Trade Deficit with China – an Issue for the Euro Area?

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Key Messages

- The rise of China in the world economy and its growing importance as investor in industrialised and developing countries has raised concerns of policy makers in some countries

- Contrary to the trade situation between China and the US, trade between the euro area aggregate and China is almost balanced

- On an individual country level, Germany, Ireland and Finland record trade surpluses with China

- As trade between the euro area and China is balanced, there is no need for policy action to address any imbalance

- However, European markets should only be opened for Chinese companies and investment if this is reciprocated

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Trade deficit with China –an issue for the euro area?

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Abstract

The rise of China in the world economy and its growing importance as investor in industrialised and developing countries raised concerns of policy makers in some countries. The large deficit in the trade with China has caused the US government to increase tariffs on imports from China. Contrary to the situation regarding trade between China and the US, trade between the euro area aggregate and China is almost balanced, with a small deficit in trade with goods and a small surplus in the services balance of the euro area. On the individual country level, Germany, Ireland and Finland record trade surpluses with China. An econometric analysis identified domestic demand as the most important determinant of the trade balance between the euro area and China. Also revealed comparative advantages, the exchange rate between the euro and the renminbi as well as the stance of fiscal policies influence the trade balance. Since trade between the euro area and China is more or less balanced, there is no need for policy actions to address any imbalances. Furthermore, for open economies which many of the euro area countries are, openness to international trade is important. Thus, European policy makers are well advised to advocate free market access, but reciprocity is important.

1   Should we worry about bilateral trade imbalances?

One might argue that it is the overall trade balance of a country vis-à-vis the entire rest of the world that matters, and not bilateral balances with individual countries. However, it is exactly these bilateral trade balances that are lively debated in the political discussion. Some politicians and economists argue that large bilateral imbalances are the result of unfair trade policies, while others regard them simply as a reflection of countries' macroeconomic conditions. Empirical findings (Cuñat and Zymek, 2019) show that a large part of bilateral trade balances can be explained by differences in countries' expenditures and industrial structures. This study also suggests that asymmetric trade wedges such as trade barriers directed towards individual countries as opposed to all trading partners have very little impact on aggregate trade balances. Instead, the aggregate trade balance is primarily determined by macroeconomic factors such as country's savings preferences and the world interest rate. Therefore, a country which reduces a specific bilateral trade deficit by raising import barriers on the respective trade partner is only likely to increase its deficits with other countries (Cuñat and Zymek, 2019). Furthermore, trade barriers are detrimental to the imposing country's welfare. Notwithstanding these empirically supported arguments, political debates very often focus on bilateral trade imbalances. Therefore, if is worthwhile to look closer at the trade balance between the euro area and China in this Policy Brief.

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2 China's current account balance overall and vis-à-vis the US

In the recent decades, China reached sizeable surpluses in its international trade with goods (Figure 1). Between 1990 and 2004, this trade surplus reached between 1% and 3% in relation to GDP (exceptions being the year 1993 with a trade deficit and the years 1996 and 1997 when the surplus reached almost 5% of GDP). Since 2005, China's trade surplus soared, peaking at almost 9% in relation to GDP in 2016. In the recent past, the trade surplus declined, but in 2018 it still reached more than 4% in relation to GDP.

Due to rising service imports, in particular related to tourism spending as the rising Chinese middle and upper class increasingly spends their vacations abroad, the overall current account surplus declined substantially. Also a decreasing trade surplus contributed to the steep decline of the current account balance from its peak of around 10% in relation to GDP in 2007 to virtually zero in 2018. Regarding the rebalancing contribution of travel imports, on the basis of data from counterparty countries and a gravity equation, Wong (2017) finds that a significant amount of China's travel spending in the period 2014 – 2016 could not be explained by economic fundamentals. The unexplained travel imports are inversely related to domestic growth and positively with expectations of a depreciation of the renminbi against the dollar. Wong (2017) concludes that these unexplained travel imports are less likely consumption expenditures for goods and services abroad than domestic residents' acquisition of foreign financial assets. Adjusted for these potential disguised outflows, China's current account balance could have been higher than reported by around 1% of GDP in 2015 and 2016, a period when the Chinese economy slowed noticeably as it shifted away from investment- to consumption-driven growth (Wong, 2017).

