

Agrifood

Sector Report

2023

The sector is making headway despite adverse conditions

Production costs and drought are affecting Spain's agrifood sector

The sector's challenge of remaining competitive in the face of adverse conditions

What does the agricultural census tell us about Spanish farms?

The rise of rural tourism in Spain: an opportunity for rural development





SECTOR REPORT

Agrifood 2023

[CaixaBank Research](#)

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Summary

2023



02 PRODUCTION COSTS AND DROUGHT ARE AFFECTING SPAIN'S AGRIFOOD SECTOR

The severe drought has reduced the yields of a large number of crops such as cereals and fruits, impacting both prices (up) and exports (down).



13 THE CHALLENGE OF REMAINING COMPETITIVE IN THE FACE OF ADVERSE CONDITIONS

The various competitiveness indicators for the agrifood sector look resilient and world market shares continue to perform well.



23 WHAT DOES THE LATEST AGRICULTURAL CENSUS TELL US ABOUT SPANISH FARMS?

The typical farm in Spain still tends to be small and economically modest, and is usually run by an older man.



33 THE RISE OF RURAL TOURISM IN SPAIN: AN OPPORTUNITY FOR RURAL DEVELOPMENT

Rural tourism has opened up new avenues for diversifying sources of income for rural economies. We look at its implications based on CaixaBank's own data.

«Agriculture is the earliest and most respectable of arts.»

JEAN JACQUES ROUSSEAU



SITUATION AND OUTLOOK OF SPAIN'S AGRIFOOD SECTOR 2023

Drought and rising production costs weigh down the sector



CLIMATE CHANGE

Prolonged drought:
33.4%
of Spain's territory
was suffering
from a prolonged
drought in June
2023

Water reserves
for consumption
at **30.6%** of
capacity by
mid-August



COVID PANDEMIC

Rising production costs:
+13.3%
in 2021
+28.5%
in 2022



UKRAINE WAR

35% higher
than 2019
average
in S1 2023

Fall in crop production:

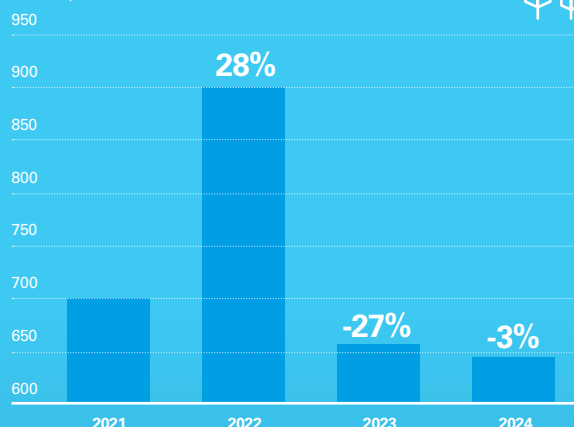
-13.6% in 2022 and lower
yields expected in 2023:

	SPAIN	UE-27
Wheat	-38.4%	0.0%
Barley	-34.2%	-3.1%
Rye	-40.5%	3.5%

The recent moderation observed in agricultural commodity prices on international markets should help to ease the strong inflationary pressures being felt by end consumers

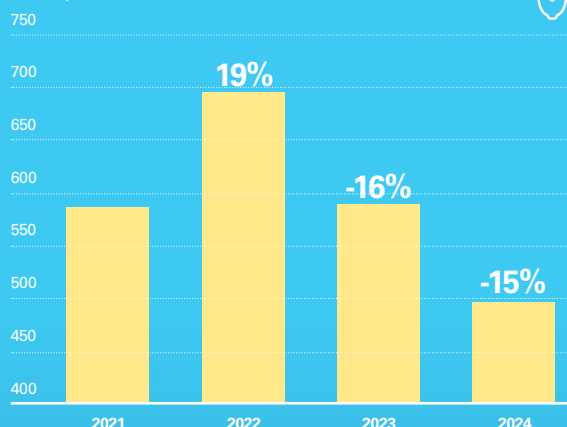
WHEAT

Dollars per bushel



CORN

Dollars per bushel



Note: Spot and futures market prices as of September 2023. **Source:** CaixaBank Research, based on data from Bloomberg.

Spain's agrifood sector has remained competitive in spite of the adverse situation



Agrifood exports (year-on-year change in the first half of 2023):

+6.3%
increase in
nominal value
due to higher
prices



-9.1%
but decrease
in volume
terms

Competitiveness indicators have not deteriorated
for the time being

Executive Summary

Spain's agrifood sector is making headway despite the adverse conditions

The Spanish agrifood sector is suffering the effects of the prolonged drought throughout Europe, which has been particularly severe in Spain, as well as the sharp rise in production costs. Both factors had a considerable impact on primary sector production in 2022, down by 8.8% in real terms. On the other hand, it's important to note that the most adverse scenarios regarding the risk of shortages for Spanish agriculture that were predicted after Russia's invasion of Ukraine have not actually materialised and agricultural commodity prices have corrected significantly on international markets. This has resulted in better figures in the first half of 2023; a trend of moderate growth that we expect to continue in the coming quarters.

The fact that input prices are moderating on international markets (cereals, fertilisers and energy) should help to reduce costs in Spain's agrifood sector and, ultimately, ease the inflationary pressures on food prices paid by the end consumer. This, together with a gradual recovery in the purchasing power lost by households in recent quarters, will help to boost household demand for food.

One current concern is how the rising costs experienced by the agrifood sector may affect its competitiveness. Consequently, this report devotes an article to analysing the developments in Spanish agrifood production and exports compared with the other main agrifood players in Europe (France, Italy, Germany and the Netherlands), revealing that Spain has performed relatively well despite experiencing a sharper increase in costs and a longer drought than its peers.

The long drought that's ravaging much of the Iberian Peninsula is a manifestation of one of the great challenges facing the sector: how to combat and mitigate the effects of climate change. The sector needs to continue its transformation in order to overcome this challenge, improving its competitiveness and becoming more efficient in the use of productive resources. One important factor is the size of farms, since larger enterprises tend to be more efficient and competitive. Data from the agricultural census show a positive trend in this respect: in the last decade there has been an increase in the number of bigger farms, although the average Spanish farm is still small compared with other European countries that are more productive than Spain, where there is a greater proportion of large farms with a much higher production rate per farm.

Finally, another relevant aspect to improve farm resilience is the diversification of sources of income. In this respect, rural tourism looks like being a good complementary activity to farming. In the last article of this report, we use CaixaBank's anonymised internal data and employ big data analysis techniques to examine the trend in card payments made by both domestic and international tourists in rural destinations. The findings confirm that, after the pandemic, rural destinations have been a great alternative destination, leading to higher growth in tourism in the less urban regions of Spain than in its more traditional coastal destinations and cities.



Situation and outlook

Production costs and drought are affecting Spain's agrifood sector

The agrifood sector continues to suffer from the sharp rise in production costs and the impact of the drought. However, the decline in agricultural commodity and energy prices on international markets from the peaks reached in 2022 should help contain agricultural production costs and thereby moderate inflationary pressures on food. Nevertheless, the severe drought that has been affecting the Iberian Peninsula since last year has reduced the yields of a large number of crops such as cereals and fruits, impacting both prices (up) and the volume of exports (down). All in all, in value terms agrifood exports continued to grow at a good rate in S1 2023 due to the rise in prices, reflecting the high competitiveness of Spain's agrifood sector despite the adverse conditions.

Primary sector production is suffering due to the higher production costs and drought

Spain's agrifood sector is having a tough time due to the drought and the consequences of the sharp rise in production costs in 2021-2022, first as a result of the pandemic and then the war in Ukraine. Both factors significantly affected the primary sector's gross value added (GVA) in 2022, which fell by 19.8% in real terms (-5.7% in nominal terms). GVA performed slightly better in S1 2023 with a decline of -4.7% year-on-year, thanks in part to the stabilisation of production costs. However, total GDP growth has been higher (3.2% year-on-year), resulting in the primary sector losing share in the economy as a whole: while it accounted for 3.0% of total GVA in 2021, it contributed just 2.5% in S1 2023%.

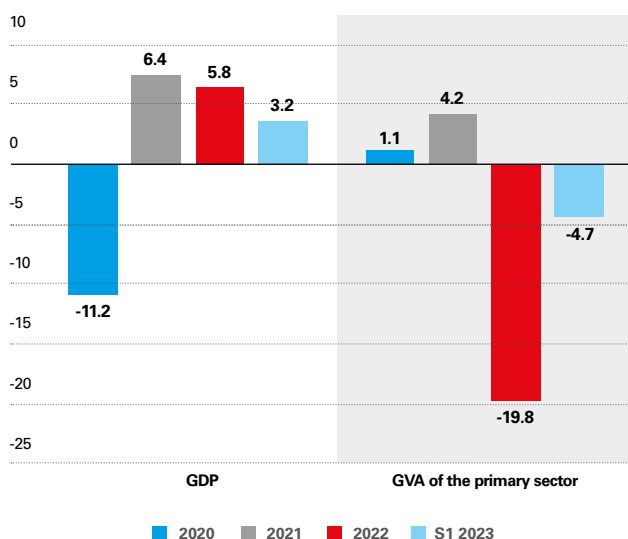
The agrifood sector is experiencing difficulties due to higher production costs and adverse weather conditions

① In hydrological terms, 2021-2022 was markedly dry with average precipitation of 478.5 mm in Spain as a whole, 25.3% below the normal value.

