In H1 2020, exports of goods contracted sharply in the main European economies, mainly due to a decline in exports of machinery and transport equipment

In H1 2020, the fall in economic activity in the main European economies was accompanied by a collapse in their foreign trade. Exports of goods in particular contracted dramatically in April-May, more in France, Italy and Spain than in Germany and the United Kingdom. This unprecedented contraction was due mainly to the collapse in exports of machinery and transport equipment. In June, exports of goods rebounded but remained below their pre-crisis level. Nevertheless, since imports also declined, foreign trade contributed only moderately, from an accounting point of view, to the decline in GDP in Q2. This is especially the case for France, mainly because it is a more import-based economy, and therefore the decline in foreign trade was less significant in accounting terms for GDP than was the case for its Eurozone neighbours.

In H1 2020, exports of goods contracted in an unprecedented manner, especially in France, Italy and Spain

In the main Eurozone countries, exports collapsed in H1, even more sharply than imports. In the United Kingdom, foreign trade also shrank, but exports declined less than imports. In April, exports of goods[1] by value were more than 40% below their 2019 average in France and Italy, 40% below in Spain, more than 30% below in Germany and almost 25% in the United Kingdom (*Graph 1*). In May, exports of goods bounced back in Italy and Spain (–25% and –30% respectively compared to the 2019 average) and to a lesser degree in France, Germany and the United Kingdom. Then in June, there was a clearer rebound in the Eurozone countries, which continued in Italy and Spain, strengthened in France and Germany, and remained less dynamic in the United Kingdom.

The fall in exports of goods was due mainly to the fall in exports of machinery and transport equipment

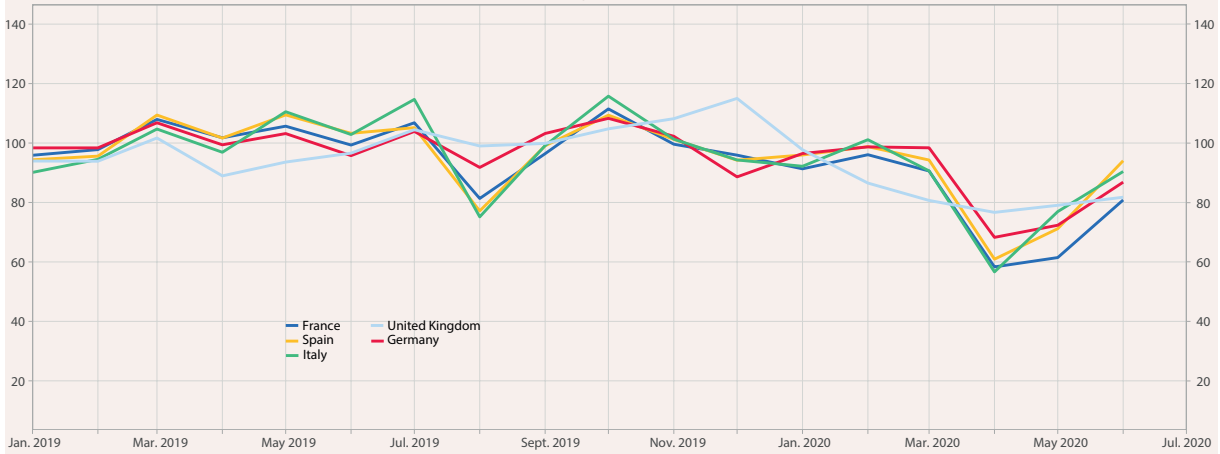
In France, exports of machinery, transport equipment and miscellaneous manufactured articles (professional and scientific instruments, clothing, travel items, etc.) represented the main contribution to the drop in exports: these items accounted for 22 and 7 points respectively of the 40% decline in April and May compared to the 2019 average. Exports of aircraft and cars were the main caused of this contraction. Manufactured goods, combustible minerals and chemical products also affected exports by –3.5 points, –2 points and –3 points respectively (*Graph 2*).

Compared to the other Eurozone countries, exports of goods from Germany contracted a little less during lockdown (–30% on average in April and

1. Here the focus is on the change in exports of goods until June, the most recent information currently available for all the countries under consideration.

1 - Exports of goods

base 100 = average 2019, SA data in value



Note: quarterly level of monthly exports of goods in value.

Source: Eurostat for Germany, Spain, France and Italy ; Office for National Statistics for United Kingdom

May compared to 2019). Specifically, exports of miscellaneous manufactured products (professional and scientific instruments, clothing, etc.) contributed to the decline in German exports of goods (–6 points), though this decline was less severe than in neighbouring countries. However, exports of machinery and transport equipment accounted for 20 points in the 30% decline overall in German exports of goods. Notably, since the German automotive sector was very much turned towards the exterior, exports of cars and other motor vehicles alone accounted for a 7-point drop in total exports of goods.