**Figure 1: Current account balance of China (% of China's GDP)**
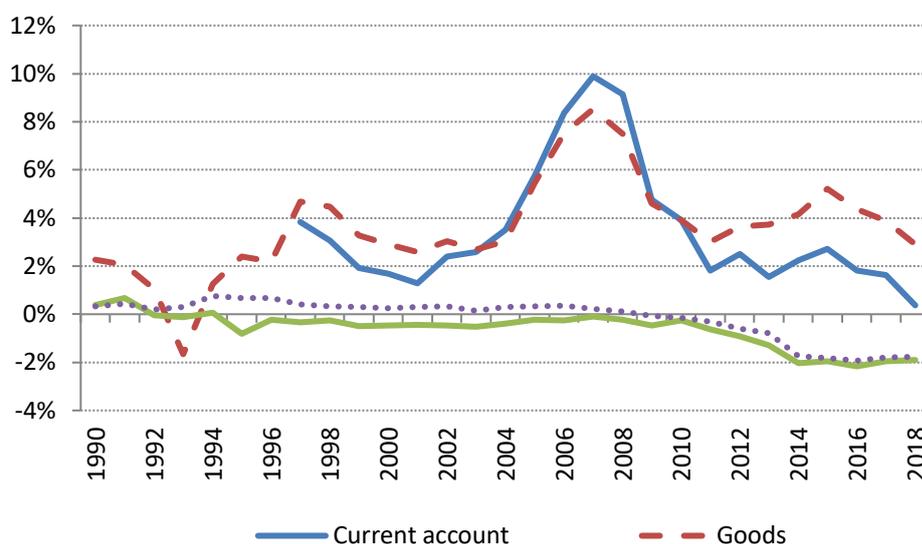
Note: Current account data were only available starting in 1997.
Source: UNCTAD; own illustration

As a result of the current account surpluses, over time China accumulated increasing foreign assets (Figure 2). While these assets peaked in relation to GDP at about 56% in 2008 and 2009 before declining to slightly below 30% in 2018, in absolute values China's foreign assets reached in their

peak only in 2014, but at the end of 2018 they still amounted to about 4 trillion US dollar. China is increasingly using these assets for investments not only in foreign government securities, but also in high-tech companies in many industrialised countries.

