

Sector-Report Germany Industry in Focus



Group Industries Research / September 2016

Focus: Brexit/UK

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Contents

Overview of key aspects	3
Industry and macroeconomic environment.....	4
Food industry.....	6
Chemical industry.....	7
Pharmaceutical industry.....	8
Metal production and processing	9
IT-equipment, electronic & optical products	10
Electrical equipment.....	11
Mechanical engineering	12
Vehicle construction	13
Other vehicle construction	14
Producing sector: Expected output in Germany.....	15
Glossary	15

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Overview of key aspects

- **Global economic growth** is likely to accelerate slightly in 2017 compared to this year. Countries which produce raw materials and sell them in the world market, such as Russia and Brazil, should perform better than in 2016, since commodity prices have stabilised. The US economy has redressed its imbalances and is growing solidly again. The moderate growth in the Euro area should also continue. China will continue to show above-average growth, but at diminishing rates.
- Economic growth in the **UK** will suffer over the rest of 2016 and in 2017 as a result of the Brexit decision. Although the country's indigenous industry is benefiting from the current weakness of the pound, the uncertainty concerning its future relationship with the EU market is dampening domestic demand, and investment is particularly likely to be curbed.
- Private and public consumption in **Germany** remains the most important supporting factor for the economy thanks to buoyant labour market conditions and high levels of spending associated with the refugee crisis. Conversely, higher wages are expected to maintain pressure on margins and to slow growth in investment in equipment.
- Production in the **manufacturing sector in Germany** should keep pace with the global economy and grow modestly in 2016 and 2017. Weaker British demand after the Brexit decision will dampen exports to the UK, particularly of capital goods. The weakness of the pound versus the euro will intensify the competition with British manufacturers. Direct German investment in the UK is also expected to slow.
- The United Kingdom is an important export market for both the **food industry** and **beverage producers**. This is particularly the case since UK exports of food and animal feed have grown much more strongly in recent years than overall sector exports. Provided the exit negotiations do not result in the loss of any trademark rights, the food industry is likely to be relatively unaffected by Brexit.
- The UK is a fairly interesting market for the German **chemical industry**, accounting for 5.5% of sector exports. As a result of the depreciation of the British pound, the competitiveness of German companies has deteriorated abruptly. Demand will also fall due to the economic slowdown.
- The UK is the most important European sales market for the **German pharmaceutical industry**. If domestic demand increases further, Brexit would make market access more difficult if the UK decouples from the EU in regulatory terms. Irrespective of this, the chronically underfunded National Health Service is likely to seek to increase the proportion of generics, which are increasingly being produced outside Europe.
- Brexit should have comparatively little direct impact on the German **metal production and processing** sector. The British sector produces and exports fairly large quantities of precious metal and other NF metal products, for example made from chromium, cobalt, magnesium, molybdenum, nickel, titanium and tungsten. These are relatively unimportant sectors in Germany. The German sector is indirectly dependent at home and abroad on demand and competition in the UK via customers such as the car industry.
- The **IT equipment, electronic and optical products** sector is a strongly globalised, internationally networked sector of the economy. Some well-known producers are based in the UK. The current uncertainty surrounding economic development is depressing demand in the UK. Control, measurement, and navigation equipment from Germany should be affected by this to a below-average extent, since digitalisation and automation are leading to an increase in demand for these products.
- In 2015 Germany exported **electrical equipment** worth EUR 3.4bn to the UK. A more negative economic trend caused by the high level of uncertainty associated with Brexit would make customers more reluctant to spend money on electrical installations. This is expected to cause problems for German export business. There are glimmers of hope in the long term, e.g. for suppliers in the energy sector.
- **Machinery** worth EUR 8.8bn (a good 5% of German machinery exports) was delivered to the UK from Germany in 2015. The UK is a relatively important customer for German producers and it does not have a focus on mechanical engineering. German manufacturers therefore compete in the UK mainly with international competitors who trade in currencies other than the British pound, specifically from the USA and China.
- Accounting for 12.8% of exports in 2015, the UK was the second most important export market for German companies in the **vehicle construction sector**. The deterioration in economic conditions mainly associated with future regulation and developments will have a negative impact on the sector.
- Export trade with the UK in the **other vehicle construction sector** is clearly dominated by the aerospace industry, which accounts for 76% of exports and more than 97% of imports in this sub-sector. Imports relate, on the one hand, to internal deliveries to the Airbus group from British production sites, and on the other hand to products such as engines which are supplied externally.

Industry and macroeconomic environment

Weaker British investment has a negative impact on German exports

In a non-binding referendum on 23 June 2016, the British voted for **Brexit** - the end of the UK's membership of the EU. It will be some time before this becomes reality; in a first stage, under Article 50 of the EU Treaty, the UK is obliged to submit an application to the European Council to withdraw from the EU. And the subsequent separation negotiations will last at least two years. After withdrawal, the free transport of goods, services, capital and people between the UK and a then scaled down EU-27 will no longer apply. The outcome of the negotiations for future relationships and the economic **consequences** thus remains completely open. There is a significant risk of higher administrative costs relating to trade (e.g. import regulations, customs clearance, separate authorisation) between the UK and the new EU-27. The uncertainty surrounding the consequences of Brexit was felt in the financial markets immediately after the result of the referendum was announced. From a competition perspective, German industry focused mainly on the reaction of the **British pound**, which **depreciated** strongly against the euro. The pound had already been weakening ahead of the referendum in response to the risk of Brexit. On referendum day the pound was worth almost 8% less, at 0.778 pounds per euro, than in June 2015; in the days after the vote, the British currency depreciated further by around 10%. In July it recovered slightly before levelling off at around 0.86 pound per euro. The pound is therefore good 10% weaker compared to the referendum day and 20% to August 2016. The weak pound is **positive for the price competitiveness of companies manufacturing in the UK** and disadvantageous for German industry. An even weaker pound had an impact on German industry in the years from 2009 to the beginning of 2012. At that time the proportion of German exports to the UK fell from 6.7% (2008) to 6.2% (2011).

Growth in selected regions of the world
GDP at constant prices

Region/Country ¹		2015	2016	2017
Industrial Countries	% py	2.1	1.5	1.7
of which: Germany	% py	1.7	1.8	1.3
Euro Area	% py	1.6	1.5	1.5
UK	% py	2.2	1.6	0.5
USA	% py	2.6	1.5	2.0
Japan	% py	0.6	0.5	0.5
Latin America	% py	-0.8	-0.8	1.2
Middle and Eastern Europe, Turkey	% py	0.7	1.3	2.1
of which: Russia	% py	-3.7	-1.0	1.3
Asia ex. Japan and China	% py	5.0	5.1	4.9
China	% py	6.9	6.7	6.5
World	% py	2.9	2.8	3.1

¹ forecasts shaded

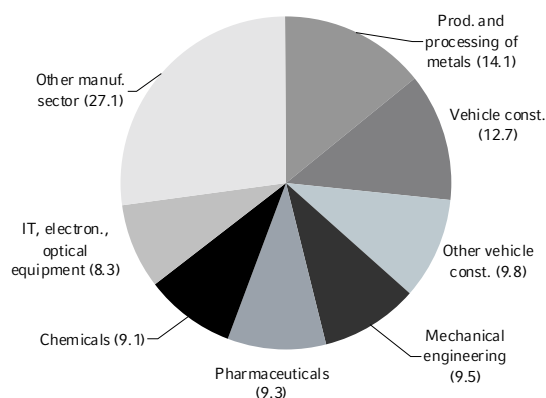
Competition from the UK will also increase in third markets.

