



Trade tensions challenge corporates and government

April 10, 2018

Authors

Sebastian Becker
+49 69 910-21548
sebastian-b.becker@db.com

Barbara Böttcher
+49 69 910-31787
barbara.boettcher@db.com

Eric Heymann
+49 69 910-31730
eric.heyman@db.com

Jochen Möbert
+49 69 910-31727
jochen.moebert@db.com

Stefan Schneider
+49 69 910-31790
stefan-b.schneider@db.com

Editor

Stefan Schneider

Deutsche Bank AG
Deutsche Bank Research
Frankfurt am Main
Germany
E-mail: marketing.dbr@db.com
Fax: +49 69 910-31877

www.dbresearch.com

DB Research Management
Stefan Schneider

Content	Page
Forecast tables.....	2
Trade concerns dampen German export outlook for 2018	3
Rental inflation likely to remain sluggish, despite booming housing market	8
Fiscal outlook 2018/19: Grand coalition goes on a spending spree	16
The view from Berlin: Merkel's fourth legislative period: Back to work – back to crisis management?	18
DB German Macro Surprise Index	20
Export Indicator	21
Event calendar	22
Data calendar	22
Data monitor	23
Financial forecasts	24

Trade concerns dampen German export outlook for 2018. In 2017, Germany's goods exports rose 6.2% in nominal terms, and the trade surplus was the second highest ever. In particular, exports to China and the Netherlands increased considerably. US comments on free trade have caused irritation recently and dampened the outlook for German exports, even though the EU (and, consequently, Germany) have so far been exempted from higher US import tariffs. German capital goods producers and pharmaceuticals companies would be hit hardest by a trade dispute, as the export ratios of these sectors are particularly high. Moreover, the US are an important market for them.

Rental inflation likely to remain sluggish, despite booming housing market.

Rents are the key driver of overall inflation. Whilst the media regularly report on the strong uptrend of rents, the official CPI statistic is free of it. Over the past ten years, rental inflation never rose above 2%. According to our calculations, it is quite plausible that rental inflation in recent years was relatively tepid, given the sluggishness of rents for existing tenants. The new rental sample, which will effectively be introduced in early 2019, ought to have only a limited impact on rental inflation. At the beginning of 2019, a new weighting pattern will be introduced. As suggested by data from the Federal Statistical Office, the expenditure share German households spent on rents and housing has been on the rise since 2010. As a result, a higher weighting will be assigned to these spending categories. But as long as rental inflation and headline inflation are nearly synchronised, the higher weighting will have no significant impact on overall inflation.

Fiscal outlook 2018/19: Grand coalition goes on a spending spree. Instead of saving for bad times, the government goes on a spending spree. However, the surplus is unlikely to decline markedly before 2020 since the fiscal impact of numerous measures will not be felt to a more significant degree until 2020/21. We believe that the surplus might remain at 1.1% of GDP in 2018, and decline to 0.9% in 2019. That said, the surplus looks set to decline markedly from 2020, if all measures foreseen in the coalition agreement are implemented.

The view from Berlin: Merkel's fourth legislative period: Back to work – back to crisis management? The looming trade war is a particular risk for Germany. With just four weeks in office, the Merkel government is challenged by this threat to the WTO regime. In the focus is the Ministry for Economic Affairs under Peter Altmaier (CDU). However, trade matters lie within the purview of the EU which is caught in a dilemma. Retaliation measures could kick-off an escalation spiral of new tariffs, no reaction would imply accepting a weakening of the liberal global trade order. How to position the EU between the two trading powers USA and China should trading relations cool further will be shaped substantially by Minister Altmaier, a close confidant of Chancellor Merkel. Taking a longer term view, the EU could drum up support for the resumption of TTIP talks incl. possible concession on its part.



Trade tensions challenge corporates and government

Economic forecasts

	Real GDP (% growth)			Consumer Prices* (% growth)			Current Account (% of GDP)			Fiscal Balance (% of GDP)		
	2017F	2018F	2019F	2017F	2018F	2019F	2017F	2018F	2019F	2017F	2018F	2019F
Euroland	2.5	2.4	1.7	1.5	1.4	1.5	3.5	2.7	2.1	-1.1	-0.9	-1.0
Germany	2.2	2.3	1.8	1.8	1.6	1.8	7.2	6.5	6.5	1.1	1.1	0.9
France	2.0	2.0	1.6	1.2	1.3	1.4	-1.2	-0.6	-0.6	-2.9	-2.7	-2.9
Italy	1.5	1.3	1.0	1.3	1.0	1.5	2.9	2.8	2.6	-2.1	-1.9	-1.8
Spain	3.1	3.0	2.3	2.0	1.5	1.6	1.9	1.7	1.6	-3.1	-2.2	-1.6
Netherlands	3.2	2.5	2.4	1.3	1.6	1.9	10.2	10.2	10.1	1.1	0.5	0.4
Belgium	1.7	2.2	1.7	2.2	1.6	1.7	-1.0	-0.7	-1.0	-1.8	-1.5	-1.5
Austria	3.0	2.5	2.3	2.2	2.0	1.7	2.2	2.5	2.8	-0.9	-0.7	-0.5
Finland	2.7	2.6	2.1	0.8	1.2	1.6	0.7	0.0	0.5	-1.2	-1.0	-0.8
Greece	1.3	3.0	2.2	1.1	0.7	1.1	-0.8	-0.5	0.0	-1.6	0.0	1.0
Portugal	2.7	2.0	1.5	1.6	1.2	1.5	0.6	0.0	0.0	-1.4	-1.2	-1.2
Ireland	7.8	4.0	3.2	0.3	1.0	1.2	12.5	3.5	3.0	0.1	0.1	-0.4
UK	1.8	1.3	1.5	2.7	2.5	2.2	-4.5	-4.0	-3.5	-2.5	-2.1	-1.4
Denmark	2.1	2.0	1.9	1.1	1.6	1.6	7.5	7.5	7.0	-1.0	-0.5	-0.5
Norway	1.8	2.2	2.0	1.9	1.9	1.8	6.0	6.0	5.5	3.5	4.0	5.0
Sweden	2.7	2.7	2.5	1.8	2.0	2.2	5.0	4.5	4.0	1.3	1.0	0.5
Switzerland	1.0	2.1	1.8	0.5	0.3	0.7	10.5	10.6	11.0	0.3	0.3	0.2
Czech Republic	4.5	3.5	3.2	2.5	2.3	2.2	0.6	0.4	0.9	1.0	0.8	1.1
Hungary	4.0	3.6	3.1	2.3	2.5	2.9	4.0	3.3	2.8	-2.0	-2.4	-2.3
Poland	4.6	4.0	3.4	2.0	2.2	2.8	-1.4	-1.4	-1.2	-1.9	-2.1	-2.5
United States	2.3	2.8	2.7	2.1	2.3	2.2	-2.9	-3.2	-3.5	-3.6	-3.7	-5.3
Japan	1.7	1.1	0.5	0.5	0.7	0.7	4.0	4.6	4.7	-2.7	-2.4	-2.2
China	6.9	6.3	6.3	1.6	2.7	2.4	1.4	1.2	0.6	-3.7	-4.0	-4.0
World	3.8	3.9	3.9	2.9	3.3	3.0						

*Consumer price data for European countries based on harmonized price indices except for Germany. This can lead to discrepancies compared to other DB publications.
Sources: National Authorities, Deutsche Bank

Forecasts: German GDP growth by components, % qoq, annual data % yoy

	2016	2017F	2018F	2019F	2018				2019			
					Q1F	Q2F	Q3F	Q4F	Q1F	Q2F	Q3F	Q4F
Real GDP	1.9	2.2	2.3	1.8	0.6	0.6	0.5	0.5	0.4	0.4	0.4	0.4
Private consumption	2.1	1.9	1.4	1.5	0.4	0.6	0.5	0.5	0.3	0.4	0.3	0.2
Gov't expenditure	3.7	1.6	1.3	1.0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Fixed investment	3.1	3.2	2.8	3.5	1.1	1.0	1.0	0.8	1.0	0.9	0.9	0.8
Investment in M&E	2.2	4.0	4.3	3.1	1.0	1.0	1.0	0.5	1.0	0.7	0.7	0.5
Construction	2.7	2.6	2.9	4.9	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
Inventories, pp	-0.2	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exports	2.6	4.7	6.2	4.5	1.2	1.2	1.2	1.2	1.1	1.0	1.0	1.2
Imports	3.9	5.1	6.1	5.1	1.3	1.4	1.4	1.4	1.2	1.2	1.1	1.2
Net exports, pp	-0.3	0.1	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Consumer prices*	0.5	1.8	1.6	1.8								
Unemployment rate, %	6.1	5.7	5.3	4.8								
Industrial production**	1.4	3.0	1.8	1.5								
Budget balance, % GDP	0.8	1.1	1.1	0.9								
Public debt, % GDP	68.1	64.5	60.7	57.9								
Balance on current account, % GDP	8.4	7.2	6.5	6.5								
Balance on current account, EUR bn	262.6	232.0	212	214								

*Inflation data for Germany based on national definition. This can lead to discrepancies to other DB publications. **Manufacturing (NACE C)
Sources: Federal Statistical Office, German Bundesbank, Federal Employment Agency, Deutsche Bank Research



Trade tensions challenge corporates and government

Trade surplus declined slightly in 2017, however at a high level

1

German exports and imports of goods and trade balance, EUR bn



Source: Federal Statistical Office

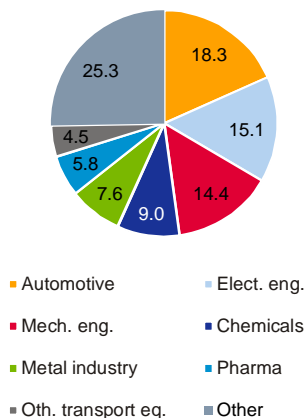
Trade concerns dampen German export outlook for 2018

- In 2017, Germany's goods exports rose 6.2% in nominal terms, and the trade surplus was the second highest ever. In particular, exports to China and the Netherlands increased considerably. Exports to Russia were up by 20%, if from a low starting level. Electrical engineering, mechanical engineering and the chemicals sector made major contributions to the uptrend. These three sectors alone explain almost 50% of the rise in goods exports (in absolute terms) in 2017.
- US comments on free trade have caused irritation in the last few weeks and dampened the outlook for German exports, even though the EU (and, consequently, Germany) have so far been exempted from higher US import tariffs. German capital goods producers and pharmaceuticals companies would be hit hardest by a trade dispute, as the export ratios of these sectors are particularly high. Moreover, the US are an important market for them.
- Besides trade worries, high wage settlements in some German industries and the strong euro are weighing on the export outlook. While export expectations have recently declined four times in a row, they are still positive. Overall, German companies should be able to increase their exports once again this year on the back of robust global growth.

Capital goods sectors dominate German exports

2

Share of different sectors in German goods exports, 2017, %



Source: Federal Statistical Office

High trade surplus based on development in capital goods sectors

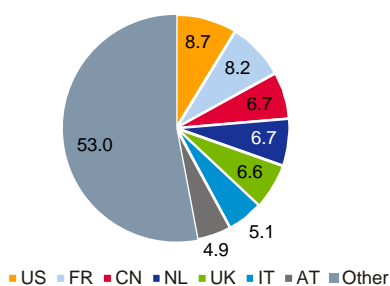
In 2017, German goods exports were up 6.2% in nominal terms, after having grown 0.9% in 2016. German goods imports even rose 8.3% in 2017 (2016: +0.6%). As a result, the German trade surplus narrowed by 1.7% in 2017, to just below EUR 245 bn. Nevertheless, this is the second-highest surplus on record. The trade surplus contributed 7.5% to GDP in 2017, down from 7.9% in 2016.

Taken together, the automotive industry, electrical and mechanical engineering accounted for 48% of aggregate German exports in 2017. This shows that German companies from these traditional capital goods sectors are highly competitive on the world market. Automotive sector and mechanical engineering exports made significant contributions to the trade surplus. In electrical engineering, large exports are offset by considerable imports of electronic goods, in particular consumer electronics. As a result, the export-import balance is considerably lower in this sector than in the automotive industry or in mechanical engineering.