**Figure 2: China's net foreign assets**
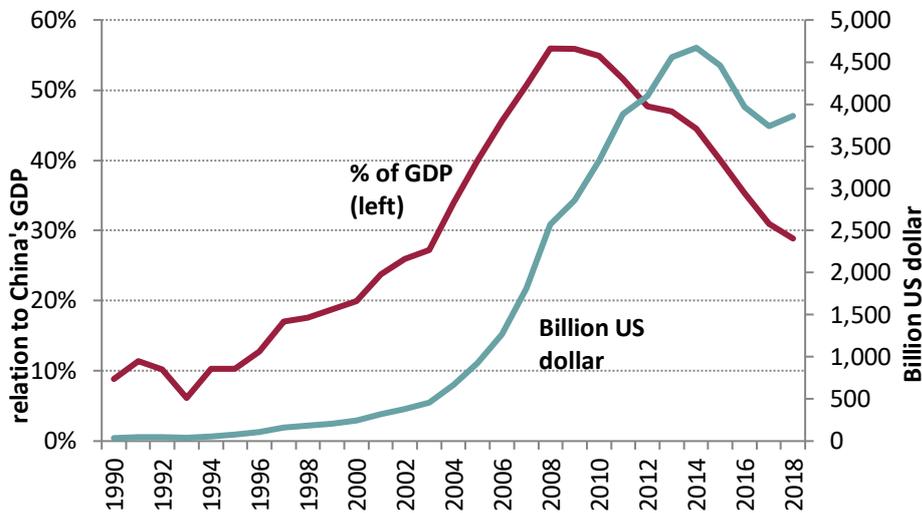
Source: World Bank; own illustration

In addition to investing in high-tech companies, the Chines government also started a huge infrastructure initiative, called the "Belt and Road Initiative (BRI)"). The BRI is a global development strategy adopted by the Chinese government in 2013, involving infrastructure development and investments in 152 countries and international organizations in Asia, Europe, Africa, the Middle East, and the Americas. While governments in many countries view this initiative as an opportunity to improve their connectivity, others raise concerns. These concerns are related to the risk that developing countries might not be able to service BRI-related debt, that they might be left with stranded infrastructure, and that local communities and the environment could be harmed. Furthermore, some politicians and commentators are concerned that China might gain political influence in the recipient countries (World Bank, 2019).

The increasing influence of China in the world economy raised concerns of some policy makers in other countries. This applies not least to the US. The administration of President Donald Trump viewed also the widening trade deficit of the US vis-à-vis China as problematic. As Figure 3 reveals, China's surplus in trade with goods vis-à-vis the US has been hovering around 4% of China's GDP since 2005. In 2018, the trade deficit made up around 2% of US GDP, and as the balance in trade in services reached just 0.2% of US GDP, also the current account deficit reached around 2% of US GDP (Figure 4). This imbalance in trade between the US and China was the main trigger of the ongoing trade disputes between the governments of these economies. In July 2018, the US government started to impose special tariffs on selected imports from China. Since then, both the US and China raised existing tariff rates and widened the scope of products to which special tariffs are applied.

Figure 3: Trade balance (goods) of China by region (% of China's GDP)
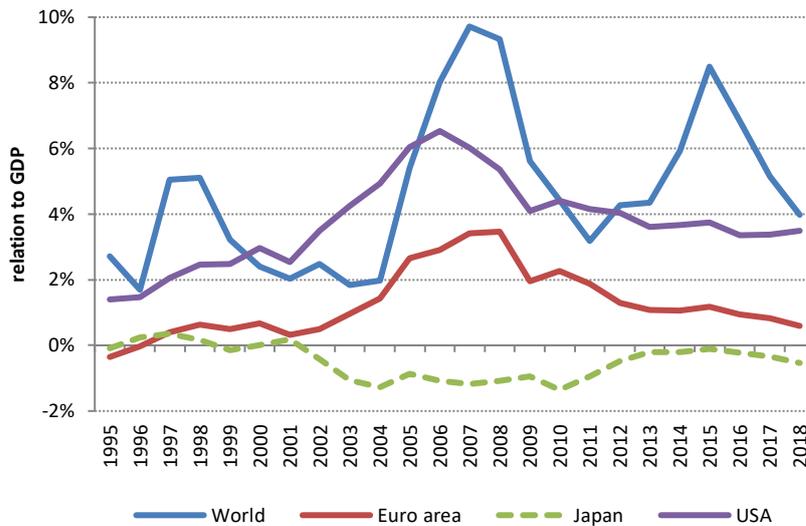
Source: UNCTAD; own illustration

**Figure 4: Current account balance between the US and China (% of US GDP)**
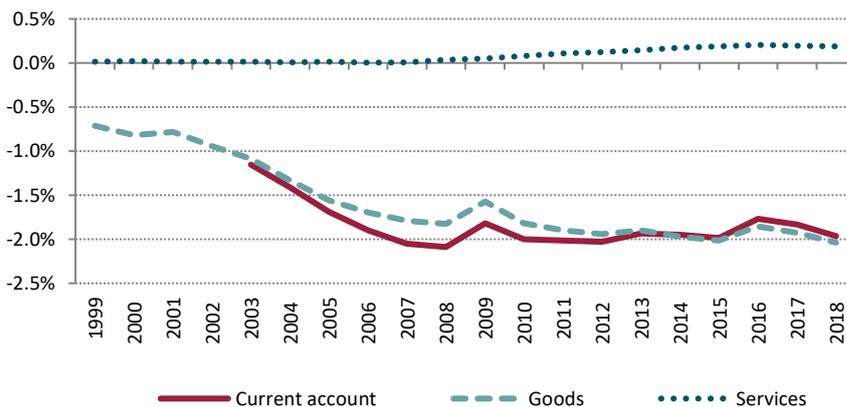
Source: Bureau of Economic Analysis (BEA); own illustration