A glance at the structure of British global exports shows the metal production and processing industry (total proportion of British exports in the manufacturing sector: 14.1%) to be the most important export sector, followed by vehicle construction (12.7%). There is also significant competition in the mechanical engineering, pharmaceuticals, chemicals, IT equipment, electronic and optical products sectors. Aerospace production also makes an important contribution to exports, consisting mainly of intermediate products with inelastic exchange rates made in the British assembly plants of the European aircraft manufacturer Airbus.

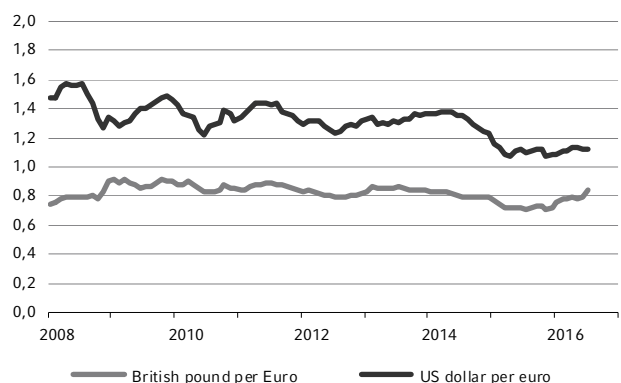
The weak pound is **also** making British suppliers more competitive **in the German market**. British imports are exerting pressure on both foreign and German suppliers. This poses a risk for the vehicle construction and chemical industries since, with the exception of aerospace, these sectors were responsible for almost 40% of British imports in 2015.

UK export structure

Proportions of exports in the manufacturing sector as a whole, 2015, % shares in brackets



Trend in euro versus British pound and US dollar



Economic growth in the UK itself is expected to **weaken**. For example, **purchasing managers’ indices** for the manufacturing sector and for services have already fallen sharply, **signalling a contraction** to levels of below 50. Our Economic Research colleagues have revised down their forecasts for British growth – to 1.6% in 2016 (previously: 1.9%) and 0.5% in 2017 (2.2%). Quite a few companies will review their investment plans, and the expected sharp downturn in investment could already lead to a seasonally adjusted decline in price-adjusted GDP in the third quarter of 2016.

Conversely, **sentiment in German industry** – which is heavily dependent on the performance of the global economy which Commerzbank expects to grow faster in 2017 than in 2016 – **has not deteriorated sharply**. The ifo business climate index declined slightly in July and August after the Brexit decision to the level of March/April 2016. German industry will feel the effects of expected lower British demand, and **German exports to the UK are likely to decline**.

Producers of capital goods, such as machinery makers, could **bear the brunt** here. After all, in 2015 they contributed 10.5% (EUR 3.6bn) of exports from the manufacturing sector to the UK amounting EUR 84bn. However, this was only 5.2% of all machinery exports compared to a proportion of 7.6% in industry as a whole. The UK was the third most important customer country here after the USA (10.0%) and France (8.7%), and ahead of China (6.3%). A good third of exports to the UK – EUR 29.1bn – came from the vehicle construction sector, which sold 12.8% of its exports there; this represented a good 8% of total sector sales. For the pharmaceutical industry, the importance of its British customers was also well above-average at nearly 7% of sales (10.2% of exports). For the producers of IT equipment, electronic and optical products, deliveries to the UK have a similar level of importance as in the manufacturing sector as a whole (nearly 4% of sales).

The country is slightly less important for those sectors which make mainly intermediate products – chemicals, metal production

Germany		2014	2015	year to date	
Output	% py	1.9	0.4	1.3	(June 16)
Gainfully employed	% py	1.0	1.0	1.0	(June 16)
Productivity	% py	0.9	-0.6	0.3	(June 16)
Share of foreign sales	%	48.2	49.5	50.1	(June 16)
Exports, real	% py	3.3	4.8	1.6	(June 16)
Imports, real	% py	4.8	5.8	3.3	(June 16)
Producer prices	% py	-0.4	-1.2	-1.3	(July 16)
Business expectations ^{1,2}	%	7.1	4.2	-1.9	(Aug 16)
Business situation ^{1,2}	%	18.9	19.0	17.2	(Aug 16)
Capacity utilization ¹	%	84.1	84.4	84.7	(Q3 16)

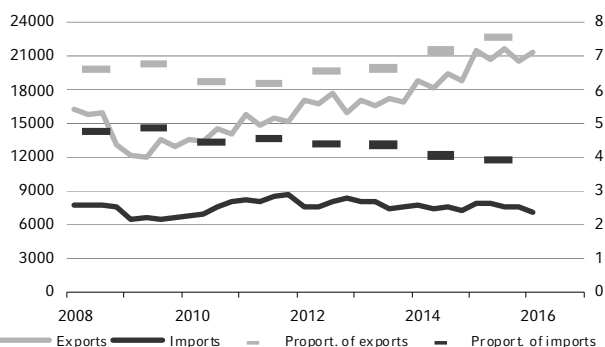
1 Source: ifo Institut, seasonally adjusted; 2 balance

and processing, and the paper industry (a good 3% of sales). Since **a certain proportion of intermediate products is exported to another country after further processing, demand from end customers**, rather than overall British demand, is **crucial**. These sectors can also therefore benefit from improved international competitiveness as a result of the weak pound.

The uncertainty surrounding the outcome of the Brexit negotiations is also likely to dampen German investment in the UK. Nearly 11.5% of all German **direct and indirect investment** in 2014 was carried out in the UK – although this was mainly focused on the provision of financial and insurance services, compared to **only 3.1%** or EUR 10.7bn, for **products in the manufacturing sector**. The UK was a comparatively important investment location for the production of measurement, control, and medical equipment, and watches (UK proportion: 5.9%) and of electrical equipment (6.0%). The proportion of foreign direct investment by **German investors in the UK manufacturing sector** was **significantly higher** at 7.4% or EUR 17.6bn, with German mechanical engineering companies in particular (23.7%) preferring to invest in locations in the British Isles.

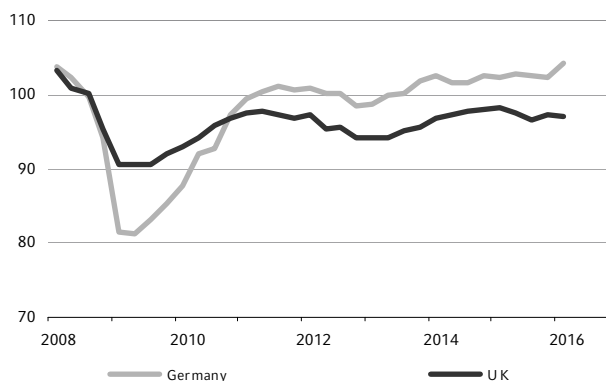
Export trade with the UK

Exports and imports, quarterly in EURm (left axis);
Proportion of German exports and imports to the UK in % (right axis)



Seasonally and price adjusted production

Index 2008 = 100



Food industry

Food less affected by Brexit

The **proportion of exports to the UK relative to total sector exports** is roughly the same for food and animal feed (7.8%) as the importance of corresponding exports in German industry as a whole, while the figure for beverages is an above-average 8.6%.

Exports to EU countries are of major importance to future growth in the food sector given its comparatively low level of internationalisation so far, a stagnating domestic market, and in some cases unfavourable general conditions for deliveries to high-growth third countries – due to the absence of bilateral trade agreements. It would be all the more regrettable if exports to the UK were now to be extremely negatively affected as a result of Brexit. Particularly since **exports of food and animal feed to the UK have grown much more strongly** in the last six years than corresponding exports to the EU as a whole; the **proportion of UK exports** relative to total sector exports has thus **increased by one whole percentage point** since 2011. Conversely, **exports of beverages to the UK have grown relatively weakly** and their proportion of global exports has fallen by almost one percentage point.

