

Economic Note

Spain | Vulnerabilities in value chains due to COVID-19

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Key points:

- Global measures to limit the spread of COVID-19 could lead to disruptions in supply chains, resulting in a sluggish recovery.
- Spanish companies could face a shortage of imported inputs necessary for their activity, with the manufacturing industry and, therefore, the export of goods, being the segments of supply and demand that could be most affected given their high dependency on foreign intermediate goods.
- Within the manufacturing sector, the automotive, chemical, pharmaceutical and textile subsectors could be the most vulnerable, because of the complex links in their value chains.
- In some sectors, spending cuts will be sufficient to generate an accumulation of inventories, which will satisfy demand when it is restored. In other sectors, increases in the prices of scarce goods or their replacement by similar products could be observed, which will reduce the overall welfare.

Introduction

The economic damage caused by the measures taken to stop the spread of COVID-19 is growing. Globally, a recession is considered to be inevitable. For example, [BBVA Research estimates](#) that in Spain, the percentage of capacity utilization has fallen by as much as 40% compared to the figures for the first half of March. Some sectors, particularly those most affected by social distancing rules, [have reported a decrease in expenditure between 60 and 100%](#).

The economic measures implemented will be key to ensure a strong recovery. The policies announced are quite similar across countries and have focused mainly on protecting the health of the population and facilitating the transition of businesses and workers through an environment where the drop in income could be temporary. By maintaining people's income and incentivizing the use of instruments that sustain employment, the recovery in spending and production could be significant once the health emergency is over. For Spain, BBVA Research estimates that GDP growth could reach a quarterly average of 7.8% in the second half of this year.

Most affected sectors and vulnerabilities

A lack of production and consumption inputs could restrict the economic recovery. The decrease in capacity utilization has been widespread worldwide. However, the time span of this disruption will depend on the spread of the epidemic in each country and the results of the measures adopted to combat it. Given the different quarantine periods across economies, disruptions in value chains could continue over time and affect different goods, making it difficult to return to normal production. Likewise, consumers could face shortages in some manufacturing markets, which could lead to price hikes or the replacement of such products by others of similar but different quality. Therefore, in the

absence of an accumulation of inventories that could cover the most immediate needs of businesses and the population, bottlenecks may be seen in some production processes or markets.

A part from the supply restrictions being observed, there should be added the possibility of an increase in international trade barriers. In addition to the limitation of activity by confinement measures, the flow of goods and services could potentially be reduced as a result of more restrictive border controls, increased tariffs or by the direct bans of the export of certain goods that are considered necessary to deal with the health emergency.

Limitations on recovery will be greater in those industries that are more dependent on imported inputs. In Spain, the manufacturing sector is the most dependent on imported intermediate goods, with 23% of its total production (see Figure 1). Others, such as the energy sector, also depend on the purchase of goods abroad, but the current oversupply situation in the oil market ensures that there will be no supply problems in the coming months. The relative importance of imports for the provision of health services or information and communications, especially during the current emergency, should also be highlighted.

Within the manufacturing industry, **the automotive, textile, pharmaceutical and chemical industries may experience more restricted recoveries because of the complex links in their value chains.** Analyzing the subsectors of the manufacturing industry reveals the high dependency on foreign materials in the manufacture of coke and in oil refining (69% of the sector's output), as well as the manufacture of motor vehicles (41% of the sector's output). In addition, in other industries such as those producing metal, textile and chemical products, the import content of their production exceeds 24% (see Figure 2).

By country, the economies that export more inputs to Spain are France, Germany, Italy and China, with a weight in total manufacturing imports of 13%, 12%, 7% and 4%, respectively. Examining which manufacturing subsectors are the most dependent on the intermediate goods of each of these countries, it is evident that the most affected are: the automotive sector, which imports many of its components from France and Germany, and the textile subsector, which depends on imports from Italy and China (see Figures 4, 5, 6 and 7).