German exports widely diversified in regional terms

3

Share of different countries in German goods exports, 2017, %



Source: Federal Statistical Office

Trade surplus versus the US, the UK and France

In 2017, the US were the most important export destination, followed by France, China, the Netherlands and the UK. Taken together, 37% of total German exports went to these five countries. China was the most important supplier of imported goods, ahead of the Netherlands, France, the US and Italy. In terms of aggregate trade volume (the sum of exports and imports), China was Germany's largest trading partner in 2017, ahead of the Netherlands and the US, France, the UK, Italy and Poland. These seven countries accounted for 46% of total German external trade in 2017. A look at longer-term developments shows that trade with Poland and China has expanded most. Since 2009, the total trade volumes with these countries have increased by 107% and 99%, respectively. In contrast, trade with France expanded "only" by 38% during this period. The bilateral trade surpluses were highest versus the US, the UK and France (capital goods) in 2017. In contrast, the trade balances versus China and Vietnam (e.g.

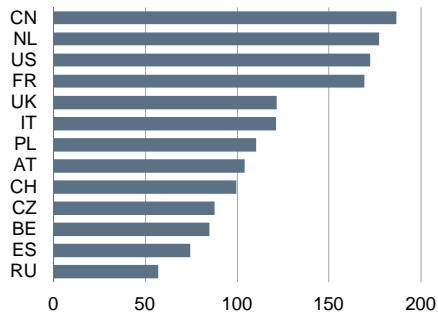


Trade tensions challenge corporates and government

China is Germany's most important trading partner

4

German trade volume (exports plus imports of goods) by country, 2017, EUR bn

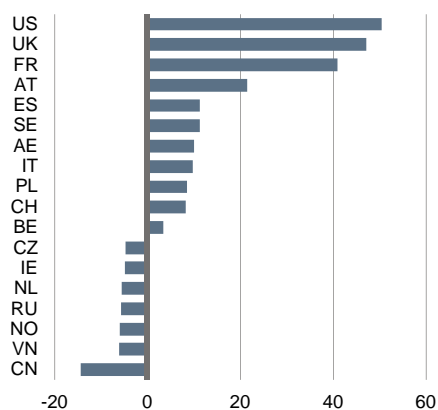


Source: Federal Statistical Office

High trade surplus with the US and with UK

5

German trade balance with selected countries, 2017, EUR bn

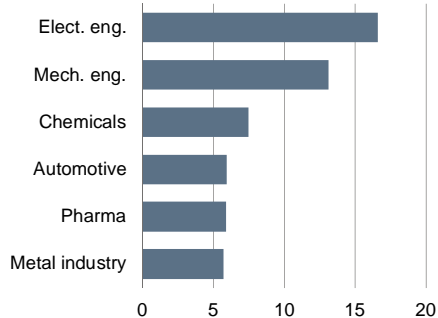


Source: Federal Statistical Office

Elect. and mech. engineering spur German exports in 2017

6

Growth in German goods exports by sector, 2017, EUR bn



Source: Federal Statistical Office

consumer electronics) and versus Russia and Norway (energy commodities) were deeply in the red.

Electrical engineering, mechanical engineering and chemicals propped up exports in 2017

Apart from this analysis of the absolute export volumes in 2017, it is interesting to see which sectors and countries made above-average contributions to the rise in German exports. At the sector level, electrical engineering, mechanical engineering and the chemical industry made the largest contributions. These three sectors explain almost 50% of the rise in goods exports (in absolute terms) in 2017. Their exports increased by 9.4%, almost 8% and 7%, respectively, in 2017. In a country breakdown, exports to China (+13.3%) and the Netherlands (+9.5%) rose impressively. While US exports expanded at a rate below the average for aggregate German exports in 2017 (4.4% vs 6.2%), they made a substantial contribution to German export growth in absolute terms because the US are such an important destination. Exports to Russia were up by more than 20% in 2017. German-Russian trade relations improved again in 2017, despite continued political tensions between the EU and Russia. However, remember that German exports to Russia had dropped by an aggregate 44% in the four preceding years due to the growth slowdown in Russia and the EU trade sanctions.

Chart 8 shows the sector and country pairings which contributed more than EUR 1 bn (in absolute terms) to German export growth in 2017. Some combinations are to be expected, for example exports of mechanical or electrical engineering products to China, but there are also a number of surprises, such as pharmaceuticals or clothing exports to Switzerland or electrical engineering exports to the Netherlands or Poland. The biggest German export sector, the automotive industry, figures only once in these statistics, namely with its exports to China.

Brexit leaves its traces: pharmaceuticals and car industry affected

Still, not everything went well for the German export industry in 2017. Brexit left its traces in the German export statistics. In 2017, German goods exports to the UK dropped 1.8% in nominal terms; this was the second decline in a row (2016: -3.5%). Of course, these developments are not exclusively due to the Brexit decision. Nevertheless, economic uncertainties around the decision and the depreciation of sterling versus the euro played a major role. As expected, the German automotive and pharmaceuticals industries were hit hardest. Automotive exports to the UK were down 8.3% in 2017 (2016: -6.6%). The share of the UK in total German automotive exports fell from 12.8% in 2015 to "only" 10.6%. Nevertheless, Germany still registered a trade surplus of more than EUR 19 bn in the automotive sector versus the UK (this is equivalent to 41% of the total bilateral trade surplus). This includes deliveries by German automotive suppliers to car factories in the UK.

The losses of the pharmaceuticals industry are even larger. In 2017, exports to the UK were down by almost 20%, after having declined 11.5% in the year before. At the same time, total pharmaceuticals exports rose almost 10% in these two years. As a result, the share of the UK in German pharmaceuticals exports dropped from 10.4% in 2015 to only 6.7% in 2017.

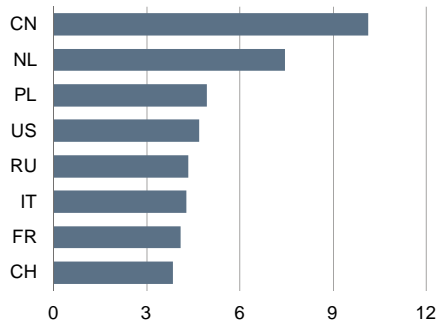


Trade tensions challenge corporates and government

German exports to China and the Netherlands rise significantly

7

Growth of German goods exports by country, 2017, EUR bn

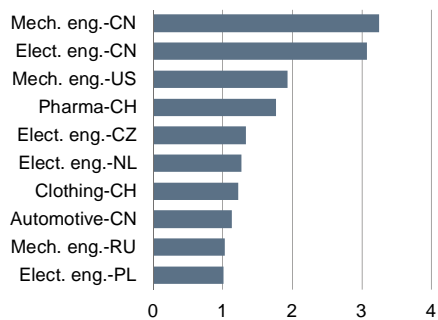


Source: Federal Statistical Office

Capital goods exports to China provide impetus

8

Growth in German goods exports by sector and country, 2017, EUR bn

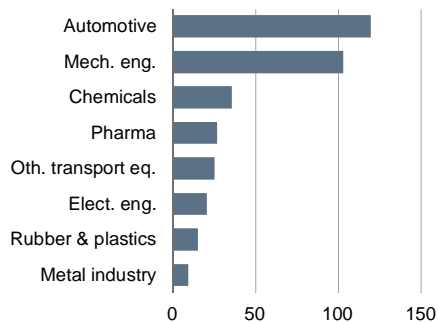


Source: Federal Statistical Office

Automotive and mech. eng. carry large share of German trade surplus

9

German trade surplus by sector, 2017, EUR bn



Source: Federal Statistical Office

Trade war is a downside scenario, and not just for the German industry

The declines in German exports to Russia, which were caused by the EU sanctions, among other things, and Brexit-related developments are two good examples of just how vulnerable bilateral trade relations are to political events. That is why not only German exporters and politicians are worried about US President Donald Trump's comments about potential punitive tariffs on US imports. In fact, the US government recently decided to introduce punitive tariffs of 10% on steel and 25% on aluminium. The EU and other countries are exempt for now, which means that the US so far focuses mainly on imports from China. Consequently, China has announced import tariffs on certain US products. In any case, the US comments have caused some worries among western US trade partners, too, not least because Trump mentioned not only the steel and aluminium industries, but also the automotive sector (and German companies in particular) and complained of the US trade deficit versus the EU in this sector. While the EU is currently exempt from the US punitive tariffs, an escalation of the trade conflict between the US and the EU is no longer a completely unrealistic scenario.

US punitive tariffs would hit German exports

The German industry would suffer considerably from any restrictions to transatlantic trade. As explained above, the US were the most important export market in 2017, with a share of 8.7% of total German goods exports. This might be negligible if the German industry generated only a small part of its total revenues abroad. However, the export ratio of the German manufacturing sector (measured as the share of export revenues in total revenues) amounts to just above 50%.

At the sector level, it makes sense to focus first on the metals sector, in particular metals production and processing (NACE code 24), as this was the industry singled out by the US administration. This sector includes, among others, the steel and the aluminium industries. 6.6% of total metal exports went to the US in 2017. This makes the US the seventh most important export market. The export volume amounted to almost EUR 3.6 bn. In 2017, the export ratio of the metal production industry amounted to 41.2%. Thus, the US share in total exports of the sector and the sector's export ratio are below the averages for manufacturing as a whole. Nevertheless, everything else being equal, tariffs on US imports would certainly reduce German exports to the US. Here is a back-of-the-envelope calculation to illustrate the effect: A 25% decline of metals exports to the US would diminish the total export volume by 1.7%, everything else being equal. This appears manageable, even though this calculation does not take into account second-round effects. The German steel sector has one key advantage: it has specialised on producing high-quality special steels in the last few decades. Demand for these steels is less price elastic than that for "standard" steels. This effect would mitigate the negative impact of US import tariffs.

Capital goods producers and pharmaceuticals sector to suffer from double negative impact

The traditional German capital goods sectors would be hit harder by (higher) US import tariffs or other trade restrictions than the metals sector. For all of them, the export ratios are above the average, which means that they are particularly dependent on export business. In addition, the US account for a high share in

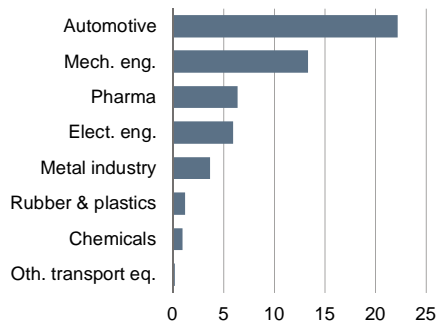


Trade tensions challenge corporates and government

Germany realises trade surplus with the US in major sectors

10

German trade surplus with the US by sector, 2017, EUR bn



Source: Federal Statistical Office

the sectors' total exports. For example, the export ratio for the automotive sector came to more than 64% in 2017. With a share of 12.2%, the US were the sector's most important export market. The figures for mechanical engineering are similar: the sector's export ratio was almost 63% in 2017, and 10.4% of its total exports went to the US as the sector's biggest export market. For other vehicle production (in particular aircraft), the figures are 12.4% (share of the US in total exports) and 69.3% (export ratio). The figures are a bit lower for electrical engineering. The sector's export ratio was almost 58% in 2017, and the US share in exports was "only" equivalent to the average for manufacturing as a whole (8.7%). As in the steel industry, the focus of German capital goods producers on high-quality goods such as specialty machinery or premium cars should mitigate the negative impact of potential trade restrictions. .

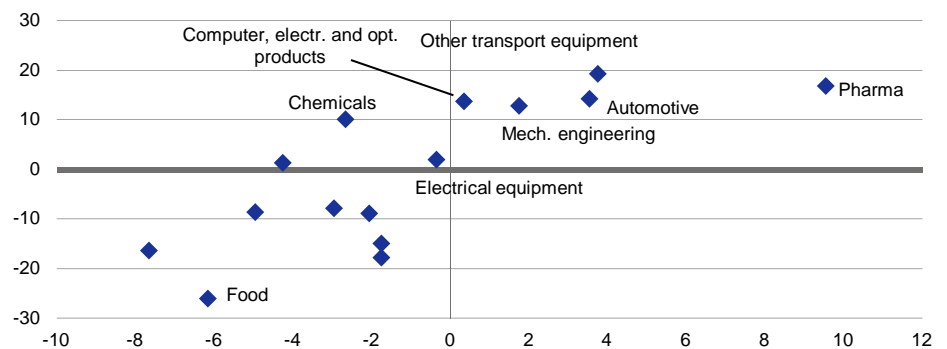
Apart from capital goods producers, the pharmaceuticals industry is particularly dependent on US exports. More than 18% of the sector's total exports went to the US in 2017, and the export ratio is very high, at 66.9%. While demand for numerous medicines is not very price-elastic, US consumers might choose domestic products if the US levied high import tariffs, seeing that the US pharmaceuticals sector is competitive, too. Brexit has shown that consumers may, indeed, take this route.