In Italy, the decline in exports of goods fell midway between the levels of Germany and France (–33% on average over April and May compared to 2019). Three types of goods accounted for most of this downturn: machinery and transport equipment (–14 points), and manufactured goods and miscellaneous goods (–6 and –10 points respectively). The fall in Spanish exports of goods was similar to that in Italy (–34% on average over April and May compared to 2019). More than half of this decline is attributable to the drop in exports of machinery and transport equipment (–17 points). In addition, exports of food goods (excluding beverages and tobacco) increased compared to 2019 (+1 point).

In the United Kingdom, exports of goods in value decreased much less sharply in April-May than in the other European countries (–22%). This exception in the United Kingdom is due to a strong positive contribution (8 points) by other articles and transactions, which relate mainly to transfers of non-monetary gold. Faced with the uncertainty caused by the health crisis, gold became a safe haven investment and there was large-scale repatriation from the United Kingdom, as London is a major centre for storing precious metals. The large increase in gold exports in value partly offset the decrease in exports of other types of goods during lockdown. As elsewhere in Europe, it was mainly machinery, transport equipment and miscellaneous manufactured products that affected exports of British goods in April-May (–16 and –6 points respectively).

Exports of goods are rebounding only gradually

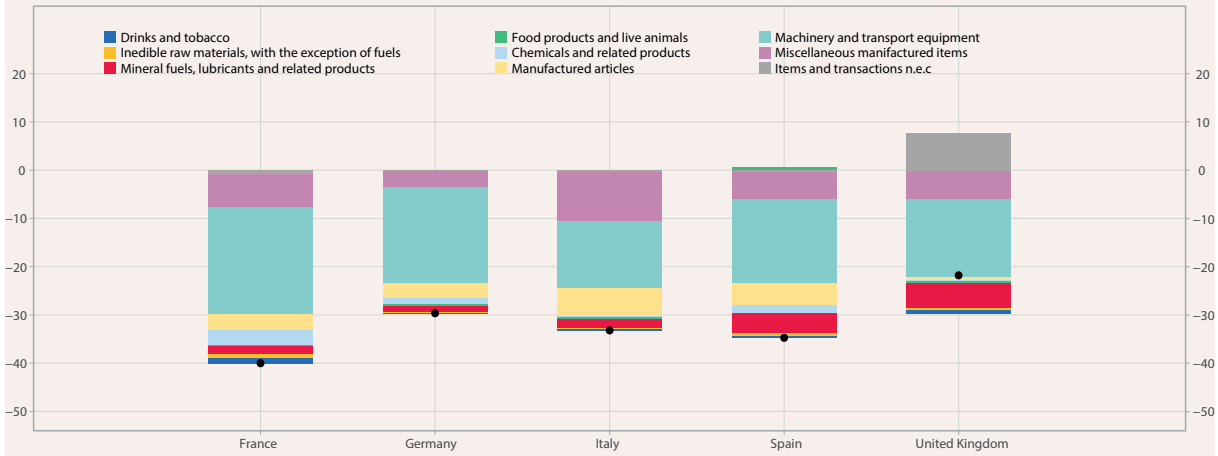
In June, French exports bounced back strongly (*Graph 3*) but still remained a long way from the 2019 average (–19%). As exports of machinery and equipment (or miscellaneous manufactured articles) picked up, they now accounted for only –11.5 points (or –2 points) deviation from the 2019 average. The contributions of manufactured goods and chemical products were half of those recorded in April-May (–1.5 points and –1 point respectively).

In June, exports of German goods were established at around –13% below their average 2019 level. This upturn in exports of goods is mainly due to machinery and transport equipment and miscellaneous manufactured products which contributed significantly to the smaller overall decline in exports compared to 2019 (–7 points and –3 points respectively).

In Italy, exports of goods increased in June but remained below the 2019 level (–10%, after –33% in April-May). Compared to April and May, exports of machinery and transport equipment, manufactured goods and miscellaneous manufactured goods increased. In June, their levels were still lower than those of 2019, contributing 7 points to the deviation from 2019 (against 30 points in April-

2 - Exports of goods on average in April and May by types of goods

deviation from 2019 average in %, SA data in value



Source: Eurostat for France, Germany, Italy en Spain and ONS for United Kingdom

May). However, the upturn was not so strong for manufactured goods.