Given the severe impact of COVID-19 on these economies, **it cannot be ruled out that the supply of inputs will be altered** and, therefore, will negatively affect companies that depend on these goods for their production process. However, it should be noted that the effect may be heterogeneous. While in Germany restrictions have been less severe and China seems to have controlled the epidemic, in France or Italy the impact on economic activity could be greater (see Figure 8).

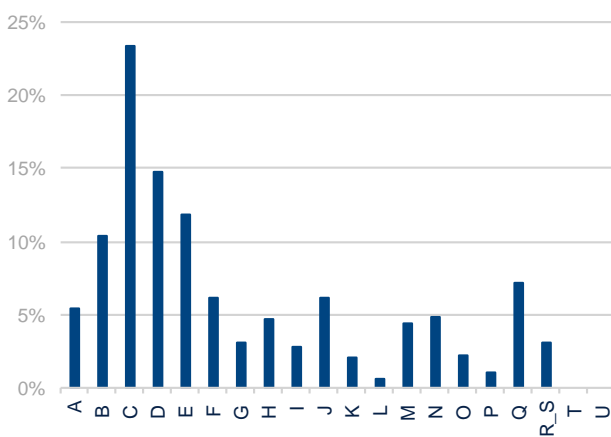
The divergence in the speed of exit by country can condition the strength of the recovery of Spanish exports. In this respect, the main destinations of Spanish exports, in order of importance, are France, Germany, Italy, Portugal and the United Kingdom (see Figure 3). All of these countries have implemented measures restricting freedom of movement to combat COVID-19 in March, at a high economic cost¹. However, the severity of containment measures has differed by country, being more severe in Italy, France and Portugal and more lax in Germany and the United Kingdom (see Figure 8). Therefore, it is possible that the restoration of exports in some of the Spanish markets could vary in time and capacity, as the restrictions are lifted.

¹: The dates on which measures were first adopted were: Italy (March 9), France (March 17), Portugal (March 18), Germany (March 22) and the United Kingdom (March 23).

Conclusion

The disruption of value chains may be one of the factors slowing down the recovery of the Spanish economy in the coming months. In this regard, the severity of restrictions applied in other countries and their duration could impose limits on the intensity of the exit. The manufacturing sector would be the most exposed and the dependence on inputs from France and Italy poses a risk to certain parts of the industry. Although the fall in demand could make accumulated inventories sufficient to meet short-term needs, especially in some manufacturing sectors related to the consumption of durable goods, future tensions in value chains cannot be ruled out.

Figure 1. **SPAIN: WEIGHT OF IMPORTED INPUTS IN TOTAL OUTPUT, BY SECTOR (%)**

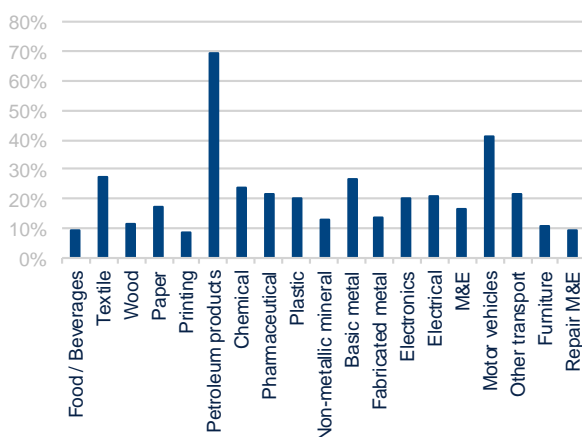


Sectors according to NACE classification

A	Agriculture, forestry and fishing
B	Mining and quarrying
C	Manufacturing industry
D	Electricity, gas, steam and air conditioning supply
E	Water supply; sewerage, waste management and remediation activities
F	Construction
G	Wholesale and retail trade
H	Transport and storage
I	Accommodation and food services
J	Information and communication
K	Financial and insurance activities
L	Real estate activities
M	Professional, scientific and technical activities
N	Administrative activities and support services
O	Public administration and defence
P	Education
Q	Human Health and Social Work Activities
R_S	Other service activities
T	Activities of households as employers
U	Activities of extraterritorial organizations and bodies