Capital goods producers and pharma industry are most dependent on the US

11

x-axis: deviation from avg. US export share by sector, 2017, pp.

y-axis: deviation from avg. export ratio of the total manufacturing industry, 2017, pp.



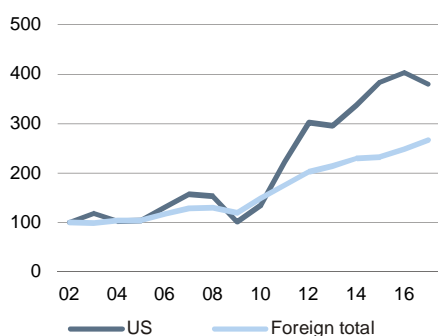
Sources: Federal Statistical Office, Deutsche Bank Research

Chart 11 shows on the x-axis if and to what extent the share of the US in the total exports of individual sectors deviates from the share of the US in manufacturing exports as a whole. The y-axis shows to what extent the export ratios of the individual sectors deviate from the average manufacturing export ratio. Those sectors whose export ratio as a whole is above the average and which ship an above-average share of their exports to the US can therefore be found in the upper right quadrant. These are the sectors which would be hit hardest by any restrictions to US trade.

Car production in the US grows above average

12

Passenger car production (units) of German car makers in factories abroad, 2002=100



Source: VDA

German automotive sector as a key producer and exporter in the US

Let's return to the automotive sector. At the moment, the EU levies a tariff of 10% on car imports from the US, whereas the US tariff is only 2.5%. This difference was probably one reason why President Trump criticised the current trade relations. He explicitly mentioned German car producers, which caused irritation and concerns in the German automotive sector, particularly since German carmakers have considerably expanded their US production facilities in the last few years and become an important US exporter. In 2017, roughly 804,000 cars bearing a German brand were produced in US factories, i.e. 264% more than in 2005. In fact, the US have become the third most important

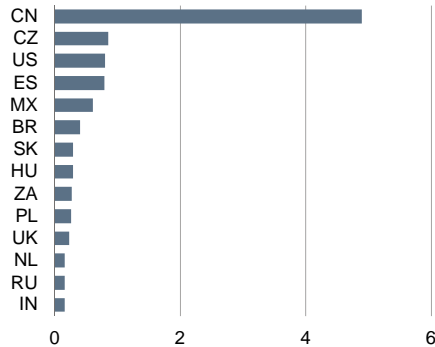


Trade tensions challenge corporates and government

China far ahead, US ranks 3rd place

13

Passenger car production (units) of German car makers in factories abroad by country, m

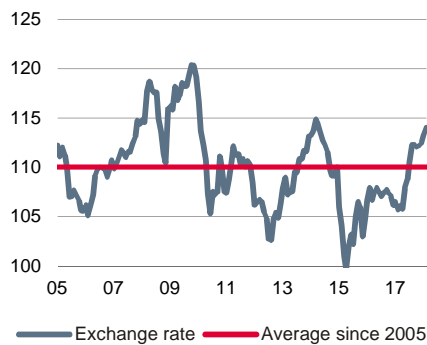


Source: VDA

Euro is trending up of late

14

Nominal (trade-weighted) effective exchange rate, Q1 1999=100

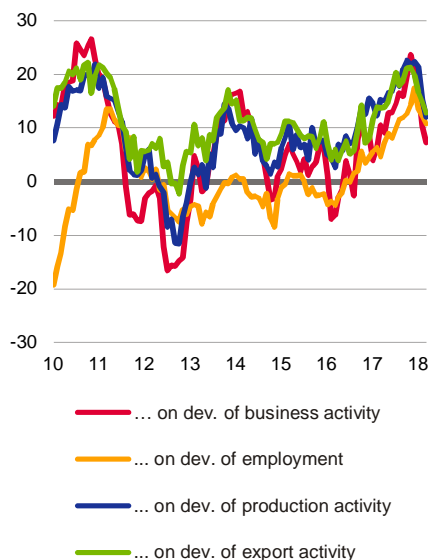


Source: ECB

Sentiment indicators in the German industry still in positive territory

15

Company expectations, balance of positive and negative company reports



Source: ifo Institute

production location for German carmakers, after China and the Czech Republic. In addition, further US investments are planned. About 60% of the vehicles produced by German carmakers in the US were exported in 2017. Nevertheless, the value of German automotive exports to the US is considerably higher than that of US automotive exports to Germany. This is to some extent due to the fact that US carmakers meet much of European demand with cars produced in Europe itself. Moreover, many vehicles designed for the US market (such as heavy pick-ups, which are protected with a 25% tariff against foreign imports) are unattractive for European customers.

Higher US import tariffs and other trade restrictions would cause countermeasures. Other countries would probably erect trade barriers, too, which would weigh on US exports. Quite apart from the nationality of the companies affected, a trade conflict would hit both exporters to the US and companies or facilities in the US itself. Consumers in all countries involved in a trade conflict would have to pay higher prices for imported products.

The negative impact which tariffs or trade restrictions may have on numerous actors are probably the main reason why other countries have been quite moderate in their response to threatened or newly introduced US tariffs. The European side not only wants to prevent an escalation spiral of import or protectionist tariffs, but also to avoid any undermining of the multilateral global trade system as foreseen by the WTO, particularly in view of the US president's anti-free-trade rhetoric. In our view, these concerns will not be alleviated by the statements of US critics of the administration's trade policy. If the US really want to achieve a bilateral opening of the markets between the US and Europe, it might make sense to re-start the negotiations about the Transatlantic Trade and Investment Partnership (TTIP) in order to find solutions for problems such as different tariffs and non-tariff trade barriers. However, in the short term it is unlikely that there will be enough (or sufficiently influential) supporters of this endeavour on either side.

Exchange rate and wage settlements will weigh on exports, too

The next few days and weeks will show whether the trade conflict escalates and affects additional regions or sectors, whether it remains limited to a few sectors and countries (and moderate responses) or whether it even abates. Since policy announcements in the US may change from one day to the next, it is impossible to make a forecast. However, concerning the German export industry we can safely say that capital goods producers and the pharmaceutical industry would suffer most from an escalation of the conflict.

The trade conflict dampens the German export outlook for 2018. And there are several other factors which are likely to slow down German export growth during the current year, such as the relatively high wage settlements in some industrial sectors, which will increase production costs. With capacity utilisation very high and the order books full, the wage settlements should be manageable in the short run, at least on average. The relatively strong euro weighs on German exporters' price competitiveness. In nominal, trade-weighted terms, the euro exchange rate has appreciated by c. 14% since the beginning of 2015. Overall, this might weigh on the nascent investment cycle in Germany and reduce companies' willingness to employ more workers. Against this background, it is no surprise that the ifo export expectations have recently declined four times in a row. In addition, companies' expectations for future employment have recently fallen as well. Still, both leading indicators are still in the positive area. Despite the trade concerns, German companies should be able to increase their exports once again this year.

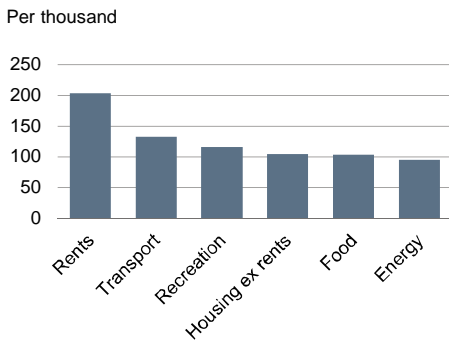
Eric Heymann (+49 69 910-31730, eric.heyman@db.com)



Rental inflation likely to remain sluggish, despite booming housing market

Goods in the national goods basket with the highest weight

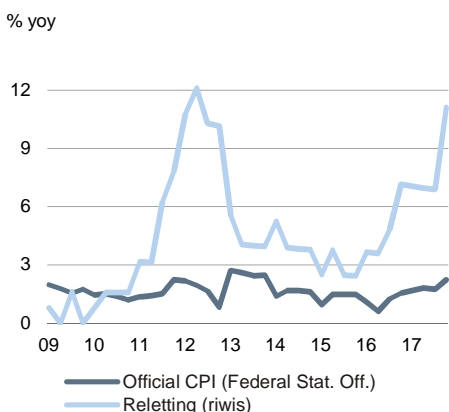
1



Source: Federal Statistical Office

Berlin: Rents exclusive of heating

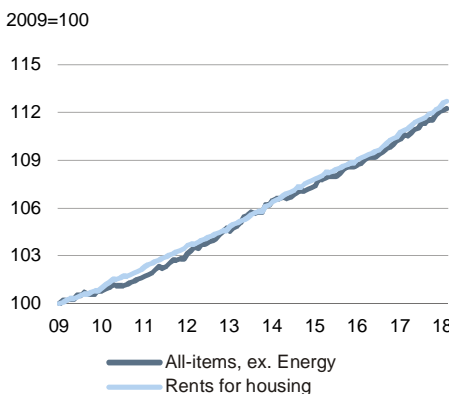
2



Sources: riwis, Federal Statistical Office, Deutsche Bank Research

Germany: Consumer prices

3



Source: Federal Statistical Office

- Of the components of the consumer price basket, rents are the key driver of overall inflation. Whilst the media regularly report on the strong uptrend of rents, the official CPI statistic is free of it. Over the past ten years, rental inflation never rose above 2%.
- In December 2017, we highlighted the particularly strong discrepancy between official rent data and market rents in Berlin. Now, we take a close look at the federal statistics, including the likely effects of the methodological adjustment at the beginning of next year.
- According to our calculations, it is quite plausible that rental inflation in recent years was relatively tepid, given the sluggishness of rents for existing tenants.
- The new rental sample, which will effectively be introduced in early 2019, ought to have only a limited impact on rental inflation. Whilst rental inflation tends to gather steam as newly built flats and the systematic rotation of landlords are factored in, the inclusion of small landlords, who so far are excluded from the collection, tends to have a moderating impact. The net effect is probably limited.
- At the beginning of 2019, a new weighting pattern will be introduced. As suggested by data from the Federal Statistical Office, the expenditure share German households spent on rents and housing has been on the rise since 2010. As a result, a higher weighting will be assigned to these spending categories. But as long as rental inflation and headline inflation are nearly synchronised, the higher weighting will have no significant impact on overall inflation.

Sluggish net rents throughout the entire current house price cycle

Making headlines in the newspapers, rental dynamics and the uptrend of market rents are not reflected in the official national statistics. According to the consumer price statistics, net rents over the entire house price cycle from 2009 to date rose at the same pace as headline inflation. In 2017 headline and rental inflation were also identical at 1.7%. Given this evolution, which appears contradictory at first glance, we will try to answer the following three questions. Firstly, are rent increases accurately measured by the consumer price statistics? Secondly, to what extent will the new rental sample, which is to be introduced in 2019, alter (rent) inflation? Thirdly, how will the weighting for rents and housing change and what are the potential effects on inflation? Last, but not least, we compare national inflation measurement with the harmonised inflation rate.

How accurately is rental inflation measured across Germany?

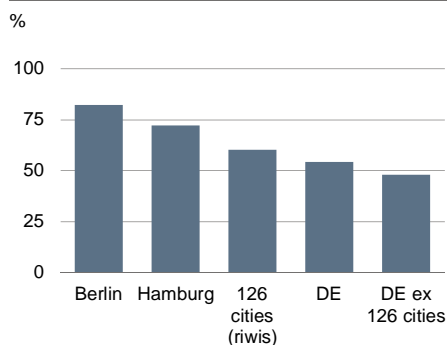
That real living conditions are not always reflected in the official statistics is clearly illustrated by rents in Berlin, in our view. According to the rental tables for Berlin, rents for existing tenants rose at more than twice the rate as net rents in the consumer price statistics (see [“Underestimated inflation: a problem only in Berlin or in Germany as a whole”](#), December 2017). Given the strong divergence of the two time series, we consider it likely that the official consumer price statistics for Berlin underestimate inflation. With this in mind, we examine whether inflation in Germany as a whole is underestimated.



Trade tensions challenge corporates and government

Renter ratio

4



Source: Federal Statistical Office

Is rental inflation measured accurately?

