Agrifood

Sector Report

2nd Semester 2022

The sector is suffering the consequences of the war in Ukraine

The war in Ukraine is affecting trends in the agrifood sector

Spain's agricultural sector and its dependence on international agricultural commodity markets

Citrus fruits: a leading sector despite the complicated context

CaixaBank Research

Sector Report
Agrifood Second Semester 2022

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Summary

2nd Semester 2022

«Agriculture is the art that teaches man virtue and the basis of all nations' wealth.»

GASPAR MELCHOR DE JOVELLANOS

Agrifood

THE IMPACT OF THE WAR IN UKRAINE ON SPAIN'S AGRIFOOD SECTOR

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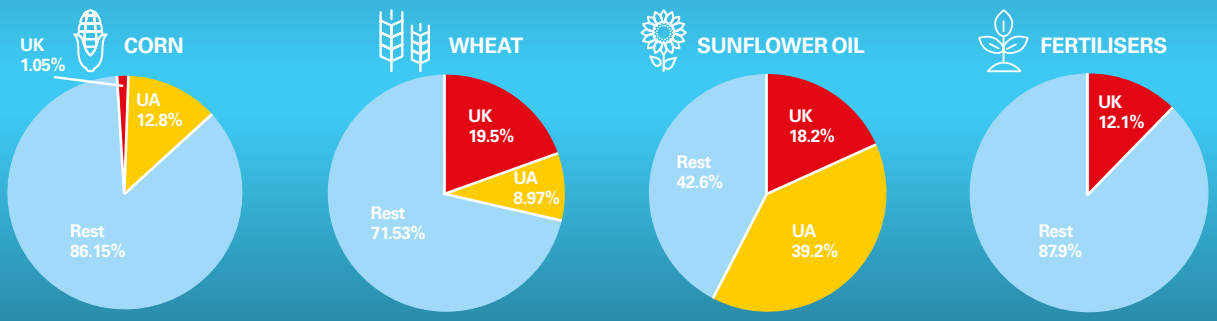
Russia and Ukraine are major global exporters of agricultural commodities



The risk of shortages seems contained but production costs have risen sharply

Intermediate costs for Spain's agricultural sector	Change 2021 (%)	Change Jan-Apr 2022 (%)
Fertilisers	11.9	93.9
Energy	34.6	87.6
Feed	16.1	27.4
Total intermediate consumption	**13.0**	**33.5**

Rising production costs are being passed on to the food prices paid by end consumers, altering food consumption patterns in and outside the home

International markets → **EUROPEAN UNION:** Single Market (CAP) → **SPAIN:** Prices paid to farmers → **SPAIN:** Prices paid by the end consumer (CPI)

The positive trend continues for Spain's agrifood exports and competitiveness indicators do not seem to have worsened

Agrifood exports
+14.1%
year-on-year cumulative January-June 2022

61.2
billion euros
(12-month cumulative)

Agrifood trade surplus
+1.2%
of GDP

Executive summary

The agrifood sector is suffering the consequences of the war in Ukraine

Russia and Ukraine are among the world's leading producers of agricultural commodities. Both countries are the largest global exporters of cereals (wheat, corn and barley), vegetable oils (sunflower oil) and fertilisers (in the case of Russia). It is therefore not surprising that Russia's invasion of Ukraine has had a very significant effect on international markets for these commodities, triggering much concern about the risk of a global food crisis.

Spain's agrifood sector is also being severely affected by the consequences of the conflict, both by rising prices for energy and agricultural commodities and also because there is a risk of shortages occurring among these inputs that are so essential for agrifood production. On balance, Spanish agriculture does not seem to be imminently at risk of shortages; the main impact is due to the sharp rise in production costs, already clearly affecting activity in the primary sector (whose gross value added fell by 2.6% year-on-year in the first half of 2022). In contrast, production in the agrifood industry is performing relatively well for the time being.

However, rising production costs are affecting all the links in the food chain (production, processing, distribution and transport) and are being passed on to the food prices paid by end consumers, pushing up spending on food, especially among lower-income households. The most positive aspect continues to be the trend in agrifood exports, which are still growing strongly in 2022. Moreover, competitiveness indicators do not seem to have worsened despite the price hikes. It is also important to note that the war in Ukraine has once again demonstrated that the food supply chain is able to respond admirably in order to secure food supplies in times of crisis.

The sector's short-term outlook is conditioned by uncertainties stemming from the war in Ukraine, inflationary pressures and weather conditions (drought). However, more recent developments (agreements to release some of the grain currently retained in the Black Sea and good harvests in other producing countries) have reduced the risks of a global food crisis and should help to curb pressures on retail food prices. On the other hand, the latest surge in energy prices, especially gas, will act as a counterweight.

In this Report, we focus on the citrus fruit sector, one of the most important in Spain's agrifood system and a leading player in international export markets. This traditionally atomised sector, with the consequent difficulties in terms of modernisation, needs to tackle some important challenges. In particular, it faces strong competition from third countries at a time of sharply rising production costs, accentuated by the prolonged drought and the war in Ukraine. In any case, according to the international trade figures, Spain's citrus agriculture continues to be the most competitive in the world.

Situation and outlook

The war in Ukraine is affecting trends in the agrifood sector

Rising production costs as a result of the war in Ukraine are affecting all the links in the food chain: production, processing, distribution and transport, although the primary sector has been particularly hard hit, also adversely affected by unfavourable weather conditions in the form of drought. Rising costs are being passed on to the food prices paid by end consumers, pushing up spending on food, particularly among lower-income households. The most positive note comes from the external sector: agrifood exports have continued to grow strongly in 2022 and competitiveness indicators do not seem to have worsened in spite of the price hikes.

The primary sector is suffering from an unfavourable environment for agriculture

The first half of 2022 produced poor figures for Spain's primary sector: gross value added (GVA) fell sharply (–2.6% year-on-year in real terms) due to adverse weather conditions (drought) and the sharp rise in production costs (energy, fertilisers and animal feed). This performance contrasts with that of the Spanish economy as a whole, which saw very strong growth during the first half of the year (6.3% year-on-year), thanks to the boost from private consumption and international tourism, both helped by the end of restrictions associated with the pandemic. As a result, the primary sector has lost share in the economy, falling from 2.8% of total GVA in 2021 to 2.1% in Q2 2022.

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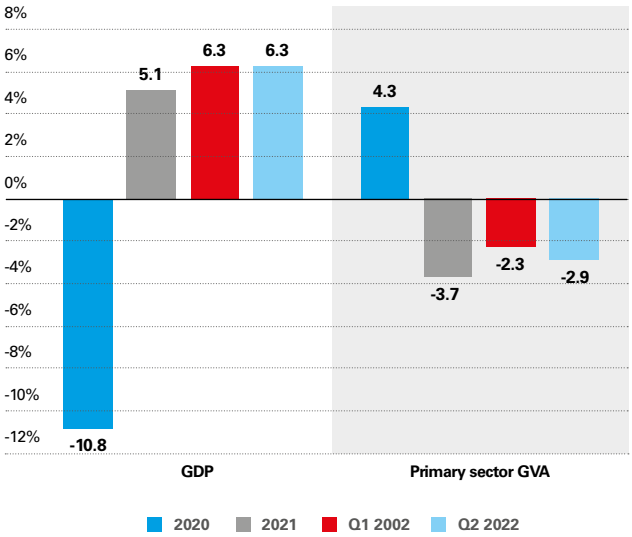
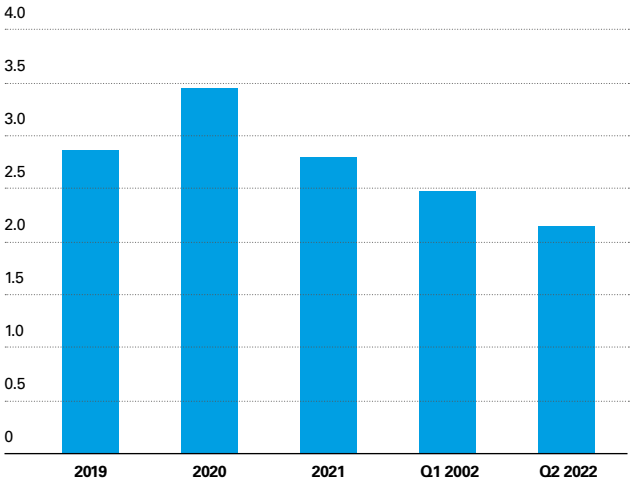
The primary sector is losing share in the economy

Year-on-year change (%)



Share of the primary sector

(% of total GVA)



Note: Data in real terms.
Source: CaixaBank Research, based on data from the National Statistics Institute.

In fact, a lack of rain has led to prolonged drought in much of Spain: water reserves were at 39% of their capacity at the beginning of August (the lowest since 1995) while surface soil moisture levels were also low in most of the country.[1] These conditions have reduced crop yields, such as cereals whose volume fell by 5.8% in the 2021-2022 season, representing 4.1 tonnes per hectare on average compared with 4.3 tonnes per hectare the previous season, according to estimates by Spain's Ministry of Agriculture, Fisheries and Food.[2]

The outlook for the agrifood sector remains highly dependent on developments in the war in Ukraine and the energy crisis

In addition, the war in Ukraine has pushed up input prices for the primary sector, a trend that had already started in 2021 but has intensified since the outbreak of the conflict. Specifically, **primary sector production costs soared by 33% year-on-year in the first four months of the year,** having already risen by 13% in 2021. Apart from the sharp rise in energy costs (88% year-on-year between January and April 2022), there has also been a significant increase in the price of fertilisers (94%), an input of which Spain is a net importer. However, the component contributing the most to the primary sector's rising costs (see the

(1) Although the prolonged drought improved significantly in March following heavy rains, May and June were again very dry. See the «Boletín mensual de estadística» from Spain's Ministry of Agriculture, Fisheries and Food (July 2022).

(2) «Evolución de los balances de cereales en España, Campañas 2020/2021 y 2021/2022», Ministry of Agriculture, Fisheries and Food (July 2022).

table below) is feed, due to its large share in the overall cost structure, namely 53.8% of the total in 2021. Spain also imports approximately half the cereal destined for animal feed, a percentage that rises to 82% in the case of corn (which comes mainly from Ukraine),[3] so Spanish farming is suffering from the fluctuations in cereal prices on international markets, an aspect we analyse in more detail in the next article of this Report.

③ **39% of Spain's corn imports came from Ukraine in 2020.**

Nevertheless, it is important to note that the **prices of the main agricultural commodities quoted on international markets have fallen recently from the record highs seen in the first few weeks of the war,** with futures markets pointing to a somewhat more stable trend at levels similar to those prior to the outbreak of the war. We can therefore be cautiously optimistic about the outlook for the trend in costs borne by the sector.

Sharp rise in primary sector costs

	2020		2021		Change 2021 (%)	Price change Jan-Apr 2022 (%)
	Value	Share (%)	Value	Share (%)		
Feed	12,451	52.4	14,461	53.8	16.1	27.4
Energy	1,693	7.1	2,278	8.5	34.6	**87.6**
Fertilisers	1,763	7.4	1,974	7.3	11.9	**93.9**
Phytosanitary products	1,284	5.4	1,334	5.0	4.0	18.3
Seeds and seedlings	1,199	5.0	1,216	4.5	1.5	3.1
Other (veterinary, maintenance, etc.)	5,385	22.7	5,612	20.9	4.2	16.2
Total intermediate consumption	**23,774**	**100.0**	**26,875**	**100.0**	**13.0**	**33.5**

Notes: Intermediate consumption data from the Cuentas Económicas de la Agricultura. The change in prices between January and April 2022 comes from the statistics on prices paid by farmers.
Source: CaixaBank Research, based on data from the Ministry of Agriculture, Fisheries and Food.

The government has approved various support measures to help the sector cope with rising production costs. In March, **the first action plan to deal with the situation resulting from the war in Ukraine** included 430 million euros for the sector, while a further 72 million euros were included in June's decree extending these action plans.[4] The sector is also starting to benefit from projects financed by the NGEU funds (e.g. the second tranche of disbursements to modernise irrigation has been launched). Moreover, the Strategic Project for Recovery and Economic Transformation (PERTE in Spanish) for the agrifood sector is now being implemented, with a budget that has been increased to 1.8 billion euros. This focuses on three priority areas: transforming the industrial value chain, digitalising the sector and boosting scientific research.

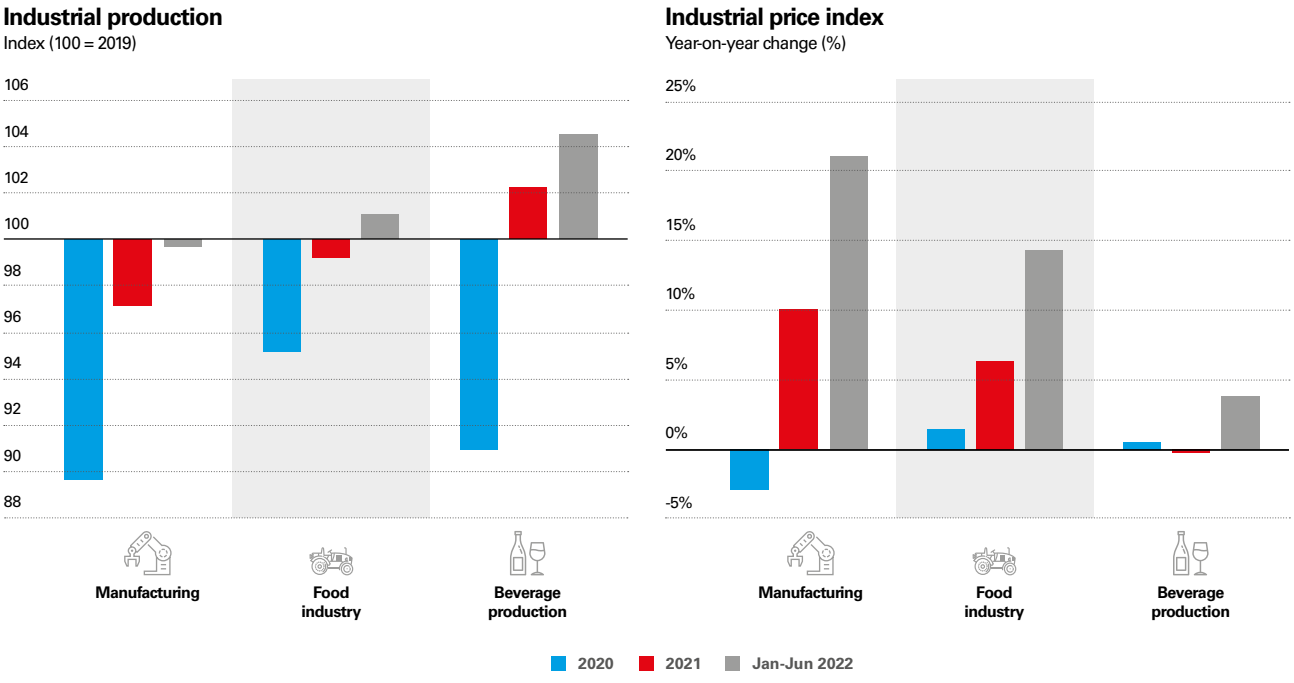
④ **Measures have also been approved to tackle the drought, amounting to around 450 million euros. See the Spanish government's press release «Rendición de cuentas en el primer semestre del año».**

Production in the agrifood industry is resilient

The food industry saw an upward trend in the first part of 2022, with industrial production growing by 3.4% (cumulative year-on-year change between January and June, in real terms) and turnover by 17.7% (nominal value). Beverage production recovered rapidly in 2021, thanks to the post-pandemic reopening of the hospitality channel (hotels, restaurants and cafeterias), a positive trend that has continued in 2022. **The rise in producer prices is also less severe for beverage production than for the food industry**. Specifically, the producer price index for beverage production increased by 3.8% year-on-year in the cumulative period between January and June 2022, compared with a rise of 14.3% in the food industry and a significant increase of 21.1% for manufacturing as a whole. Particularly relevant in the food industry were the higher producer prices for milled products (32.0%), animal feed (28.8%) and oils and fats (27.6%), these being more directly affected by the global rise in the price of cereals and vegetable oils.