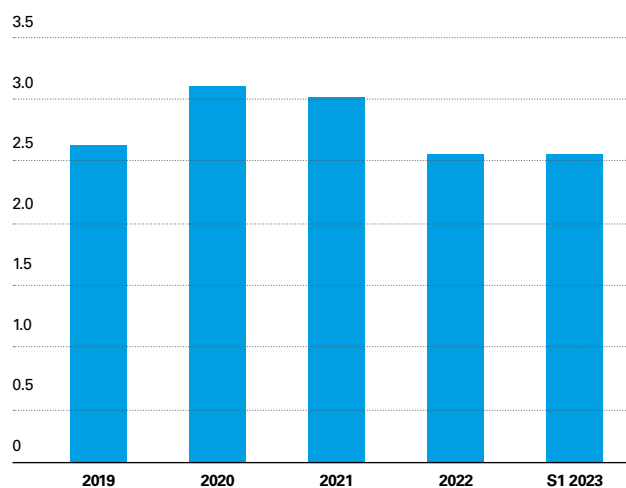
② The rainfall in May and June 2023 was not enough to counteract the prolonged drought affecting 33.4% of the territory in June 2023. Likewise, the reserves of water for consumption fell to 30.6% of their capacity by mid-August (compared to 32.4% a year earlier and a 10-year average of 49.4%). See the «Boletín mensual de estadística» produced by Spain's Ministry of Agriculture, Fisheries and Food (MAPA), July 2022.

The primary sector is growing less than the economy as a whole and losing share in the GDP

Year-on-year change (%)



GVA of the primary sector
(% of total GVA)



Note: Data in real terms.

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

The prolonged drought that affected much of the Iberian Peninsula in 2022¹ has continued so far in 2023.² The persistent lack of rain in spring and warmer than normal temperatures have led to anomalous negative topsoil moisture rates and poor conditions for vegetation and crops in the midst of the growing season.³ As a result, crop yields, which were already severely down last season, are estimated to have fallen further this year.⁴

③ Although it's true that some areas are showing a recovery, the overall situation is still one of «alert».

④ The impact of drought on crop yields is evident, although it must be noted that other factors also affect agricultural production (use of fertilisers, increase in organic farming, new environmental requirements, etc.).





In 2022, plant production fell while production costs rose significantly

	Amount in 2021 (million €)	Amount in 2022 (million €)	Change in 2022 (value)	Change in quantity (at constant prices)	Change in unit price
A. Agricultural production	57,102	63,172	10.6%	-8.8%	21.3%
Plant production	35,000	36,276	3.6%	-13.6%	19.9%
Animal production	20,479	25,090	22.5%	-1.5%	24.3%
Other	1,624	1,806	11.2%	1.0%	14.1%
B. Intermediate consumption	27,133	34,872	28.5%	-2.0%	31.1%
Feed	14,264	18,977	33.0%	-1.5%	35.1%
Energy	2,385	3,564	49.4%	-1.9%	52.4%
Fertilisers	2,218	3,433	54.8%	-11.2%	74.3%
Phytosanitary products	1,361	1,690	24.2%	3.8%	19.6%
Seeds and seedlings	1,209	1,242	2.7%	-0.4%	3.2%
Other	5,697	5,967	4.7%		
C= (A-B) GROSS VALUE ADDED	29,970	28,300	-5.6%	-15.0%	11.1%

Source: CaixaBank Research, based on data from the Ministry of Agriculture, Fisheries and Food.

The impact of drought: overall agricultural production in 2022 and estimates for 2023

According to the Economic Accounts for Agriculture, plant production in Spain fell by 13.6% in 2022. Specifically, the drought led to lower yields in cereals (-24.3%), fruits (-20.7%), forage plants (-18.2%), industrial plants (-9.9%), vegetables (-7.5%) and potatoes (-7.0%). Only the production of wine and must (+1.4%) and olive oil (+6.4%) grew last year (2021-2022) although, as we'll see in the next section, estimates for the 2022-2023 season point to a significant drop in the production of these products as well. However, the strength observed in plant prices (+19.9%) meant that their production grew in value (+3.6%). In contrast, animal production was less affected and posted a slight decline of 1.5% in 2022. In terms of value it grew considerably (+22.5%), thanks to higher prices (+24.3%).⁵

In 2022, crop production fell by 13.6% in Spain, a much bigger drop than the one recorded in other European countries due to the greater severity of the drought. Animal production recorded a slight decrease of 1.5%

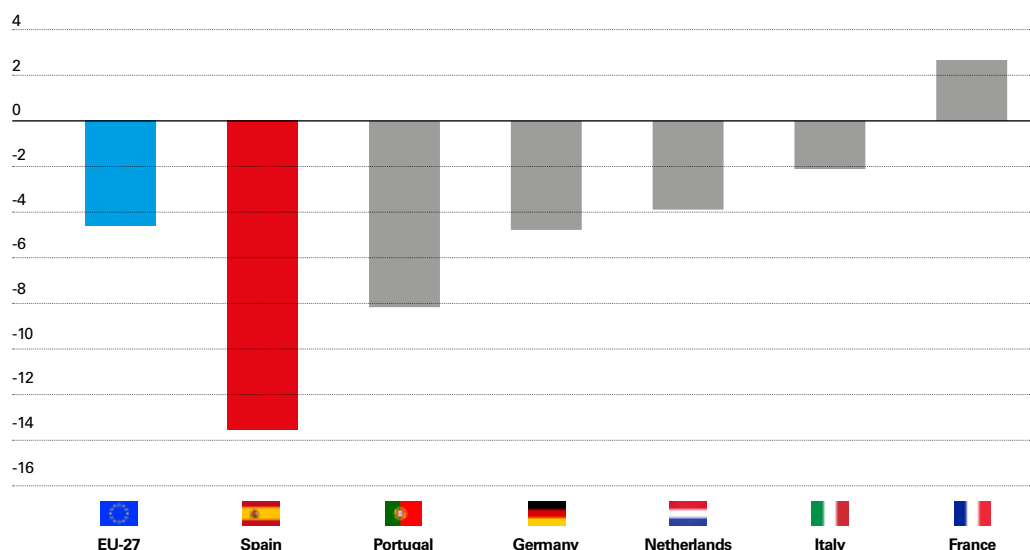
Compared with other European countries, the drop in crop production was much greater in Spain (13.6% compared with 4.6% in the EU as a whole). This is due to the greater difficulties faced by the Spanish agrifood sector because of the aforementioned adverse weather conditions and a somewhat sharper rise in production costs.⁶ These aspects, and their implications for the competitiveness of the agrifood sector, are analysed in detail in the article «The challenge for Spain's agrifood sector of remaining competitive in the face of adverse conditions» in this *Sector Report*.

⁵ Despite a notable increase in the value of agricultural production in 2022 (10.6%), the sharp rise in intermediate costs (of 28.5%) reduced the sector's GVA (-5.6%) and agricultural income (-6.2%).

⁶ To help the sector cope with this drought, Royal Decree-Law 4/2023 was approved on 11 May, adopting urgent agricultural and water measures in response to the drought.

Crop production fell more in Spain than in the EU as a whole

Change in crop production in 2022



Note: Change at constant prices.

Source: CaixaBank Research, based on data from the Ministry of Agriculture, Fisheries and Food.

Estimates for the 2023 harvest are not encouraging. According to the preliminary figures for agricultural area and production (provisional, with May's advanced figures)⁷, the production of winter cereals (wheat, barley, oats, rye and triticale, the hybrid cereal from a cross between wheat and rye) totals 9 million tonnes (Mt) in 2023, compared with 14.4 Mt in 2022 and 19.3 Mt in 2021. This implies a considerable drop in cereal yields, as can also be seen in the European Commission's estimates.⁸ Specifically, the Commission puts Spanish wheat yields at 2.2 tonnes per hectare in 2023, down from 2.8 tonnes in 2022 and far from the average of 3.5 tonnes in the previous 5 years. As can be seen in the table below, barley and rye yields have suffered similar declines in Spain, in contrast to the better performance for the EU average.⁹

Summer crops, on the other hand, have been less affected by the ravages of climate change. According to the European Commission, sweet corn, almost all of which is irrigated, has not suffered heat stress during flowering and is in a good situation. On the other hand, olive oil production has suffered a significant drop from 1,489,351 tonnes of oil last year to 675,093 tonnes in the 2022-2023 season, representing a 55% decrease in yield, which would explain the notable rise in the price of olive oil observed recently.¹⁰

Olive oil production has suffered a significant drop from 1,489,351 tonnes last year to 675,093 tonnes in the 2022-2023 season, a 55% decrease in production

⁷ «Avance de superficies y producciones de cultivos» from Spain's Ministry of Agriculture, Fisheries and Food, May 2023.

⁸ «Crop monitoring in Europe», JRC MARS Bulletin, vol. 31, no. 8, 21 August 2023.

⁹ For an analysis of the drought situation in Europe, see «Drought in Europe», JCR Technical Report, June 2023.

¹⁰ «Avance de la situación de mercado del sector de aceite de oliva, aceituna de mesa y aceite de orujo de oliva. Campaña 2022/2023», published by the Ministry of Agriculture, Fisheries and Food, August 2023.