Doubtless, rents in many regions went up when new agreements were concluded in recent years. For years or even decades, numerous households have not changed domicile, though. In many cities, there are hence strong divergences between the rents existing tenants have to pay and market rents, which is why rental inflation is much lower than the rapidly rising rents for re-let homes. To check the plausibility of official rental inflation as reflected in the consumer price statistics in recent years, we use the following method to calculate rental inflation: For every new year, agreements are broken down into new contracts and those for existing tenants. Subsequently, the new contracts are divided into the 126 cities and towns (riwis universe), for which there is detailed information on rents for re-let homes, and the rest of Germany.

In detail, our calculation or approximation of rental inflation is as follows:

Germany: Average rent

5

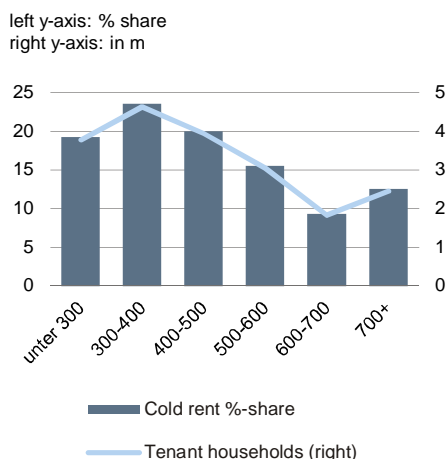


Sources: Federal Government, Deutsche Bank Research

- Distribution of tenant households:** According to riwis, 29 million inhabitants are living in 16.5 million households in the 126 towns and cities. In metropolises such as Berlin, around 80% of the inhabitants are tenants, in Hamburg roughly 70%. Similarly, the tenant rate in the other metropolitan cities ought to be well above the nationwide average of 54%. Assuming an average tenant rate of 70% for the metropolitan cities, the overall rate for the 126 towns and cities increases to around 60%, which leaves the rate for the rest of Germany at 48%. **Of the 19.7 million tenant households, 10 million are hence located in the 126 towns and cities and 9.7 million in the rest of Germany.**
- Determination of rental costs:** According to the federal government's third report on the housing sector, average net and gross rents in 2015 came to EUR 404 and 482 per month, respectively.
- Distribution of rents in 2015:** The report of the federal government roughly indicates the following distribution of rents, which is in line with the average figures under 2.

Germany: Distribution of rents incl. cold ancillary costs by EUR classes

6



Sourcen: Federal Government, Deutsche Bank Research

Table 1: Gross and net cold rents (GR/NR)

EUR category per month	below 300	300 up to 400	400 up to 500	500 up to 600	600 up to 700	700 and higher
GR % shares according to „3. Wohnungsbericht“ (Federal gov't)	19.2	23.5	20	15.5	9.3	12.5
Tenant household in m	3.8	4.6	3.9	3.1	1.8	2.5
GR derived from rent distribution						
Assumed average GR in EUR	280	350	450	550	650	880
NR in EUR	235	294	377	461	545	738

Sources: Federal government, own calculations

- Expenditure on rents:** Based on the above distribution, German tenant households spend around EUR 8 bn per month or almost EUR 100 bn per year on net rents, with tenant households in the 126 towns and cities accounting for somewhat more than EUR 4 bn and the rest of Germany for slightly less than EUR 4 bn.
- Removals per year:** A key parameter for calculating the impact of rents for re-let homes on inflation is the number of removals. Official migration

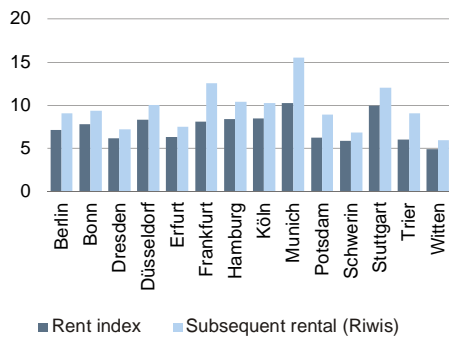


Trade tensions challenge corporates and government

Germany: Rents

7

EUR/sqm

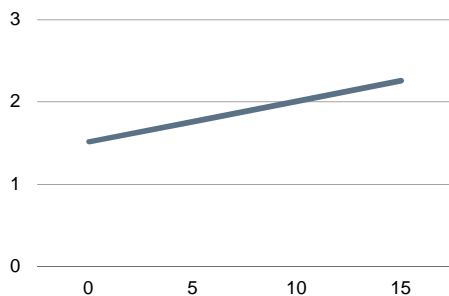


Sources: BulwienGesa, Rent indices of specific cities, Deutsche Bank Research

Rent inflation as a function of...

8

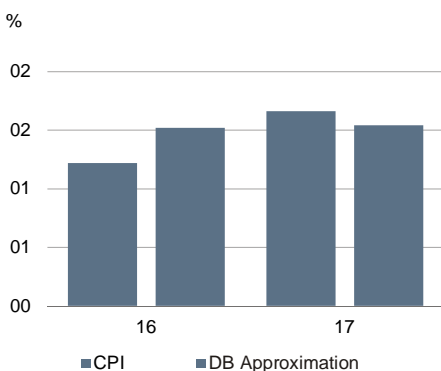
...difference between reletting and existing rents in "DE without 126 cities"



Source: Own calculations

Rent inflation

9



Sources: Federal Statistical Office, Deutsche Bank Research

statistics only capture relocations across official territorial borders and hence only a small share of removals. Private sources indicate that more than 10% of German households move every year (deutscher-umzugsmarkt.de). In some metropolitan cities, at least, the frequency of removal has declined in the current house price cycle. The more strongly rents for re-let homes diverge from those for existing tenants, the lower the willingness to move. We assume that 10% of households move every year, in the 126 towns and cities as well as in the rest of Germany.

6. **Rents:** Last, but not least, we need an estimate on how sharply rents rise when a new tenant moves in. To this end, we compare some rents for re-let homes (126 towns and cities) with those in the corresponding rental tables, which above all capture rents for existing tenants. On average, rents for re-let homes are 30% higher than the figures indicated in the rental tables. In Frankfurt, the gap is particularly large at 55%, with Erfurt and Schwerin at the opposite end, at just under 20%. For the rest of Germany (outside the 126 towns and cities), no information is available on how sharply rents for re-let homes diverge from those for existing tenants. In our view, the gap ought to be fairly small. When calculating the following results, we hence assume a difference of 0%. If, however, the results were calculated on the basis of positive values, rent inflation in Germany would rise in line with the percentage difference, namely by 0.05 %-points per percentage point, resulting in a difference of 10% between rents for re-let homes and those for existing tenants in the rest of Germany. This would add 0.5 %-points to overall rental inflation.
7. **Calculation of rental inflation:** Based on the information available, we compute overall expenditure on rents in 2016 and 2017 and subsequently calculate average rental inflation.

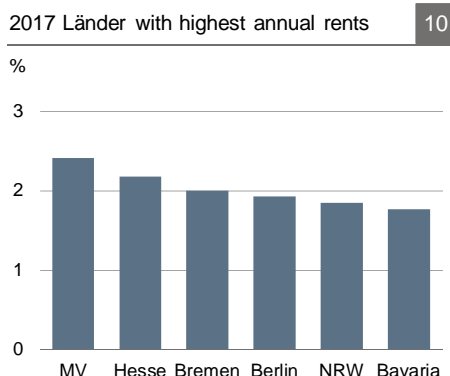
Results and outlook

Going by our approximation method, the official consumer price statistics are reasonably plausible. For net rental inflation in 2016 and 2017, the consumer price statistics recorded 1.2% and 1.7%, respectively, compared with 1.52% and 1.54% based on our data. In view of the sluggishness of rents for existing tenants, we expect no meaningful rise in rental inflation over the short term. In the long term, however, a moderate uptick may be on the cards, particularly if – as we expect – rents for re-let homes continue to increase in the years ahead and removals are pushed up owing to the demographic and structural challenges. This above all holds if the number of Germans who move from regions with low rent levels to the metropolitan cities continues to edge up.



Trade tensions challenge corporates and government

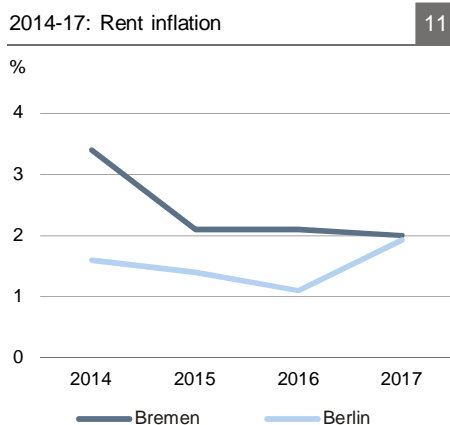
Weak points of our approximation method



Source: Federal Statistical Office

Numerous factors are not included in our approximation method. Neither higher rents for new residential property nor index rents for existing tenancy agreements are factored in. When calculating rental inflation, it also makes a big difference whether the same tenants move to a new location every year or whether a person with an existing tenancy agreement concludes a new rental contract every year. In our discussion, we also left aside the fact that tenants can become owners and vice versa. Similarly, removals to reduce expenditure on rent or to avoid rent increases are also ignored. Moreover, the official consumer price statistics do not reflect quality-related price movements (hedonics). As regards our approximation method and data base, the use of hedonic adjustment is precluded.

Weak points of the official statistics



Source: Federal Statistical Office

Although official rental inflation seems plausible from our perspective, we want to add some critical remarks, which might help to enhance the statistics.

- Our own calculations have heightened our awareness that the parameters would have to change substantially to drive rental inflation up by 0.5 %-points within just 12 months (2016 1.2% vs 2017 1.7%). It would certainly be interesting to obtain detailed information on the sample survey of the Federal Statistical Office. But availability is often limited.
- In our view, trends at the federal state level are particularly surprising and need to be clarified.
 - The federal state recording the highest rental inflation in 2017 was Mecklenburg-West Pomerania, a structurally weak area.
 - What is more, rental inflation in this state accelerated sharply, from 1.4% in 2016 to 2.4% in 2017.
 - Rental inflation in Berlin also picked up strongly, from 1.1% in 2016 to 1.9% in 2017.
 - Still, the uptick in Berlin continued to be more subdued than in Bremen, which reported rental inflation of 2.1% and 2.0% for 2016 and 2017, respectively. In 2014 and 2015, the pattern was similar, with rental inflation in Bremen higher than in Berlin. Since 2009, however, rents for re-let homes in Berlin soared by around 60%, compared with only around 25% in Bremen.

Will rental inflation be pushed up by the rental sample?

Over the past years, the methodology of the Federal Statistical Office has undergone several revisions. Going forward, a new sample shall be introduced to capture net rents in a more detailed and representative manner. Table 2 displays a short comparison of the old and the new sample. In economic terms, the most relevant changes of the new rental sample ought to be

- the systematic inclusion of newly built flats,
- the systematic rotation of landlords and
- the inclusion of small landlords.

The inclusion of newly built flats tends to push up rental inflation. The same holds for the systematic rotation of landlords, which helps to avoid an overrepresentation of existing tenancy agreements. This, however, might be more than offset by the inclusion of small landlords. Their share in the overall



Trade tensions challenge corporates and government

German rental market is relatively high. Often facing high transaction costs when a tenant moves out, they rarely raise rents, thereby contributing to the sluggishness of rents in Germany.

Table 2: Comparison of today's with the new sample of rents

Variable	Today	As of early 2019
Respondents	Landlord & tenant	Landlord
Queried attribute	Without	With types of landlords
Hedonic	At Länder level	At national level
Replacements, e.g. due to permanent vacancy	At Länder level	At national level
Rotation of respondents	no/ unsystematic	systematic, 12.5% per annum
Newly created dwellings	no/ unsystematic	systematic integration

Sources: Federal Statistical Office, Deutsche Bank Research

The implementation of the new method is making headway, but is unlikely to take effect before the beginning of next year. Even assuming a price effect (that has not been captured to date), the impact on current rental and headline inflation is likely to be limited, as the new time series will be computed back to 2015.

Effect of a new consumer price basket on inflation

Weights in the basket of the consumer price index

in % of total private consumer expenditures

Rents excluding ancillaries	21.0
+operating costs = waste collection, water, sewage disposal, chimney sweep, street cleaning	3.1
Cold rent excl. Energy	24.1
+energy costs = District heating, hot water, power, (liquid) gas, heating oil, solid fuels	6.8
+Maintenance	0.8
Housing, total	31.7

Source: Federal Statistical Office

Along with the conversion to a new “rental sample“, a new standard consumer price basket will be introduced for Germany as a whole. As a result, new weights will be assigned to rents and total expenditure on housing. Potentially, this has a strong effect on rental inflation, as rents generally have the largest weight in the consumer price basket. For that purpose, the Federal Statistical Office differentiates between three major rental concepts: net rents, gross rents and total expenditure on housing (or in official terms “housing, energy and maintenance”, with the latter being a negligible factor). With a weight of around 21%, net rents, by themselves, have the largest weight in the consumer price basket, of which actual rents represent roughly one half and imputed rents for owner-occupied housing the other half. When operating costs such as waste disposal and water are added to total net rents, the weight of gross rents comes to 24%. Overall expenditure on housing, which also includes energy and power, account for nearly 32% of private consumption expenses in the basket.