The agrifood industry has recovered from the impact of the pandemic and its trend is positive, for the moment

Agrifood industry: production and prices on the rise



Note: Production figures by volume (real).
Source: CaixaBank Research, based on data from the National Statistics Institute.

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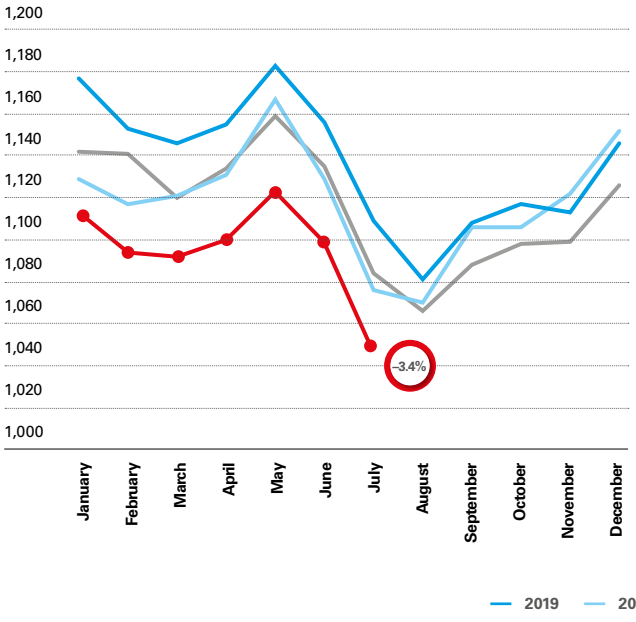
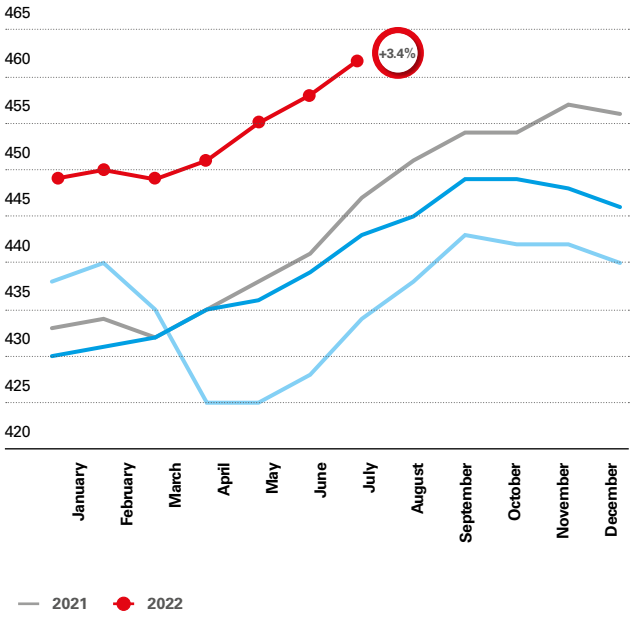
Employment reflects the dynamics of activity in each sector: more favourable in the food industry and less so in the primary sector

The agrifood industry's labour market saw a favourable trend thanks to the good performance by the food and beverage production branches: the number of workers registered with Social Security rose to 462,000 in July, around 15,000 more than a year ago. In contrast, registered workers in the primary sector fell by 3.4% year-on-year in July 2022 with 37,000 fewer than a year ago, in keeping with the greater difficulties faced by the sector. One very positive aspect is the reduction in the temporary employment rate: in Q2 2022, 45.3% of agricultural employees were on a temporary contract, 8.3 pp less than a year earlier, as a result of the labour reform that came into force in March. However, it is still too early to make a complete assessment of the reform's impact on a sector that is so seasonal in nature.

Primary sector registered workers
(Thousands)



Agrifood industry registered workers
(Thousands)



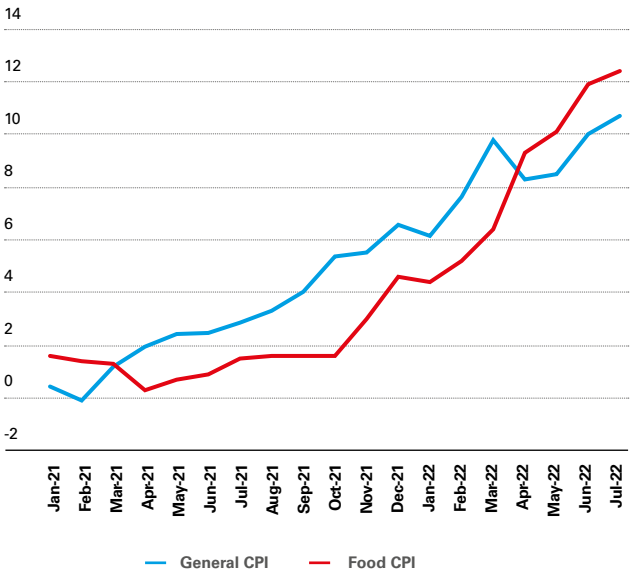
Source: CaixaBank Research, based on data from Spain's Ministry of Labour, Migration and Social Security (MITRAMISS).

Spending on food is rising due to higher prices

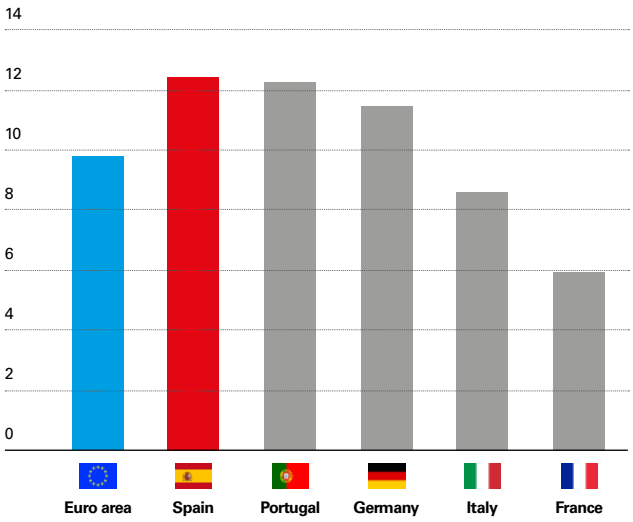
Rising costs in all links of the food chain, including transport and distribution, have been passed on to the food prices paid by the end consumer. In July, the CPI for food rose by 12.4% year-on-year (11.9% for processed food and 13.4% for unprocessed food), contributing 3.3 pp to general inflation (10.8% in July). Nevertheless, it is important to remember that the shock causing this rise is external, exogenous and shared by the countries around us. It is also occurring in the euro area as a whole (+9.8% year-on-year in July) and to a greater or lesser extent in the different countries (+11.5% in Germany, +12.2% in Portugal, +8.6% in Italy and +6.0% in France). The outlook is for food inflation to remain high for a few more months, given the time lag with which price shocks are usually passed down the food

chain. However, in the absence of further shocks, inflationary pressures are expected to ease thanks to the recent containment of agricultural commodity prices on international markets and transport costs (linked to oil prices). The next article in this *Sector Report* discusses this issue in more detail.

Spain: general CPI and food
Year-on-year change (%)



Food CPI
Year-on-year change in July 2022 (%)



Source: CaixaBank Research, based on data from the National Statistics Institute and Eurostat.

Rising food prices are affecting the amount of food consumed by households. According to the retail sales index produced by Spain's Statistics Institute, food sales grew by 6.2% year-on-year in the first half of 2022 at current prices (i.e. nominal expenditure on food has increased) but fell by 1.4% at constant prices (i.e. the quantity consumed has altered). The indicator of CaixaBank Research's Consumption Monitor, based on card payments in supermarkets and food establishments (nominal expenditure), shows that between the end of February and the beginning of March there was an increase in stockpiling purchases due to fears of possible shortages. Since then, and up to July, food expenditure would have grown by 11.6% year-on-year on average compared to an increase of 4.6% year-on-year in January and February, before the outbreak of the war.

Spending via Spanish cards in supermarkets and large food stores has increased after the outbreak of the war in Ukraine

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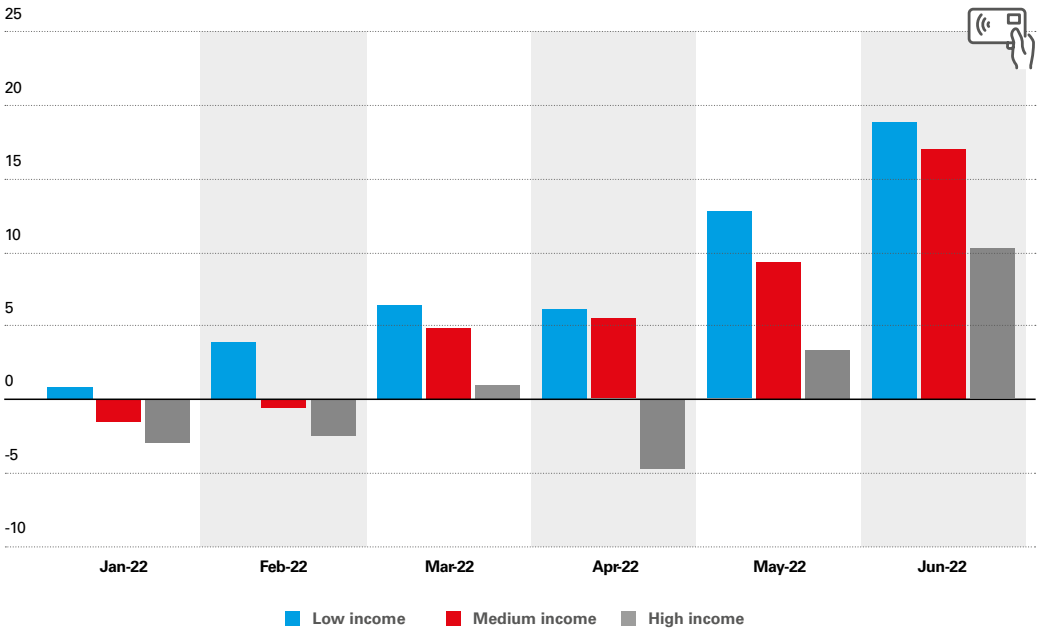
CaixaBank's internal data enable us to analyse the trend in food expenditure according to household income level. The following chart shows that **low-income households have increased their spending on food the most in the past few months,** a result that could be explained by the fact that, in the foods that make up the typical shopping basket for low-income households, a larger proportion have undergone more significant price increases.

Actually, one would expect that food consumption both inside and outside the home would readjust and that retail purchases would increase to offset lower expenditure on hospitality. For the time being, however, and in general terms, spending on hospitality continues to perform very well in nominal terms (+59% in July compared with the same month in 2019)[5] thanks to the excellent tourist season, although these figures could moderate over the coming months.

⑤ **These figures, in nominal terms, are affected by card payments replacing cash payments.**

Card expenditure on food by household income

Year-on-year change (%)



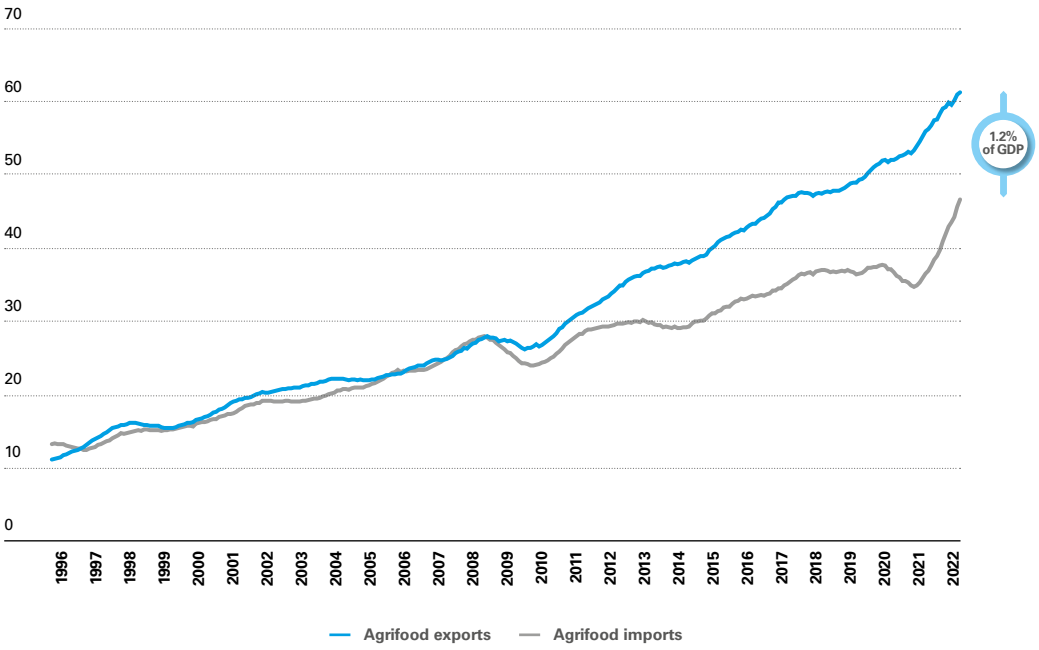
Notes: Total card expenditure in supermarkets and large food stores. Low income: below 1,000 euros/month; medium income: between 1,000 and 2,000 euros/month; high income: above 2,000 euros/month.
Source: CaixaBank Research, based on internal data.