For example, there is a high level of demand in the UK for German yoghurt. However, other dairy products, including milk, cereal products, meat and meat products, as well as cocoa products, account for a large proportion of respective exports to the UK. The **cider, fruit wines and alcoholic mixed drinks** segments (proportion of UK exports to total exports in this goods group almost 20%), **processed meats** (almost 17%) and **confectionery** (excluding baked goods, almost 12%) would be **particularly affected** by a decline in British consumption of German food and beverages.

Weaker import demand from the UK from 2017 can thus be expected to **impact negatively on the German food industry** to

Germany		2014	2015	year to date
Output	% py	0.0	-0.3	0.4 (June 16)
Gainfully employed	% py	0.7	1.7	2.4 (June 16)
Productivity	% py	-0.7	-2.0	-1.9 (June 16)
Share of foreign sales	%	22.4	22.9	22.9 (June 16)
Exports, real	% py	2.6	2.7	3.3 (June 16)
Imports, real	% py	3.0	4.2	2.1 (June 16)
Producer prices	% py	-0.6	-2.3	-0.7 (July 16)
Business expectations ^{1,2}	%	-1.2	1.6	1.1 (Aug 16)
Business situation ^{1,2}	%	7.0	14.0	7.1 (Aug 16)
Capacity utilization ¹	%	75.9	81.7	77.4 (Q3 16)

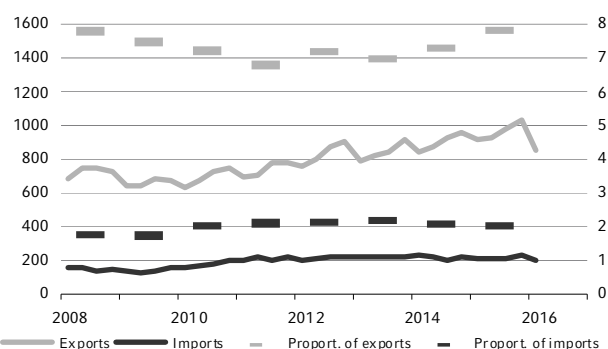
1 Source: ifo Institut, seasonally adjusted; 2 balance

some extent via the trade channel; however, this would probably be **cushioned** by the sector's **comparatively low export focus** (ratio of foreign sales in 2015: just under 23%). Experience from previous phases of uncertainty also shows that **consumers remain loyal to well-known brands** which provide good quality and a favourable price-performance ratio. This will also be of benefit to the German food industry in terms of the products it supplies to the UK – despite the uncertainty in the UK surrounding the economic consequences of the vote – provided the withdrawal negotiations do not lead to any loss of trademark rights.

The **UK accounts for a small proportion** – recently around 2% – of food and animal feed **imports** from all countries. It is not one of the most important countries of origin in any of the major product groups. However, based on the high levels of imports of wine and spirits, **beverages** account for an **above-average 6%** of goods imported from the United Kingdom. Generally speaking, UK – imports are unlikely to exert pressure – via the exchange rate effect – on food products manufactured in, or imported into Germany as a result of Brexit.

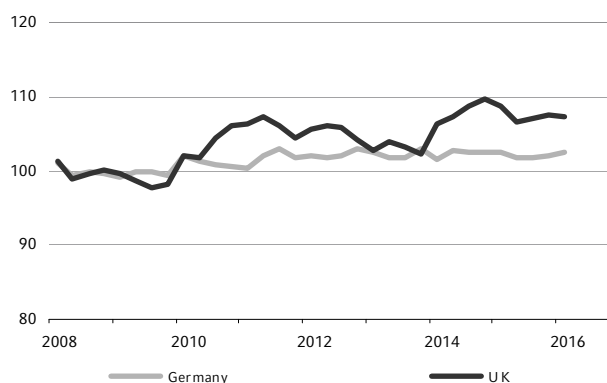
Export trade with the UK

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Seasonally and price adjusted production

Index 2008 = 100



Chemical industry

Competitiveness deteriorates due to exchange rates

The German **chemical industry** is a heavily export-driven sector, with nearly 60% of sales generated abroad, and goods worth EUR 108bn exported (2015). Of this, goods worth nearly EUR 6bn are sold in the UK. Accounting for a proportion of 5.5% of sector exports, the UK is a fairly interesting market. Even though this **proportion** has remained **largely stable** in recent years, **nominal exports** have been characterised by a **slight upward trend**. Exports have increased by about 10% compared to 2011, and many chemical products are used within the same sector for further processing. Against the background of **declining production value in the chemical industry in the UK** in the same period, this is a positive sign in terms of the competitiveness of German companies.

The **result of the referendum** in the UK on 23 June 2016 has led to an abrupt **change in general conditions for the sector**, despite the fact that the UK government has not yet formally applied to withdraw from the EU. In an initial reaction, the **British pound declined dramatically in value against the euro** (and other currencies). The price **competitiveness of German companies** compared to companies producing in the UK has thus **deteriorated**. True, the dollar-based oil price means that crude oil, and consequently also producer prices in the UK are likely to become more expensive.

As a result, this effect will only partly offset the exchange rate-driven price reduction in chemical products. Particularly in the broad group of **base chemicals**, which account for nearly half of German exports, **price** is often the **crucial selling point**. **Exports** to the UK are therefore expected to **decline**. In parallel,

Germany		2014	2015	year to date	
Output	% py	-1.4	-0.7	-0.1	(June 16)
Gainfully employed	% py	1.3	0.5	-0.9	(June 16)
Productivity	% py	-2.7	-1.2	0.9	(June 16)
Share of foreign sales	%	59.6	60.5	60.9	(June 16)
Exports, real	% py	2.4	1.6	0.5	(June 16)
Imports, real	% py	4.1	4.4	1.0	(June 16)
Producer prices	% py	-1.7	-3.4	-2.8	(July 16)
Business expectations ^{1,2}	%	7.5	4.5	-2.1	(Aug 16)
Business situation ^{1,2}	%	27.2	23.4	23.4	(Aug 16)
Capacity utilization ¹	%	83.6	82.2	83.5	(Q3 16)

1 Source: ifo Institut, seasonally adjusted; 2 balance

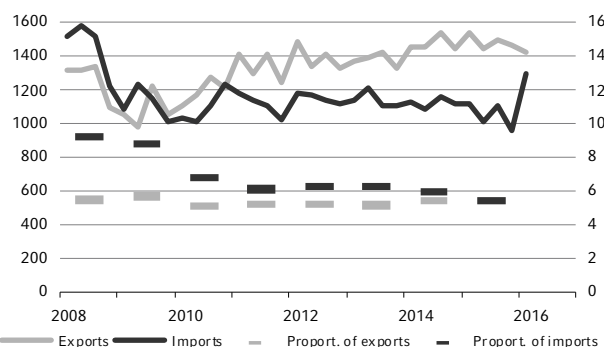
imports from the UK – which were worth EUR 4.2bn in 2015 and which make up 5.5% of total sector exports – could **increase**. The background to this is the very similar structure of goods imported from, and exported to the UK.

Protracted negotiations with the EU in the years ahead on the future rules will perpetuate a state of uncertainty, resulting in a negative impact on private investment and consumption, and **lower economic growth** in the **United Kingdom**. The **British pound** will thus not only **come under more pressure**, but demand for chemical products, e.g. as inputs for the manufacturing industry, will also generally decline.

The first signs of a slowdown in the British economy are already evident. Industry in Germany and the EU will also be affected by the downward trend. Until such time as a new and clear basis can be established for trade and economic relationships, the **long-term impact on trade** and **production sites** of restrained corporate investment will be **difficult to gauge**.