One basis for determining the weights in the consumer price basket is the sample survey of income and expenditure, the so-called EVS, which aims to provide a representative picture of private households' consumption patterns. As the current basket was compiled in 2010 on the basis of the 2008 EVS, the weight of net rents fails to reflect the house price boom since 2009. If prices rise at a rapid rate, inflation is distorted to the downside when the consumer price baskets are updated, particularly if substitution possibilities are limited, as, for instance, in a tight housing market such as Berlin. How much rent does a representative household have to pay?



Trade tensions challenge corporates and government

Sources of the

Federal Stat. Office	2010 VPI	2013 EVS	2016 LWR
----------------------	----------	----------	----------

Characteristics of the sample

Size	-	~80k HH	~7.7k HH
Voluntary/obligated		Voluntary	Voluntary

in EUR

Private constr. Expenditure	2330	2448	2480
Rents ex ancil. Costs	490		
Rents & op. Costs			700
Housing & energy	739	845	877

in % of private cons. expenditures

Rents ex ancil. costs	21.0		
Rents & op Costs			28.2
Housing & energy	31.7	34.5	35.4

Source: Federal Statistical Office

Based on the 2010 consumer price basket, our research indicates that a German household spends EUR 490 on net rents inclusive of imputed rents for owner-occupied property, compared with total private consumption expenditure of roughly EUR 2330 (490/2330 thus corresponds to 21%). Has this rate changed in recent years? Apart from the EVS, which is conducted by the Federal Statistical Office every five years, a continuous household budget survey (LWR) is compiled nearly every year.¹ Rental information provided by both sources either refers to gross rents and/or housing expenditure inclusive of energy costs, whereas net rents are not published, according to our knowledge. The results are as follows:

(1) Housing expenditure including energy

— According to the 2013 EVS, household expenditure on housing plus energy came to EUR 845 or 34.5% of private consumption expenditure.

— According to the 2016 LWR (released in February 2018), the figures are EUR 877 or 35.4%, respectively.

▷ Following from the current consumer price statistics, the rate is 32%, no euro amount is specified.

(2) Gross rents

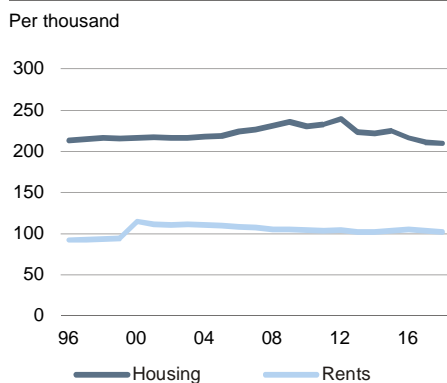
— The LWR also comprises data on gross rents. According to this source, EUR 700 or 28.2% of private consumption expenditure were spent on this category in 2016.

▷ Following from the current consumer price statistics, the expenditure rate is 24%, no euro amount is specified.

In line with the rise in expenditure rates of German households specified by the EVS and the LWR, we expect weights to increase when the new consumer price basket is introduced at the beginning of 2019. Both overall expenditures on housing and gross rents are likely to inch up by several percentage points, and a similar increase ought to be on the cards for net rents, from our view. But as long as rental inflation and headline inflation are nearly synchronised, the effect of the new weights will be insignificant. They will become relevant, only when in the years ahead rents for re-let homes continue to diverge further from those for existing tenants and rental inflation exceeds inflation ex rents.

Germany: Weights in the harmonized goods basket

12



Source: Eurostat

Contradiction in the public statistics

The data of the EVS and the LWR indicate higher weights in the new goods basket. The result seems inconsistent with our finding from the first section where we presented that the rent inflation and total inflation grew similarly strong in the last years. The usage of different statistics explains the outcome: the EVS/LWR is used for the calculation of the goods basket and the consumer price statistic to measure the price development. From an economic perspective we would recommend consistency checks to avoid such divergences.

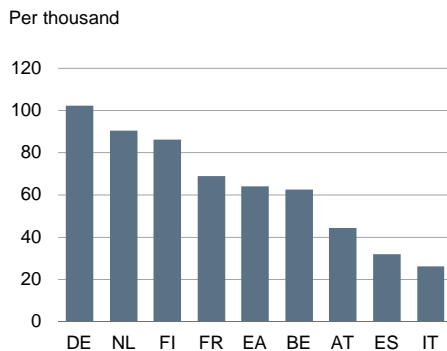
¹ The (qualified) rent tables could be the best data source. Regrettably, the data for towns and cities are not collected, processed and published by any official body.



Comparison of harmonised baskets in the euro area

Weights in the harmonized goods basket of larger euro countries

13



Source: Eurostat

Inflation measurement in the EU is based on the harmonised consumer basket of Eurostat, which hence also serves as a guide for ECB policy. Whilst the differences between the harmonised and the national basket are minor, the harmonised basket does not capture imputed rents for owner-occupied housing.² Accordingly, the weight of rents is halved to 10% and overall expenditure on housing comes to only 20% (compared with 21% and 32%, respectively, in the national index). Relative to the other euro countries, Germany is assigned the highest weight in the respective harmonised national basket, which is interesting to note. For the euro area as a whole, weights are only 6% for rents and 15% for overall housing expenditure. From our perspective, it might be helpful if consideration were given to including imputed rents for owner-occupied housing in the harmonised basket. Going by the economic performance, mortgage debt and, correspondingly, ownership rates in Germany are low in the international comparison. As the harmonised consumer basket does not capture mortgage interest and redemption payments, countries with significantly higher mortgage debts and ownership rates arguably spend much more on housing than the harmonised basket implies. This argument is further supported by housing expenditure relative to disposable household income.³ OECD data underline two key facts for the euro area. Firstly, German housing expenditure relative to disposable income is close to the euro area average. Secondly, there is no correlation between housing expenditure as a percentage of disposable income and weights in the harmonised consumer basket (correlation 0.05). If actual expenditure on housing is underestimated in the harmonised consumer basket, it can reasonably be assumed that the effect of rents on inflation was understated, particularly during housing booms, which means that monetary policy was too accommodative. If imputed rents for owner-occupied property are included, current harmonised inflation should also be somewhat higher, at least in some euro countries.

Summary

With respect to the first of our four questions as to whether rent growth is accurately measured by the consumer price statistics, our analysis has, on balance, confirmed the relatively moderate rental inflation of recent years. Rents for existing tenants are picking only hesitantly in Germany. Against this backdrop, rental inflation is sluggish. From our point of view, however, there are some surprising details, which might deserve closer attention.

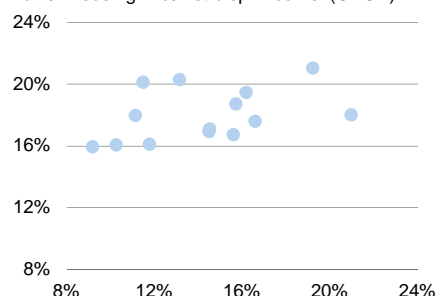
The answer to our second question as to how the new rental sample might change (rental) inflation from 2019 onwards is that its impact ought to be limited. With the inclusion of newly built flats and the systematic rotation of landlords, inflation tends to rise. But the inclusion of small landlords will likely have a dampening effect.

Thirdly, we examined how the new consumer price basket, which is also to be introduced in early 2019, will affect inflation. According to data from the Federal Statistical Office, the share of expenditure German households spent on rents and housing has been on the rise since 2010. In the consumer price statistics, larger weights are therefore likely to be assigned to these categories. But as long as rental inflation and headline inflation are nearly synchronised, the effect of the new weights will be insignificant. They will affect inflation, only when in the

Weights for Housing: OECD vs. Eurostat

14

y-axis: weights of housing in % in the harmonized goods basket (HICP, Eurostat)
x-axis: Housing in % net disp. income (OECD)



Sources: Deutsche Bank Research, Eurostat, OECD

² Eurostat - HICP Methodological Manual (2017): "Imputed or estimated rentals for owner-occupied housing are not within the scope of the HICP, as they do not involve any monetary transaction."

³ Typically, households spend around 75% of their income on private consumption.



Trade tensions challenge corporates and government

years ahead rents for re-let homes continue to diverge further from those for existing tenants and rental inflation exceeds inflation ex rents.

Fourthly, we compared national and harmonised inflation rates in the euro area. The key difference between the national and the harmonised consumer basket of Eurostat is that the latter does not capture imputed rents for owner-occupied property. As a result, weights for rents and housing in the harmonised basket are much smaller than those in the national statistics. Of the euro countries, Germany is assigned the largest weight for rents and housing, due to its particularly high tenant rate. Consequently, the measurement of European inflation tends to be distorted to the downside, at least during a house price boom.

Appendix: Recommendations on how to enhance transparency and quality in the consumer price statistics of the Federal Statistical Office

- All relevant data sources of the Federal Statistical Office with reference to the consumer price statistics should specify both net and gross rents, as well as housing expenditure inclusive of energy and maintenance costs
- The consumer price statistics of the Federal Statistical Office fail to capture quality-related price movements (hedonics). As far as we know, the unadjusted time series is not released. For a better understanding of the Office's calculations, the publication of the data would be helpful.
- Whilst the new rental sample includes several statistical improvements, the figures reported by landlords are not closely scrutinised or cross-checked with other sources, according to our knowledge. As the landlords have little incentive to provide high-quality data, there is a risk that reports on rent increases are delayed or omitted.
- Regional differences in consumer basket weights could help to enhance the statistics. So far, Berlin, which is relatively poor but suffers from fairly high rents, is assigned the same weights for rents and housing as any other federal state.

Jochen Möbert (+49 69 910-31727, jochen.moebert@db.com)

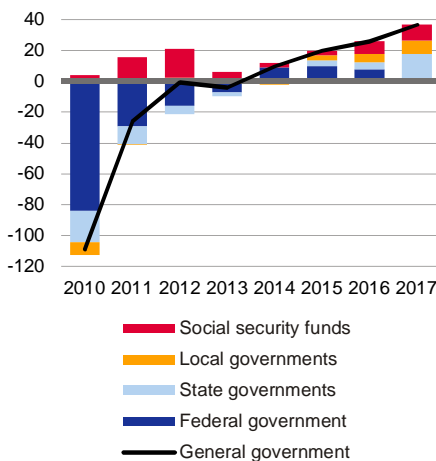


Fiscal outlook 2018/19: Robust growth ensures high revenues – which the Grand Coalition will promptly spend

General government balance in surplus for the fourth year in a row

1

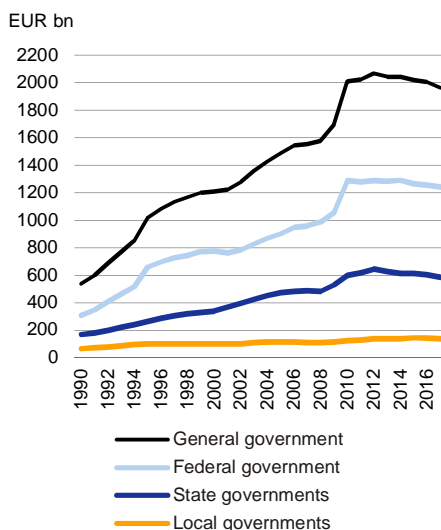
General government balance (national accounts), EUR bn



Sources: WEFA, Destatis, Deutsche Bank Research

General government debt fell in 2017 for the third consecutive year

2



Sources: Destatis, Deutsche Bank Research

From a fiscal vantage point, things are still going very well. The coffers are full, and more money is coming in. Taken together, the federal government, the state governments, the local authorities and the social security system registered a surplus for the fourth time in a row in 2017. And what's more: the surplus even increased again, from EUR 25.7 bn or 0.8% of GDP in 2016 to EUR 36.6 bn or c. 1.1% of GDP⁴. Another decline in interest payments and the significant increase in revenues due to robust growth and a boom in employment (taxes and social security contributions) were the main reasons for the continued fiscal improvement. The federal states in particular achieved high (and rising) surpluses (aggregate figure: EUR 16.2 bn or 0.5% of GDP), and so did the local authorities (EUR 8.8 bn or 0.3% of GDP) and the social security system (EUR 10.5 bn or 0.3% of GDP). In contrast, the surplus at the federal level was considerably smaller and declined (EUR 1.1 bn, down from EUR 7.4 bn in 2016⁵).