Spanish agrifood exports continue to grow, supported by the sector's high competitiveness

So far this year, Spanish agrifood exports have continued to perform excellently, posting growth of 14.1% year-on-year in the cumulative period from January to June 2022, totalling 61,223 million euros (cumulative over 12 months). For their part, agrifood imports accelerated their rate of growth (30.2% year-on-year between January and June), bringing the external surplus of agrifood goods to 1.2% of GDP (compared with 1.5% in 2021).

Agrifood exports continue to grow but a surge by imports has reduced the trade surplus

Billions of euros



Source: CaixaBank Research, based on data from DataComex.

Exports of all product groups increased in the first half of 2022 in nominal terms, although meat exports barely grew (0.1% year-on-year) due to a significant decline in pork exports to China.[6] More positively, exports of fats and oils (olive oil, sunflower oil), vegetables (peppers, aubergines, tomatoes, cucumbers, etc.), molluscs and fresh fish, food preparations, juices and beef have all increased. Part of this good performance can be put down to the rise in export prices since, in terms of volume, exports of some product groups actually declined in the first half of the year (fruit, meat, pulses and vegetables, beverages, dairy products, etc.). See the last column of the table below.

Notable increase in exports of fats and oils, pulses and vegetables, molluscs and fresh fish, food preparations, juices and beef

⑥ Spanish pork exports to China increased sevenfold between May 2019 and May 2021, following the extraordinary growth in Chinese demand when its domestic production was severely hindered by African swine fever. However, in the last year up to June 2022, pork exports to China fell by 70%, although a large part of these exports have since been redirected to other markets.

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Agrifood exports by product group

TARIC	Product group	Exports in 2021 (million euros)	Share in 2021 (%)	Change January-June 2022 (nominal)	Change January-June 2022 (volume)
08	FRUIT AND NUTS	10,162	17.2%	0.7%	-5.6%
02	MEAT AND EDIBLE MEAT OFFAL	8,819	14.9%	0.1%	-6.1%
07	LEGUMINOUS AND OTHER VEGETABLES	7,461	12.6%	9.0%	-4.3%
15	ANIMAL OR VEGETABLE FATS AND OIL	5,359	9.1%	42.8%	6.0%
22	BEVERAGES ALL KINDS (EXCL. JUICES)	4,964	8.4%	11.9%	-4.0%
03	FISH, CRUSTACEANS, MOLLUSCS	3,480	5.9%	32.1%	4.9%
20	PREPARATIONS OF VEGETABLES, FRUIT; JUICES	3,319	5.6%	16.5%	3.1%
19	PREPARATIONS OF CEREALS, PASTRYCOOKS' PRODUCTS AND BAKERS' WARES	2,101	3.6%	14.4%	5.1%
21	MISCELLANEOUS EDIBLE PREPARATIONS	2,025	3.4%	28.4%	4.9%
16	PREPARATIONS OF MEAT OR FISH	1,921	3.2%	15.3%	3.9%
04	DAIRY PRODUCE; BIRD'S EGGS	1,720	2.9%	21.6%	-5.9%
23	RESIDUES AND WASTE FROM THE FOOD INDUSTRY	1,475	2.5%	20.6%	-1.7%
12	SEEDS AND OLEAGINOUS FRUITS, INDUSTRIAL PLANTS	950	1.6%	6.7%	-5.0%
18	COCOA AND COCOA PREPARATIONS	744	1.3%	22.8%	7.5%
17	SUGARS; SUGAR CONFECTIONERY	713	1.2%	31.0%	2.5%
09	COFFEE, TEA, MATÉ AND SPICES	674	1.1%	20.2%	18.7%
01	LIVE ANIMALS	668	1.1%	22.6%	4.1%
13	VEGETABLE SAPS AND EXTRACTS	609	1.0%	59.2%	10.7%
06	LIVE PLANTS; CUT FLOWERS AND ORNAMENTAL FOLIAGE	561	0.9%	8.6%	2.7%
10	CEREALS	451	0.8%	64.1%	7.7%
05	OTHER PRODUCTS OF ANIMAL ORIGIN	380	0.6%	17.7%	8.2%
11	PRODUCTS OF THE MILLING INDUSTRY	339	0.6%	26.3%	-10.1%
24	TOBACCO AND TOBACCO SUBSTITUTES	233	0.4%	18.1%	-2.2%
14	VEGETABLE PLAITING MATERIALS	13	0.0%	54.3%	10.9%
	TOTAL AGRIFOOD EXPORTS	**59,141**	**100%**	**14.1%**	**-2.0%**

Note: The share is the value of agrifood exports of each product group out of all Spanish agrifood exports. Variation between January and June 2022 compared with the same period the previous year.
Source: CaixaBank Research, based on data from DataComex.

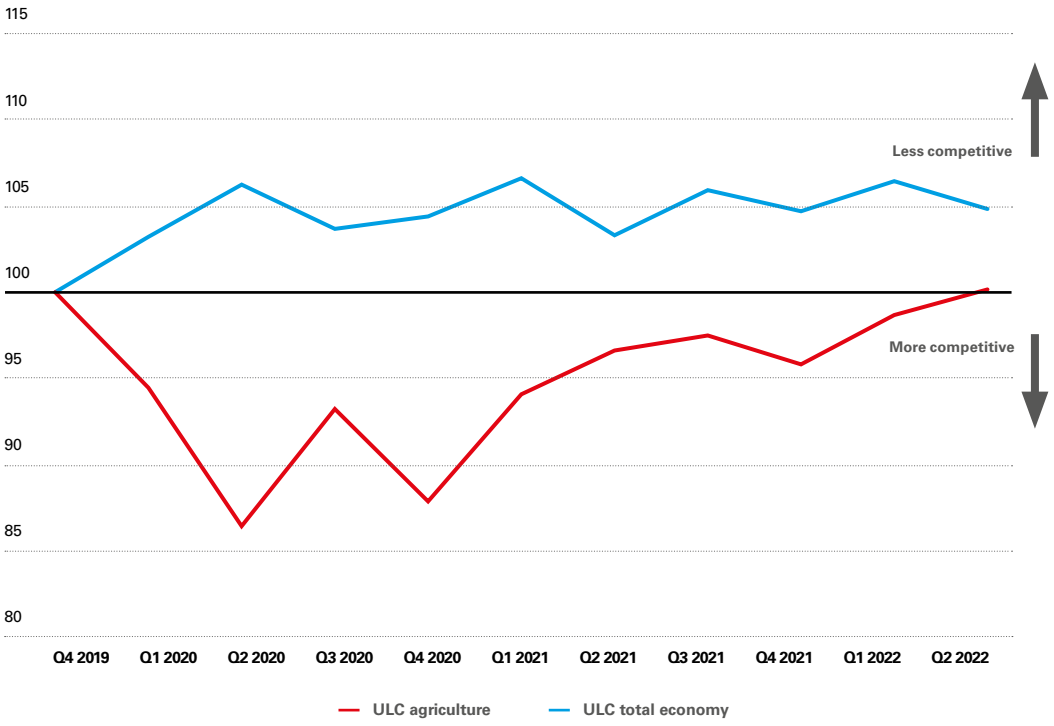
Thanks to the sector's high competitiveness, Spain occupies an outstanding position in the world ranking of agrifood exporters (seventh in the world, fourth in the EU)

One current concern is the impact the sector's rising costs may have on its competitiveness. One way of analysing the competitiveness-price relationship is through the unit labour cost (ULC), defined as the ratio between labour cost per worker and productivity per employee. The trend in this variable makes it possible to estimate any gains or losses in competitiveness; an increase in ULC implies a loss of competitiveness as the labour cost to obtain one unit of product has increased.

The chart below shows that the primary sector's ULC declined sharply in 2020, especially at the beginning of the pandemic (therefore gaining in competitiveness). However, since Q1 2021 the ULC has been rising and is now at a level very similar to before the pandemic, indicating that **the sector's competitiveness remained the same over the period as a whole**. Moreover, the performance of the primary sector is more favourable than that of the economy as a whole, which would have increased the ULC by 4.8% between Q4 2019 and Q2 2022. Exports will also be boosted by the euro's depreciation of around 3% between January and July 2022 against a basket of developed countries' currencies, and of more than 10% against the US dollar.

The primary sector remains competitive

Unit labour costs (100 = Q4 2019)



Note: Competitiveness is estimated by unit labour cost (ULC), defined as the ratio of total labour compensation per hour worked to output per hour worked.
Source: CaixaBank Research, based on data from the National Statistics Institute.

Food crisis

Spain's agricultural sector and its dependence on international agricultural commodity markets

The war in Ukraine has fuelled fears of shortages of certain essential inputs for the agrifood sector, as Russia and Ukraine are major players in the global supply of cereals, oils and fertilisers, among other commodities. It is therefore not surprising that, following the outbreak of the conflict, the prices of agricultural commodities rose sharply on international markets. This price hike has been passed on to the production costs of Spain's agricultural sector, a net importer of fertilisers and animal feed, and is also having an impact on the food prices paid by end consumers. Nevertheless, the most recent developments (agreements to release part of the grain retained in the Black Sea and good harvests in other producing countries) have helped to stabilise agricultural prices and reduce the risk of a global food crisis.

The agrifood sector is notably one of the sectors suffering most directly from the consequences of the war in Ukraine, both because of the increase in agricultural commodity prices (cereals, vegetable oils and fertilisers) and also due to the risk of shortages among these inputs that are so essential for agrifood production. In this article we assess how such developments in the international markets for agricultural commodities are affecting Spanish farming, analysing the impact from the point of view of both quantity and price. First, we examine the extent to which the agrifood sector depends on certain imported inputs in relation to domestic consumption, paying particular attention to dependence on Russia and Ukraine, as well as the ability to replace these imports with other products or producers at a global level. Secondly, we analyse how the rise in international prices of agricultural commodities influences price formation through the different links that make up the food chain, up to the final consumer in Spain.

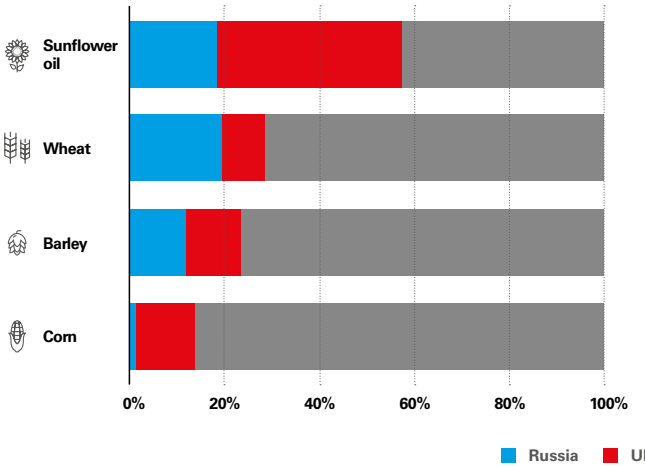
Is there a risk of shortages for the agricultural sector in Spain?

The war in Ukraine has fuelled fears of shortages of certain inputs for the agrifood sector, as Russia and Ukraine are major producers and exporters of cereals, oils and fertilisers, among other commodities. The countries involved in the conflict are key global suppliers In the cereals market (corn, wheat and barley) as well as sunflower oil, and are therefore the agricultural products receiving the most attention since the outbreak of the war.

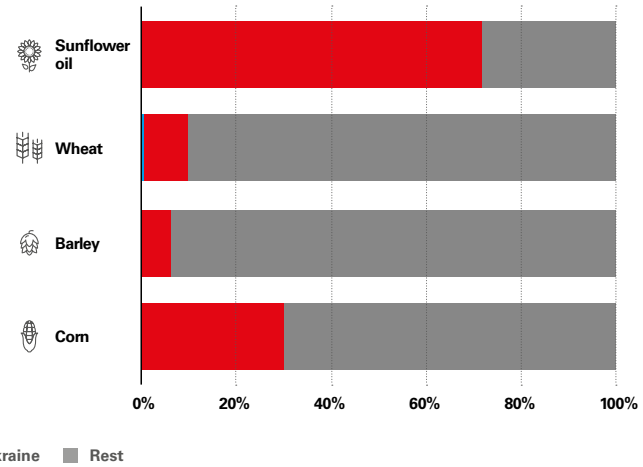
Russia and Ukraine are major world exporters of cereals, oils and fertilisers. Spanish farming is particularly dependent on Ukrainian corn and sunflower oil and Russian fertilisers

The importance of Russia and Ukraine in world cereal and vegetable oil markets, and Spain's dependence on them

Share of world cereal and oil exports
% of total exports of each product



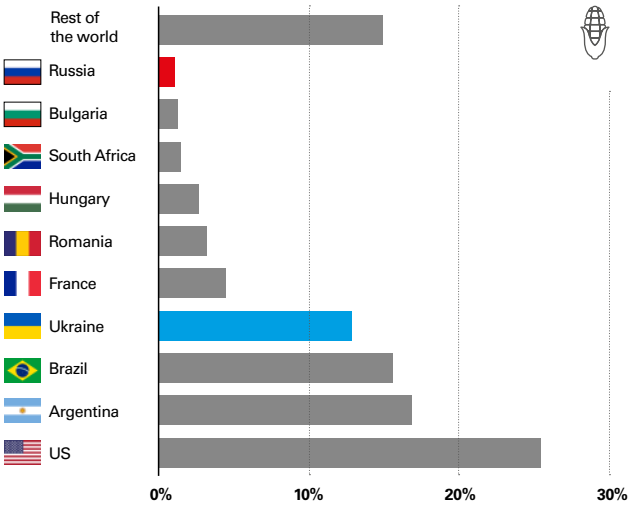
Origin of Spanish imports of cereals and oils
% of total exports of each product



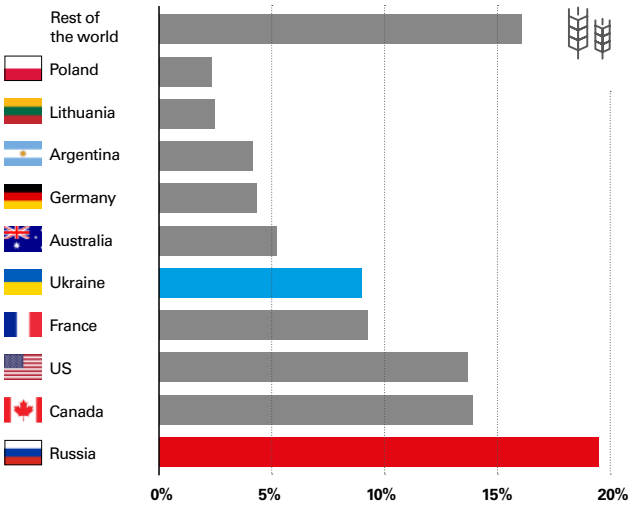
Note: 2020 data.
Source: CaixaBank Research, based on data from the Observatory of Economic Complexity.