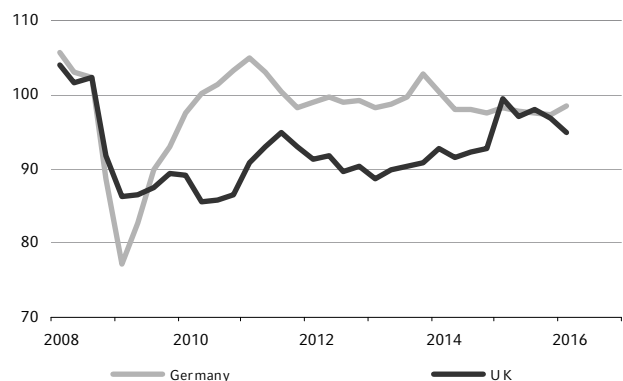
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Seasonally and price adjusted production

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Pharmaceutical industry

UK pharmaceuticals – more than just the most important foreign trade partner

The **British pharmaceutical sector** accounted for **around 2.7% of production value in the manufacturing sector in the UK** in 2015. In the last two decades, levels have never exceeded 4%. The importance of the British pharmaceutical industry is greater than might be assumed from this percentage share, since mature industrialised countries are increasingly declining in importance as production sites for pharmaceuticals, so far as basic products are concerned.

The head offices and European headquarters of prominent global pharma producers and many biotech companies are based in the UK which is the largest recipient of EU research funding (16%). The European Medicines Agency (EMA) – which is tasked with monitoring, assessing and approving human and veterinary drugs in Europe – is also based in London.

Spending on healthcare in the UK has risen on average by **about 6%** since the year 2000. The domestic market for medication has grown by around 2.8% annually in the same period. Demand is increasingly being met from imports, which have grown by a higher average rate (+9.3%) than exports (+7.8%) since 2000. Cost-saving measures in the chronically under-funded British healthcare system, the NHS, is restricting further demand for medication somewhat – at least in value terms.

For **German producers of pharmaceutical products**, Europe and specifically the EU were the most important **foreign trade partners** in 2015, with respective shares of 60% and 50% of exports, and 78% and 56% of imports. The UK occupies a prime position as a customer. 10.2% of total pharma exports are to the British market – relative to a foreign sales ratio of 65%. The proportion of imports from the UK was only about 4%. The pharmaceutical industry is thus one of the sectors most severely affected by Brexit based on exports.

Germany		2014	2015	year to date	
Output	% py	5.2	3.8	1.5	(June 16)
Gainfully employed	% py	2.2	1.9	1.7	(June 16)
Productivity	% py	3.0	1.9	-0.3	(June 16)
Share of foreign sales	%	66.4	65.0	64.9	(June 16)
Exports, real	% py	4.0	11.9	3.3	(June 16)
Imports, real	% py	8.6	9.5	7.2	(June 16)
Producer prices	% py	0.1	0.3	0.6	(July 16)
Business expectations ^{1,2}	%	5.8	0.8	-0.8	(Aug 16)
Business situation ^{1,2}	%	36.3	42.0	31.6	(Aug 16)
Capacity utilization ¹	%	86.5	85.4	84.7	(Q3 16)

1 Source: ifo Institut, seasonally adjusted; 2 balance

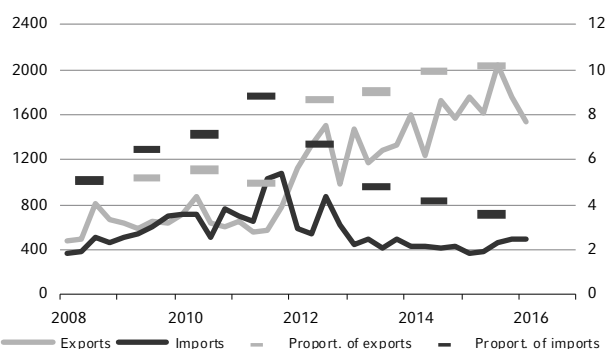
Even taking account of the pressure to cut costs, which is weighing on almost all the European healthcare systems, the **domestic market in the UK** is likely to continue to **grow**, and demand will still be largely **covered by imports**. A further increase in the proportion of generics – which will grow from around 23% to nearly 30% in the year 2020 – could lead to a shift in imports. Experience shows that demand for patent-protected original drugs also tends to be less price-elastic given the usually limited alternatives.

The British market plays an important role for **innovation and regulation**. If the EMA were to relocate from London, British influence on the regulatory environment could decline. Alignment with the EU would be possible, although the country's own regulatory hurdles could make market access more difficult for imported drugs.

It is difficult to gauge at the moment how close the links between the UK and the European Union will be after Brexit. A loss of **European research funding** would be disadvantageous for the UK in terms of innovative competition.

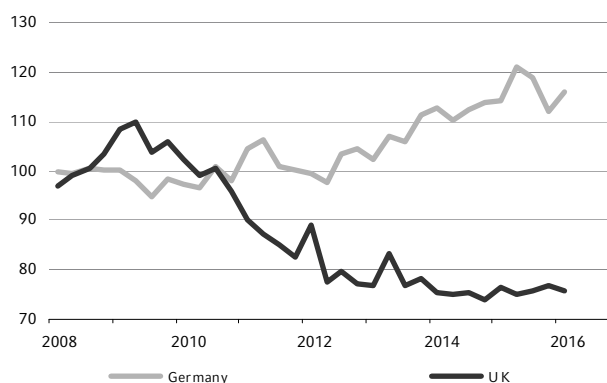
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Metalproduction and processing

Precious metal industry particularly affected by UK competition

As the **target destination** for 7.4% of all sector **exports** in the metal and processing industry in 2015, the **UK** played a similarly important role here as in the manufacturing sector as a whole (7.6%). However, the proportion of export sales to total sales in this sector was lower at 41.8% compared to 49.5%. The **aluminium industry**, which generates 47.7% of its sales abroad, sold goods worth EUR 1.3bn – or 14.4% of its exports – to the UK. Deliveries to the UK were just as important for the **precious metal industry**. Although they accounted for a smaller proportion of exports to the UK (10.9%), they represent a higher ratio of foreign sales (59.1%). However, British exports were much less significant for the steel industry and foundries than for the sector as a whole. As in the aluminium industry, the indirect level dependence is not negligible. For the **most important global customer** is the **automobile industry**, and the corresponding German industry generated a good 8% of its sales in the UK. On the other hand, the reported export ratios in the metal sector overstate the direct dependence. As a supplier of intermediate products, exports to the UK will not always be directly dependent on British demand. To some extent, products undergo further processing there and are then exported to another country, whose demand will not be weakened by Brexit.

The UK's share of all German imports (4.5%) and the German import ratio (53.2%) both exceeded the corresponding figures for the manufacturing sector as a whole in 2015 (3.9% and 48.2% respectively). This relatively **high dependence on British imports** is a **risk**, since the **depreciation of the British pound** against the euro connected with Brexit has made British products significantly more price-competitive. This is having comparatively little effect on the steel sector which faces greater competition from other countries. Whereas, in 2015, some 45% of all German metal imports

Germany		2014	2015	year to date	
Output	% py	2.8	-0.3	-0.5	(June 16)
Gainfully employed	% py	-0.1	2.0	-1.0	(June 16)
Productivity	% py	2.9	-2.3	0.5	(June 16)
Share of foreign sales	%	41.2	41.8	42.6	(June 16)
Exports, real	% py	-1.6	-0.3	-1.8	(June 16)
Imports, real	% py	-0.9	3.8	2.7	(June 16)
Producer prices	% py	-2.5	-1.5	-7.9	(July 16)
Business expectations ^{1,2}	%	7.2	-1.1	-5.1	(Aug 16)
Business situation ^{1,2}	%	-19.8	-25.7	-31.2	(Aug 16)
Capacity utilization ¹	%	85.3	82.5	85.8	(Q3 16)