Crop yields in 2022 and forecast for 2023

Tonnes per hectare

		5-year average	2022	2023 forecast	2023 forecast vs. 5-year average
WHEAT	Spain	3.5	2.8	2.2	-38.4%
	EU-27	5.6	5.6	5.6	0.0%
BARLEY	Spain	3.3	2.8	2.2	-34.2%
	EU-27	4.9	5.0	4.7	-3.1%
RYE	Spain	2.4	1.9	1.4	-40.5%
	EU-27	4.0	4.3	4.1	3.5%
SWEET CORN	Spain	12.1	11.7	12.5	3.3%
	EU-27	7.5	5.9	7.5	-0.4%
RICE	Spain	7.4	6.8	6.7	-9.7%
	EU-27	6.5	5.4	6.5	-0.6%
POTATO	Spain	31.7	30.5	29.1	-8.2%
	EU-27	34.1	35.3	34.4	0.9%
SUGAR BEET	Spain	85.8	84.1	87.1	1.5%
	EU-27	72.0	-	73.7	2.4%

Source: CaixaBank Research, based on Crop Monitoring in Europe (21 August 2023).

Moderation in production costs gives the agrifood sector a breather

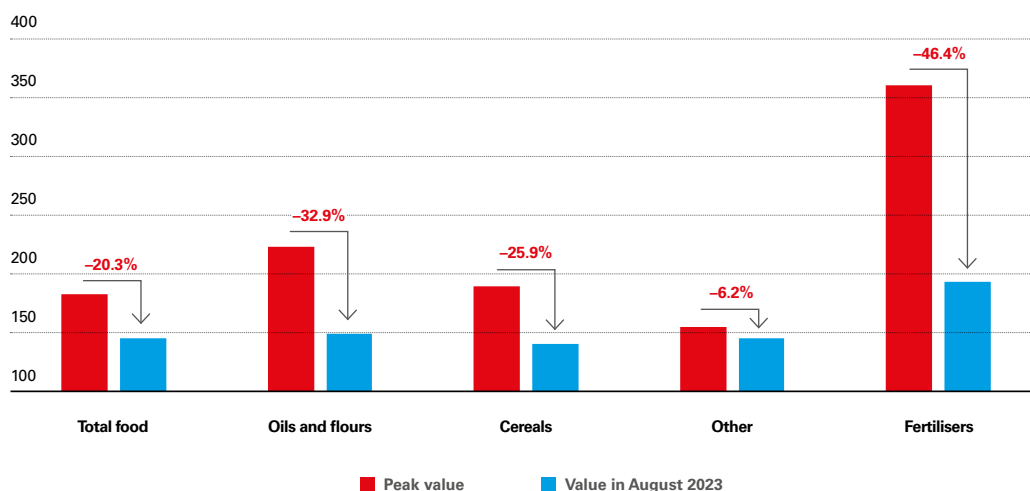
As we have seen, apart from the drought, the second factor affecting the performance of Spain's agrifood sector is production costs. This aspect is somewhat more favourable thanks to the significant drop in agricultural commodity and energy prices on international markets compared with last year's record levels.

In fact, the World Bank's food commodity price index has fallen by 31.5% between its peak in May 2022 and August 2023 (latest available data) and the drop in fertiliser prices has been even sharper (-46.4% since its peak in April 2022). With these reductions, the price hikes that followed Russia's invasion of Ukraine have largely been reversed. However, prices are still well above the 2019 pre-pandemic average, especially fertilisers which are twice as expensive now as they were in 2019. Despite Russia's announcement in early July that it would not extend the agreement for grain exports through the Black Sea, spot and futures market prices for agricultural commodities have remained relatively stable, even reporting a slight downward trend this summer. A combination of other factors, such as the slowdown in global economic activity, especially in China, the reorientation of international trade towards commodities from other producers and the publication of very positive world agricultural production forecasts for the 2023-2024 campaign by the United States Department of Agriculture (USDA) may have contributed to this trend).¹¹

¹¹ Specifically, the USDA expects world corn production to reach 1,213 million tonnes, up 5.3% from the previous year. Wheat will reach 793.4 million tonnes in the 2023-2024 season, up 0.4% from the previous season. See «World Agricultural Supply and Demand Estimates», USDA, August 2023.

Agricultural commodity prices on international markets have fallen from the peaks of 2022

Index (100 = 2019)



Source: CaixaBank Research, based on data from the World Bank (The Pink Sheet).

Given the performance by agricultural commodity prices on international markets, the outlook for the trend in agricultural production costs is positive

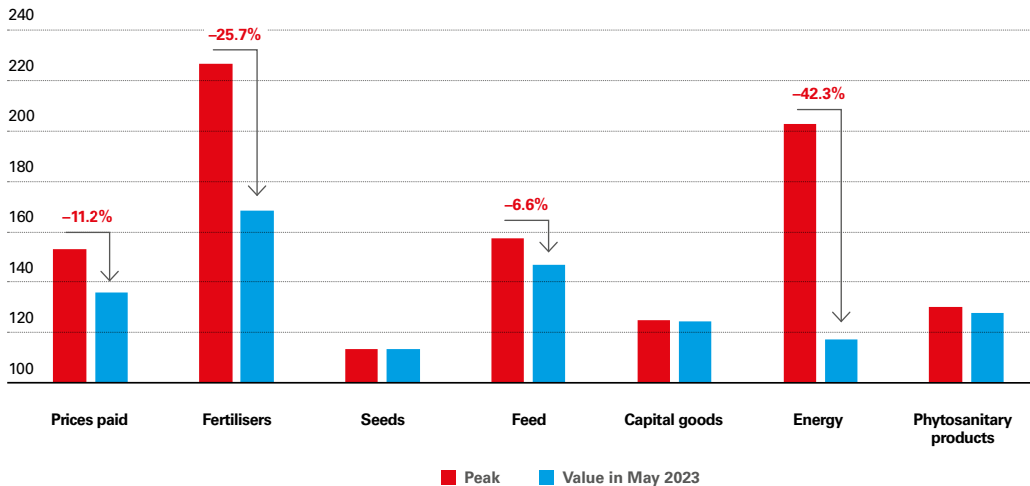
The fall in agricultural commodity and energy prices on international markets is beginning to be felt in the prices paid by Spanish farmers. Specifically, agricultural input costs decreased by 11.2% between August 2022 (when they reached their peak) and May 2023 (latest available data). Nevertheless, costs are still approximately 35% higher than the 2019 average. Energy costs have fallen the most since their peak (-42.3%), followed by fertilisers (-25.7%).

However, the component that weighs most heavily in the cost structure for the primary sector is feed (54.4% of the total in 2022) and the decline in its price is still very limited (-6.6% from the November 2022 peak). Given that Spain imports approximately half the cereal destined for animal feed, the drop in cereal prices on international markets should help contain its bill for feeding livestock over the coming months.



Production costs moderate but are still much higher than pre-pandemic levels

Index (100 = 2019)



Source: CaixaBank Research, based on data from the Ministry of Agriculture, Fisheries and Food.

Spain's agrifood industry is feeling the effects of higher prices

On the supply side, the food industry is suffering from the pressure exerted by a substantial increase in the price of agricultural products (an essential input for its activity) and, on the other hand, from weak demand due to the sharp rise in food prices. As a result, food industry production fell by 1.8% year-on-year between January and July 2023 and is still 2.3% below its pre-pandemic level (2019 average). Beverage manufacturing also declined in the first seven months of 2023 (-1.7% year-on-year) but this is a correction after the strong recovery posted in 2022 with the post-pandemic reopening of the hospitality channel (hotels, restaurants and cafeterias), a positive trend that has continued this year thanks to the excellent tourist season. In fact, beverage production is now 7.0% above its pre-pandemic level.

The agrifood industry is feeling the effects of higher input prices and weaker demand

Moreover, producer prices have risen less in the beverage manufacturing industry than in the food industry. Specifically, the industrial price index in beverage manufacturing rose by 15.8% in the cumulative period between 2021 and July 2023 compared with 29.1% in the food industry.

Agrifood industry: production is suffering from rising prices

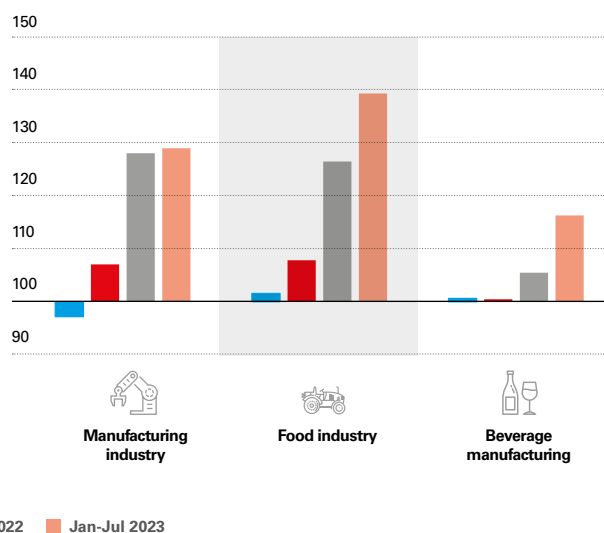
Industrial production

Index (100 = 2019)



Industrial price index

Index (100 = 2019)



Note: Production data in volume terms (real).