Agrifood

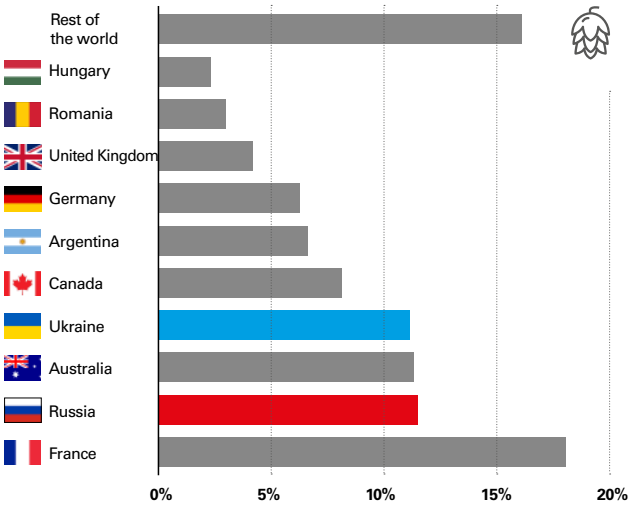
Top 10 corn exporters
as % of total world corn exports



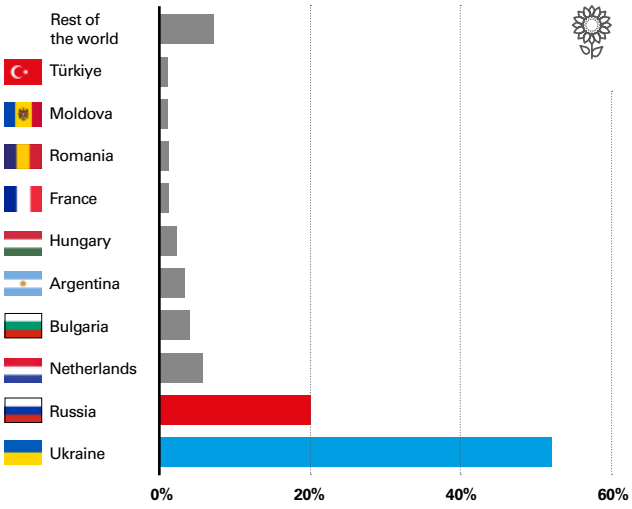
Top 10 wheat exporters
as % of total world wheat exports



Top 10 barley exporters
as % of total world barley exports



Top 10 exporters of sunflower oil
% of total world exports of sunflower oil



Note: 2020 data.
Source: CaixaBank Research, based on data from the Observatory of Economic Complexity.

Spain's agricultural sector is a net importer of cereals. According to Spain's Ministry of Agriculture,[7] the country's cereal trade deficit (i.e. exports minus imports) amounted to 13.6 billion tonnes in the 2021-2022 season, while its degree of self-sufficiency (ratio between domestic production and consumption) was 64%, lower than the 68% of the previous season. The country is particularly dependent externally for corn (with a trade deficit of 8,280 tonnes and 34% self-sufficiency), a cereal that is mostly used for animal feed (81.2% of total uses). In addition, a large part of these imports came from Ukraine, namely 30% of Spain's corn imports in 2020.

(7) See «Evolución de los balances de cereales en España. Campañas 2020/2021 y 2021/2022», July 2022, Ministry of Agriculture, Fisheries and Food.

Balance of the cereals market in Spain

Campaign 2021-2022, units in thousands of tonnes. Data as of July 2022

	Soft wheat	Durum wheat	Barley	Corn	Rye	Oats	Sorghum	Triticale	TOTAL CEREALS
Area (1,000 ha)	1,854	258	2,528	358	118	507	5	267	5,894
Yield (t/ha)	4.1	2.9	3.6	12.3	2.6	2.4	3.8	2.9	4.1
Production	7,560	744	8,982	4,415	302	1,198	19	784	24,004
Initial stocks	777	81	707	1,214	44	33	27	72	2,954
Imports	4,600	300	620	8,500	320	110	120	160	14,730
TOTAL AVAILABLE	12,937	1,124	10,309	14,129	665	1,342	166	1,015	41,688
Domestic consumption	11,864	700	9,346	12,812	631	1,264	141	975	37,732
Animal feed	7,200	40	8,100	10,400	550	1,150	140	930	28,510
Seeds	405	56	455	19	17	69	0	42	1,064
Human consumption	4,200	600	10	100	60	35	-	-	5,005
Industrial uses	20	-	750	2,250	2	6	-	-	3,028
Losses	39	4	31	42	2	4	1	3	125
Exports	300	350	200	220	-	50	4	8	1,132
TOTAL USED	12,164	1,050	9,546	13,032	631	1,314	145	983	38,864
Final stocks	773	74	763	1,097	34	28	22	32	2,823
Trade balance (exp.-imp.)	-4,300	50	-420	-8,280	-320	-60	-116	-152	-13,598
Degree of self-sufficiency[1]	64%	106%	96%	34%	48%	95%	13%	80%	64%
Import dependence[2]	39%	43%	7%	66%	51%	9%	85%	16%	39%

Notes: (1) Degree of self-sufficiency = domestic production/consumption.
(2) Import dependence = imports/domestic consumption.
Source: CaixaBank Research, based on data from the Ministry of Agriculture, Fisheries and Food.

However, we need to determine to what extent there are other suppliers that can make up for the supply shortfalls caused by the conflict. In this respect, the US accounts for around 25.4% of the world's **corn** exports while, in Latin America, Argentina and Brazil account for a further 32.5%. There are also important producers within the euro area (France exports 4.5% of the world total of corn and 9.3% of its wheat), so in principle it seems feasible for supplies to be redirected to the Spanish market.

With regard to **sunflower oil**, Spain has a high external deficit (–338,000 tonnes in the 2021-2022 season), with the Ukrainian economy being its main supplier (slightly more than 70% of total imports in 2020). Globally, Russia and Ukraine account for more than 70% of global exports of a key product for the agrifood industry. Consequently, in this case it does not seem so easy to obtain imports from other suppliers. The alternative would be for the industry to use other types of vegetable oil (olive, rapeseed, soya, etc.), increasing the number of potential global suppliers. It should be noted, however, that such changes in the processing industry tend to be more medium to long term. As for the other oilseeds (soya and rapeseed), the situation is quite different: soya is practically all imported while, in the case of rapeseed, Spain's agricultural sector is self-sufficient (in fact, its production has reached record highs in recent seasons).

Balance of the oilseed market in Spain

Campaign 2021-2022, units in thousands of tonnes. Data as of July 2022

	Rapeseed	Soya	Sunflower	TOTAL OILSEEDS
Area (1,000 ha)	83	2	626	711
Yield (t/ha)	2.6	3.0	1.2	4.1
Production	217	5	767	989
Initial stocks	6	150	30	186
Imports	90	3,500	360	3,950
TOTAL AVAILABLE	313	3,655	1,157	5,125
Domestic consumption	196	3,524	1,105	4,825
Exports	112	11	22	145
TOTAL USED	308	3,535	1,127	4,970
Final stocks	5	120	30	155
Trade balance (exp.-imp.)	22	-3,489	-338	-3,805
Degree of self-sufficiency[1]	111%	0%	69%	20%
Import dependence[2]	46%	99%	33%	82%

Notes: (1) Degree of self-sufficiency = domestic production/consumption.
(2) Import dependence = imports/domestic consumption.
Source: CaixaBank Research, based on data from the Ministry of Agriculture, Fisheries and Food.

As for the **fertiliser** market, Spain's agricultural sector is a net importer; i.e. it depends on imports from abroad. In 2020, the country's fertiliser trade deficit reached 2 million tonnes, particular in terms of complex fertilisers (932,000 tonnes) and simple nitrogen fertilisers (903,000 tonnes). Nevertheless, domestic fertiliser production is not negligible: the agricultural sector's degree of self-sufficiency was 83% in 2020 (fertiliser sales in the agricultural sector as a percentage of domestic production).

Balance of the fertiliser market in Spain

2020 data, in thousands of tonnes

	Simple nitrate-based	Simple phosphate-based	Simple potassium-based	Complex	TOTAL FERTILISERS
Production	2,136	212	584	1,327	4,258
Imports	1,930	297	314	1,511	4,052
TOTAL AVAILABLE	4,065	509	898	2,838	8,311
Domestic consumption	2,931	313	302	2,212	5,757
Agricultural sales	2,495	180	295	2,156	5,126
Non-agricultural uses	436	133	7	56	631
Exports	1,027	122	342	580	2,069
TOTAL USED	3,957	434	644	2,791	7,827
Final stocks	108	75	254	47	484
Trade balance (exp.-imp.)	-903	-176	28	-932	-1,983
Degree of self-sufficiency[1]	86%	118%	198%	62%	83%
Import dependence[2]	77%	165%	106%	70%	79%

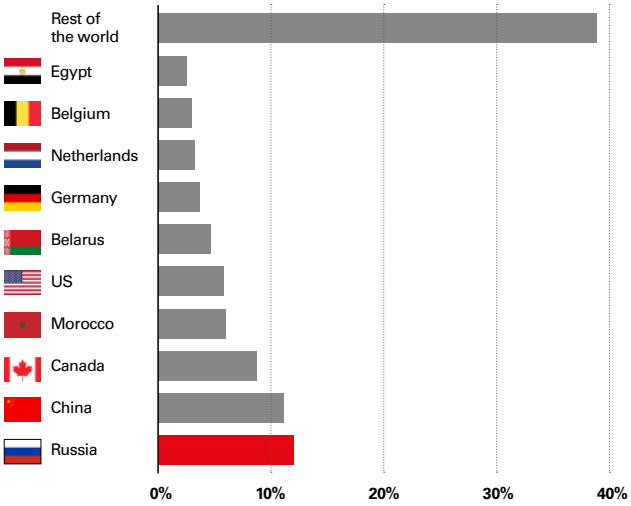
Notes: (1) Degree of self-sufficiency = domestic production/consumption.
(2) Import dependence = imports/domestic consumption.
Source: CaixaBank Research, based on data from the Ministry of Agriculture, Fisheries and Food.

Russia is the world's leading exporter in the global fertiliser market, closely followed by China (both account for 23% of the total). Despite this high concentration of the global market, the main suppliers of Spain's agricultural sector are Morocco (14% of the total fertiliser imported by the country), Belgium (11%) and Portugal (8%).Therefore, in principle, it would be possible to import fertilisers from other suppliers. However, although it does not seem that there will be a supply problem, there are significant inflationary pressures which could intensify with the sharp rise in the price of natural gas, an essential input in the production of fertilisers.

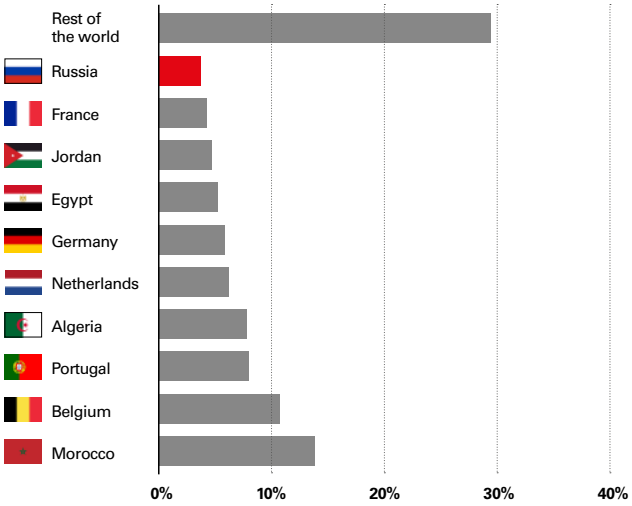
(8) In March 2022, the European Commission introduced a derogation to allow the production of any crops for food and feed purposes on fallow land, enlarging the areas sown with protein crops in the new commercial year 2022-2023.

Russia is the world's largest exporter of fertilisers but the tenth largest supplier to Spain

Top 10 fertiliser exporters
as % of total world fertiliser exports



Top 10 fertiliser suppliers for Spain
as % of total Spanish fertiliser imports



Note: 2020 data.
Source: CaixaBank Research, based on data from the Observatory of Economic Complexity.

On balance, it seems there is no imminent risk of shortages for Spain's agricultural sector as a result of the conflict in Ukraine. Although the Spanish agrifood sector is highly dependent on imports of cereals, oils and fertilisers to cover domestic consumption, its exposure to the countries in conflict is only worrying in the case of sunflower oil imports, given the country's strong dependence on Ukraine and the fact that world supply is highly concentrated in both Ukraine and Russia, making it difficult to find other global suppliers. In this sense, the EU has temporarily allowed the use of fallow land for oilseed production, which should help to increase European production.[8] In fact, according to the most recent estimates of sunflower oil production in the EU, record highs will be achieved in the coming 2022-2023 season and the European Commission itself believes this will be enough to compensate for the production losses in Ukraine.[9]

An exceptional package of €500 million to member states was also approved to support producers most affected, to contribute to global food security or address market disturbances due to increased input costs or trade restrictions.

(9) See the report «Shortterm Outlook for EU agricultural markets in 2022», European Commission, July 2022.

The European Commission has implemented new measures to ensure food security, not only in the region but globally

Agrifood

Regarding cereals, EU production is forecast to be lower than expected due to drought in several producing regions and, in any case, will be less than in 2021 (–2.5% year-on-year). However, stocks in storage will help to meet domestic consumption needs and part of the export demand, which is likely to remain high in view of the pressures on world markets.

The war in Ukraine is accentuating the upward trend in agricultural commodity prices on international markets

In the first part of this article, we have seen that the risk of shortages among certain commodities used by Spanish farms is relatively limited. As we will see below, the main channel through which the war in Ukraine is being felt is via the sharp rise in international food commodity prices. According to the World Bank's agricultural commodity price index, in March and April 2022 these rose by 36.5% and 32.6% year-on-year, respectively, due to fears that exports from these countries would be affected by the war. The price of fertilisers rose even higher (137% year-on-year on average in March and April 2022), as it is closely linked to the price of natural gas.