3   Current account between the euro area and China

The rise of China in the world economy as well as the trade conflict between the US and China raises the question whether there pertain also large imbalances in the trade between the euro area and China, and whether there is any need for policy action on the European side. As is already visible in Figure 3 above, the euro area indeed has a deficit in the trade with China, but this deficit (or, as it is shown in the figure, China's surplus) declined substantially in the recent past.

Figure 5 shows that the euro area as a whole has a current account surplus vis-à-vis the rest of the world of around 3% of GDP. In trade with China, there is a deficit, but it amounts to just below 1% of euro area GDP. Figures 6 and 7 reveal that the euro area has a deficit in trade in goods vis-à-vis China, but a surplus in trade in services. With respect to the US, the euro area has a surplus in trade in goods, but a small deficit in trade in services.

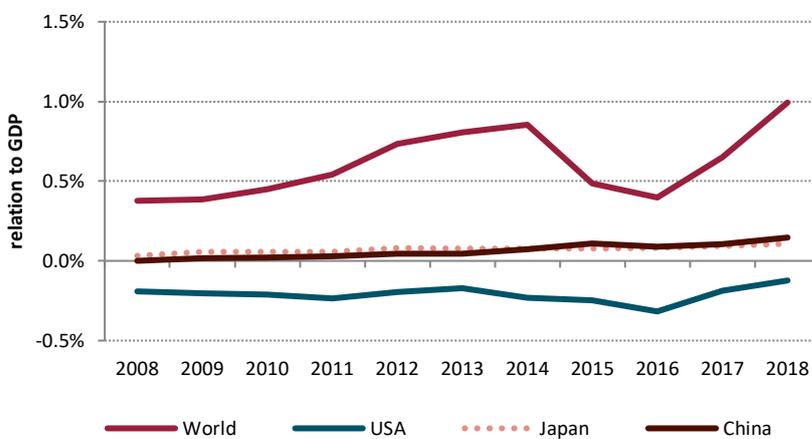**Figure 5: Current account balance of the euro area (% of euro area GDP)**
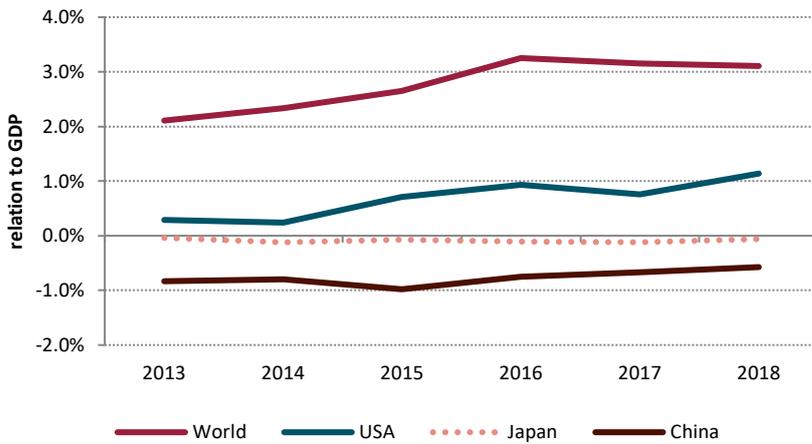
Source: Eurostat; own illustration