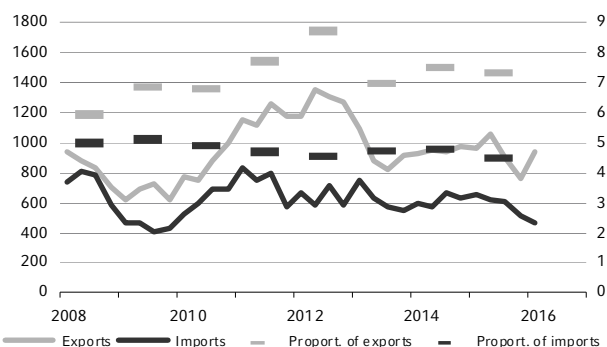
1 Source: ifo Institut, seasonally adjusted; 2 balance

were steel products, deliveries from the UK accounted for only about a quarter. The situation is different in the NF metal industry, where the corresponding global proportion of exports was just under 55% compared to the British proportion of almost 75%. The importance of British imports of **precious metals** was well **above-average** here (globally 14.3% versus 30.8%), and the same applies to **other NF metals** such as chromium, cobalt, magnesium, molybdenum, nickel, titanium and tungsten (4.9% versus 11.4%). Both are less important sectors in Germany. Conversely, relatively small volumes of copper products are imported (11.0% versus 4.6%). No major differences are evident for aluminium, lead and zinc.

Competition is also intensifying in **third markets** as a result of the weak pound. At first glance, the metal sector would appear to be very seriously affected, since it accounted for 14.1% of exports by the manufacturing sector to the UK in 2015 (4.5% in Germany). However, on closer inspection, the **precious metal segment** alone is responsible for this, while **competition for other metals is manageable** – they accounted for a smaller proportion of industrial exports to the UK (2.9%) than in Germany (3.5%).

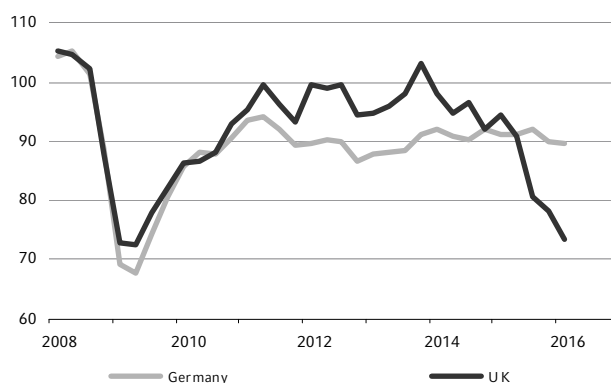
Export trade with the UK

Exports and imports, quarterly in EURm (left axis);
Proportion of German exports and imports to the UK in % (right axis)



Seasonally and price adjusted production

Index 2008 = 100



IT equipment, electronic & optical products

Tougher competition expected

IT equipment, electronic and optical products is a highly globalised **sector of the economy with strong international links**. In many segments **price** is the **key factor** which **determines sales**, and competition (particularly with Asia) is intense. The result of the Brexit referendum in the UK has caused the **British pound** to **weaken** significantly compared to the euro. Many observers expect this situation to persist for some time. The **uncertainty** already prevalent before the referendum is also having an adverse effect on production and demand in the UK.

Some **well-known producers of electronic components** are based in the **UK**. In the **measurement and control (automation) sector**, a whole range of specialised companies supply diverse customer groups (all areas of vehicle construction, food industry etc.). The **British automobile industry** and the **aviation sector** are **major customers** here. The **IT services/software sector (media, finance)** is also important – particularly in the South of England. The IT hardware segment is a large and dynamic customer here. This is likely to remain the case in future, albeit to a lesser extent. Probably also as a result of these strong customers, the proportion of value-added in this sector relative to the manufacturing sector in the UK was around 5.4% in 2013. This exceeded the EU 28 average of 4.6%; there was a similar level in Germany (4.8%).

In contrast to the UK, the German sector is less focused on SMEs, since it generates higher sales per company. However, larger does not necessarily mean more successful, particularly in the technology sector. The sector structure, in conjunction with a weak British pound, indicates that **companies with production sites in the UK** will have a **competitive advantage** at home and abroad in the near future. Combined with a good offer in segments where demand is currently high – such as measurement and control sys-

Germany		2014	2015	year to date
Output	% py	3.6	3.4	1.7 (June 16)
Gainfully employed	% py	-0.1	3.0	1.5 (June 16)
Productivity	% py	3.7	0.3	0.2 (June 16)
Share of foreign sales	%	59.7	60.6	60.1 (June 16)
Exports, real	% py	7.0	7.3	2.2 (June 16)
Imports, real	% py	8.8	10.4	2.1 (June 16)
Producer prices	% py	-0.9	0.3	-0.7 (July 16)
Business expectations ^{1,2}	%	18.4	12.0	9.1 (Aug 16)
Business situation ^{1,2}	%	27.5	27.3	23.3 (Aug 16)
Capacity utilization ¹	%	86.9	86.7	87.2 (Q3 16)

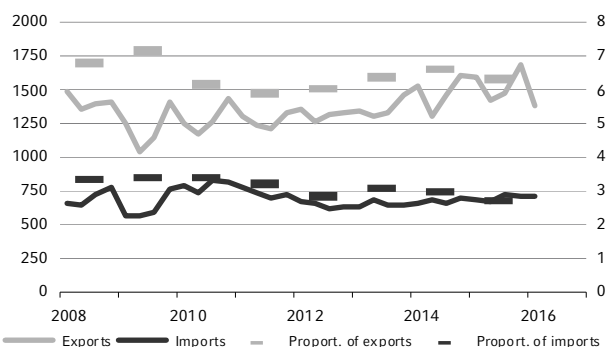
1 Source: ifo Institut, seasonally adjusted; 2 balance

tems – they should be well placed – although uncertainty will have a detrimental effect.

For **producers from Germany**, the impetus created by the weakness of the euro compared to various currencies has slackened. This applies particularly to the British pound. **Products from Germany are becoming more expensive in the UK**. And the UK is as important as a sales market for German exporters of IT equipment, electronic and optical products as France. In 2015, **goods worth EUR 6.2bn** were sold to the UK, which corresponds to a proportion of 6.4% of global sector exports. Sales in the largest export category – **IT equipment and peripheral devices** – are likely to be negatively affected to an above-average extent by the shift in the exchange rate. For strong price competition prevails here too. Exports of **control, measurement, navigation and similar instruments** are likely to be less affected, since these products are in increasing demand as a result of digitalisation and automation. Sales to, and competition with British companies have not become any easier after the Brexit vote.

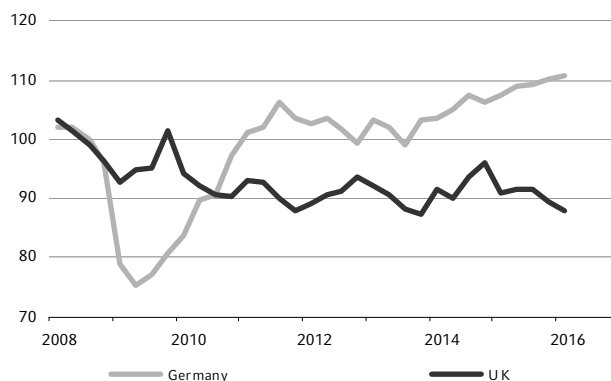
Export trade with the UK

Exports and imports, quarterly in EURm (left axis);
Proportion of German exports and imports to the UK in % (right axis)



Seasonally and price adjusted production

Index 2008 = 100



Electrical equipment

Challenging times for exports to the UK

In 2015 **Germany exported** electrical equipment worth **EUR 3.4bn** to the UK. This corresponded to a proportion of 4.7% of global sector exports. The most important items exported included **electric engines, generators, transformers** (EUR 0.64bn), electricity distribution and switching equipment (EUR 0.60bn), and cable and electrical installation material (EUR 0.64bn). **Components for electric household appliances** (EUR 0.65bn) are also supplied to the UK, mainly spare parts for major brands.