Thanks to the favourable fiscal situation, government debt declined for the third year in a row in 2017. Overall government debt, as shown in the financial statistics, was down by 2% (or EUR 40.2 bn) to EUR 1,965 bn. While debt decreased at all levels of government, the decline was considerably stronger at the state and local level (-3.4% and -3.8%, respectively) than at the federal level (-1.1%). The general government debt ratio dropped from 64% in 2016 to just above 60% of GDP. The debt ratio under to the Maastricht definition, which is used for the EU budget surveillance procedure, will not be released by Eurostat until 23 April. The Maastricht surplus, as calculated in the national accounts, suggests that the debt ratio probably declined to 64.5% of GDP in 2017 (from 68.1% in 2016).

In view of the still favourable growth outlook, the overall fiscal surplus should remain high and rise further – at least if the government took no steps which might raise expenditure and/or reduce revenues. This would help to pay back debt and thus prepare the state finances for imminent future burdens (interest rate normalisation, ageing of the population). However, instead of saving for bad times, the Grand Coalition is planning to go on a spending spree. Politicians are quite happy about the fact that the coffers are full (at least for now) and seem to be ignoring medium to long-term risks, such as rising interest rates or the decline in the workforce and in potential growth. The new government will not use fiscal leeway (an estimated aggregate EUR 46 bn in the years 2018 – 2021) for consistent tax relief and/or a significant debt reduction, but plans instead to take minor measures, which will nevertheless eat away at revenues (such as the gradual reduction of the solidarity surcharge from 2021), and to invest in important issues for the future, such as digitisation or education. However, the lion's share of the money is to be spent on expensive and potentially ineffective programmes, such as subsidies for families who want to buy a home, higher pensions for mothers, basic pensions or labour market programmes.

This short-termism and an increasingly pro-cyclical fiscal policy imply considerable budgetary risks in the medium to long term. Once the economy is no longer going at full speed and interest rates rise, the government will need to make larger fiscal corrections. As we have already explained before⁶, the total

⁴ Figures from national accounts pursuant to ESA 2010.

⁵ The "preliminary budget balance 2017", as derived from the financial statistics, includes a surplus of c. EUR 5.3 bn (including mint revenues) at the federal level. In line with the budget law for 2017, this amount was transferred to the provisions for refugees. As a result, the latter rose to EUR 23.9 bn by year-end 2017.

⁶ Standpunkt Deutschland. Coalition treaty – myopic policy approach. March 7, 2018; pp. 12-15.

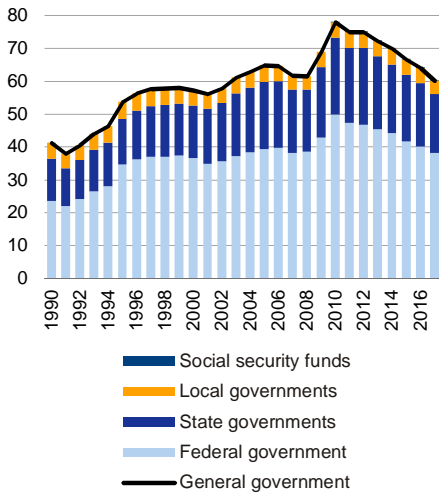


Trade tensions challenge corporates and government

General government debt ratio has been falling considerably for years

3

% of GDP

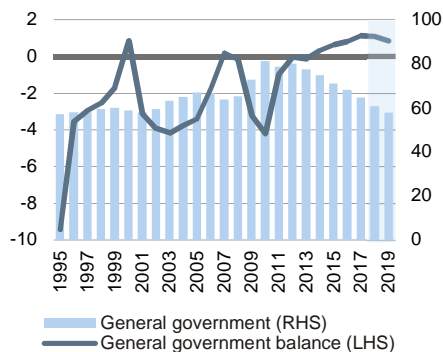


Sources: Destatis, Deutsche Bank Research

Fiscal outlook 2018/19: Falling debt ratio thanks to strong economy

4

% of GDP (general government level)



Sources: WEFA, Destatis, Eurostat, Deutsche Bank Research

fiscal burden of all measures mentioned in the coalition agreement would exceed the expected leeway of EUR 46 bn by c. EUR 20 bn at the federal level alone. Overall, the additional expenditure (for example for the reduction of unemployment contributions by 0.3 of a pp., measures to counteract cold progression or additional pension payments due to higher pensions for mothers) might amount to almost EUR 90 bn in the period from 2018 to 2021.

Since the fiscal impact of numerous measures (e.g. subsidies for families, higher child benefits, reduction of the solidarity surcharge) will not be felt to a more significant degree until 2020/21, the surplus is unlikely to decline markedly before 2020. With many of the planned measures being delayed until 2020/21 and the economy still going strong (DB forecast for 2018: +2.3%), the overall budget balance should remain in the black during the forecast horizon (2018/19). We believe that the surplus might remain unchanged this year, at 1.1% of GDP, and decline slightly to 0.9% in 2019 (initial forecast: 0.8% and 0.5%, respectively). The primary balance (i.e. before interest payments and adjusted for cyclical and special effects) is likely to deteriorate to c. 1.4% of GDP in 2018 and 0.6% in 2019 (down from 1.9% in 2016). This points to an increasingly pro-cyclical fiscal policy.

If all measures foreseen in the coalition agreement are implemented and there are no new positive surprises about growth and government revenues and/or counter-financing fiscal measures, the overall budget surplus looks set to decline markedly from 2020 at the latest and turn into a deficit from 2021. The “debt brake”, which was adopted in considerably worse fiscal times, might however prevent a more pronounced deterioration of the fiscal situation. We believe that government debt will drop to 60.7% of GDP by the end of this year and fall to 57.9% in 2019. If this forecast materialises, the debt ratio will be below the Maastricht limit of 60% for the first time since 2002 (initial forecast: 60.9% and 58.1%, respectively).

Sebastian Becker (+49 69 910-21548, sebastian-b.becker@db.com)



The view from Berlin: Merkel's fourth legislative period: Back to work – back to crisis management?

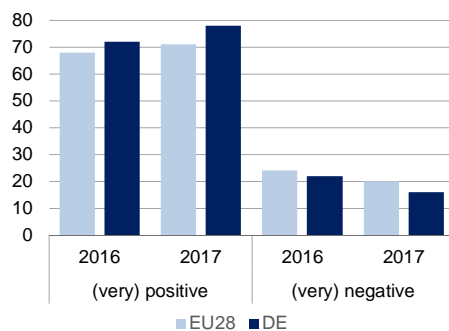
Ever since she became Germany's Chancellor, Angela Merkel has been in constant crisis mode (financial and sovereign debt crisis). Now, less than four weeks after it officially took office, the new government is again confronted with developments that could culminate in a crisis – the trade conflict with the US. In themselves, the looming "protective tariffs" on steel and aluminium exports from the EU, which have been suspended until 1 May, do not constitute a major risk in economic terms. What is more important is that the anti-trade rhetoric of the US President and the general justification that these tariffs are a matter of national security call into question the global trade order stemming from the world-wide liberalisation of trade in the 1990s.

As an export nation, Germany is particularly hard hit by the prospect of an escalation spiral and a further weakening of the WTO trade order is (see article "Trade irritations weigh on 2018 German export outlook"). Since the global financial crisis of 2008/2009, protectionist trends have been on the rise. Between 1990 and 2015, the share of product lines which are subject to trade defence measures such as anti-dumping and protective tariffs or quotas more than doubled to 2.5% (even though these measures are regulated by international trade legislation and might be justified). Moreover, completion of regional free trade deals – as an alternative following the collapse of the multilateral Doha Round in the mid-2000s – has also been flat for some time now. On the one hand, this is because the new generation of FTAs is deeper and more comprehensive than previous generations, partly comprising the mutual acknowledgement of product standards or the movement of services. On the other hand, public scepticism is likely to have played a role, even in Germany whose economy strongly relies on liberal trade relations. Of late, a growing majority of Germans in principle approve of globalisation and open markets (chart). But when it comes to the concrete implementation of these principles, protests are heated, as experience over the past years shows. These two factors make it increasingly difficult for policymakers to successfully negotiate such agreements – see the challenging conclusion of CETA between the EU and Canada and the temporary suspension of the TTIP negotiations between the EU and the US.

Citizens' attitude with regard to free trade

1

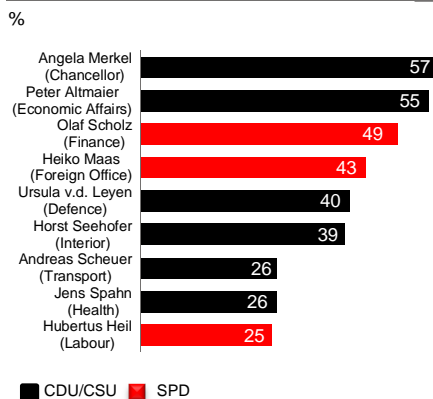
Which feelings the term "free trade" brings to the citizens' mind, % of those asked



Source: Eurobarometer 88

Are these politicians good cabinet appointments?

2



Source: Infratest dimap, AID-Deutschlandtrend, Apr 5, 2018

Given the threat of an imminent trade war, the spotlight is now on the Federal Ministry for Economic Affairs under the helm of CDU politician Peter Altmaier, which played only a subordinate role when the portfolios were allocated in the coalition talks between the CDU, the CSU and the SPD. The CDU rank-and-file party members, in particular, refused to back Chancellor Merkel's argumentation that the Economic Affairs Ministry would offset the allocation of the Ministry of Finance to the SPD (new Finance Minister Olaf Scholz). Fraught with the myth of Ludwig Erhard, there is wide consensus that the Ministry for Economic Affairs has, for numerous reasons, suffered a severe loss of power over the past decades. It should be noted though that the Ministry addresses major tasks, as regards foreign trade and the activities of foreign investors such as China, for example, but also with respect to arms control, energy or digitisation.

Trade matters lie within the EU's purview

But the authority to make decisions does not always rest with the Economic Affairs Ministry. This above holds for trade matters; they fall within the exclusive purview of the EU Commission. Whilst the EC coordinates its decisions with the member countries, particularly with respect to the specification of trade defence



Trade tensions challenge corporates and government

measures, the national states, as members of the trade union, are not allowed to enter into talks with third countries – a fact that was eventually brought to the attention of the general public during the Brexit negotiations. Against this backdrop, Germany would not be in a position to address the allegedly unfair situation repeatedly stressed by US President Trump that the EU levies a 10% duty on cars imported from the US, whereas the US impose tariffs of 2.5% on German car imports – as some press reports rumoured after Minister Altmaier's visit to the US. For the EU, as well, such a sectoral approach would be of a limited nature. In line with the most-favoured-nation principle of the WTO, any trade privilege the EU concedes to the US outside a free trade agreement would also have to be extended to all other WTO members, which means that its economic impact would clearly exceed the bilateral trade effects between the US and the EU. Germany, in the person of its Minister for Economic Affairs Peter Altmaier, is nonetheless playing a key role in this trade conflict and how Europe responds to it.

But the EU is caught in a dilemma, regardless of the fact that the “protective“ US tariffs have been suspended until 1 May. If the exemptions are not extended and the EU retaliates by imposing corresponding countermeasures – a right that is granted to all WTO members within the framework of the existing rules – it could kick off an escalation spiral of retaliatory tariffs, which would make everyone poorer. In the medium term, however, it would hardly be reasonable if the EU, as the world's leading trading bloc, did not react to the US tariffs, thereby accepting a further weakening of the liberal global trade order and its institutions. This above all holds because the national security argument is not really verifiable and could be used by any country, regardless of the tariffs it imposes. In its conclusions on the Summit of 22/23 March, the European Council hence takes a clear position, confirming the EU Commission's parallel approach (cooperation in WTO dispute settlement – list of retaliatory actions to the tune of EUR 2.8 bn – measures to fight trade diversion).

Technically, this commitment of the EU to the multilateral trading system excludes the conclusion of a special deal with the US to achieve permanent exemption from the so-called punitive tariffs. The WTO's credibility would suffer further damage. From an economic perspective, it also does not make much sense to tie exemptions from the protective tariffs to other policy fields, as suggested by President Trump. He indicated that greater efforts of the EU member countries to achieve their NATO target of spending 2% of GDP on defence could mitigate the transatlantic (trade) conflict potential.