Figure 6: Balance of trade in goods of the euro area (% of euro area GDP)
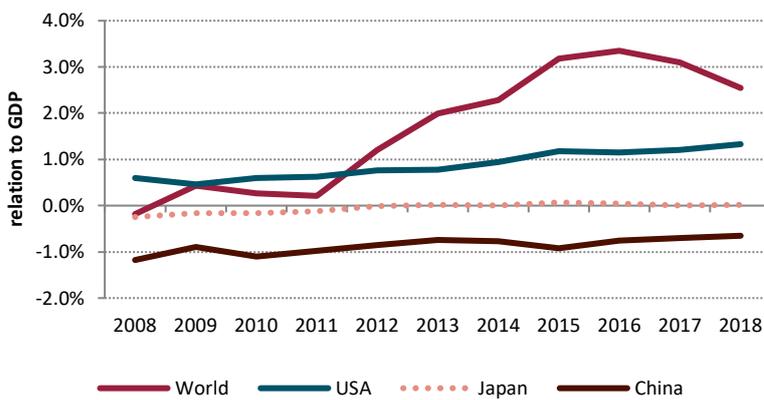
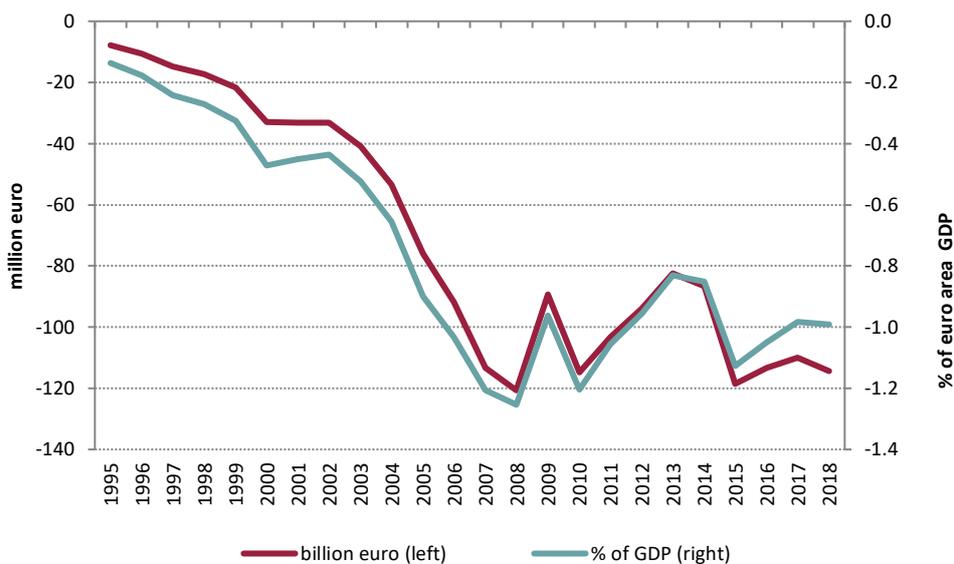*Source: Eurostat; own illustration*

Figure 7: Balance of trade in services of the euro area (% of euro area GDP)

Source: Eurostat; own illustration

While detailed balance of payments data and data on trade in services are only available from 2008 onwards, data on trade in goods is available for a longer period. Figure 8 shows that the trade deficit between the 19 countries currently forming the euro area and China widened steadily between 1995 and 2008. With the Great Financial Crisis in 2009 and again during the euro area crisis of 2012 – 2013 the trade deficit declined somewhat, then grew again, and in 2017 and 2018 the trade deficit stabilised at around 110 billion euro or 1% of euro area GDP.

**Figure 8: Trade balance (goods) of the euro area vis-à-vis China**

Source: Eurostat; own illustration

Figure 9 shows to which extent the 19 member states contribute to the overall trade deficit of the euro area vis-à-vis China (124.4 billion euro in 2018). Both in absolute values (74.4 billion euro) and in relation to GDP (9.6%), the Netherlands have the largest deficit. Due to the sizes of their economies, Italy, Spain, France and Belgium have the next largest trade deficits. On the other hand, Germany, Finland and Ireland are the only euro area countries that recorded trade surpluses with China in 2018. In absolute values, Germany had the largest trade surplus (18 billion euro). In relation to GDP, the trade surpluses of Finland (0.6%) and Germany (0.5%) were of comparable magnitudes and slightly larger than that of Ireland (0.3%).