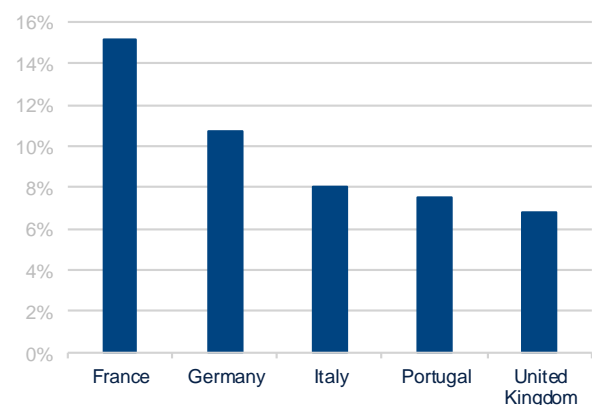
Source: BBVA Research based on [OECD global input-output tables](#).

Figure 2. **SPAIN: WEIGHT OF IMPORTED INPUTS IN TOTAL OUTPUT, MANUFACTURING SECTOR (%)**



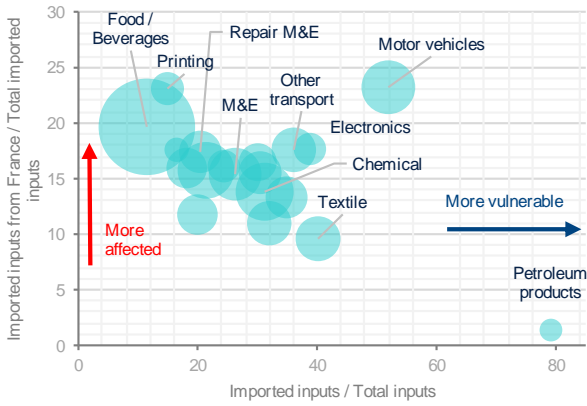
Source: BBVA Research based on [OECD global input-output tables](#).

Figure 3. **SPAIN: MAIN EXPORT DESTINATIONS (% OF TOTAL, 2019)**



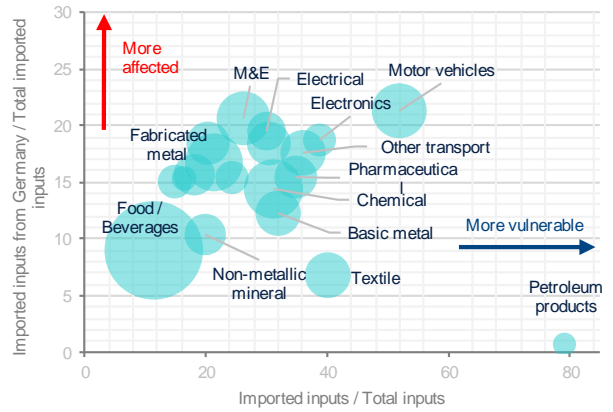
Source: BBVA Research based on MINECO (Ministry of Economy and Competitiveness) data

Figure 4. **SPAIN: DEPENDENCE ON INPUTS FROM FRANCE*** (% , 2014)



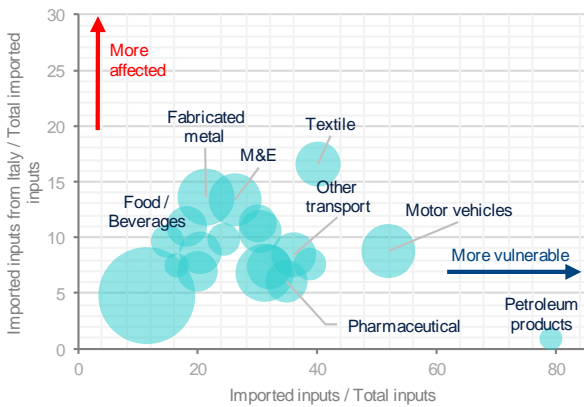
(*) The size of the bubble is the sector's GVA divided by the total GVA. Source: BBVA Research based on [OECD global input-output tables](#).