With no new multilateral round of trade negotiations in the making, the EU could drum up support for the resumption of the TTIP negotiations, including possible concessions on its part. In the face of the conflict with the US, the EU and its members are once more faced with the question as to how they will position themselves between the two trading powers USA and China, if trading relations were to cool further. Certainly, not an easy (trade policy) agenda for the new CDU Minister for Economic Affairs and close confidant of Chancellor Merkel, Peter Altmaier.

Barbara Böttcher (+49 69 910-31787, barbara.boettcher@db.com)

Excerpt from the European Council conclusions, Brussels, 23 March 2018

3

“The European Council reaffirms its commitment to an open and rules-based multilateral trading system with the WTO at its core, firm in the belief that free and fair trade is one of the most powerful engines for growth, supporting millions of jobs and contributing to prosperity. [...] The European Council regrets the decision by the United States to impose import tariffs on steel and aluminium. These measures cannot be justified on the grounds of national security, and sector-wide protection in the US is an inappropriate remedy for the real problems of overcapacity, on which the EU already has offered the US its full cooperation in multiple fora, including the Global Forum. [...] The European Council strongly supports the steps taken by the Commission to ensure that the interests of the EU are fully protected and to reserve its rights, in compliance with World Trade Organisation rules, to respond to the US measures as appropriate and in a proportionate manner.”



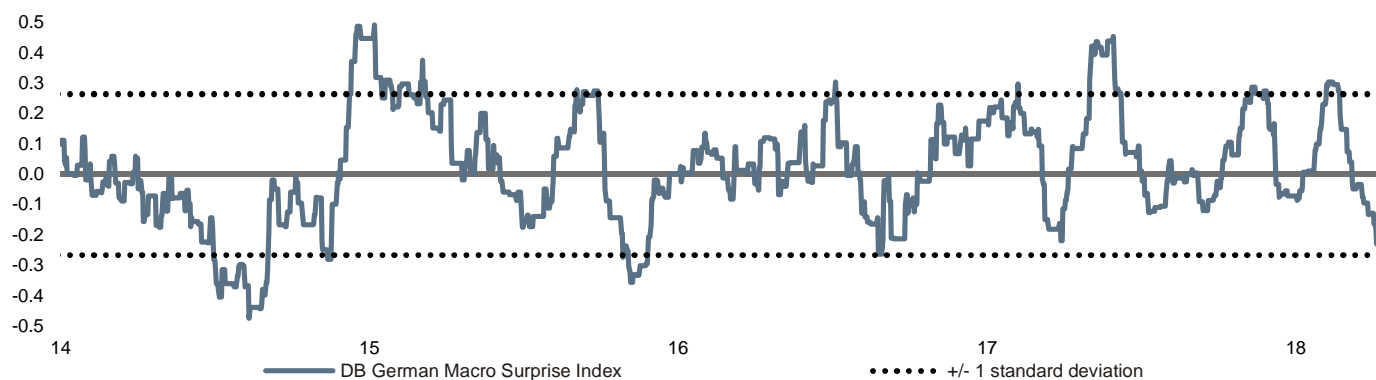
Trade tensions challenge corporates and government

DB German Macro Surprise Index

The DB German Macro Surprise Index compares published economic data with market forecasts and thus provides clues as to the direction of future forecast revisions.

DB German Macro Surprise Index

Average of last 20 z-scores of data surprises



Values above (below) 0 indicate the data came in better (worse) than expected

Sources: Bloomberg Finance LP, Deutsche Bank Research

Last 20 published economic data for Germany

Bloomberg Tickers	Indicator	Reporting month	Publication date	Current value	Bloomberg consensus	Surprise	Standardised surprise	Quantile rank
MPMIDEMA Index	Markit Manufacturing PMI	2 2018	01/03/2018	60.6	60.3	0.3	0.3	0.7
GRFRIAMM Index	Retail Sales (% mom)	1 2018	02/03/2018	-0.3	0.7	-1.0	-0.5	0.2
GRIMP95Y Index	Import Price Index (% yoy)	1 2018	02/03/2018	0.7	0.7	0.0	0.3	0.6
MPMIDESA Index	Markit Services PMI	2 2018	05/03/2018	55.3	55.3	0.0	0.0	0.5
GRIORTMM Index	Factory Orders (% mom)	1 2018	08/03/2018	-3.5	-1.7	-1.8	-0.9	0.2
GRIPIMOM Index	Industrial production (% mom)	1 2018	09/03/2018	0.1	0.6	-0.5	-0.4	0.3
GRCAEU Index	Current Account Balance (EUR bn)	1 2018	09/03/2018	20.3	17.2	3.1	0.6	0.7
GRCP20YY Index	CPI (% yoy)	2 2018	14/03/2018	1.4	1.4	0.0	0.2	0.3
GRZEWI Index	ZEW Survey Expectations	3 2018	20/03/2018	5.1	13.0	-7.9	-1.0	0.1
GRZECURR Index	ZEW Survey Current Situation	3 2018	20/03/2018	90.7	90.0	0.7	0.0	0.5
GRIFPBUS Index	IFO Business Climate	3 2018	22/03/2018	114.7	114.6	0.1	-0.1	0.4
GRIMP95Y Index	Import Price Index (% yoy)	2 2018	27/03/2018	-0.6	-0.3	-0.3	0.1	0.5
GRCP20YY Index	CPI (% yoy)	3 2018	29/03/2018	1.6	1.6	0.0	0.2	0.3
GRUECHNG Index	Unemployment Change (000's mom)	3 2018	29/03/2018	-19.0	-15.0	4.0	-0.1	0.5
MPMIDEMA Index	Markit Manufacturing PMI	3 2018	03/04/2018	58.2	58.4	-0.2	-0.3	0.3
GRFRIAMM Index	Retail Sales (% mom)	2 2018	03/04/2018	-0.7	0.7	-1.4	-0.8	0.2
MPMIDESA Index	Markit Services PMI	3 2018	05/04/2018	53.9	54.2	-0.3	-0.3	0.4
GRIORTMM Index	Factory Orders (% mom)	2 2018	05/04/2018	0.3	1.5	-1.2	-0.6	0.3
GRIPIMOM Index	Industrial production (% mom)	2 2018	06/04/2018	-1.6	0.2	-1.8	-1.5	0.1
GRCAEU Index	Current Account Balance (EUR bn)	2 2018	09/04/2018	20.7	22.9	-2.2	-1.0	0.1

Sources: Bloomberg Finance LP, Deutsche Bank Research

Updated by Sebastian Becker and Jochen Möbert (+49 69 910-31727, jochen.moebert@db.com)

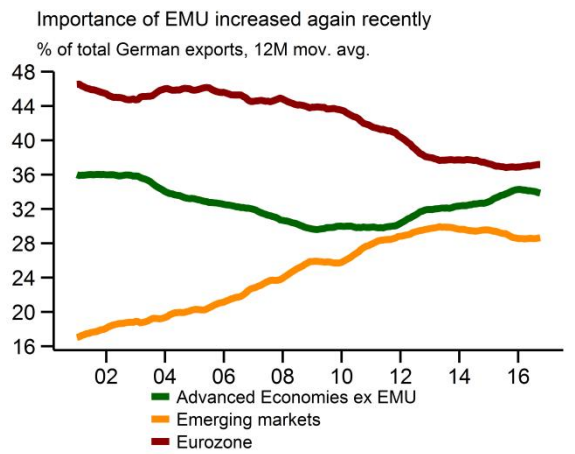
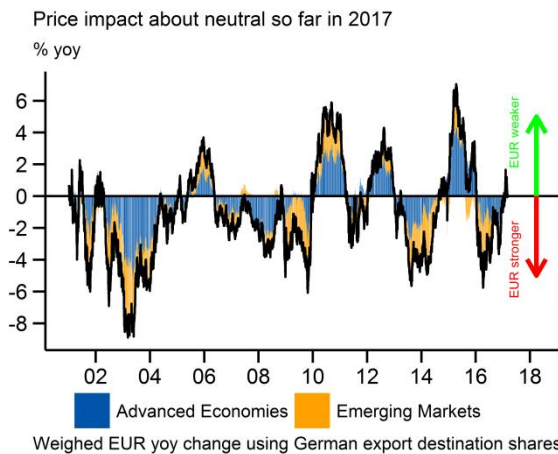
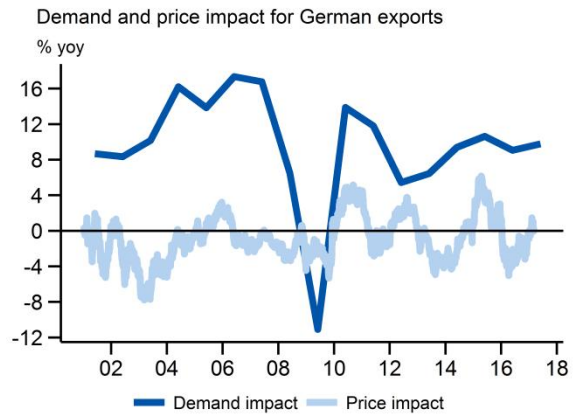
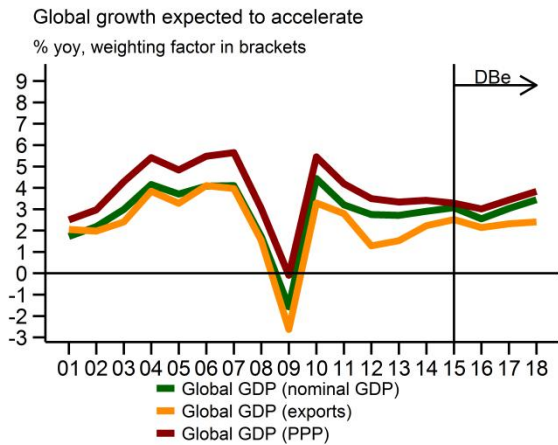
Source: Heiko Peters (2014). DB German Macro Surprise Index. Focus Germany, 4 August 2014.



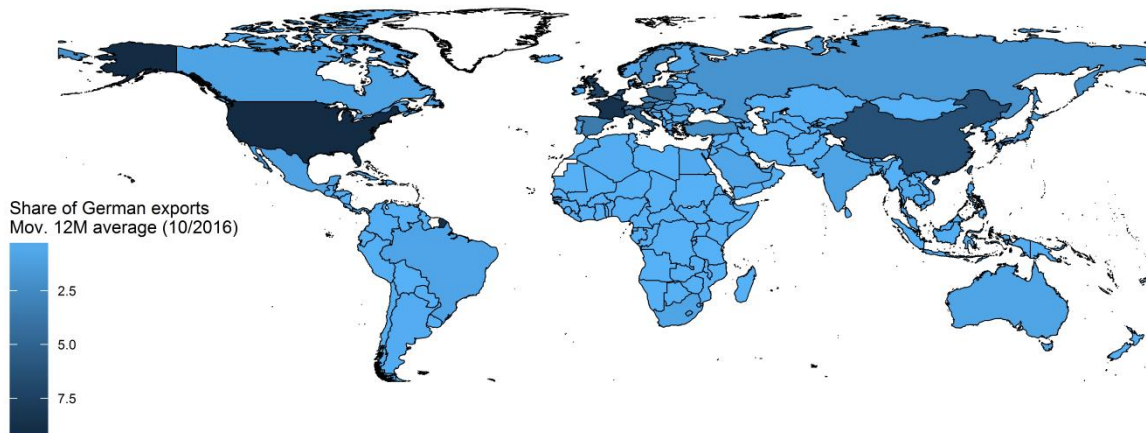
Trade tensions challenge corporates and government

German Export Indicator

The Export Indicator identifies the effects on German exports of changes in global demand on the one hand, and currency movements on the other (price impact).⁷



German exports focus on Europe, the USA and China



Sources: Eurostat - Comext, Deutsche Bank Research

Jochen Möbert (+49 69 910-31727, jochen.moebert@db.com)

⁷ See for details Focus Germany, March 3, 2016.