The figure shows that by and large, trade between the aggregate euro area and China is more or less balanced. There is a deficit in trade in goods for all but three countries, but for most of them this deficit is far from dramatic. Only for the Netherlands the trade deficit exceeds 3% of its GDP, but the Dutch figures are biased due to the port of Rotterdam. While the goods entering the euro area via Rotterdam are statistically attributed to the Netherlands, most of them are destined for other countries. As the trade deficit of the Netherlands is distorted by country-specific features, the same is true for the trade surplus of Ireland. There many multilateral companies, especially from the US, have their European plants, and their exports add to the Irish trade surplus.

Figure 9: Trade balance (goods) of the euro area vis-à-vis China in 2018
% of GDP (upper panel), billion euros (lower panel)
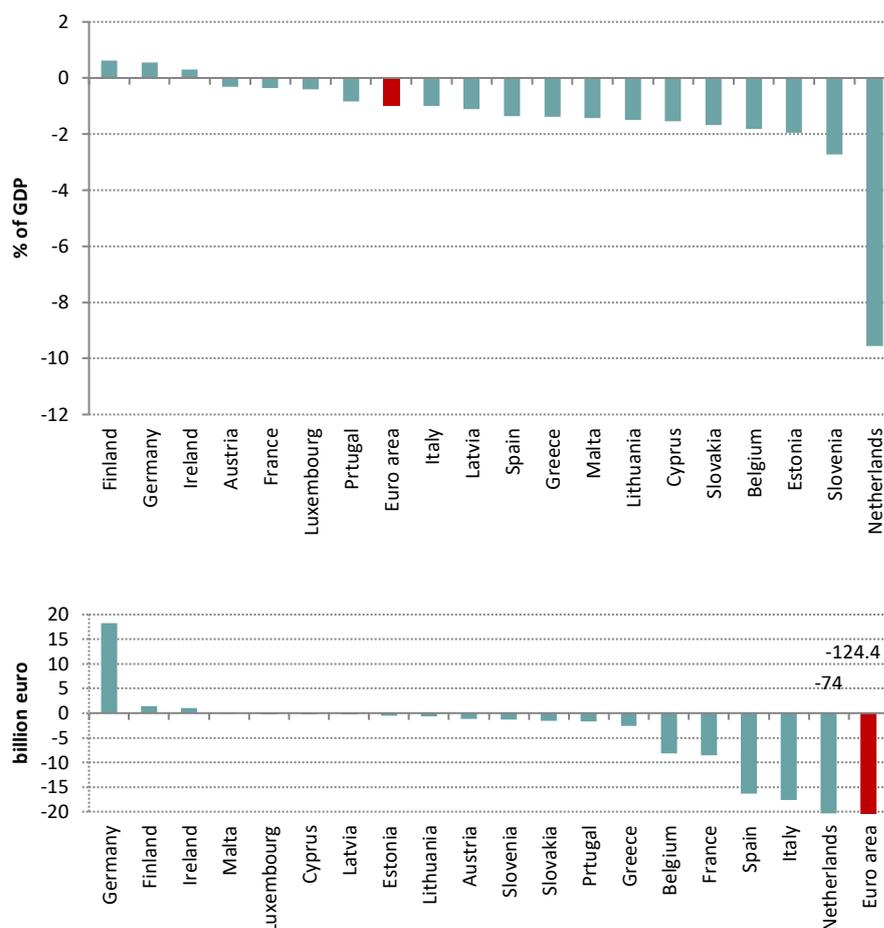
Source: Eurostat; own illustration

4 Determinants of the trade balance between the euro area and China

4.1 Which determinants identifies the literature?

The theoretical and empirical literature identifies several factors that determine the trade balance between countries. Based on econometric analyses of aggregate trade balances, sectoral expenditure and production shares as well as sector-level bilateral trade flows of 40 economies, Cuñat and Zymek (2019) find that bilateral trade balances can mainly be explained by bilateral trade-wedges such as technological and policy barriers to trade as well as preference differences across countries. Other determinants are differences in production and expenditure patterns, while aggregate trade imbalances play a minor role.

