contribution is very low, barely reaching 0.03 % of GDP. Belgium is therefore five times less exposed to US exports to China than it is to Chinese sales to the United States. This is a rather surprising finding since Belgium is known to export more to the United States than to China⁽¹⁾.

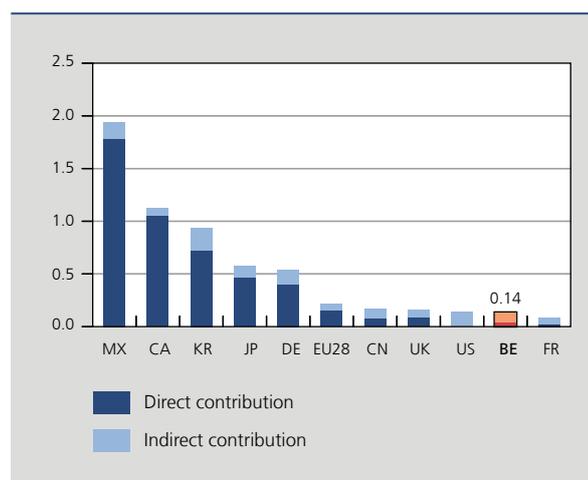
CHART 12 CONTRIBUTION TO TRADE BETWEEN CHINA AND THE UNITED STATES
(in % of GDP⁽¹⁾ of the country in question, average 2009-2011)



Source: Own calculations based on TiVA data.
(1) Net of taxes less subsidies on products.

Note: The figures given for all third countries refer exclusively to indirect contributions. For China in the case of Chinese exports to the United States (left-hand chart) and for the US in the case of American exports to China (right-hand chart), the figures are of course exclusively direct contributions.

CHART 13 CONTRIBUTION TO US IMPORTS OF MOTOR VEHICLES
(in % of GDP⁽¹⁾ of the country in question, average 2009-2011)



Source: Own calculations based on TiVA data.
(1) Net of taxes less subsidies on products.

(1) This is the case when exports are expressed as gross flows or in value added.

How can this apparent paradox be explained? The answer lies in the extent to which foreign inputs are used in production intended for export. American imports count for little in production for export. They are more geared towards domestic consumption and investment. By contrast, China is typically an intermediate link in global value chains and its imports contribute intensively to its production for export. In comparison to the United States' suppliers, China's are therefore more exposed to the export sectors⁽¹⁾.

Automotive industry

Belgian value added involved in US imports of motor vehicles, trailers and semi-trailers accounted for about 0.14 % of Belgium's GDP over 2009-2011. This contribution is largely indirect, as it penetrates the US domestic market through imports of cars originally made in Germany and, to a lesser extent, in Asian countries.

Conclusion

America's new trade policy is totally in line with the campaign promises made by President Trump. It is widely supported by Republican voters as being in "America's best interests", in accordance with the now famous foreign policy slogan "America first". The Trump Administration's clear mistrust of the WTO and multilateralism in general bears witness to the importance it accords to national sovereignty and reflects its desire to make full use of the weight of the United States in international negotiations. Diverse though they are, the trade measures adopted largely focus on the same objective: promoting activity and employment in the United States. That applies to the stated intention to renegotiate the North American Free Trade Agreement, the increase in customs duties on steel and aluminium, and the tariff barriers imposed on Chinese products.

In this article, it is shown that the impact on the Belgian economy of these measures is fairly small. For example, the Belgian value added involved in American imports of base metals – which include steel and aluminium – amounts to just 0.07 % of Belgian GDP. However, the adverse impact on the sectors concerned and their supply chains should not be underestimated. The simulation exercise conducted in this article shows that Antwerp, Ath, Brussels, Charleroi, Kortrijk, Dinant, Hal-Vilvorde, Huy, Liège, Mons, Philippeville and Tongeren are the most vulnerable districts.

The article furthermore reveals that Belgium's exposure to Chinese sales on the American market is almost five times greater than the other way around, even though Belgian exports to China are significantly lower than its exports to the United States. This apparent paradox reflects the weight of Chinese exports to the United States in comparison with the opposite flows. It also reflects fundamental differences in the contribution of foreign inputs to the production and exports of those two countries. American imports play little part in export production, being destined more for domestic consumption and investment. Conversely, China is typically an intermediate link in global value chains, and its imports make a major contribution to its exports.

Although they are unprecedented, the tariff barriers erected so far by the Trump Administration and the reprisals by US trading partners account for only a fraction of world trade and are of limited macroeconomic importance overall. However, attention should be drawn to their inevitable redistributive effects, their costs in terms of the reorganisation of production and increased uncertainty, as well as their negative influence on productivity over the longer term. If the current threats concerning all Chinese exports and the automotive industry are carried out, possibly followed by escalating protectionism, that will have more damaging effects for the global economy.

(1) We did not carry out any simulation on this subject. Such a scenario would effectively mean determining all Belgian firms and products that are indirectly affected by the Sino-American trade barriers, which is a particularly difficult exercise.

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