Investment in equipment in the business sector, investment in the construction sector, and the **consumer spending** of private households are thus important for German exporters. There are many predictions of a **significant slowdown** here. Before the Brexit vote, British companies in particular were already exercising restraint with regard to investment and projects. Indications are that this will not change in 2017, since the **Brexit negotiations** will be prolonged and the **outcome cannot be gauged**. German export business is likely to suffer as a result. Weaker economic growth in the UK will endanger **job security** and households will also have to **pay more for imported goods** because of the weak British pound. In the densely populated South of England, **property prices** will also weaken, with a negative impact on household assets. This will also affect exporters of lamps and lighting (export value 2015: EUR 0.26bn).

There are **signs of hope in the long term**: the **energy sector** is an important customer and a major sector of the economy in the UK. The new British government will be keen to develop a comprehensive strategy for industry. This will include ensuring an affordable, clean and secure energy supply. There will be investment in **wind parks, solar technology, the power network**, and possibly also nuclear power stations. This will create many

Germany		2014	2015	year to date	
Output	% py	1.8	-1.1	0.7	(June 16)
Gainfully employed	% py	2.2	-1.0	0.0	(June 16)
Productivity	% py	-0.4	-0.1	0.8	(June 16)
Share of foreign sales	%	50.0	51.8	51.8	(June 16)
Exports, real	% py	2.0	3.3	4.0	(June 16)
Imports, real	% py	7.5	4.1	6.0	(June 16)
Producer prices	% py	0.5	0.8	0.5	(July 16)
Business expectations ^{1,2}	%	14.0	19.3	7.5	(Aug 16)
Business situation ^{1,2}	%	23.7	24.9	23.9	(Aug 16)
Capacity utilization ¹	%	83.3	83.2	85.1	(Q3 16)

1 Source: ifo Institut, seasonally adjusted; 2 balance

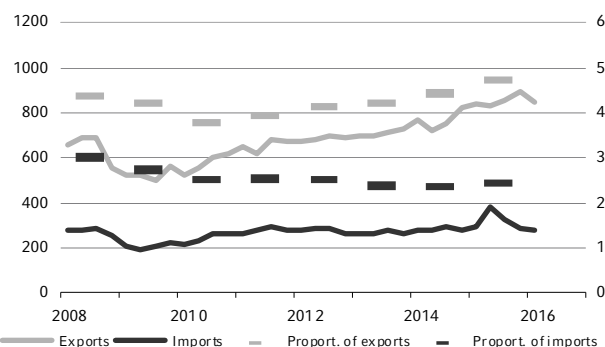
opportunities for German exporters to supply goods and services, also in relation to the issue of **energy saving**: many houses are relatively old (66% were built between 1919 and 1990) and in need of modernisation (e.g. wiring, electrical installations, lighting).

One stated objective of British industry is steady **digitalisation and automation**. When Brexit has been negotiated and the general conditions have become clear, there will be increased export potential here for German producers. Products such as uninterruptible power supply, batteries and accumulators for mobile devices, and electricity distribution and switching equipment will be needed increasingly as part of the transformation process.

The **transport and infrastructure sectors** are also switching to digital products. This applies, for example, to town planning, public transport and ports and airports. Suppliers of electronic indicator boards or traffic monitoring and control equipment for railways, roads, water and air will be in demand in the medium to long term. However, the high level of uncertainty is likely to dampen uncertainty until Brexit has been negotiated.

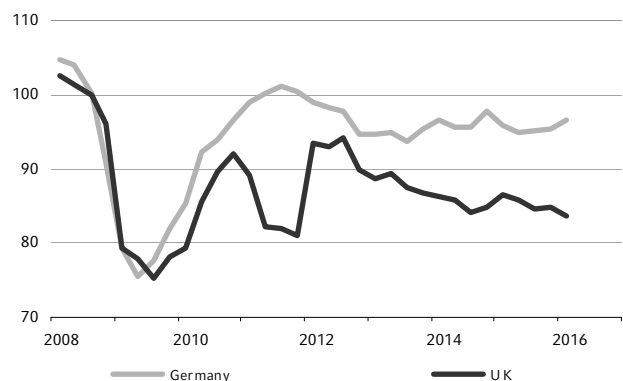
Export trade with the UK

Exports and imports, quarterly in EURm (left axis);
Proportion of German exports and imports to the UK in % (right axis)



Seasonally and price adjusted production

Index 2008 = 100



Mechanical engineering

International suppliers competing in the British market

Export business plays a very important role in the German mechanical engineering sector. **Following the referendum** in the UK on 23 June 2016, when the British voted to leave the EU, there are questions surrounding how **sales in the United Kingdom** will develop in the years ahead and what steps **competitors** there may take.

Machinery and plant worth **EUR 8.8bn** was supplied to the UK from Germany in 2015. This corresponded to a good **5% of German machinery exports**. In other words: the UK is a relatively important customer for German producers, proportionately slightly more so than Austria or Italy.

In contrast to Germany, the **UK has no focus on mechanical engineering**. Its proportion of the nominal GDP of the EU-28 is around 15% (data from 2013), and it accounts for only 7% of mechanical engineering sales. By comparison: Germany's corresponding proportion relative to nominal GDP was 21% and its proportion of mechanical engineering sales was a high 39%. Nevertheless, based on gross value-added, the British mechanical engineering sector is one of the major industrial sectors (proportion of manufacturing industry: 8.8%). However, **German producers face competition** in the UK, particularly from **international competitors** – specifically from the USA and China - which use currencies other than the British pound. This means that a stronger euro versus the pound is not particularly disadvantageous in terms of **price competitiveness**, if the competing company in the British market comes from the USA, and the US dollar is correspondingly strong against the euro. However, the conditions negotiated between the UK and the EU in terms of customs duty and non-tariff trade will play an important role in the medium term. For these conditions must not be too negative compared to other (future) **bilateral agreements**.

Germany		2014	2015	year to date	
Output	% py	1.2	-0.3	-0.6	(June 16)
Gainfully employed	% py	1.5	0.7	0.2	(June 16)
Productivity	% py	-0.3	-1.0	-0.8	(June 16)
Share of foreign sales	%	62.1	61.1	61.9	(June 16)
Exports, real	% py	0.1	0.7	-1.7	(June 16)
Imports, real	% py	4.3	1.3	1.2	(June 16)
Producer prices	% py	1.1	0.9	0.9	(July 16)
Business expectations ^{1,2}	%	3.3	-1.0	-6.1	(Aug 16)
Business situation ^{1,2}	%	15.2	6.4	3.1	(Aug 16)
Capacity utilization ¹	%	84.6	84.4	82.6	(Q3 16)

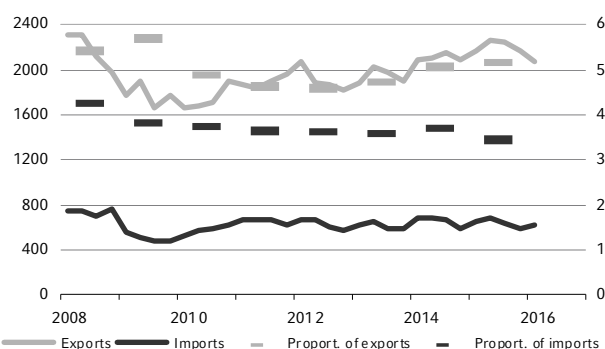
1 Source: ifo Institut, seasonally adjusted; 2 balance

The **investment climate** is currently **subdued**; following the referendum, companies are waiting to see under what conditions Brexit will take place. The UK has significant **automobile and energy industries**. **Suppliers** to these sectors are likely to feel the effects of restraint as producers of (industrial) combustion engines and turbines (exports to the UK 2015: EUR 1.4bn, corresponding to 15% of UK machinery exports) and pumps/compressors (EUR 0.7bn, 8%) and drive technology (EUR 0.6bn, 6%). The UK **needs high levels of investment** in its **infrastructure**. Irrespective of how the negotiations proceed, this may create potential for producers of construction machinery (EUR 0.4bn, 5%) and suppliers to the energy sector (see above).