Analysing the current account development within the euro area, Belabed and Ramskogler (2019) find that the rebalancing in the euro area since the Great Financial Crisis was due to a reduction of the deficits by the deficit countries, while surplus countries maintained or even increased their surpluses. The main driver of the deficit reduction was the suppression of domestic demand.

In several analyses of the development and determinants of current accounts worldwide, the IMF (2018, 2019a, 2019b) identifies domestic demand, fiscal policies, exchange rate developments, and tariffs as well as other protectionist measures as drivers of current account balances. In this regard, the fiscal policy stance does not act as an independent driver, but through its influence on domestic demand. A fiscal loosening supports domestic demand and thus imports. Bilateral trade balances as the one between the US and China might be influenced by the overall trade balances of the respective countries. As an example, an expansionary fiscal policy in the US will probably lead to higher imports from the rest of the world, resulting in a deterioration of the overall trade balance as well as the constituting bilateral trade balances. On the contrary, trade policies which are directed only towards single countries affect bilateral trade balances asymmetrically. As an example, the tariffs which the US imposed on imports from China might divert Chinese exports towards other destinations such as the euro area. Thereby, tariffs between the US and China would influence the trade balance between the euro area and China.

4.2 Own empirical investigation

4.2.1 Data and method

For the empirical investigation on the factors that influence the bilateral trade balance between the euro area and China, the following variables were used:

- The **dependent variable**, i.e. the variable that was to be explained by the model, is the **bilateral trade balance in trade with goods**, in percent of the euro area's GDP. Source: Eurostat.

The following explanatory variables were tested and finally chosen:

- **Demand**: different demand variables were tested: the level of domestic demand in the euro area and in China, and the output gap. For the euro area, the output gap estimated by the European Commission on the basis of a production function was taken. Since for China no such data was available, the output gap was simply calculated as the percentage deviation of actual from trend GDP, where the trend was extracted by applying the Hodrick Prescott filer. Data sources: euro area: Eurostat (demand), AMECO database (output gap); China: Demand and GDP: OECD, output gap: own calculation.
- The nominal bilateral **exchange rate** between the euro and the Chinese renminbi. Also the real effective exchange rates of the euro area and of China were tested in the empirical applications, but they turned out not to be significant. This is probably related to the fact that the effective exchange rates include the development of the currencies (euro and renminbi) to several other countries of the world, while this analysis was only interested in the bilateral trade balance. Hence, it is not surprising that in this case the bilateral exchange rate between the two economies is more important than the exchange rate towards a large number of economies. Sources: Eurostat (from 2001 onwards); before 2001: Federal Reserve Bank of St. Louis (US dollar / renminbi) and Bundesbank (D-Mark / US dollar and euro / US dollar).
- **Revealed comparative advantage (RCA)**. In this case, RCA is defined as the ratio of a country's exports of a certain good to the world's exports of that good, divided by that country's share of exports of manufactures in the world exports of manufactures. A value of

the index above (below) one is interpreted as a revealed comparative advantage (disadvantage) for the particular good. The RCA is available on a more disaggregated level (e.g. for fuels, vegetables, manufactured goods), and on an aggregated level. For the current study, the RCA indices for the following aggregates were tested: consumer goods, intermediate goods, and capital goods. The RCA is published for pairs of countries. For the empirical investigation, the RCA between China and the euro area was thus calculated as the weighted average of the RCA between China and each euro area member state, where nominal GDP shares were used as the weights. Data source of the RCA: World Bank, World Integrated Trade Solution Database.