Trade tensions challenge corporates and government

Germany: Events of economic, fiscal and euro politics

Date	Event	Remarks
15-16 April	Third wage round in the public sector (federal and municipal level)	After two fruitless rounds of negotiations, Ver.di has announced further warning strikes in the run-up to the third round. On the basis of a separate bargaining procedure last year, the employees of the federal states have already received a wage increase of 2.35% since the beginning of the year.
16-17 April	Third wage round in the construction sector	IG Bau demands income increases of 6% (for 12 months) and a full 13th month's salary. After two fruitless rounds of negotiations, we expect a difficult third round which could include strikes before a compromise will be reached.
20 April	G20 Finance Ministers and Central Bank Governors meeting, Washington, D.C.	Debates on the global economy, (poss.) including on the contribution of trade to economic growth, (poss.) on infrastructure financing, on the opportunities and risks of digitisation and on the resilience of the international finance and monetary system, among others.
26 April	ECB Governing Council meeting, press conference	Review of the monetary policy stance. On March 8 the ECB changed its forward guidance. This means exit is in play. The change is consistent with the sequence we had expected – removing the QE reaction function sets the ground for a June announcement that net asset purchases will end in December and keeps the path open to a preliminary rate hike in June 2019.
27-28 April	Eurogroup and informal ECOFIN meeting, Sofia	Thematic discussion on growth and jobs – wage dynamics, (poss.) follow-up to the March European Council – Deepening EMU, Banking Union, seventh hearing of the Chair of the ECB Supervisory Board, reporting on the activities of the Single Resolution Board, among others.
7-9 May	Working Party on Tax Revenue Estimates meeting, Mainz	At the meeting in November 2017 the Working Party forecasted an increase in the tax revenues by 4.1% for 2018 and 2019, respectively, to EUR 734.5 bn and EUR 795.4 bn. Given that the federal government and the relevant research institutes now expect (even) stronger GDP and wage growth than expected in November, the working group is likely to (slightly) increase its estimates.
24-25 May	Eurogroup and ECOFIN meeting, Brussels	Economic situation in the euro area – Commission spring forecast, thematic discussions on growth and jobs – spending reviews – follow-up, (poss.) Greece – state of play, Cyprus – Post Programme Surveillance.
14 June	ECB Governing Council meeting, press conference	Review of the monetary policy stance.
21-22 June	Eurogroup and ECOFIN meeting, Brussels	Debates on (poss.) implications of the spring forecast for EDPs/EIPs for euro area countries, thematic discussions on growth and jobs: allocative efficiency in labour markets & pension sustainability, (poss.) IMF Article IV review of the euro area, (poss.) IMF FSAP – euro area aspects, (poss.) Greece – state of play, among others.
28-29 June	European Council meeting, Brussels	Debates on the future of the EU, foreign affairs and international relations, esp. trade relations, EU migration and asylum policy, (poss.) state of the Brexit negotiations.

Source: Deutsche Bank Research

Dieter Bräuninger (+49 69 910-31708, dieter.braeuninger@db.com)

Germany: Data calendar

Date	Time	Data	Reporting period	DB forecast	Last value
23 Apr 2018	9:30	Manufacturing PMI (Flash)	April	57.5	58.2
23 Apr 2018	9:30	Services PMI (Flash)	April	53.5	53.9
24 Apr 2018	10:30	ifo business climate (Index, sa)	April	114.0	114.7
27 Apr 2018	09:55	Unemployment rate (% , sa)	April	5.3	5.3
30 Apr 2018	14:00	Consumer prices preliminary (% yoy, nsa)	April	1.5	1.6
30 Apr 2018	8:00	Retail sales (% mom, sa)*	March	1.5	-0.7
7 May 2018	8:00	New orders manufacturing (% mom, sa)	March	2.0	-3.9
8 May 2018	8:00	Industrial production (% mom, sa)	March	1.0	-1.6
8 May 2018	8:00	Trade balance (EUR bn, sa)	March	21.5	19.2
8 May 2018	8:00	Merchandise exports (% mom, sa)	March	3.3	-3.2
8 May 2018	8:00	Merchandise imports (% mom, sa)	March	3.7	-1.3

*An earlier data release may be possible due to the Federal Statistical Office.

Sources: Deutsche Bank Research, Federal Statistical Office, Federal Employment Agency, ifo, IHS Markit

Sebastian Becker, Marc Schattenberg, Jochen Möbert (+49 69 910-31727, jochen.moebert@db.com)



Trade tensions challenge corporates and government

German data monitor

	Q1 2017	Q2 2017	Q3 2017	Q4 2017	Q1 2018	Oct 2017	Nov 2017	Dec 2017	Jan 2018	Feb 2018	Mar 2018
Business surveys and output											
Aggregate											
Ifo business climate	111.0	114.5	115.9	117.3	115.9	116.9	117.6	117.3	117.6	115.4	114.7
Ifo business expectations	104.4	106.2	107.5	109.9	106.0	109.3	111.0	109.5	108.3	105.4	104.4
Industry											
Ifo manufacturing	105.9	109.8	112.0	113.4	112.0	113.0	113.9	113.3	113.9	111.4	110.6
Headline IP (% pop)	0.9	1.9	1.1	1.0		-0.9	2.9	-0.6	0.1	-1.6	
Orders (% pop)	-0.3	1.2	3.3	3.5		0.9	-0.1	3.0	-3.9		
Capacity Utilisation	85.8	86.0	86.7	87.3	87.9						
Construction											
Output (% pop)	1.4	5.4	-0.4	-1.0		-1.7	2.4	-3.3	5.9	-7.2	
Orders (% pop)	0.3	-2.0	-1.7	10.2		-0.7	9.2	13.5	-12.8		
Ifo construction	128.7	130.5	132.9	134.0	133.2	135.1	133.1	133.7	133.5	132.4	133.6
Consumer demand											
EC consumer survey	-0.6	3.6	4.1	5.5	6.7	5.2	5.3	6.1	7.4	6.5	6.1
Retail sales (% pop)	0.1	1.1	0.4	0.7		-0.8	1.6	-0.8	-0.3	-0.7	
New car reg. (% yoy)	6.7	0.0	0.3	4.2	4.0	3.9	9.4	-1.0	11.6	7.4	-3.4
Foreign sector											
Foreign orders (% pop)	0.7	1.5	3.5	4.9		1.3	-0.3	4.4	-4.6		
Exports (% pop)	2.8	1.6	0.7	3.0		-0.3	4.1	0.0	-0.4	-3.2	
Imports (% pop)	3.7	1.4	0.3	2.9		-4.4	2.3	1.1	-0.4	-1.3	
Net trade (sa EUR bn)	59.2	60.6	62.0	64.1		19.7	22.6	21.8	21.5	19.2	
Labour market											
Unemployment rate (%)	5.9	5.7	5.7	5.5	5.4	5.6	5.5	5.5	5.4	5.4	5.3
Change in unemployment (k)	-52.3	-41.7	-25.0	-55.7	-72.7	-13.0	-21.0	-30.0	-24.0	-23.0	-19.0
Employment (% yoy)	1.5	1.5	1.5	1.5		1.5	1.5	1.5	1.4	1.4	
Ifo employment barometer	110.3	111.1	111.9	112.9	113.2	112.1	113.1	113.5	113.8	113.5	112.4
Prices, wages and costs											
Prices											
Harmonised CPI (% yoy)	1.9	1.6	1.7	1.6	1.4	1.5	1.8	1.6	1.4	1.2	1.5
Core HICP (% yoy)	1.0	1.4	1.5	1.3	1.3	1.1	1.3	1.4	1.3	1.4	1.3
Harmonised PPI (% yoy)	2.8	2.8	2.7	2.5		2.7	2.5	2.3	2.1	1.8	
Commodities, ex. Energy (% yoy)	32.7	8.9	4.2	-5.6	-12.4	0.7	-6.2	-10.5	-11.1	-13.5	-12.6
Crude oil, Brent (USD/bbl)	54.5	50.8	52.2	61.5		57.6	62.7	64.4	69.1	65.3	66.0
Inflation expectations											
EC household survey	18.9	17.6	16.3	16.0	16.4	16.0	17.2	14.8	16.6	18.3	14.4
EC industrial survey	13.0	12.2	11.7	14.2	14.3	12.3	13.4	16.9	15.1	14.4	13.5
Unit labour cost (% yoy)											
Unit labour cost	0.9	2.6	1.9	1.1							
Compensation	2.6	2.7	2.7	2.5							
Hourly labour costs	1.2	4.1	2.8	2.8							
Money (% yoy)											
M3	5.9	5.6	4.7	4.3		4.9	4.5	4.3	3.6	3.2	
M3 trend (3m cma)	5.7	5.2	4.7	4.6		4.7	4.8	4.7	4.6		3.7
Credit - private	3.3	3.8	3.9	4.2		3.9	4.0	4.2	4.3	0.0	
Credit - public	21.0	4.1	5.5	-2.9		-0.6	-4.4	-2.9	-5.4	-12.9	

% pop = % change this period over previous period.

Sources: Deutsche Bundesbank, European Commission, Eurostat, Federal Employment Agency, German Federal Statistical Office, HWWI, ifo, Markit



Trade tensions challenge corporates and government

Financial forecasts

	US	JP	EMU	GB	CH	SE	DK	NO	PL	HU	CZ
Key interest rate, %											
Current	1.625	-0.10	0.00	0.50	-0.75	-0.50	0.05	0.50	1.50	0.03	0.75
Jun 18	1.875	-0.10	0.00	0.75	-0.75	-0.50	0.05	0.50	1.50	0.05	0.75
Sep 18	2.125	-0.10	0.00	0.75	-0.75	-0.50	0.05	0.50	1.50	0.05	0.75
Dec 18	2.375	-0.10	0.00	0.75	-0.50	-0.50	0.05	0.50	1.75	0.05	1.00
3M interest rates, %											
Current	2.30	0.07	-0.33	0.76							
Jun 18	2.34	0.05	-0.35	0.55							
Sep 18	2.52	0.05	-0.35	0.55							
Dec 18	2.76	0.05	-0.35	0.80							
10Y government bonds yields, %											
Current	2.77	0.05	0.50	1.47							
Jun 18	3.00	0.00	0.80	1.50							
Sep 18	2.95	0.00	1.00	1.65							
Dec 18	3.25	0.00	1.25	1.75							

Exchange rates

	EUR/USD	USD/JPY	EUR/GBP	GBP/USD	EUR/CHF	EUR/SEK	EUR/DKK	EUR/NOK	EUR/PLN	EUR/HUF	EUR/CZK
Current	1.23	107.17	0.87	1.40	1.18	10.33	7.45	9.59	4.20	312.56	25.34
Jun 18	1.24	102.00	0.91	1.37	1.20	9.60	0.00	9.25	4.17	317.00	25.08
Sep 18	1.26	105.00	0.93	1.35	1.22	9.40	0.00	9.10	4.12	316.00	24.94
Dec 18	1.28	105.00	0.93	1.38	1.25	9.20	7.46	9.00	4.15	315.00	24.97

Sources: Bloomberg Finance LP, Deutsche Bank Research

© Copyright 2018. Deutsche Bank AG, Deutsche Bank Research, 60262 Frankfurt am Main, Germany. All rights reserved. When quoting please cite "Deutsche Bank Research".

The above information does not constitute the provision of investment, legal or tax advice. Any views expressed reflect the current views of the author, which do not necessarily correspond to the opinions of Deutsche Bank AG or its affiliates. Opinions expressed may change with out notice. Opinions expressed may differ from views set out in other documents, including research, published by Deutsche Bank. The above information is provided for informational purposes only and without any obligation, whether contractual or otherwise. No warranty or representation is made as to the correctness, completeness and accuracy of the information given or the assessments made.

In Germany this information is approved and/or communicated by Deutsche Bank AG Frankfurt, licensed to carry on banking business and to provide financial services under the supervision of the European Central Bank (ECB) and the German Federal Financial Supervisory Authority (BaFin). In the United Kingdom this information is approved and/or communicated by Deutsche Bank AG, London Branch, a member of the London Stock Exchange, authorized by UK's Prudential Regulation Authority (PRA) and subject to limited regulation by the UK's Financial Conduct Authority (FCA) (under number 150018) and by the PRA. This information is distributed in Hong Kong by Deutsche Bank AG, Hong Kong Branch, in Korea by Deutsche Securities Korea Co. and in Singapore by Deutsche Bank AG, Singapore Branch. In Japan this information is approved and/or distributed by Deutsche Securities Inc. In Australia, retail clients should obtain a copy of a Product Disclosure Statement (PDS) relating to any financial product referred to in this report and consider the PDS before making any decision about whether to acquire the product.

Printed by: HST Offsetdruck Schadt & Tetzlaff GbR, Dieburg

ISSN (Print) 2510-5248 / ISSN (Online) 2512-0824