At year-end 2013, the **German mechanical engineering sector** had **direct investment** volume of EUR 6.2bn in the UK. This related mainly to **financial services** such as investment funds, rather than production plant. The challenge faced by mechanical engineering companies in the past, and in the short term, is how to react appropriately to changes in the financial markets, e.g. the **depreciation of the British pound**.

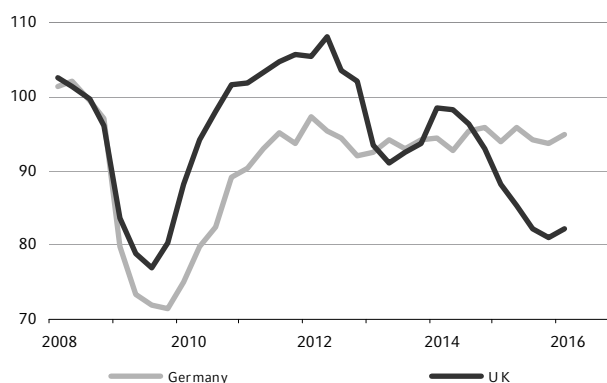
Export trade with the UK

Exports and imports, quarterly in EURm (left axis);
Proportion of German exports and imports to the UK in % (right axis)



Seasonally and price adjusted production

Index 2008 = 100



Vehicle construction

Uncertainty hits sector hard

The **UK plays an important role** as a sales market for German companies in the vehicle construction sector; in 2015, vehicles and vehicle parts worth EUR 29.1bn were exported from Germany. This represented **12.8% of sector exports**. The British market is thus the most important export destination after the USA (15.0%), with **vehicles** accounting for the lion's share of **around 85% of the value of goods**. There is much less demand for products in the supplier industry. This is surprising since the country demonstrates a real focus on production here. In terms of the number of vehicles manufactured, the **UK (1.7m)** was the **fourth largest production location in the EU** after Germany (6m), Spain (2.7m) and France (1.9m). This could be attributable to the comparatively large number of companies in the sector. Although sales of companies in Germany are more than five times as high, the statistics show a roughly similar number of companies (figures from 2013). This indicates relatively strong competition in the supplier industry, which is focusing increasingly on the home market. The **strong presence of Asian vehicle producers** – who are also gaining access to other supplier networks – could also be a major factor here.

The **uncertainty for companies and consumers** associated with the impending Brexit is affecting companies in the vehicle construction sector in several ways simultaneously. **Price competitiveness** has **deteriorated** as a result of the marked depreciation of the pound against the euro, where German companies are competing with British products. Although price is not the crucial selling point for premium vehicles, volume sales are either being hit, or lower margins are being realised.

Germany		2014	2015	year to date	
Output	% py	4.1	-0.2	2.7	(June 16)
Gainfully employed	% py	2.5	2.3	2.1	(June 16)
Productivity	% py	1.6	-2.4	0.6	(June 16)
Share of foreign sales	%	64.4	65.2	64.3	(June 16)
Exports, real	% py	6.8	7.5	2.8	(June 16)
Imports, real	% py	7.8	10.7	8.0	(June 16)
Producer prices	% py	0.1	0.3	0.2	(July 16)
Business expectations ^{1,2}	%	13.6	3.6	-7.0	(Aug 16)
Business situation ^{1,2}	%	22.6	28.0	26.3	(Aug 16)
Capacity utilization ¹	%	90.0	91.9	92.4	(Q3 16)

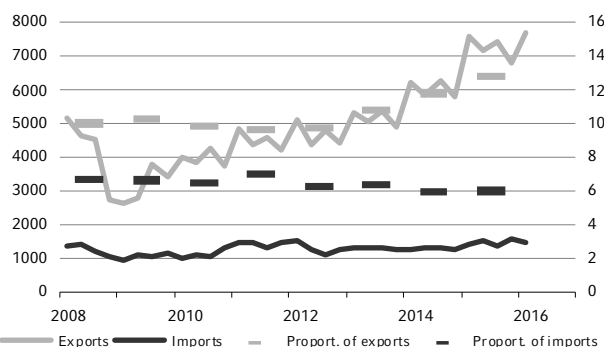
1 Source: ifo Institut, seasonally adjusted; 2 balance

The uncertainty is also leading to **low economic growth**, which could also make private consumers more reluctant to buy. **Supplier companies** are even **more affected relatively speaking by the depreciation**, since they face **tougher price competition** as a result of the negotiating power of the OEMs. This will have an impact on both foreign and domestic sales. For not only are their products becoming comparatively more expensive in the UK, it is also **becoming cheaper to import components from there**. Imports amounted to EUR 5.9bn, or a proportion of 6.1% last year. A continuing low exchange rate with the pound could lead to a steady decline in German exports, imports from the UK could weigh on the domestic sales of German (supplier) companies, and direct investment might also be carried out in locations in the UK for cost reasons.

However, depending on how the exit process is structured, the impact of the **reintroduction of trade barriers** when the UK actually leaves the EU could boost both direct investment as well as divestment by companies in the UK.

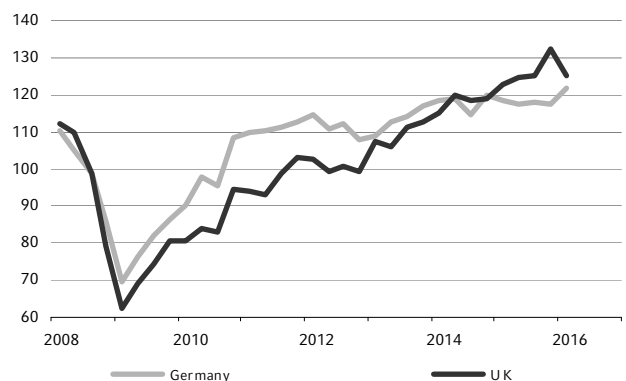
Export trade with the UK

Exports and imports, quarterly in EURm (left axis);
Proportion of German exports and imports to the UK in % (right axis)



Seasonally and price adjusted production

Index 2008 = 100



Other vehicle construction

High imports from the UK

The UK accounted for a good 5% of total exports in the German other vehicle construction sector in 2015, which was below the industry average of 7.6%. The country thus lies in fifth position among the most important exporting countries in this sector of industry, after France, the USA, the United Arab Emirates and China. With a foreign sales ratio of 65%, the **UK accounts for around 3.5% of total sector sales**. The United Kingdom plays a much more important role in terms of imports, also compared to industry as a whole (3.9%), accounting for almost 12% of all imports. The UK ranks third here among the largest importing nations after France and the USA.