In Spain, exports of goods increased in June more quickly than in Italy, as they were 6% down on their 2019 level (after –34% in April-May). Again, this is mainly due to the recovery in exports of machinery and transport equipment, which now contributed a drop of only 1 point in exports (against 17 points on average over April-May). In addition, exports of food products excluding beverages and tobacco remained at the same level as the April-May average, making a positive contribution of 1 point compared to the 2019 average.

Lastly, exports of British goods, unlike those of its European neighbours, increased only slightly in June, remaining well below their 2019 level (–18%). Once again it was machinery and transport equipment that affected exports most, but to a lesser extent than at the start of the quarter (–10 points). The positive impact of sales of gold stocks eased in June (contributing 2.5 points).

The accounting contribution of foreign trade to change in GDP depends on exports and imports

In H1 2020, in the main European economies, with the exception of the United Kingdom, imports fell less sharply than exports (Table). This smaller drop in imports compared to exports is reversed if we look at the change in the trade balance in China. After falling in H1 (–6.4% in accordance with the national accounts and adjusted for the seasonal effects of the Chinese New Year), Chinese exports in fact rebounded strongly in Q2 (+8.3%), driven mainly by world demand for electronic products and medical equipment, whereas Chinese imports remained in decline (–2.3% in Q1 then –1.7% in Q2).

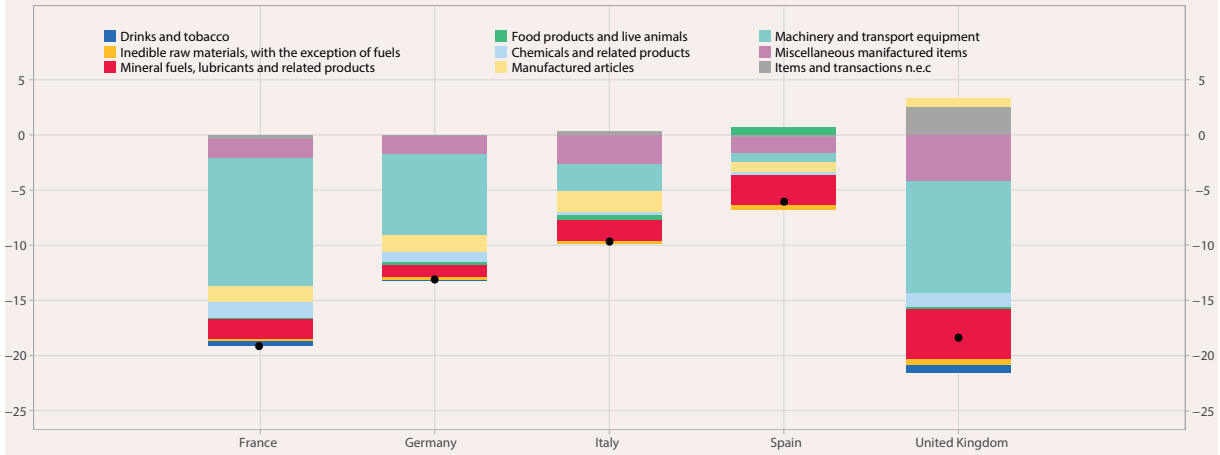
All in all, the contribution of foreign trade to the change in GDP in European countries appears to be fairly modest compared to the decline in activity, bringing it down by –2.6 points for France (for a cumulated decline in GDP of –18.9% compared to the average for 2019), by –3.7 points for Germany (for a decline in GDP of 11.5%) or, on the contrary, making a positive contribution for the United Kingdom of 4.3 points (for a decline in GDP of 21.6%). In France, in particular, and compared with its neighbours in the Eurozone, foreign trade contributed less, relatively speaking, to the decline in GDP: its contribution counted for 0.3 points less than in Italy, 0.6 points less than in Spain and 1.1 points less than in Germany. In order to better understand these differences, there are three distinct factors to consider:

• the openness rate: this reflects a country's degree of interaction with world trade; an economy's openness rate (half-sum of its exports and imports as a ratio to GDP) can be seen as a factor of scale for its foreign trade (all things otherwise equal, in a country that is more open, its exports and imports will affect GDP more). It thus determines the scale of the contribution of foreign trade to the change in GDP. For example, in a context where foreign trade collapses and where exports decline even further than imports, the contribution of foreign trade is driven by the decline in exports, in proportion to their weight in the GDP, or in other words in proportion to the openness rate;

• the relative weight of exports to imports: at a given openness rate and to return to the previous example of a context of a collapse in foreign trade, in a country where exports have more effect than imports, the contribution from its foreign trade will also affect GDP more;

3 - Exports of goods in June by types of goods

deviation from 2019 average in %, SA data in value



Source: Eurostat for France, Germany, Italy and Spain, ONS for United Kingdom

• specific change in foreign trade: for a given openness rate and relative weight of exports to imports, the contribution of foreign trade to change in GDP also depends on specific changes in foreign trade.