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

Employment continues to grow in the food industry but has fallen in the primary sector

The labour market is performing well in the agrifood industry: the number of people registered as employed with Social Security rose to 474,000 in August 2023, 2.1% more than a year ago. In contrast, the primary sector's labour force has continued to shrink: registration fell by 1.7% year-on-year in August 2023 and the sector has 17,300 fewer workers than a year ago. These data reflect both the difficulties faced by the sector and the possible impact of the increase in the minimum wage on recruitment. In the agricultural sector, 46.9% of employees are on this new minimum wage, a much higher percentage than the 14.4% for the services sector, 7.5% in industry and 3.8% in construction.¹²

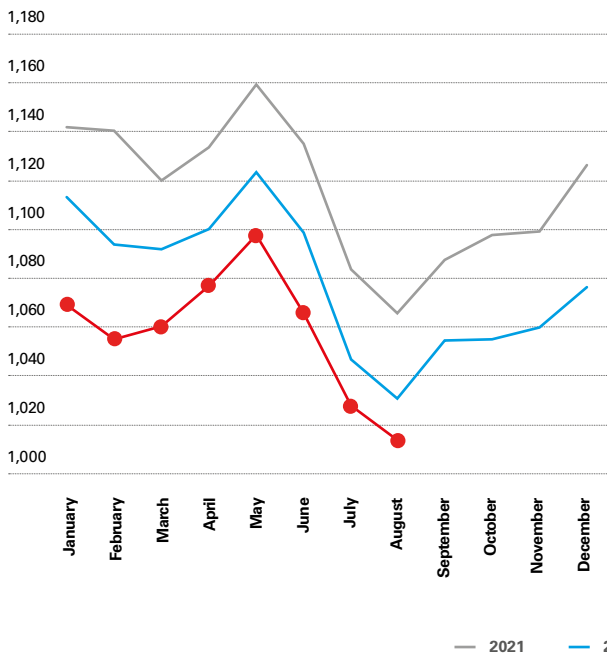
¹² See «El salario mínimo en 2023. Un paso más hacia el 60% del salario medio», *Análisis y contextos* (no. 51), February 2023, by the UGT Research Service (Servicio de Estudios).

One very positive aspect worth highlighting is the sector's reduction in temporary employment. In Q2 2023, 39.8% of the workers employed in agriculture were on a temporary contract, down by 13.8 percentage points compared with Q2 2021, before the labour reform came into force. However, this rate is still much higher than in the economy as a whole (14.7%), due to agriculture being highly seasonal.

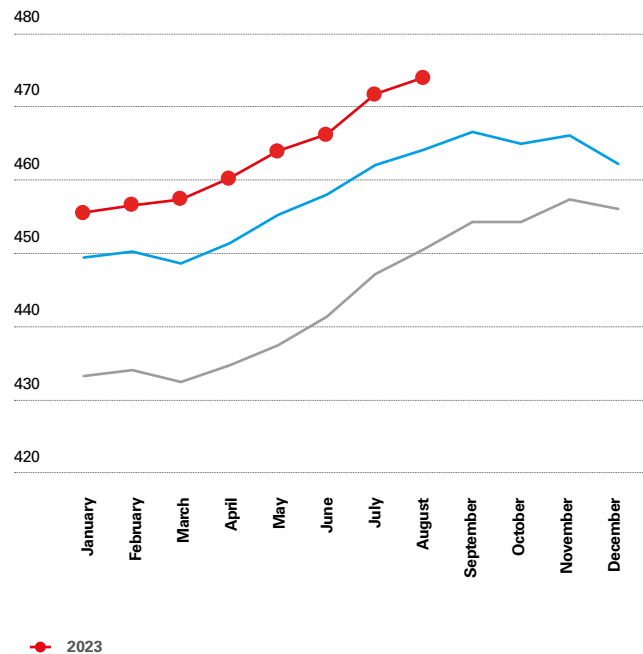
One very positive aspect is the sector's reduction in temporary employment. In Q2 2023, 39.8% of the workers employed in agriculture were on temporary contracts, 13.8 pp less than in Q2 2021



Primary sector registered workers
(thousands)



Food industry registered workers
(thousands)



Source: CaixaBank Research, based on data from MITRAMISS.

Growth in food prices is starting to show signs of slowing down

Rising costs in all links of the food chain, from the primary sector to the processing industry, including transportation and distribution, have been passed on to the food prices paid by end consumers. In August 2023, the food CPI grew by 10.1% year-on-year, still an unusually high rate but a considerable slowdown from the peak growth of 15.7% recorded in February 2023. The outlook is for food inflation to ease, thanks to the notable drop in the prices of agricultural products on international markets and in transportation costs (linked to the price of oil), although it will still remain high due to the time lag with which price shocks tend to be transmitted along the food chain.¹³ There are also some indications of a certain asymmetry in the response of consumer prices. In other words, after the recent drop in price of some commodities, the fall in consumer prices might be slower than the rise when those same inputs became more expensive.¹⁴ Nevertheless, there is great uncertainty regarding the trend in food prices since they're affected by a wide range of factors such as extreme weather phenomena, not only in Spain and Europe but also worldwide. This includes El Niño, a meteorological phenomenon that often causes heat waves and drought in the Indo-Pacific region, reducing harvests and pushing up food prices.¹⁵ The recent oil price hike, if it turns out to be more persistent than expected, could also pose an additional obstacle to a moderation in food prices.

¹³ See «The exposure of consumer goods in Spain to international agricultural commodity prices», published in the September 2022 *Monthly Report*.

¹⁴ See «Annual Report 2022» of the Bank of Spain.

¹⁵ See «Minor risk to inflation outlook from extreme weather», Capital Economics, August 2023.

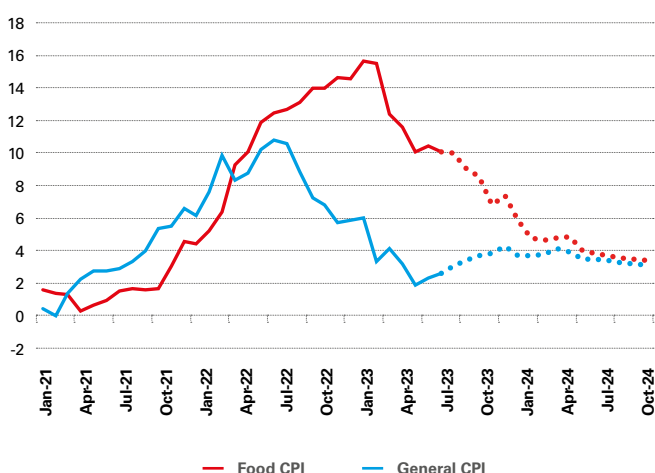
Spending in supermarkets and large food stores has increased due to the higher prices, according to CaixaBank's internal data from Spanish cards

High food prices are affecting food expenditure by households

According to the INE retail sales index, food sales grew by 13.5% year-on-year in S1 2023 at current prices (i.e. an increase in nominal expenditure on food) but the increase was just 0.5% at constant prices (the quantity consumed has not changed). CaixaBank Research's Consumption Monitor indicator, based on card payments in supermarkets and food establishments (nominal expenditure), shows an increase of around 18% year-on-year so far in 2023.

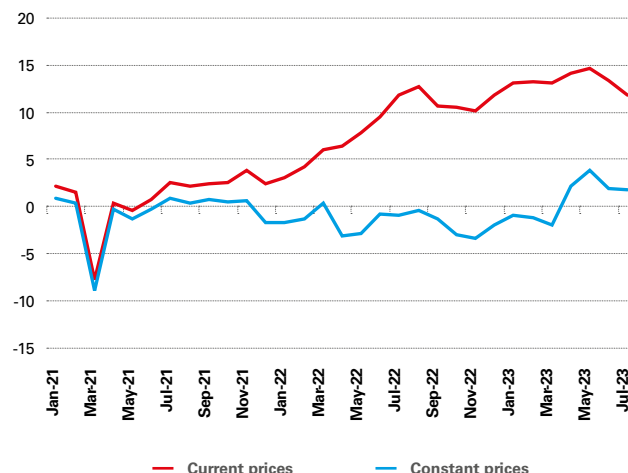
General and food CPI

Year-on-year change (%)



Food retail sales

Year-on-year change (%)



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

























Rising prices are reflected in export figures

This sharp increase in prices makes it essential to differentiate, in the data for exports, between value and volume. In nominal terms (value), Spanish agrifood exports have continued to grow at a good pace, posting a cumulative 6.3% year-on-year growth in the period from January to June 2023, reaching 71 billion euros (12-month cumulative). However, in real terms (volume) agrifood exports fell by 9.1% year-on-year in S1 2023. This decline was substantial for certain products such as cereals (-45.6%) and oilseeds (-40.3%), whose production was affected by the drought. In any case, the sharp increase in the price of these products has offset the fall in value terms. On the other hand, around 25% of the basket of exports has grown in both volume and value. Such products are beverages

(including wine), canned foods, fish products and, with a very significant increase, milling products (56% year-on-year in S1 2023 in volume terms).

In short, despite the price rises in agrifood products, the sector's export figures are still reasonably positive, especially considering the adverse situation affected by lower yields, production costs that remain high and relatively weak international demand. In this respect, one factor in Spain's favour is the high competitiveness enjoyed by its agrifood sector, an aspect we will analyse in detail in the next article of this *Sector Report*.