The other vehicle construction sectors involves shipbuilding, railway vehicles and the aerospace industry. Sector foreign trade with the UK is clearly dominated by the **aerospace industry**, with 76% of exports in the other vehicle sector, and more than 97% of imports relating to this sub-sector. Conversely, the proportions for railway vehicle construction, which accounts for 11% of total sector exports (1% of imports), and shipbuilding at 5% (0.5%), are comparatively small. Aircraft imports relate, on the one hand, to **internal deliveries for the Airbus group** which manufactures wings for its passenger aircraft at its own British factories, and on the other hand, to **externally produced components, such as engines** from the British company Rolls-Royce - one of the largest engine manufacturers in the world. On the export side, **deliveries of finished aircraft** to British airlines in particular influence the statistics. The generally high foreign trade figures in the aerospace industry are being stimulated by currently buoyant demand for aircraft. Globally, airlines are updating their fleets with fuel-efficient jets and are extending their capacity. Thanks to substantial order backlogs, companies will be operating at full capacity for some years, and they plan to steadily increase rates of production.

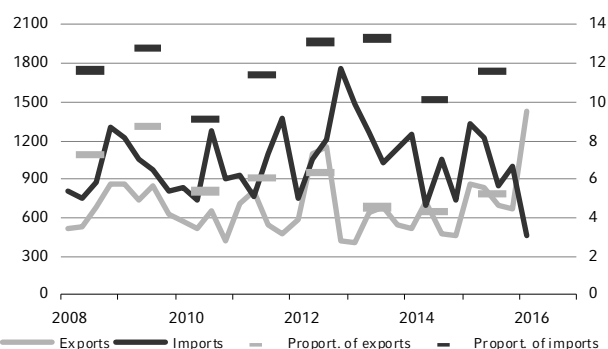
Germany		2014	2015	year to date	
Output	% py	1.6	6.1	7.5	(June 16)
Gainfully employed	% py	2.5	2.7	0.5	(June 16)
Productivity	% py	-0.8	3.3	7.0	(June 16)
Share of foreign sales	%	65.6	65.2	71.0	(June 16)
Exports, real	% py	1.2	13.2	1.2	(June 16)
Imports, real	% py	-1.0	1.0	-10.1	(June 16)
Producer prices	% py	0.5	0.9	0.7	(July 16)
Business expectations ^{1,2}	%	5.7	-11.8	-30.8	(Aug 16)
Business situation ^{1,2}	%	18.6	5.2	-9.1	(Aug 16)
Capacity utilization ¹	%	86.1	84.1	85.3	(Q3 16)

1 Source: ifo Institut, seasonally adjusted; 2 balance

The **other vehicle construction sector** plays a disproportionately more **important role in the UK** than here in Germany. This sector of industry thus accounts for 6.7% of the local manufacturing sector, compared to only 2.1% in Germany. This is mainly due to the **strong military focus of the sector in the UK**, particularly in the areas of marine technology and military aircraft building. The British company BAE Systems is after all one of the three largest defence companies in the world. The UK also spends significantly more on defence systems than Germany, and this expenditure largely benefits local industry. The strong military sector also explains the divergent trend in the production curves of the two countries. The shipbuilding sector is responsible for this. While German shipyards were affected by the drastic **decline in global demand for commercial shipbuilding** between 2008 and 2011, **British shipyards** remained virtually unscathed because commercial shipbuilding had already ceased to play a significant role by this stage, and their main focus was on **orders for the navy**.

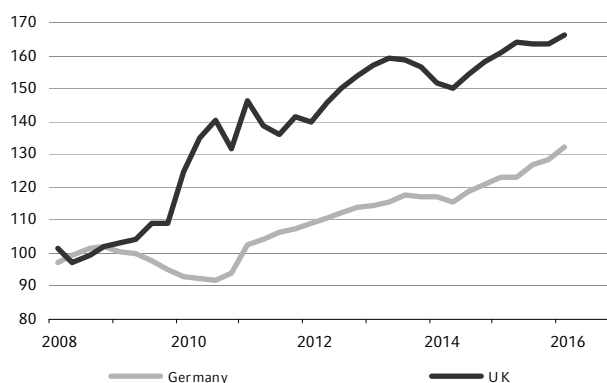
Export trade with the UK

Exports and imports, quarterly in EURm (left axis);
Proportion of German exports and imports to the UK in % (right axis)



Seasonally and price adjusted production

Index 2008 = 100



Producing sector: expected output in Germany

Percentage change on year¹

Branch	Production				Producer Price		Employees	
	2015	Jan - Jun'16	2016	2017	2016	2017	2016	2017
Mining of ores and quarrying	-5.3	-11.8	-7.0	-5.3	-8.3	4.5	-6.3	-2.8
Manufacturing	0.4	1.3	1.0	1.5	-0.8	1.5	0.8	0.5
Food industry	-0.3	0.4	0.8	1.5	-1.0	1.0	1.0	0.8
Beverages	-7.5	1.6	1.5	1.0	0.3	1.5	-1.8	-0.3
Tobacco industry	0.9	10.6	4.3	-1.8	3.5	2.3	0.8	0.8
Textiles	1.3	1.9	1.0	0.3	-0.3	-0.3	2.0	-1.5
Clothing industry	-5.7	1.5	-1.0	-3.5	1.3	0.5	-1.8	-2.3
Leather	5.9	-4.1	-3.0	-1.0	1.3	1.0	0.8	-1.5
Wood industry (excl. furniture)	-1.7	2.0	1.5	1.8	0.3	0.0	1.8	0.3
Paper industry	0.1	-0.9	-0.5	0.5	1.0	0.8	-0.8	-0.5
Printing	-2.8	-1.6	-1.0	0.0	0.0	-0.8	-2.0	-0.8
Coking products, mineral oil processing	2.6	-2.9	-1.8	-0.5	-9.3	14.8	-1.0	-0.8
Chemical industry	-0.7	-0.1	0.0	1.0	-2.0	1.5	-1.0	-0.3
Pharmaceutical industry	3.8	1.5	2.0	2.5	0.5	-0.3	2.3	1.3
Rubber and plastic products	1.6	1.5	2.3	1.8	0.0	0.8	1.5	1.3
Glass, Ceramics, processing of non-metallic minerals	-0.6	2.1	1.8	1.5	0.3	1.0	1.0	0.0
Metal production and processing	-0.3	-0.5	-0.5	1.3	-5.0	2.8	-0.8	-0.5
Fabricated metal products	0.2	2.4	2.0	2.0	-0.5	0.5	1.3	1.0
IT equipment, electronic und optical products	3.4	1.7	1.0	2.3	-1.0	0.0	1.0	0.0
Electrical equipment	-1.1	0.7	1.0	1.0	0.5	0.5	0.0	-0.3
Mechanical engineering	-0.3	-0.6	-0.5	1.0	0.8	0.8	0.0	0.3
Vehicle construction	-0.2	2.7	2.5	1.5	0.3	0.3	1.5	1.3
Other vehicle construction	6.1	7.5	5.5	2.3	0.8	-0.3	0.5	1.5
Furniture industry	2.6	0.9	1.0	1.3	1.0	0.5	0.5	-0.5
Other manufacturing	2.6	1.9	1.5	1.8	0.8	0.8	1.5	1.5
Repair and installation of machinery and equipment	4.0	3.6	2.0	1.5	1.8	1.0	2.3	0.3
Energy	6.4	-1.4	-2.0	0.0	-5.0	8.5	1.3	-1.5
Construction	-2.2	0.7	2.5	4.3	1.8	2.8	1.0	1.5
Producing sector	0.5	0.9	0.8	1.5	-0.5	1.3	0.8	0.5

1) index according to classification system, 2008 edition (WZ08) for Germany; output adjusted for working-day discrepancies; respective company units; forecasts shaded
Source: Federal Statistical Office Germany, own calculations

Glossary

Foreign sales ratio:	proportion of foreign sales to total sales
Productivity:	production/number of employees
Seasonal adjustment:	Census-X-11 process

Commerzbank Research

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