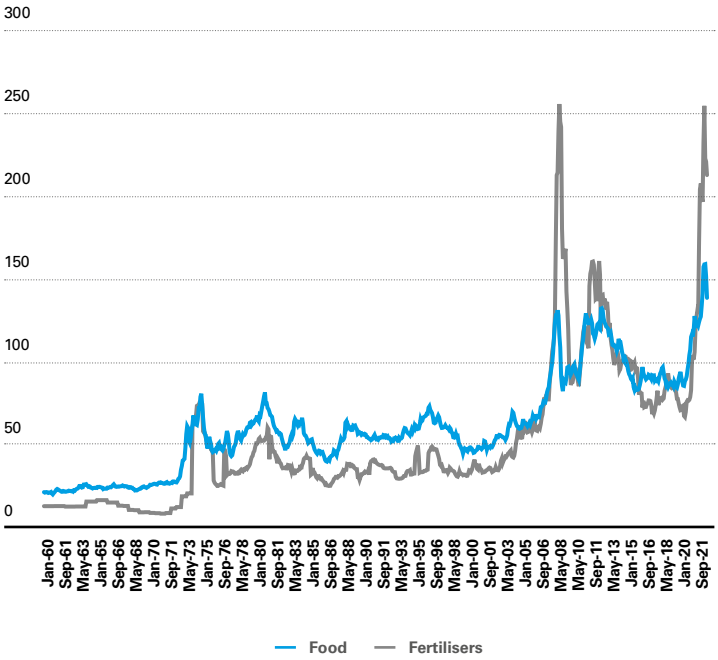
Already high agricultural commodity prices grew considerably in March and April 2022, although prices returned to prewar levels in July and futures markets point to a stable trend

The increase in agricultural prices resulting from the war in Ukraine occurred when prices on international markets were already at historically high levels due to the consequences of the COVID-19 pandemic (lack of supply because of lower production during the big lockdown and a strong surge in demand with the end of pandemic-related restrictions). Specifically, food prices rose by 31% in 2021 (30% for grains, 42% for vegetable oils and meals, and 20% for other foodstuffs) and fertilisers by 80%, putting the prices of food and fertiliser well above pre-pandemic levels by the end of 2021.

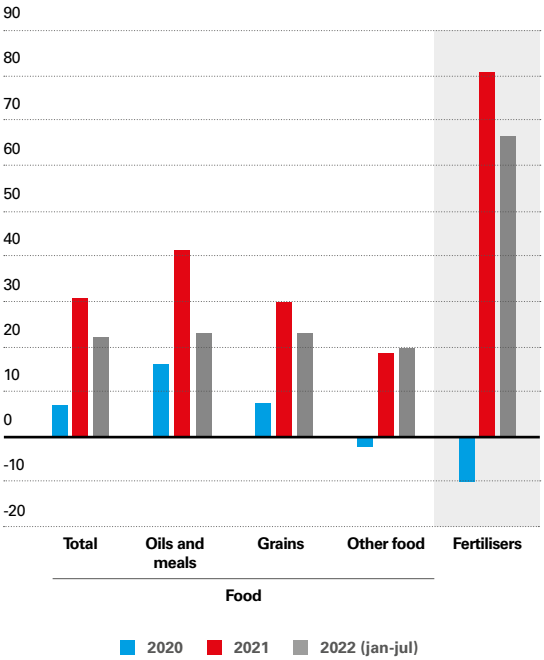
[10] **According to the World Bank index, between April and July 2022 food prices fell by 12.7%, led by oils and meals (–19.3%) and grains (–12.0%). Fertiliser prices, on the other hand, fell by 16.4% between April and July.**

Sharp spike in international food and fertiliser prices after the outbreak of war in Ukraine

Index (100 = 2010)



Year-on-year change (%)



Notes: The food commodity price index includes cereals (wheat, rice, corn and rye), vegetable oils and meals (sunflower oil, coconut oil, soybean oil, soybean meal, etc.) and other foodstuffs (sugar, bananas, beef and chicken, oranges). Fertilisers include nitrogenous, potash and phosphate fertilisers.
Source: CaixaBank Research, based on data from the World Bank (World Bank Commodity Price Data «The Pink Sheet»).

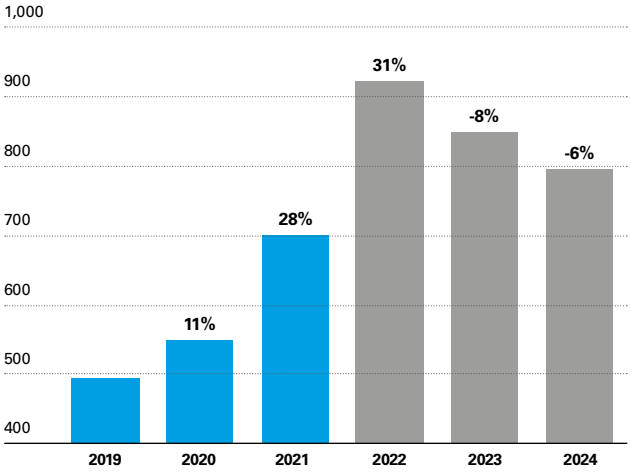
However, after the first few weeks of conflict, the prices of the main agricultural commodities quoted on international markets have fallen from the highs reached in April,[10] and futures markets point to a somewhat more stable trend at levels similar to those before the outbreak of the war.[11] Futures markets expect wheat prices to be around USD 850 per bushel in 2023, somewhat higher than in December 2021 (around USD 790) but significantly lower than this year's peak (above USD 1,400). A similar trend is expected for the price of corn, as can be seen in the chart below.

[11] **In addition to agricultural commodities, metal and mineral prices have also fallen back down from April's record highs. One notable exception to this downward trend is natural gas, whose spot and futures prices have risen over the summer due to smaller supplies from Russia. This will add further pressure on fertiliser prices, as gas is the main energy source used in the production of nitrogen fertilisers.**

Futures markets point to a moderating trend in grain prices

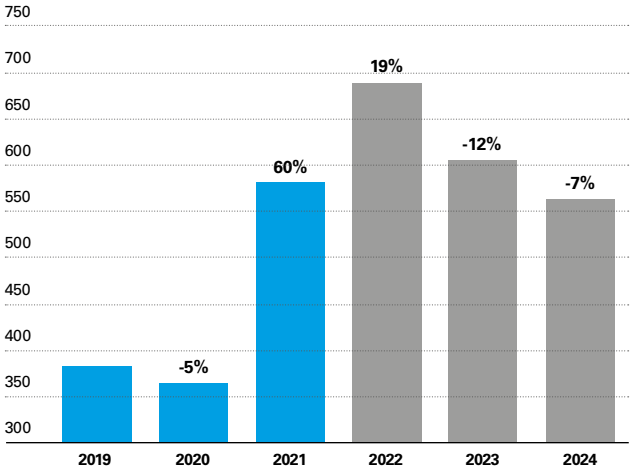
WHEAT
Spot and futures market price

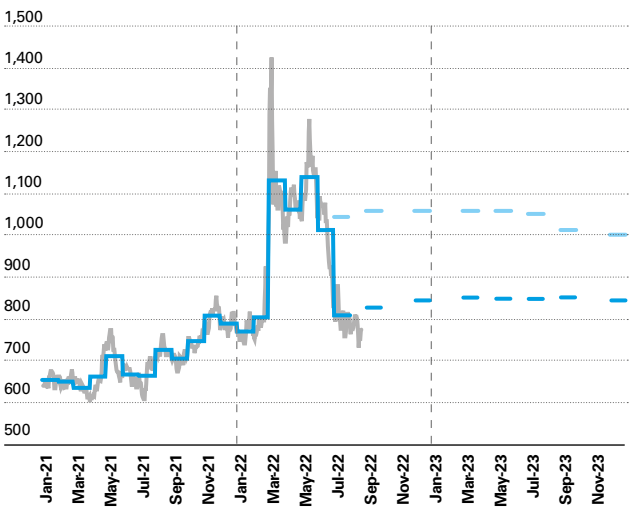
Dollars per bushel

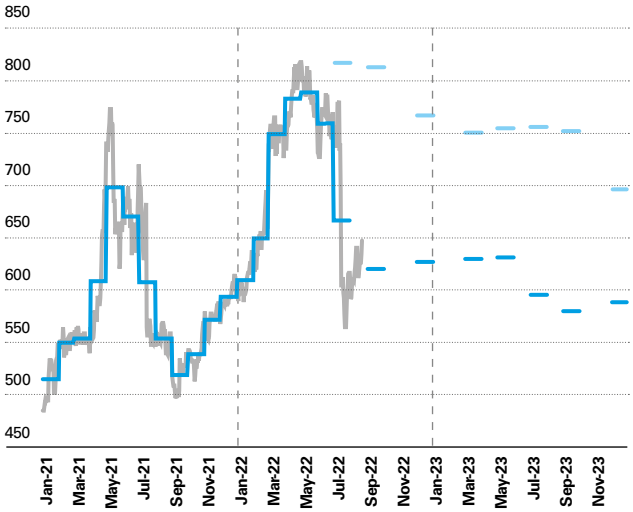


CORN
Spot and futures market price

Dollars per bushel







Daily price — Monthly average
Futures in July 2022 — Futures in April 2022

Source: CaixaBank Research, based on data from Bloomberg.

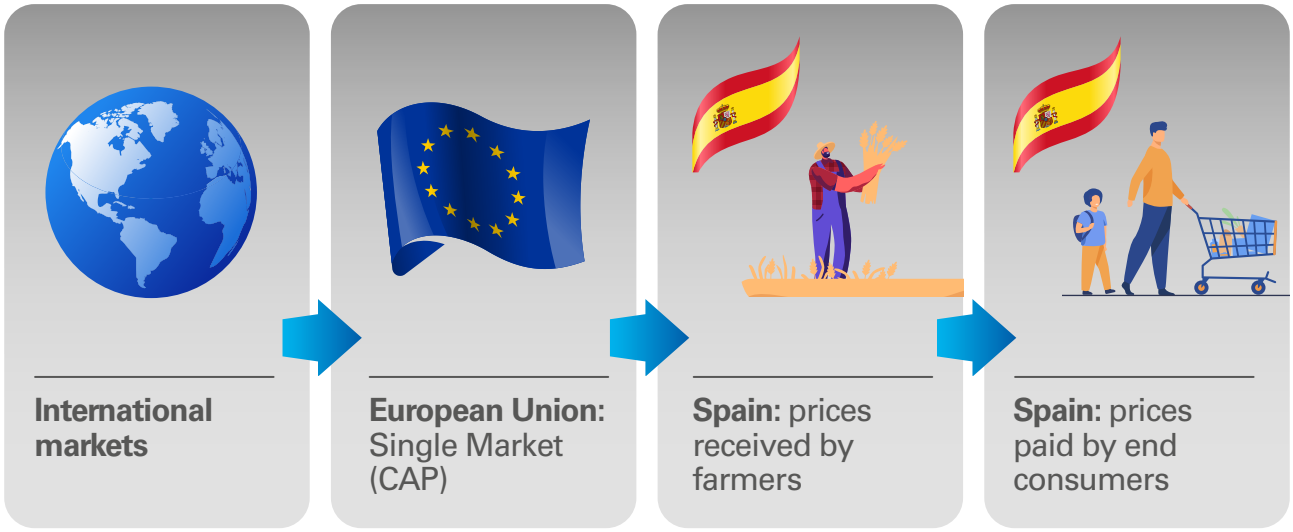
Among the factors that may have helped to moderate the price of agricultural commodities is the agreement negotiated by the United Nations at the end of July, which allows Ukrainian grain exports to leave the port of Odessa, as well as higher grain production in economies such as the US and improved weather conditions in producing areas such as Latin America. These recent developments have lowered the risks of a global food crisis and should help to contain pressures on food prices paid by the end consumer. However, the impact of higher agricultural commodity prices on the price formation process along the food chain could still be felt for a few more quarters, which we discuss below.

Rising food commodity prices on global markets and their transmission through the food chain to the end consumer in Spain

The global rise in food commodity prices is having a major impact on the consumer prices that Spanish households pay for their food. But how are price increases passed through the food chain to the end consumer? To shed light on this question, we have developed an econometric vector autoregressive model (VAR)[12] that enables us to measure the intensity and duration of price pass-throughs in the food chain. In the case of the EU, the analysis must be carried out using the internal prices of the single market for these commodities, which already incorporate the effect of the Common Agricultural Policy (CAP).[13]

Higher food commodity prices gradually filter through the various links in the food chain to the end consumer but the CAP acts as a buffer for agricultural prices in the single market

How prices are passed through the food chain



Source: CaixaBank Research, based on CaixaBank data.

(12) The analysis in this section is based on the article «Rising food commodity prices and their pass-through to euro area consumer prices», Fructuoso Borrallo, Lucía Cuadro-Sáez and Javier J. Pérez, Bank of Spain, July 2022.

(13) The CAP includes a set of measures (direct subsidies, price support mechanisms and guaranteed minimum prices) that affect agricultural commodity prices in the EU. One consequence of the CAP is that, historically, the reference prices for food commodities in the EU have been less volatile than for international prices.

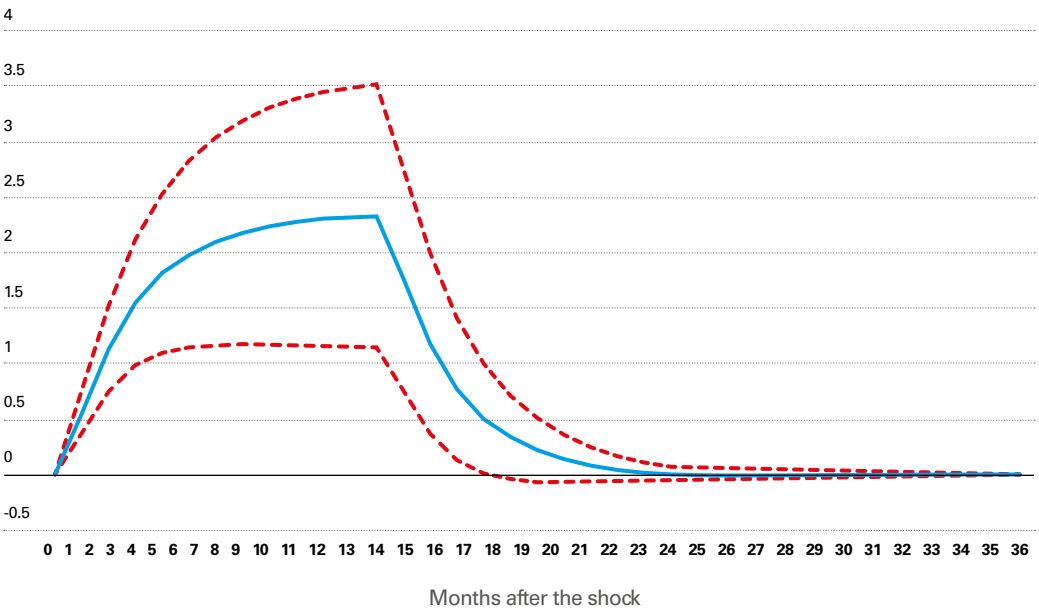
Agrifood

The following chart shows the effect of a shock to the rate of change of food commodity prices in the EU on consumer prices (food CPI).[14] The results reveal that a transitory increase of 10 pp in the rate of change of food commodity prices in the EU leads to a 2.3 pp increase in the food CPI after 12 months, implying a 0.5 pp increase in total inflation in Spain.[15]

Transitory 10 pp increase in the rate of change of agricultural commodity prices in the EU

Impact on the food prices paid by Spanish households

Year-on-year change (pp)