Taking France as a point of comparison, we can then asses in accounting terms the role of these three factors in the difference between the contribution of foreign trade for each country and that of France (*Box*). First, the differences in openness rate played a relatively small role, except in relation to Germany. In fact, France is overall just as open as its European neighbours, apart from Germany where the openness rate is significantly higher (44% of GDP in 2019, against 32% for France). This greater openness in Germany increased the weight of the contribution of its foreign trade in Q2, increasing the difference between it and France by 1.0 point.

In addition, the differences in the relative weight of exports to imports led to increased contributions from the foreign trade of other countries compared to that of France. In fact the weight of exports in France is less than that of imports (32% and 33% of GDP respectively in 2019), unlike the other countries of the Eurozone (exports and imports accounted for 47% and 40% of GDP respectively in 2019 for Germany, 32% and 28% of GDP for Italy, and 35% and 30% of GDP for Spain).

Lastly, the specific change in foreign trade also played a role, but in the opposite direction: in France, exports declined significantly more than imports, more so than in the other countries, and, all other things being equal, this added to the contribution of its foreign trade to the change in GDP in Q2. With regard to the United Kingdom in particular, where exports declined significantly less than imports, specific changes in foreign trade account for most of the difference in the foreign trade contribution. However, in other countries, this factor was not such as to make up for the weight of the previous factors and, all in all, their foreign trade affected the decline of GDP more than in France. ■

Change in GDP and foreign trade in Q2 2020

compared to average 2019 level (in %) and contribution of foreign trade to change in GDP by volume (in GDP points)

	France	Germany	Italy	Spain	United Kingdom
Change in Q2 2020, compared to average 2019 level (in %):					
GDP	–18.9	–11.5	–17.9	–22.1	–21.9
Imports	–21.3	–17.5	–26	–33.6	–31.9
Exports	–30.3	–22.9	–32.3	–38.3	–18.9
Foreign trade contribution (GDP pts)	**–2.6**	**–3.7**	**–2.9**	**–3.3**	**3.6**
Difference from France (GDP pts)	**0.0**	**–1.1**	**–0.3**	**–0.7**	**6.2**
of which contribution					
of differences in openness rate		*–1*	*0.2*	*0*	*–0.2*
of differences in relative weight between exports and imports		*–1.2*	*–1.5*	*–2*	*–0.7*
of differences in changes in foreign trade		*1.1*	*0.9*	*1.4*	*7.1*

How to read it: in Q2 2020, GDP declined by 18.9% in France compared to its average quarterly level in 2019. Foreign trade accounted for –2.6 points of this decline, or 1.1 points less than in Germany. 1.0 point of this variation can be explained by the difference in openness rate between Germany and France.
Source: national statistical institutes

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Contribution of foreign trade to change in GDP and accounting breakdown of the difference in relation to France

Let X (or M) represent the amount of exports (or imports) and x (or m) their weight in the GDP of a given country, Y, in 2019 and g_Y, g_X and g_M their change in Q2 2020, compared to the average quarterly level in 2019, the contribution of foreign trade to g_Y can be written:

$$C = x\, g_X - m\, g_M$$

We then assume:

α the rate of openness: $\alpha = (x + m)/2$

β the degree of imbalance between exports and imports: $\beta = (x - m) / (2\,\alpha)$

The contribution of foreign trade C is then rewritten:

$$C = \alpha\,(g_X - g_M + \beta\,(g_X + g_M))$$

In order to compare this economy with that of another reference country designated by index 0, the difference between C and C_0 can be broken down in accounting terms into a sum of three terms:

$$\begin{aligned} C - C_0 &= \alpha\,(g_X - g_M + \beta\,(g_X + g_M)) - \alpha_0\,(g_{X0} - g_{M0} + \beta_0\,(g_{X0} + g_{M0})) \\ &= (g_X - g_M + \beta\,(g_X + g_M))\,\Delta\alpha + \alpha_0\,(g_X + g_M)\,\Delta\beta + \alpha_0\,\Delta(g_X - g_M) + \alpha_0\,\beta_0\,\Delta(g_X + g_M) \end{aligned}$$

where $\Delta\alpha = \alpha - \alpha_0$ and similarly for $\Delta\beta$, $\Delta(g_X - g_M)$ et $\Delta(g_X + g_M)$

Thus, the term in **red** designates the way in which the differences in openness rates affect the gap between C and C_0; the term in **blue** refers to the way in which the differences in relative weights of exports and imports affect this gap and the term in **green** refers to the way in which specific changes in foreign trade also affect the gap between C and C_0. ■

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