Agrifood exports by product group

TARIC	Group	Exports 2022		Nominal year-on-year change		Year-on-year change volume	
		Million €	Share	2022	2023*	2022	2023*
10	 CEREALS	586	0.9%	29.1%	-31.4%	-11.2%	-45.6%
12	 OLEAGINOUS SEEDS AND FRUITS, INDUSTRIAL PLANTS	1,032	1.5%	6.7%	-3.9%	-15.4%	-40.3%
23	 RESIDUES AND WASTE FROM THE FOOD INDUSTRY	1,664	2.5%	12.2%	0.9%	-10.0%	-17.3%
15	 ANIMAL OR VEGETABLE FATS AND OIL	7,194	10.7%	33.1%	-8.4%	0.4%	-14.2%
20	 PREPARATIONS OF VEGETABLES, FRUIT; JUICES	3,903	5.8%	17.4%	7.5%	0.0%	-13.5%
09	 COFFEE, TEA, MATÉ AND SPICES	806	1.2%	18.8%	10.4%	4.0%	-13.5%
01	 LIVE ANIMALS	749	1.1%	11.1%	-3.1%	-6.9%	-10.8%
08	 FRUIT AND NUTS	9,845	14.7%	-1.3%	1.2%	-9.1%	-10.4%
04	 DAIRY PRODUCE; BIRD'S EGGS	2,079	3.1%	20.6%	4.8%	-6.5%	-10.2%
13	 VEGETABLE SAPS AND EXTRACTS	891	1.3%	45.8%	-32.8%	6.1%	-9.7%
14	 VEGETABLE PLAITING MATERIALS	14	0.0%	1.3%	-27.2%	-20.7%	-8.7%
07	 LEGUMINOUS AND OTHER VEGETABLES	8,029	12.0%	8.0%	12.8%	-6.3%	-6.0%
02	 MEAT AND EDIBLE MEAT OFFAL	9,708	14.5%	9.8%	13.2%	-6.0%	-5.7%
18	 COCOA AND COCOA PREPARATIONS	874	1.3%	17.3%	10.8%	4.6%	-4.3%
06	 LIVE PLANTS; CUT FLOWERS AND ORNAMENTAL FOLIAGE	602	0.9%	5.4%	2.5%	22.2%	-3.6%
21	 MISCELLANEOUS EDIBLE PREPARATIONS	2,575	3.8%	26.9%	23.3%	2.8%	-2.3%
05	 OTHER PRODUCTS OF ANIMAL ORIGIN	425	0.6%	11.6%	6.5%	0.4%	-0.8%
19	 PREPARATIONS OF CEREALS, PASTRYCOOKS' PRODUCTS AND BAKERS' WARES	2,544	3.8%	22.2%	18.8%	5.8%	0.5%
22	 BEVERAGES ALL KINDS (EXCL. JUICES)	5,467	8.2%	8.6%	4.4%	-4.5%	2.0%
16	 PREPARATIONS OF MEAT OR FISH	2,214	3.3%	14.9%	15.8%	1.0%	2.4%
03	 FISH, CRUSTACEANS, MOLLUSCS	4,096	6.1%	17.5%	3.8%	1.0%	4.3%
17	 SUGARS; SUGAR CONFECTIONERY	911	1.4%	25.7%	33.6%	2.5%	12.2%
24	 TOBACCO AND TOBACCO SUBSTITUTES	320	0.5%	35.2%	65.4%	5.9%	20.3%
11	 PRODUCTS OF THE MILLING INDUSTRY	416	0.6%	22.9%	37.8%	-11.6%	56.0%
TOTAL		66,947	100%	13.2%	6.3%	-5.5%	-9.1%

Note: (*) Cumulate data from January to June 2023.

Source: CaixaBank Research, based on data from DataComex.

The foreign sector

The challenge for Spain's agrifood sector of remaining competitive in the face of adverse conditions

Extreme drought and rising costs have created a perfect storm that has nonetheless failed to dampen the high spirits of Spain's agrifood exports in recent years. The decline in the volume of exports experienced by the sector, offset by the increase in prices, is the result of an adverse situation but the various competitiveness indicators look resilient and global market shares are still behaving very favourably. Even so, the sector must continue to invest in order to ensure its production becomes even more digitised, sustainable and competitive, a mission of vital importance given the huge challenge posed by climate change for the country.

The fall in agricultural production in Spain

As mentioned in the previous article, in 2022 Spain's agricultural production recorded a sharp fall in volume terms (–13.6%), interrupting the upward trend observed in previous years. Although this decline was widespread across all European crops and countries, the drop in Spain was much greater than in the EU as a whole (–4.6%) and also compared with the top 5 European producers (excluding Spain): Germany (–4.8%), France (+2.7%), Italy (–2.1%) and the Netherlands (–3.9%). Moreover, the European Commission's projections for 2023, shown in the table below, are once again particularly negative for Spain,¹⁶ in contrast to a more positive forecast for the rest of the top 5 and the EU average. The sharp declines predicted in cereals, of more than 30%, are particularly worrying.

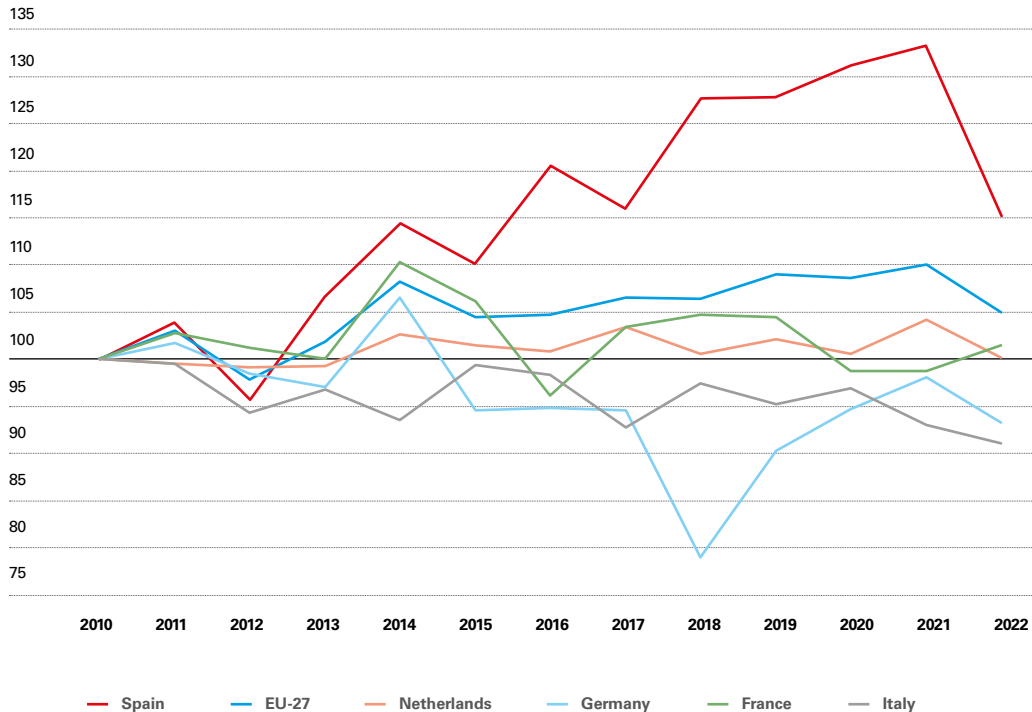
¹⁶ See the article «Production costs and drought are affecting Spain's agrifood sector» in this *Sector Report*.

The European Commission's agricultural production forecasts for 2023 are especially negative for Spain, particularly the drop in cereal yields of more than 30%



Agricultural production in 2022 fell most sharply in Spain

Crop yields (100 = 2010)⁽¹⁾



Note: (1) Value of production at constant basic prices.

Source: CaixaBank Research, based on data from Eurostat.

Extreme drought, the first shock for Spanish agricultural production

The biggest drop in Spanish agricultural production is due to a perfect storm of two shocks, more severe in Spain than in its European neighbours: one is related to climate and the other to costs.

The prolonged drought we've been experiencing since 2022 is extraordinary at a European level¹⁷ but its impact is greater in the western Mediterranean, where crops have been particularly affected by low rainfall, intense heat waves and high levels of sunshine. In Spain, the volume of precipitation recorded in 2022 was 533 mm, 16% below the historical average, and this affected crops across the board although especially cereals and fruits. This situation hasn't improved over the first 11 months of the current hydrological year (October 2022-August 2023): overall, precipitation is 17.1% lower than the average for the reference period, with a particularly significant lack of rainfall in the internal basins of Catalonia and Andalusian basins. According to the data at 31 August 2023, 26% of Spain's territory was in a situation of prolonged drought, related to the so-called meteorological drought.¹⁸ As a consequence, the water accumulated in reservoirs is at a very low level (36.8% of their capacity in the week of 18 September), clearly below the last decade's average for the same period (49.9%).¹⁹

¹⁷ Europe has suffered recurrent droughts in the past 20 years (2003, 2012, 2018, 2019, 2020, 2022 and 2023) but these situations are becoming more frequent and widespread. In addition, the drought of the summer of 2022, classified as severe to extreme in Europe and aggravated by record temperatures across the continent, was followed by an exceptionally dry and warm winter, which meant that many aquifers and reservoirs were unable to recover.

¹⁸ Meteorological drought is a natural phenomenon of a lack of precipitation, which leads to a significant decrease in circulating flows of water. It's different from situations of scarcity, which are related to cyclical problems in meeting the demands of different users. See the Ministry for Ecological Transition and the Demographic Challenge (2023): «Informe de la situación de sequía y escasez».