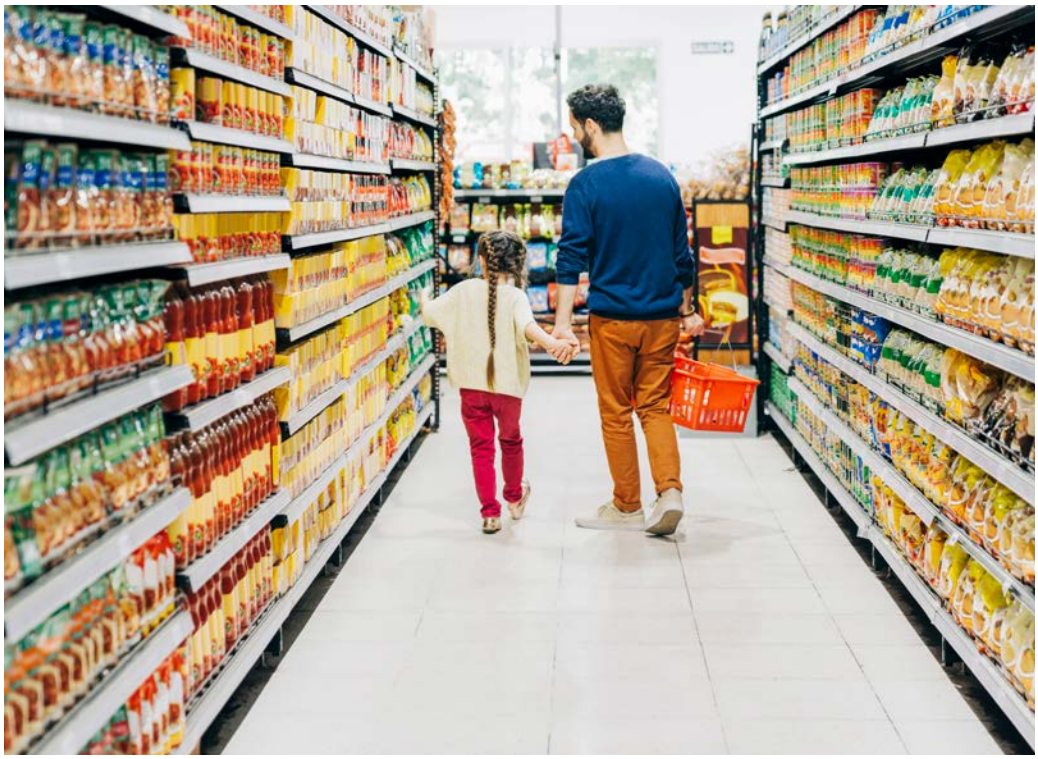


Notes: The chart represents the aggregate response over time of the year-on-year change in Spain's food CPI to a 10 pp increase in agricultural commodity prices for a set of food items (cereals, meat, dairy, oil and sugar). The prices are internal EU prices, except for sugar, and come from the European Commission (DG AGRI). The estimation period is from April 2005 to February 2022. The areas represented by the dotted lines are the 90% confidence intervals. Analysis based on «Rising food commodity prices and their pass-through to euro area consumer prices», Fructuoso Borrallo, Lucía Cuadro-Sáez and Javier J. Pérez, Bank of Spain, July 2022.
Source: CaixaBank Research, based on data from MAPA, INE and the European Commission.

In the coming months, the moderation of international agricultural prices should help to reduce pressure on final food prices

(14) The analysis has been carried out on five food groups using a disaggregate approach (cereals, dairy, meat, oils and sugar) and the results are aggregated using their relative weights in the CPI.

(15) The same transitional increase of 10 pp in the rate of change of food commodity prices in the EU has an impact of 2.6 pp on the prices received by farmers.



Equipped with these sensitivities, we then simulated how the food CPI would have evolved in the absence of commodity shocks since January 2021. According to our estimates, food prices would have grown by 2.7% between January 2021 and July 2022, a much smaller rise than the 13.0% actually observed in that period.[16] It can therefore be concluded that most of the increase in Spain's food prices is attributable to the external shock of higher agricultural commodity prices. Over the coming months, the moderation in international agricultural prices should help to reduce the pressure on the final price of food, although the sharp rise in energy prices, especially gas, will have the opposite effect.

⑯ For more details, see the Focus «The exposure of consumer goods in Spain to international agricultural commodity prices» in the *Monthly Report* for September 2022.

THE CITRUS SECTOR IN SPAIN

Vitamin C for the fruit industry

CaixaBank Research

A VERY PROMINENT ROLE AT A GLOBAL LEVEL

CULTIVATED LAND

6th in the world with **307,343 hectares** (about 3% of the world total).

- Almost **50%** of this area is devoted to oranges.
- Citrus fruits make up **1.8%** of the total area (5.8% of woody crops), 93% of which is irrigated.

PRODUCTION

- 6th largest producer in the world with **7 million tonnes** (around 4% of the world total) in the 2020-2021 season.

2nd in the world for **organic citriculture** with 19,844 hectares and 417,211 tonnes (2020 data)

EXPORTS

1st exporter in the world with 3.7 million tonnes, worth 3,578 million euros.

- **3,369 million** euros (0.28% of GDP) trade surplus.

HIGH HOUSEHOLD CONSUMPTION

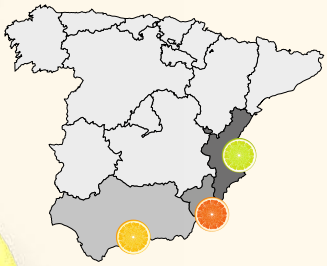
- Citrus fruits are the **most purchased fresh fruit by households** (25.7% of the total volume).
- With the pandemic, **consumption soared in 2020 to 26.79 kg per person**, the highest figure in four years. At the same time, exports fell (–4.8% in volume), although they increased in value by 12.4% due to the rise in prices.
- **In 2021, per capita consumption went back to normal** and exports fell, both in volume (–2.8%) and value (–3.9%).

SMALL FARM SIZE AND HIGH GEOGRAPHIC CONCENTRATION

54,418 **citrus farms** with a very small average size.

2 PROTECTED GEOGRAPHIC INDICATIONS (PGI) for citrus fruits: clementines (Fina, Hernandina and Clemenule or Nule varieties) from Terres de l'Ebre (Catalonia) and Valencian citrus fruits (30 varieties).

CULTIVATION BY REGION



THE REGION OF VALENCIA accounts for **52%** of the area under cultivation and **47%** of the production (mainly small citrus fruits and sweet oranges).

ANDALUSIA **33%** dof the production (mainly oranges)

MURCIA **17%** (mainly lemon and grapefruit).

STRENGTHS AND WEAKNESSES

- Spain's citrus production is highly valued for its excellent quality and health-boosting properties.
- **Competition** from non-EU countries (e.g. South Africa), exacerbated by trade agreements signed by the EU.
- High **geographical concentration** of exports to our EU partners.
- **Potential to penetrate** other markets.

Note: Data for 2021, unless otherwise stated.
Source: CaixaBank Research, based on data from MAPA, DataComex, Cajamar and FAO.

The citrus sector

Citrus fruit: a leading sector despite the complicated context

The citrus fruit sector is one of the most important in the Spanish agrifood system and a leading player in international export markets. Its production structure is typically atomised, making it more difficult to modernise the farms, and the sector has some important challenges to tackle. In particular, strong competition from non-EU countries at a time when production costs are rising sharply, accentuated by a prolonged drought and the war in Ukraine. In any case, the figures suggest that Spain's citrus production continues to be the most competitive in the world, thanks to its hard-won reputation as a product of the highest quality produced under the strictest health standards.

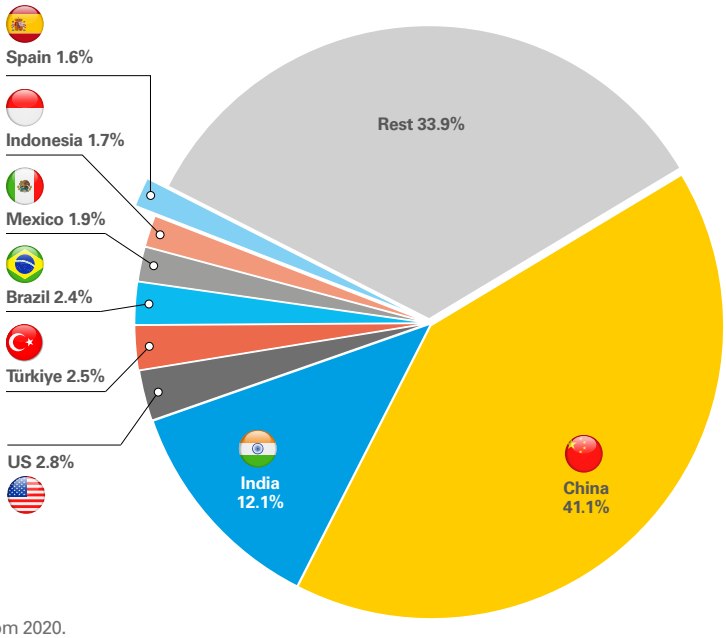
Spain, the «vegetable garden of Europe»

Spain's fruit and vegetable sector is one of the most important in the world: it ranks eighth globally and first in the EU, with almost two million hectares dedicated to these crops and a production in excess of 28 million tonnes, totalling over 15.1 billion euros.[17] It is the most important food group within the Spanish agrifood sector, accounting for 50% of plant production and 30% of agrarian production (2020 data).

[17] **Ministry of Agriculture, Fisheries and Food (2021): «Encuesta sobre superficies y rendimientos de cultivos (ESYRCE)» and (2021): «Cifras del Sector de Frutas y Hortalizas», updated to 2020.**

Agrifood

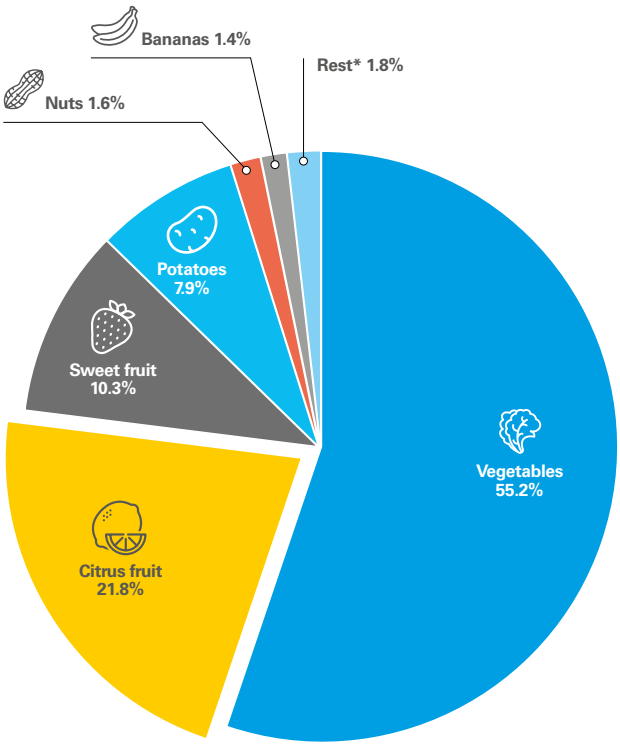
Fruit and vegetable production in the world



Note: Volume data from 2020.
Source: CaixaBank Research, based on data from the FAO.

Spain is characterised by the great diversity of crops grown throughout the country, both in the open air and in greenhouses, rainfed and irrigated. Cooperatives also play a notable role and are very widespread in this sector.[18]

Fruit and vegetable production in Spain by crop



Notes: Volume data from 2020. (*) Table grapes and tropical fruit.
Source: CaixaBank Research, based on data from the Ministry of Agriculture, Fisheries and Food.

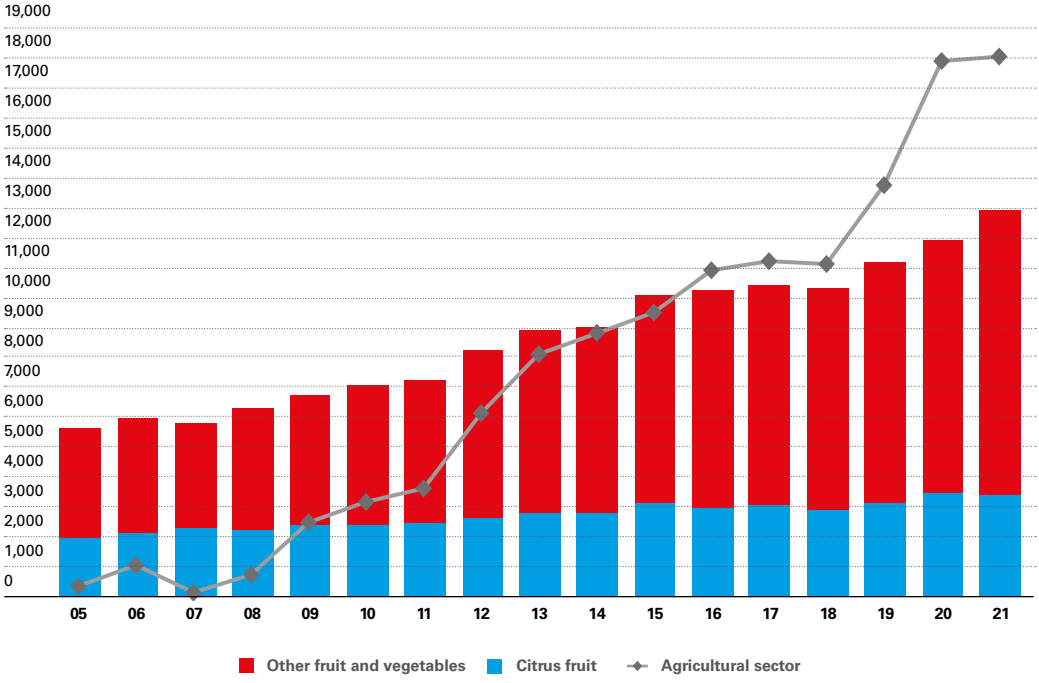
(18) 23% of Spain's agrifood cooperatives are in the fruit and vegetable sector, with the largest production within the cooperative sector in terms of direct turnover, namely 31% of the total. OSCAE (2022): «El cooperativismo agroalimentario español. Informe 2021». Cooperativas Agroalimentarias de España.

The sector is strongly oriented towards exports, as around 50% of what is grown is sent to foreign markets, this proportion even exceeding 70% for some products, such as greenhouse vegetables (tomatoes, peppers and cucumbers), lettuce and lemons.

Spain is the leading exporter of fruit and vegetables in the EU and the third largest in the world, behind China and the US. In recent years exports have performed very well, reaching almost 14.7 million tonnes in 2021, very close to the historical peak in 2019, with a value of more than 17.6 billion euros.The main products exported are greenhouse vegetables, citrus fruit (especially oranges), peaches and nectarines, and the main destination is the EU, which receives more than 90% of our exports, especially Germany and France.