- **Tariff rates in China and in the euro area**: applied rate weighted mean, all products. Source: World Bank, World Development Indicators.
- **Fiscal policy**. An expansionary fiscal policy stance is associated with higher demand of which parts are imported, resulting *ceteris paribus* in a deterioration of the trade balance. The fiscal stance was approximated by the cyclically adjusted primary balance (CAPB), since this indicator captures discretionary policy measures, but not cyclical influences on the fiscal balance. An expansionary fiscal policy in the euro area leads to a reduction in the CAPB and hence to an improvement of the trade balance. Similarly, an expansionary fiscal stance of China reduces the Chinese CAPB, leading to an improvement of the euro area trade balance. Sources: AMECO database for the euro area, IMF Fiscal Monitor for China.

Annual data starting in 1995 were used. While most of the data are available until 2018, data on the revealed comparative advantage as well as the data on the average tariff rates were at the time of writing this policy brief only available until 2017.

4.2.2   Results

The results of the estimations are summarised in Table 1, while detailed results along with information on the statistical properties of the estimation can be found in Table 2 in the appendix. The most important influence on the trade balance was found to be domestic demand (measured via the output gap, i.e. the deviation of actual demand from its long-term trend), where an increase in demand in China raises imports and thus improves the bilateral trade balance of the euro area. Also a higher revealed comparative advantage of the euro area in the production of capital goods improves the euro area trade balance. The same is true if the euro area conducts a more restrictive fiscal policy than China, shown as an increase of the cyclically adjusted primary budget balance in the euro relative to that of China. On the other hand, a higher revealed comparative advantage of China in the production of intermediate goods as well as tariffs on Chinese imports leads to a deterioration of the euro area trade balance. A negative influence of China's tariffs on the trade balance between the euro area and China could only be detected from 2004 onwards, since in the period before that year, the rapid integration of China into the world economy led to an increase of the euro area trade balance with China, while at the same time China considerably reduced its import tariffs.

Table 1: Determinants of trade balance between the euro area and China – overview

Variable	Influence
Output gap in China	++
CAPB euro area – CAPB China	++
Average tariff in China (from 2004 onwards)	---
RCA of China (intermediate goods)	---
RCA of the euro area (capital goods)	+++
Exchange rate renminbi / euro	-

Note: + (-),++ (--),+++ (---): positive (negative) influence at the 10, 5, 1 percent level of significance.

5 Summary and policy conclusions

The rise of China as a player in the world economy together with its growing importance as an investor in industrialised and developing countries raised concerns of policy makers in some countries. The large deficit in the trade with China has caused the US government to impose additional tariffs on imports from China. Trade between the euro area aggregate and China is almost balanced, with a small deficit in trade with goods and an also small surplus in the services balance of the euro area. On the individual country level, Germany, Ireland and Finland record trade surpluses with China, while the other countries have deficits. An econometric analysis of the determinants of the bilateral trade balance between the euro area aggregate and China identified domestic demand as the most important factor. Also revealed comparative advantages, the exchange rate between the euro and the renminbi as well as the stance of fiscal policies influence the trade balance. Since trade between the euro area and China is more or less balanced, there is no need for policy actions to address any imbalances. Furthermore, for open economies - which many of the euro area countries are - openness to international trade is an important positive determinant of welfare. Thus, European policy makers are well advice to advocate free market access. However, reciprocity is an important issue. Hence, European markets should only be opened for Chinese companies and investment insofar as also the Chinese market is open for European companies.

6 References

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Appendix

Table 2: Determinants of trade balance between the euro area and China – detailed results

Variable	Coefficient (absolute t-statistics)	
Constant	0.249	(0.639)
Output gap in China	0.099**	(2.685)
CAPB euro area – CAPB China	0.033**	(2.128)
Average tariff in China (from 2004 onwards)	-0.064***	(5.565)
RCA of China (intermediate goods)	-3.145***	(4.217)
RCA of the euro area (capital goods)	0.803***	(6.640)
Exchange rate renminbi / euro	-0.036*	(1.718)
Dummy for the year 2015	-0.177*	(1.943)
Adjusted R²: 0.949 Number of observations: 22 (1996 – 2017)		

Note: *, **, ***: significant on the 10, 5, 1 level

Source: own estimation

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