¹⁹ See Embalses.net - Estado de los Embalses, pantanos y presas de España.

Crop yields in 2022 and forecast for 2023

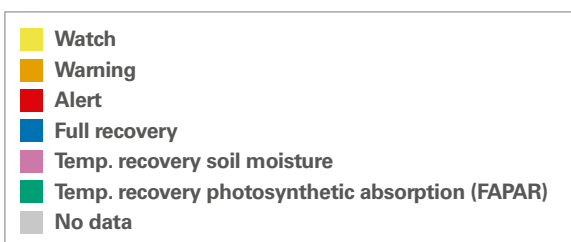
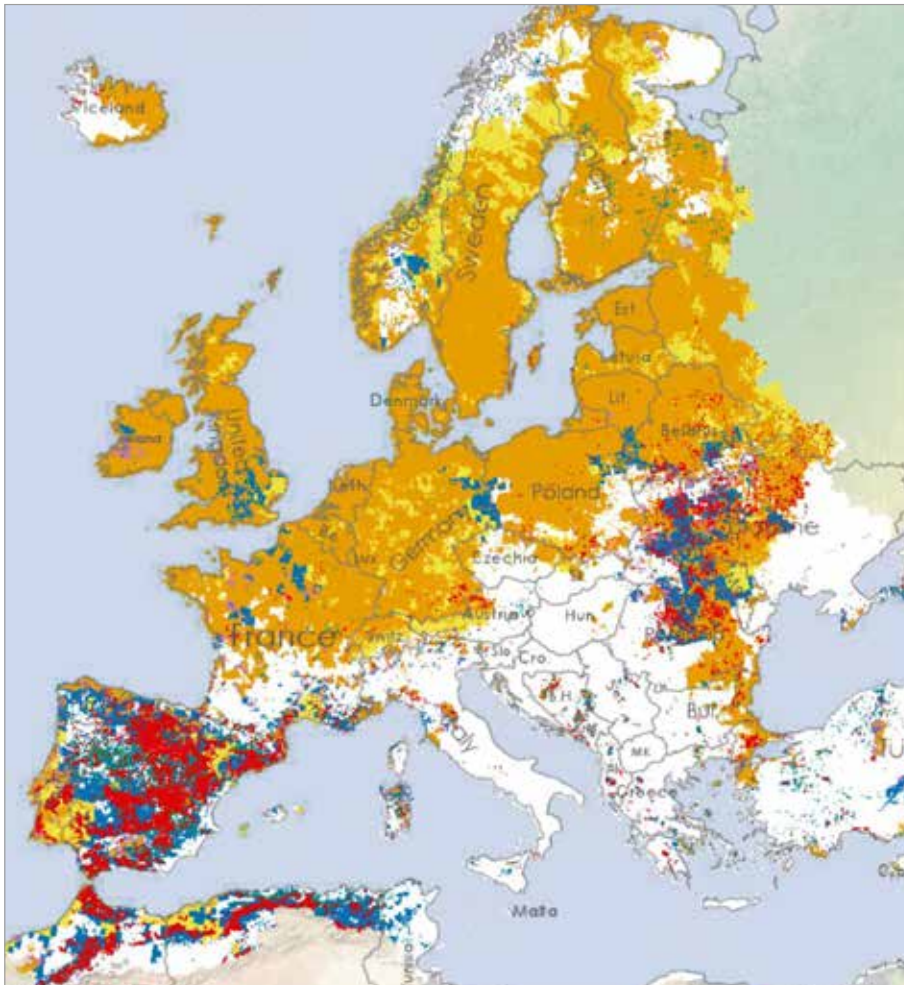
Tonnes per hectare

		5-year average	2022	Forecast 2023	Forecast 2023 over 5-year average
WHEAT	Spain	3.5	2.8	2.2	-38.4%
	EU-27	5.6	5.6	5.6	0.0%
	Germany	7.4	7.6	7.4	1.0%
	France	7.1	7.1	7.4	3.2%
	Italy	3.8	3.6	3.9	0.8%
	Netherlands	9.0	9.5	8.8	-1.6%
BARLEY	Spain	3.3	2.8	2.2	-34.2%
	EU-27	4.9	5.0	4.7	-3.1%
	Germany	6.6	7.1	6.8	2.9%
	France	6.3	6.1	6.7	6.5%
	Italy	4.1	4.2	4.2	2.2%
	Netherlands	7.1	7.8	7.0	-0.4%
RYE	Spain	2.4	1.9	1.4	-40.5%
	EU-27	4.0	4.3	4.1	3.5%
	Germany	5.2	5.3	5.1	-0.8%
	France	4.3	3.8	4.5	3.9%
	Italy	-	-	-	-
	Netherlands	-	-	-	-
SWEET CORN	Spain	12.1	11.7	12.5	3.3%
	EU-27	7.5	5.9	7.5	-0.4%
	Germany	9.1	8.4	9.2	1.7%
	France	8.6	7.5	9.1	5.3%
	Italy	10.0	8.3	10.0	0.2%
	Netherlands	10.5	10.8	10.4	-1.0%
RICE	Spain	7.4	6.8	6.7	-9.7%
	EU-27	6.5	5.4	6.5	-0.6%
	Germany	-	-	-	-
	France	5.5	5.6	5.5	0.9%
	Italy	6.3	4.9	6.5	3.5%
	Netherlands	-	-	-	-
POTATO	Spain	31.7	30.5	29.1	-8.2%
	EU-27	34.1	35.3	34.4	0.9%
	Germany	40.3	40.1	41.6	3.2%
	France	40.4	38.0	39.9	-1.2%
	Italy	29.2	28.3	29.4	0.7%
	Netherlands	41.2	42.6	40.0	-2.9%
SUGAR BEET	Spain	85.8	84.1	87.1	1.5%
	EU-27	72.0	-	73.7	2.4%
	Germany	72.5	71.2	74.6	2.9%
	France	78.6	78.6	81.0	3.1%
	Italy	63.1	-	64.0	1.4%
	Netherlands	82.4	88.8	82.0	-0.5%

Source: CaixaBank Research, based on Crop Monitoring in Europe (21 August 2023).



Combined Drought Indicator (CDI)



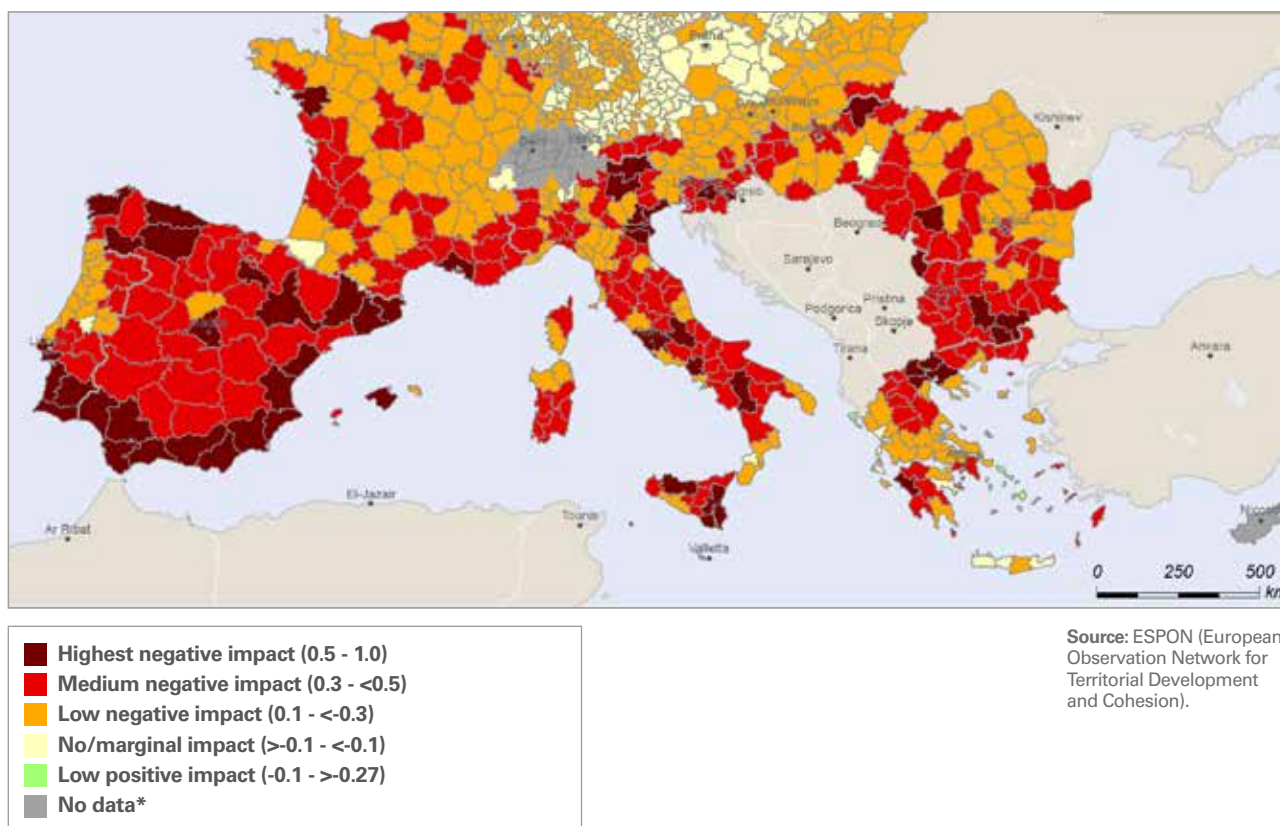
Source: European Drought Observatory (EDO). Data up to 20 June 2023.