Trade balance for fruit and vegetables

Millions of euros



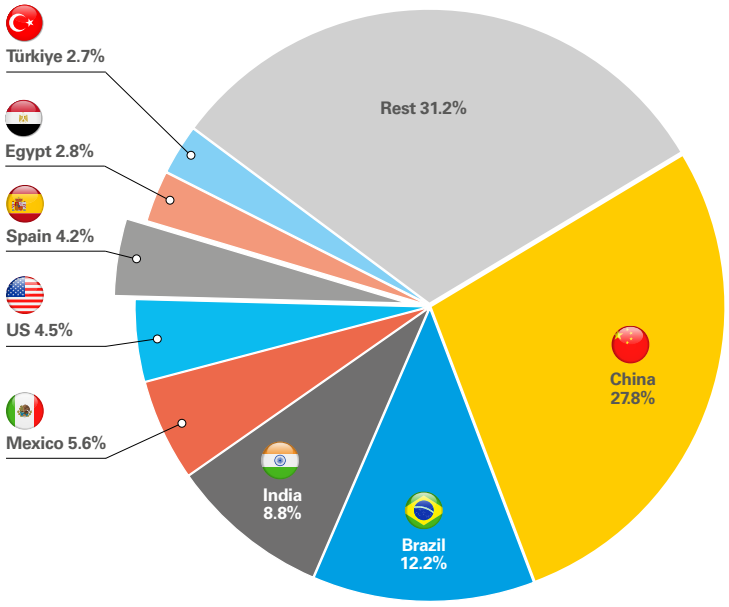
Note: The agricultural sector includesTARIC groups 1-24; fruit and vegetables are covered by groups 7 and 8.
Source: CaixaBank Research, based on data from DataComex.

The balance of trade is very positive: last year there was a surplus of almost 12.9 billion euros, equivalent to 1.1% of GDP. Nevertheless, although this balance has almost doubled in the past decade, it has been losing weight in the overall agrifood trade surplus in favour of other products that have performed even better, mainly meat and, to a lesser extent, beverages.

The citrus sector in Spain

Citrus fruits are one of the most important products within fruit and vegetables, both in terms of production volume and sales. With a cultivated area of 307,343 hectares and production at approximately 7 million tonnes per year,[19] Spain is the leader in the EU with around 56% of the total, well ahead of Italy and Greece.[20] Spain's organic citriculture is particularly significant as it is clearly expanding: in the past five years, the area devoted to organic citriculture has grown by almost 95% and it already accounts for 3% of the total organic area and 6.5% of the whole area devoted to growing citrus fruits.[21]

Citrus production in the world



Note: Volume data from 2020.
Source: CaixaBank Research, based on data from the FAO.

The citrus fruit sector has **54,418 farms** (5.9% of the total), with a utilised agricultural area (UAA) of 288,365 hectares (1.2% of the total), making the average size very small (just over 5 hectares). In fact, it is one of the agricultural sectors with the smallest average area, second only to tropical fruit.[22] This factor affects its viability insofar as it limits improvements in productivity because it is so difficult for farmers to adopt new technology and modernise their operations. It is also the oldest agricultural sector, with owners averaging 65.8 years, as well as one of the most feminised (37% of owners are women).

(19) Ministry of Agriculture, Fisheries and Food (2021): «Encuesta sobre superficies y rendimientos de cultivos (ESYRCE)» and (2022): «Desarrollo de la campaña de cítricos 2021/22». Oranges account for almost half the citrus production, ahead of mandarins (33%), lemons (16%) and grapefruit (1%).

(20) Cajamar (2022): «Observatorio sobre el sector agroalimentario español en el contexto europeo. Informe 2021». However, this figure has fallen in recent years (in 2016 it reached 63.5%).

(21) Ministry of Agriculture, Fisheries and Food (2021): «Análisis de la caracterización y proyección de la producción ecológica en España en 2020». Organic lemons are particularly successful, with around 173,000 tonnes in 2020, 14% of total lemon production in Spain and 41.5% of organic citrus fruits. The standard contract for organic lemons is the only one approved in Spain for an organic product. AILIMPO (2022): «Memoria 2021».

(22) National Statistics Institute (2022): «Censo Agrario 2020» and Ministry of Agriculture, Fisheries and Food (2020): «Ficha Sectorial por Orientación Técnico-Económica (OTE), Cítricos (datos de 2018)».

Citrus fruit is mainly consumed fresh, once it has been sorted, graded, washed and packed,[23] so that its value chain goes from production and sale at origin (fruit and vegetable market) to sale at destination (wholesalers, purchasing centre and distribution platform) and the final sale in retail outlets.[24] One of the problems facing Spanish citriculture is the low degree of integration between points of production and sale. The result is limited innovation in organisation terms and in the structure of the value chain, as well as the accumulation of production and commercial inefficiencies that reduce the sector's competitiveness; all of this in a context of strong competition from non-EU countries and a complicated relationship with EU trade agreements, as we will see below.[25]

The citrus sector is facing difficulties due to increasing competition, weakening demand and a sharp rise in costs

(23) To a lesser extent, citrus fruits are also consumed, after being processed and prepared industrially, in the form of juices or jams, while the bark also has industrial applications and can be used in the manufacture of animal feed.

(24) Almost a third of oranges, which account for 64% of the citrus fruits consumed by households, are bought in supermarkets and self-service stores, closely followed by traditional shops. Ministry of Agriculture, Fisheries and Food (2022): «Informe anual de consumo alimentario 2021».

(25) Cajamar (2020): «Una hoja de ruta para la citricultura española». In a competitive and mature market such as the one for citrus fruit, viability depends on competitive advantages in terms of costs (associated with size) or quality and service (linked to professionalism and availability of capital). In this respect, in recent years we have witnessed three important changes among vendors in the sector: concentration, involvement in production (vertical integration of production towards the market) and the incorporation of investment funds. Mercasa (2021): «Panorama general de los cítricos en España».

Agrifood

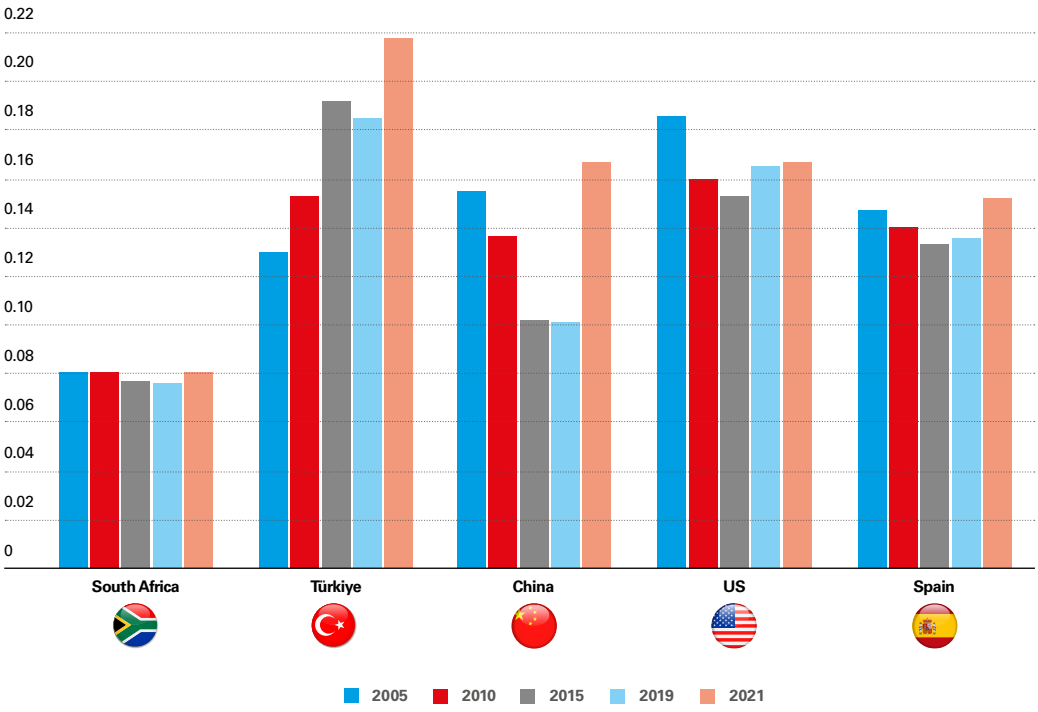
Now that the worst of the pandemic is behind us and demand has returned to normal,[26] citrus fruit prices are on a downward trend, returning to the negative performance of the pre-COVID period. The current season is taking place in a very complex scenario, with activity paralysed by a transport strike at the start of the year, the high level of stocks from other countries, especially Argentina and South Africa (exacerbated by delays resulting from logistical problems in world trade), weak EU demand and rising costs (fertilisers, fuels) aggravated by the war in Ukraine.[27] To all this must be added the recovery of domestic production, high temperatures which discourage consumption and also other factors of a more structural nature, in particular increased competition from substitutes for oranges, traditionally the fruit *par excellence* in the cold months of the year.[28]

Competition is threatening Spain's leading position in international trade

Spain is the world's leading exporter of citrus fruits with around 4 million tonnes per year, about a quarter of global exports. Almost 60% of Spanish citrus fruit production is destined for foreign markets, a percentage that is close to 80% in the case of grapefruit. Citrus fruits occupy second place among our country's agrifood exports, only beaten by pork; they are sold to almost 90 countries, although there is a high concentration of sales to our EU partners, which absorbed more than 86% of the volume sold in 2021 (a weight that has even increased in recent years, almost 2 pp since 2010), with Germany and France as prominent destinations (29.5% and 21.5%, respectively). Nevertheless, Spain's export markets are highly diversified when compared with other citrus exporters, with the exception of South Africa.

Geographical diversification of citrus exports

Herfindahl index (*)



Notes: Volume data. (*)The sum of the squares of the market shares of the export destinations as a proportion of 1.The higher the index, the higher the concentration.
Source: CaixaBank Research, based on data from DataComex andTrade Map.

26 **Thanks to the «healthy» label (the high vitamin C content is essential for boosting the immune system), in 2020 households increased their consumption of citrus fruits exceptionally, turning around the downward trend of previous years.**

27 **Ministry of Agriculture, Fisheries and Food (2022): «Desarrollo de la campana de cítricos 2021/22».**

28 **Cajamar (2022): «Cítricos, no solo la competencia de Sudáfrica hunde los precios dela naranja. Análisis de mercados».**

This high dependence on the European market (if we include the UK, the third largest export destination, it is 94%) can be a risk factor.[29] On the other hand, one positive factor is the country's proximity to the end consumer, making it easier to transport more delicate products (organic, zero waste or untreated). Furthermore, phytosanitary standards are more demanding in Europe, which guarantees high quality, sustainable and healthy products.

Citrus exports fell in 2021, following the extraordinary performance of the previous year which was affected by the pandemic. The value of exports fell by 3.9% last year as a result of a drop in both the average export price (–1.2%) and sales volume (–2.8%). This represents a correction after the historic figures achieved the previous year, with growth of 12.4%, the strongest in almost two decades, thanks to the average price soaring by 18.1%, as a result of intensified demand and the shortage of supply during the hardest months of COVID-19.

Spanish citrus fruits are being displaced in global markets by their main rivals, especially South Africa

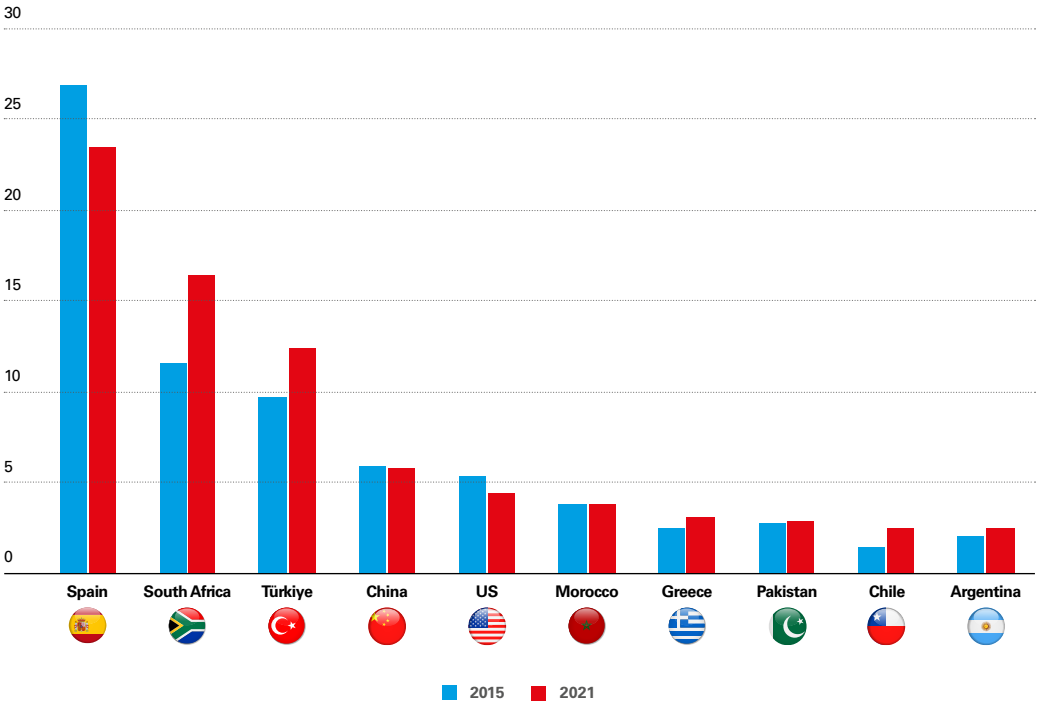
29 **Cajamar (2022): «Análisis de las exportaciones agroalimentarias 2021».**

In general, in recent years there has been a downward trend in citrus exports in volume terms (–11.4% in 2015-2021), which translates into a loss of weight in world trade, as shown in the chart below. However, in terms of value, sales have grown by 8.2% during the same period, thanks to strong growth in the average price (22.1%).[30]

30 One explanation for this divergence could be the sector's commitment to high quality production, with premium or organic products. Alimarket (2021): «Frutas y hortalizas. La sostenibilidad como nuevo paradigma productivo».

Spanish citrus fruits are losing ground worldwide although they are still leaders

Exports from each country (% of total world exports)



Note: Volume data.
Source: CaixaBank Research, based on data from Trade Map.

In the global citrus market, the remarkable dynamism of South Africa's exports is particularly noteworthy, growing by 45% since 2015, making it Spain's main citrus supplier (six years earlier it was in fourth place, behind Argentina, Portugal and France).[31] At the level of the EU, South Africa is the leading non-EU citrus supplier with almost 40% of the total, followed by Egypt, Türkiye and Morocco, but at a great distance.