Figure 5. **SPAIN: DEPENDENCE ON INPUTS FROM GERMANY*** (% , 2014)



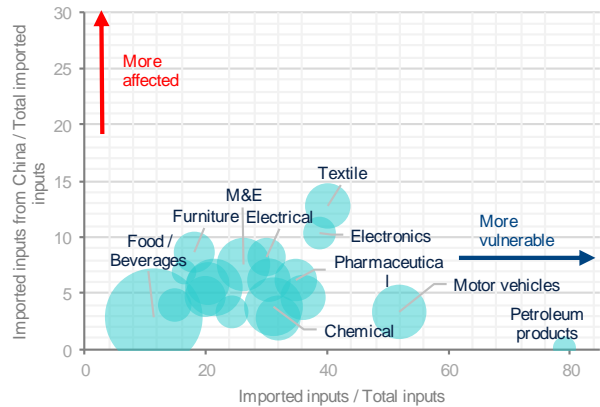
(*) The size of the bubble is the sector's GVA divided by the total GVA. Source: BBVA Research based on [OECD global input-output tables](#).

Figure 6. **SPAIN: DEPENDENCE ON INPUTS FROM ITALY*** (% , 2014)



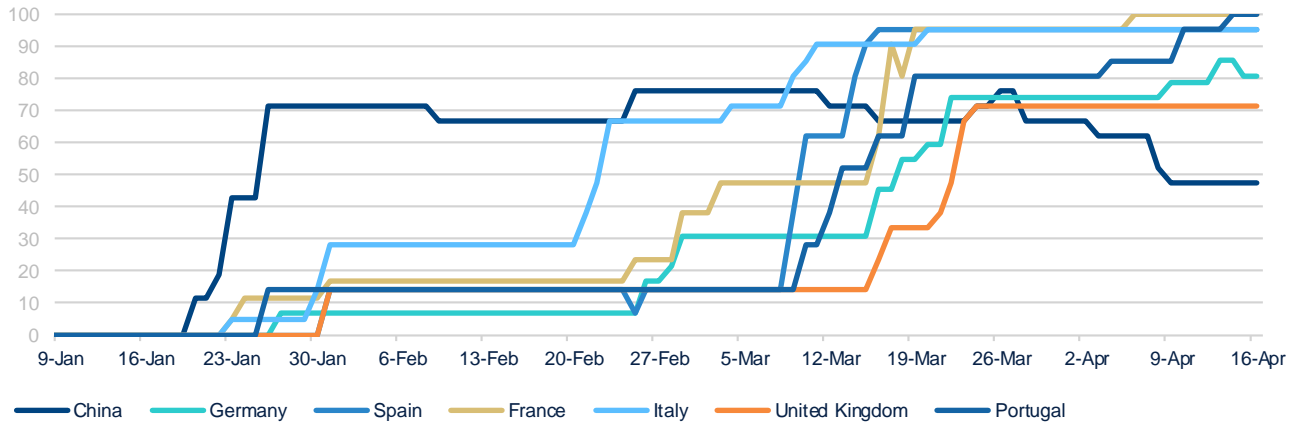
(*) The size of the bubble is the sector's GVA divided by the total GVA. Source: BBVA Research based on [OECD global input-output tables](#).

Figure 7. **SPAIN: DEPENDENCE ON INPUTS FROM CHINA*** (% , 2014)



(*) The size of the bubble is the sector's GVA divided by the total GVA. Source: BBVA Research based on [OECD global input-output tables](#).

Figure 8. **STRINGENCY INDEX, GOVERNMENT RESPONSE***
(VALUE FROM 0 TO 100; 100 = STRICTEST RESPONSE)



(*) Index evaluating the severity of confinement measures implemented by each country to address COVID-19. This index is based on various indicators, such as school and workplace closures, travel bans and more.
Source: BBVA Research based on the [Oxford COVID-19 Government Response Tracker](#).

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