²⁰ The CDI, developed by the European Drought Observatory (EDO), is used to identify areas that may be affected by agricultural drought and is based on a combination of indicators of precipitation, soil moisture and vegetation conditions. Areas are classified according to three primary drought classes (watch, warning and alert), plus three additional classifications that identify the different stages of recovery from drought.

²¹ OECD (2023): «Policies for the future of farming and food in Spain».

As can be observed in the map, the Combined Drought Indicator²⁰ shows a widespread alert for Spain. In addition, various international organisations have noted that Spain is one of the countries that will suffer most from the effects of climate change in Europe (see the map below), with more problems of water availability and the consequent impact on agriculture. This phenomenon could also lead to changes in land use, such as increasing the cultivation of tropical fruits to the detriment of vines.²¹

Aggregate potential impact of climate change



Rising costs, the second shock to Spanish agricultural production

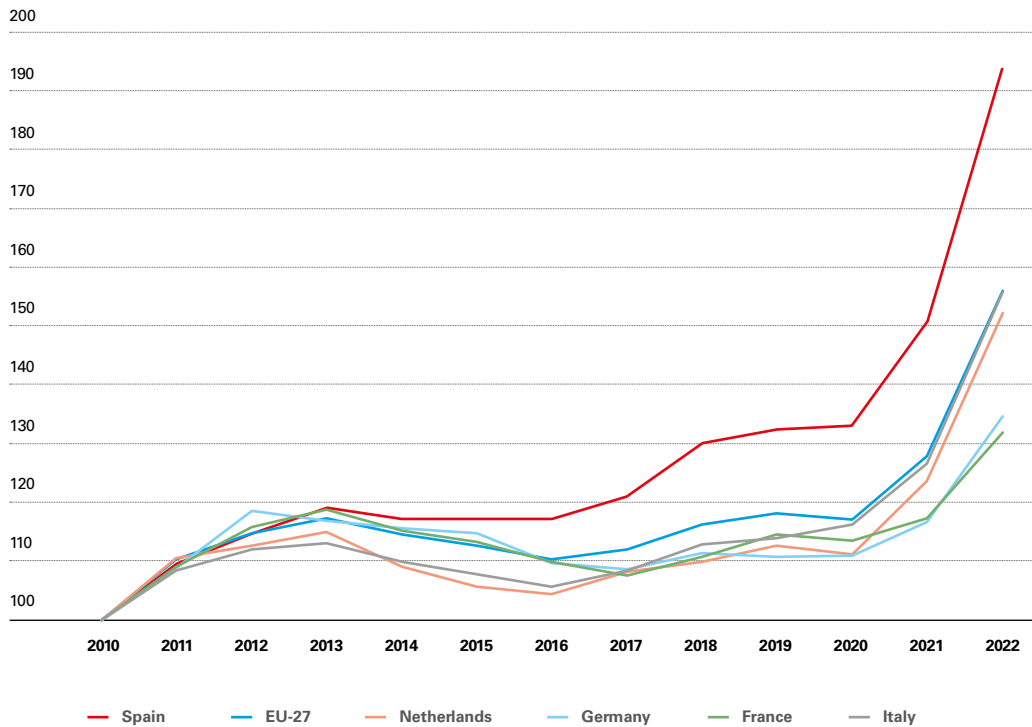
In recent years, Spain's agrifood sector has had to face higher production costs. If we look at the intermediate consumption of the Economic Accounts for Agriculture (understood as the value of all goods and services used as inputs in the production process), we can see that Spain was also harder hit by the cost shock of 2021-2022: the increase in intermediate consumption in Spain (+45.6%) was higher than both the EU average (+33.0%) and that of the other top 5 countries (around +20.0% in Germany and France and around +35.0% in Italy and the Netherlands).

Spain was hardest hit by the cost shock of 2021-2022: the increase in intermediate consumption in Spain (+45.6%) was higher than the EU average (+33%)



Higher growth in Spain's agrifood sector costs

Intermediate consumption (100 = 2010)



Note: Value at current basic prices.

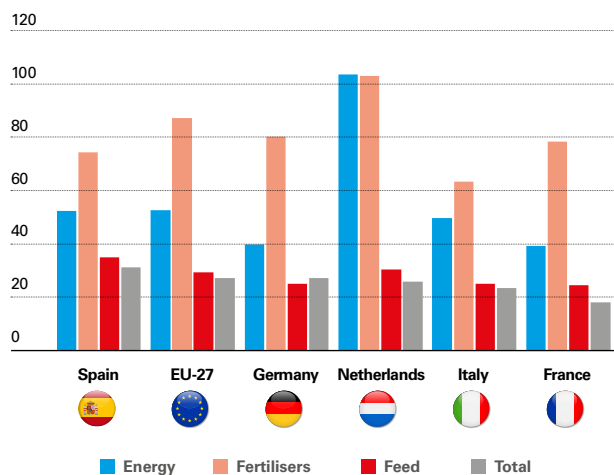
Source: CaixaBank Research, based on data from Eurostat.

Energy, fertilisers and, above all, animal feed were mainly responsible for the increase in costs in the agrifood sector last year. Certain differences can be seen if we compare the price trend of these inputs (measured by the deflator) in Spain with the top 5 countries and EU average. (i) The rise in energy prices in Spain was similar to that of the EU (52.4% vs. 52.6%) although somewhat higher than the countries analysed in this section, except for the Netherlands. (ii) In the case of fertilisers, only Italy recorded a smaller increase than the 74.3% recorded in Spain (87.1% in the EU). (iii) Feed rose by 35.1%, somewhat higher than in the countries analysed and the EU average (29.4%). Spain's bigger increase in total costs is mostly due to the large share of animal feed in its cost structure, accounting for 54.4% of total intermediate consumption (39.3% in the EU).

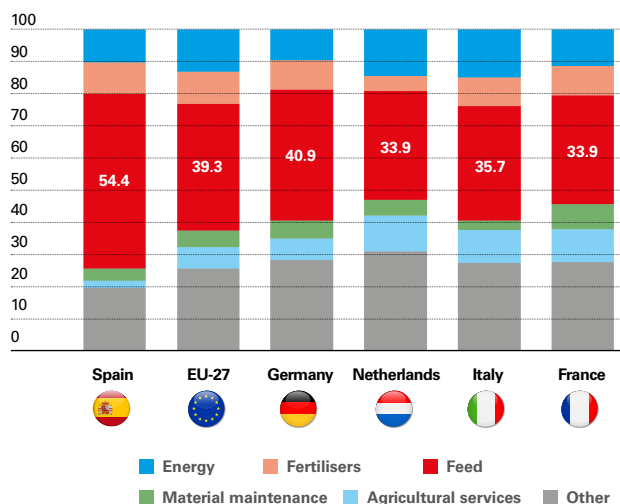
The bigger increase in total costs is mostly due to the large share of animal feed in Spain's cost structure, accounting for 54.4% of total intermediate consumption (39.3% in the EU)

Big impact of higher input prices on the agrifood sector

Annual change in the intermediate consumption deflator (%)



Structure of intermediate consumption (%)



Note: Data from 2022.

Source: CaixaBank Research, based on data from Eurostat.

Nevertheless, Spain's agrifood exports are still performing well

The fact that the agrifood sector is one of the main exporters for the Spanish economy²² is nothing new. Since 2010 it has seen an average annual growth of 7.3% in the value of its exports compared with 6.6% for all exported goods, totalling almost 67 billion euros in 2022. Average annual growth has been slightly lower in volume terms, namely 3.2%, similar to the 3.1% growth for all exported goods, totalling more than 37.5 million tonnes. Last year, agrifood accounted for 17.2% of the country's total exports in value and 20.4% in volume, surpassing the 2014-2019 figures (16.9% and 19.4%, respectively). Moreover, it has shown itself to be remarkably resilient, even in such adverse circumstances as the recent pandemic when international trade came to a historic halt.²³

In comparative terms, Spanish agrifood exports have performed better than those of our main European rivals. However, while growth in value terms has remained strong over the last two years, driven by the high prices of most products on international markets, in volume terms they have recorded declines of 5.5% in 2022 and 9.1% in 2023 (year-on-year to June). Nonetheless, this drop was less marked than in the top 5 countries or the EU as a whole (-15.1%). The volumes exported by Spain have returned to their 2017 levels while the Netherlands, Germany and, above all, France are still lagging behind.

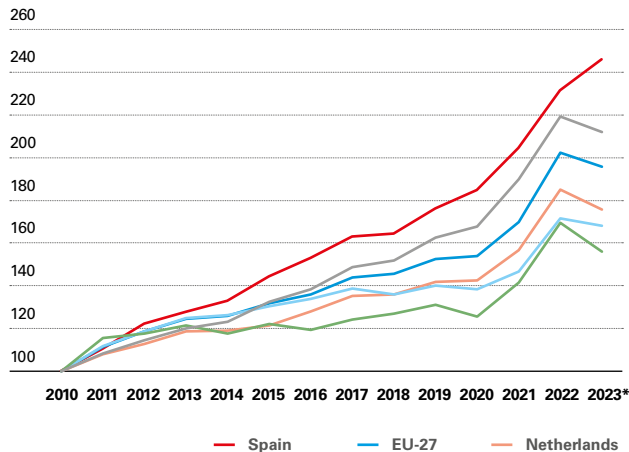
²² The agrifood sector includes categories 1-24 of the TARIC system.