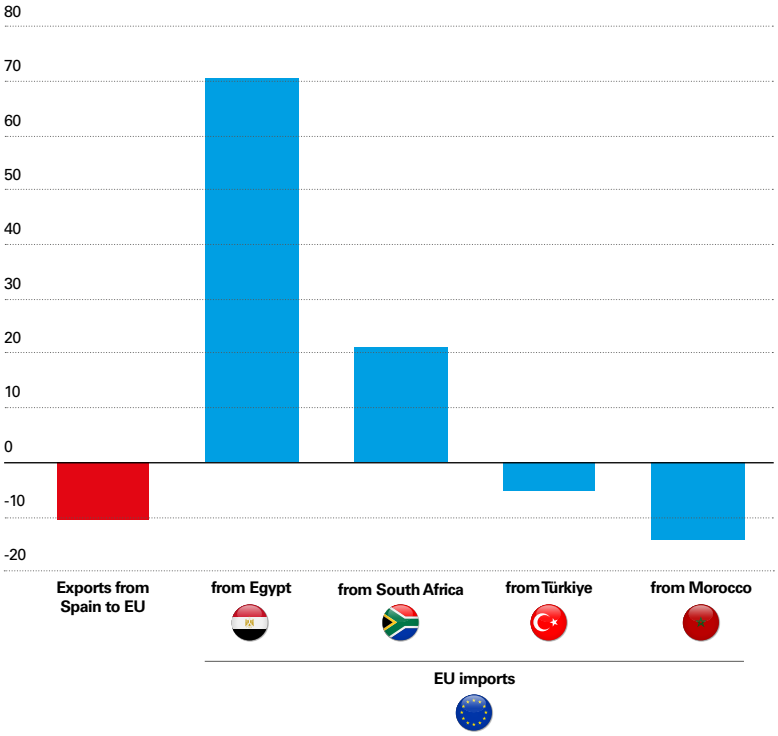
This extensive penetration of foreign produce into Europe represents a clear risk for Spanish citrus fruit, which the authorities are aware of and seem to be doing something about. Spain's Ministry of Agriculture, Fisheries and Food has developed a Plan of Measures for the citrus sector, adopted on 2 April 2019. This establishes, as measure 5.3, closer monitoring of EU citrus imports with the aim of exhaustively tracking the volumes of citrus imported and where they come from.[32]

31 Between 2015 and 2021, South African citrus imports more than tripled to over 57,700 tonnes, 20.9% of the total, up from 8.3% in 2015.

32 For more information, see the Ministry of Agriculture, Fisheries and Food website: Boletines de Seguimiento Reforzado de Importaciones de Cítricos.

Spain's citrus fruit is losing ground in Europe

Change (%)



Notes: Volume data. Cumulative change 2015-2021.
Source: CaixaBank Research, based on data from DataComex and Eurostat.

EU citrus imports

Spain	39.4%
South Africa	11.7%
Netherlands	9.8%
Germany	5.9%
Egypt	5.0%
Greece	4.1%
Türkiye	3.4%
Italy	3.0%
Morocco	2.6%
Argentina	2.1%

Note: Data from 2021.

As a result, Spain's citrus fruit has lost share in EU imports (7 pp between 2015 and 2021) in favour of its rivals, some from the EU (Greece and, above all, the Netherlands) but especially from outside the EU (South Africa and Egypt), against which Spain has been losing competitiveness in the European market. However, Spain is still the main supplier with 40% of EU citrus purchases.[33]

As can be seen in the chart below, European markets, which are the main destination for our exports, seem to becoming «exhausted» to a certain extent (with the exception of Portugal). The sector should therefore seek alternatives and improve its positioning in other, more dynamic markets with a growing demand.[34]

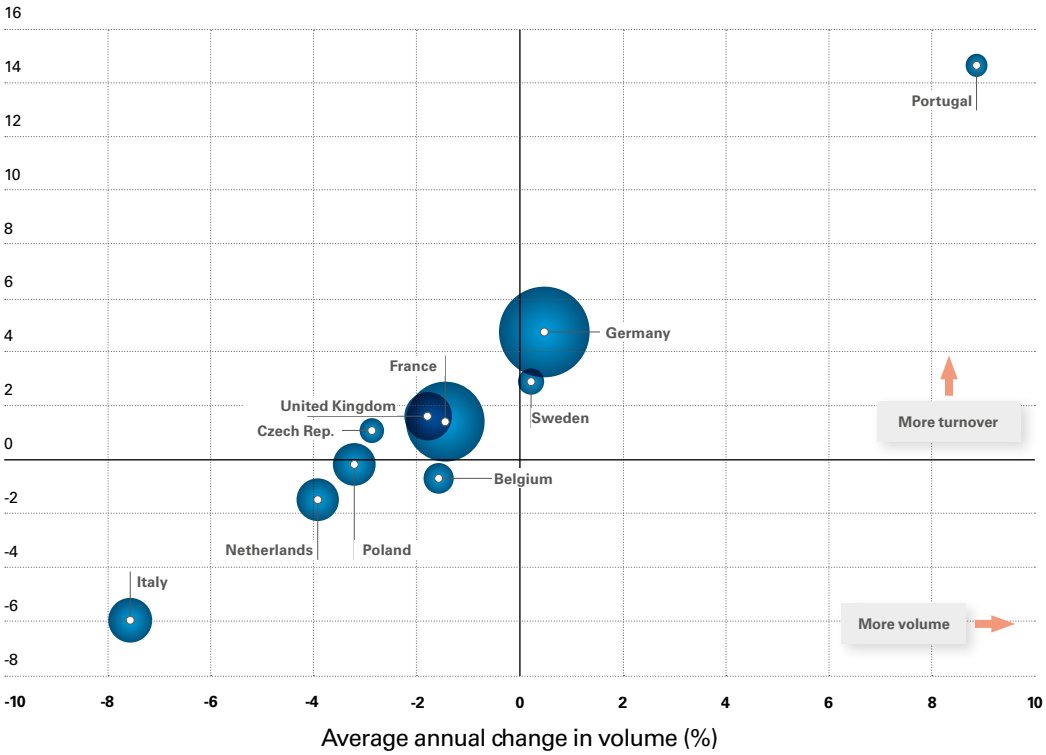
Spanish citrus fruits have lost share in EU imports to their rivals, especially from outside the EU such as South Africa and Egypt

(33) Within the EU, Spain is followed at a distance by the Netherlands (as a re-exporter, since it is not a producer), Germany and Greece. South Africa, Egypt and Türkiye stand out among the non-EU countries.

(34) Ministry of Agriculture, Fisheries and Food (2019): «Estudio comparativo de los costes de producción de naranja, almendra, melocotón y tomate entre países productores y el análisis de impacto de los acuerdos de libre comercio en el marco de la elaboración del plan estratégico de la PAC».

Top 10 destinations for citrus exports

Average annual change in value (%)



Notes: The size of the bubbles indicates the weight of exports in the total. Average data from 2015 to 2021.
Source: CaixaBank Research, based on data from DataComex.

Within Europe, for example, the penetration of Spanish citrus fruits is growing strongly in Finland. Exports to this country grew by almost 65% in volume terms from 2015 to 2021 and it currently ranks 11th among the main destinations. Outside the EU, Canada is an important market with a 14.4% increase over the same period (13th in the ranking). Exports outside the EU are key, as they allow Spain to reduce its dependence on markets that are already mature but in which it is increasingly difficult to ensure profitability.

The impact of EU trade policy

Some voices (professional associations) have suggested that the EU's trade policy make have something to do with Spain's citrus fruit losing weight, claiming that it creates an imbalance in the single market by facilitating imports from non-EU countries competing with Spain. This situation is aggravated because imports are not subject to the same production, traceability, environmental and social requirements as fruit grown in the EU.

The EU has signed nearly 80 agreements with countries around the world in its commitment to open up trade as a means to boost countries' development.[35] Under these agreements, companies from the EU and partner countries enjoy more advantageous conditions than those offered under the World Trade Organisation (WTO): lower or zero tariffs, simpler and faster customs procedures, recognition of product certificates, etc.

[35] **Article 133 of the Treaty establishing the European Community establishes the Common Commercial Policy (CCP), which aims to promote the development of world trade, the progressive abolition of restrictions on international trade and the lowering of customs barriers. The CCP provides for Free Trade Agreements (FTAs), a Generalised Scheme of Preferences (GSP) and Economic Partnership Agreements (EPAs).**

Agreements between the EU and non-EU citrus exporting countries give the latter a competitive advantage over Spanish products

However, Spanish exports outside the EU, like those of the other member states, are negotiated bilaterally; in other words, the growing globalisation of the EU market is not accompanied by a real opening up of new markets for EU producers.[36] The sector has been warning of this situation and is demanding that, before trade treaties are approved, the bilateral relations of each country should be taken into account in order to apply reciprocity (so-called «mirror clauses»), particularly in terms of tariff or phytosanitary barriers, to ensure that **agreements with third countries incorporate European standards.**

[36] The EU is, *de facto*, the only area in the world that does not apply import protocols to any country or product as long as they comply with international trade rules. In addition, the protocols are sometimes different for different types of citrus fruit and, in extreme cases, a distinction is made within families by variety. Mercasa (2021): «Panorama general de los cítricos en España».

Agrifood

Main indicators for the agrifood sector

Annual change, unless otherwise specified

	Average 2000-2007	Average 2008-2014	Average 2015-2019	2020	2021	2022	Date of latest data
Economic activity indicators							
Total GDP of the economy	3.7	-1.0	2.8	-10.8	5.1	6.3	Q2 2022
GVA primary sector	1.4	0.6	2.1	4.3	-3.7	-2.9	Q2 2022
GVA agrifood industry	3.6	-2.8	0.8	-	-	-	2019
Agrarian income (current prices)	3.0	2.1	3.6	1.4	2.3	-	2021
Industrial production index: manufacturing industry	1.4	-4.8	2.4	-10.3	8.3	3.0 (*)	Jun-22
Industrial production index: food	1.7	0.0	1.2	-4.8	4.2	3.4 (*)	Jun-22
Industrial production index: beverages	2.3	-1.7	0.4	-9.0	12.3	5.0 (*)	Jun-22
Turnover index: manufacturing industry	5.5	-3.1	3.0	-12.0	16.0	23.5 (*)	Jun-22
Turnover index: food	4.1	1.1	2.8	-2.0	8.3	17.7 (*)	Jun-22
Turnover index: beverages	4.6	-1.2	2.1	-16.2	12.9	20.3 (*)	Jun-22
Demand indicators							
Retail sales index: whole economy	2.8	-4.0	2.3	-5.9	3.1	-1.0 (*)	Jul-22
Retail sales index: food	1.5	-2.0	1.1	0.3	-0.8	-1.3 (*)	Jul-22
Expenditure on food	2.6	-2.1	0.4	4.6	2.8	-	2021
Share of expenditure on food (%)	14.7	15.1	15.1	17.9	16.3	-	2021
Labour market							
Total registered workers, whole economy	3.5	-2.1	3.1	-2.1	2.5	3.5	Aug-22
Registered workers, primary sector	-1.4	-0.6	0.4	-1.6	-0.3	-3.3	Aug-22
Registered workers, agrifood industry	-	-0.8	2.9	-1.0	2.0	3.0	Aug-22
Total employees, whole economy	4.3	-2.4	2.7	-2.9	3.0	4.0	Q2 2022
Employees, primary sector	-1.5	-2.3	1.6	-4.0	4.9	-2.7	Q2 2022
Employees, agrifood industry	-	-1.0	1.5	0.0	-2.7	7.4	Q2 2022
Foreign sector							
Agrifood exports	6.3	6.0	5.6	4.0	11.2	7.4 (*)	Jun-22
Primary sector exports	4.7	5.1	5.3	3.5	8.8	6.8 (*)	Jun-22
Agrifood industry exports	7.3	6.6	5.7	4.2	12.6	7.8 (*)	Jun-22
Agrifood imports	6.7	2.0	4.5	-5.6	15.8	30.2 (*)	Jun-22
Primary sector imports	5.2	2.2	4.5	-3.8	15.8	32.6 (*)	Jun-22
Agrifood industry imports	7.6	1.8	4.5	-6.5	15.9	28.9 (*)	Jun-22
Agrifood balance of trade (% of GDP)	0.1	0.4	1.0	1.6	1.5	1.3 (*)	Q2 2022
Primary sector balance (% of GDP)	0.2	0.2	0.4	0.6	0.5	0.4 (*)	Q2 2022
Agrifood industry balance (% of GDP)	-0.1	0.2	0.6	1.0	1.0	0.9 (*)	Q2 2022
Financing							
Outstanding balance of credit to the primary sector	9.9	-5.0	3.9	4.0	3.0	2.3	Q1 2022
NPL rate, primary sector (%)	1.3	7.4	7.8	5.5	5.2	5.2	Q1 2022
Outstanding balance of credit to the agrifood industry	10.4	-1.8	4.4	2.9	0.1	2.6	Q1 2022
NPL rate, agrifood industry (%)	1.6	7.1	6.0	4.2	3.8	3.8	Q1 2022

Notes: For indicators marked with an (*), the 2022 figure corresponds to the cumulative change up to the latest data available. With the rest of the indicators, the year-on-year change is shown for the latest data available. Demand indicators are at constant prices.

Source: CaixaBank Research, based on data from the National Statistics Institute, DataComex, Social Security and Bank of Spain.

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CSDI 2020
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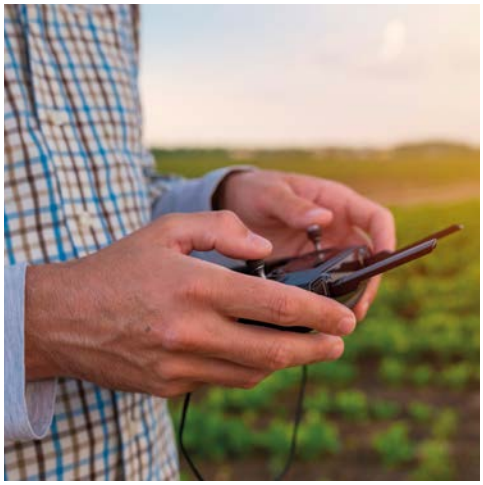

SIENTE AGRO

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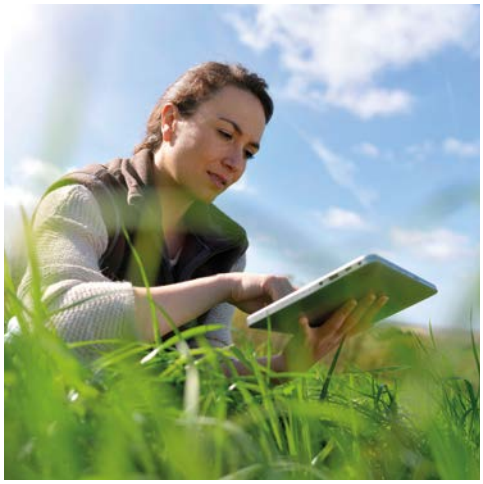


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