²³ In 2020, while total exports fell by 9.4% in value and 5.4% in volume, agrifood exports grew by 4.9% and 0.8%, respectively. See the article «The resilience of Spanish agrifood exports», published in the *Agrifood Sector Report* for 2020.

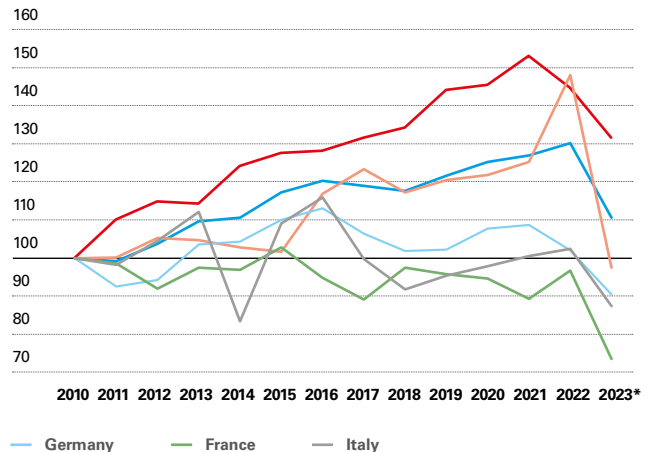


In 2022-2023, Spanish agrifood exports have increased in value but decreased in volume

Value (100 = 2010)



Volume (100 = 2010)



Note: (*) Until June.

Source: CaixaBank Research, based on data from DataComex and Eurostat.

The reduction (in volume terms) in Spanish exports has been particularly marked, more than 40% year-on-year in S1 2023 for some products such as oilseeds and cereals, although it's true that these only represent 5.9% and 2.5% of all exports, respectively (2022 data). Italy and France also saw considerable reductions in their cereal exports in the first half of 2023 (-43.5% and -31.7% year-on-year, respectively), a particularly significant decline in the French case as cereals account for more than 45% of its agrifood exports. Meanwhile, the Netherlands' exports of oils and fats plummeted by 80.9% after breaking records in 2022 when sales tripled, whilst in Germany exports of sugars and confectionery fell by 32.0%.

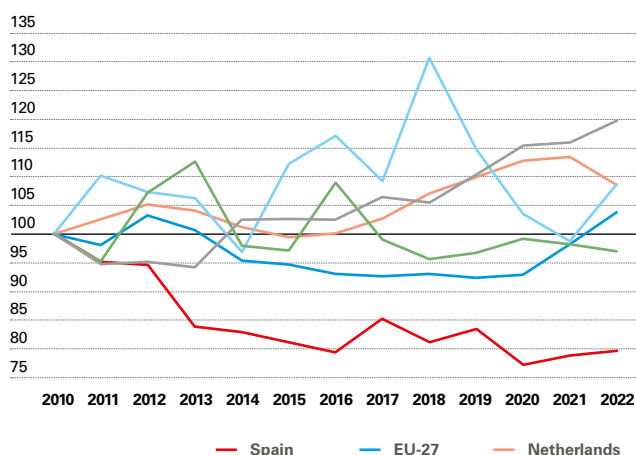
The competitiveness indicators for the agrifood sector remain stable for the time being

This recent weakening of exports could be interpreted as the Spanish agrifood sector becoming less competitive on international markets; i.e. with less capacity to provide higher value-added products offering a better quality/price ratio. However, various indicators for agrifood exports show a relatively favourable trend compared with the rest of the top 5 countries.

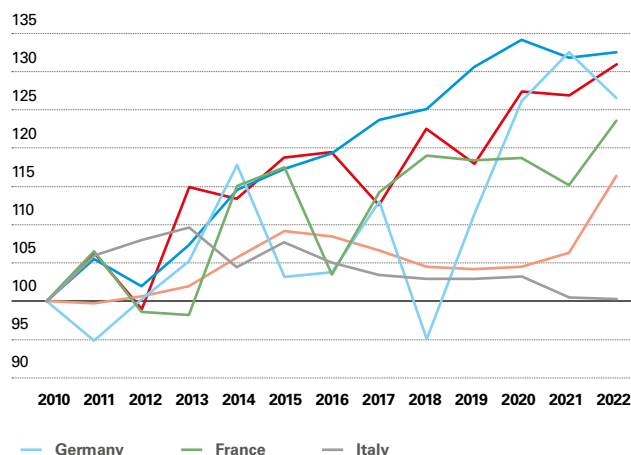
Firstly, costs are a fundamental factor in the competitiveness of companies, sectors and countries, especially when there's little product differentiation and the product is made using less complex technologies and low-skilled labour. Within the cost structure, labour costs play a very important role. There are no tensions in Spain's agricultural sector in terms of unit labour costs (ULC); in fact, this index has improved significantly in recent years, in contrast to the almost widespread deterioration experienced by its rivals (with the exception of France). Despite a slight upturn after the pandemic crisis, this positive differential has been maintained. If we compare the 2022 figure with the years prior to the outbreak of the pandemic (2014-2019 average), Spain's agricultural sector also comes out well: the adjustment in ULC was higher only in Germany (-4.2% vs. -3.0% in Spain).

Favourable trends in the ULC and productivity of Spain's agrifood sector

Unit labour costs (100 = 2010)



Real productivity per hour worked (100 = 2010)



Source: CaixaBank Research, based on data from Eurostat.

The favourable trend in Spain's ULC compared with other countries is consistent with the differences in productivity. In this case, the improvement (in real terms) in 2022 compared with the pre-pandemic period (2014-2019) was 11.5% (8.9% in the EU), a record surpassed only by Germany (17.9%).

Another sign of the competitive advantage of Spain's agrifood sector is its importance for the country's trade balance. This can be seen in the notable surplus, the largest at the level of sector, which has been recorded uninterruptedly since 1996. Despite a certain normalisation last year after the record highs of 2020-2021 (when, due to the effect of the pandemic, it approached 18 billion euros), the surplus has remained at a very high level: 13,096 million (1.0% of GDP), well above the 2014-2019 average (10,885 million).

Finally, further proof of the strength of Spain's agrifood sector is its large share of world trade and its good relative trend over time. Based on 2021 data (the latest available from the WTO), the country comes seventh in the global ranking of exporters and fourth among European countries (behind the Netherlands, Germany and France but ahead of Italy), with 3.8% of world exports, a much larger share than our proportion of total trade in goods (1.7%).

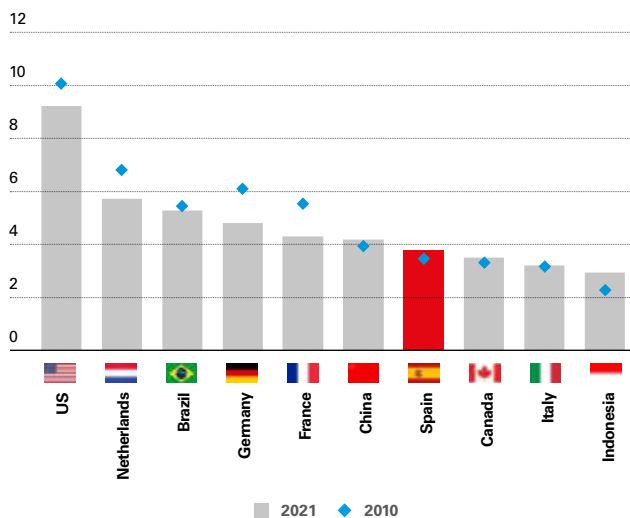
Moreover, since 2010 Spain has improved its world share in agrifood exports (+0.3 pp), a remarkable fact when compared with other countries, especially the US which has lost 0.8 points of share over the same period, France (-1.2 points) and the Netherlands (-1.1 points). Looking at the top 5 European players, for which we have data up to June 2023, Spanish exports have gained in share, going from 10.9% in 2010 to 16.1%.



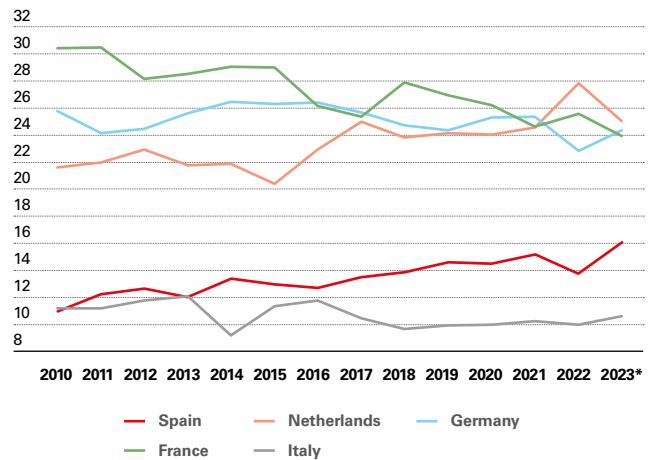
In short, production in Spain's agricultural sector fell sharply in 2022 and estimates suggest it will fall again in 2023 due to the sharp increase in costs and the effects of climate change, which have hit the Spanish countryside harder than other major European agrifood producers. However, despite this drop in production, Spanish agrifood exports have performed relatively well and the sector's competitiveness indicators do not look like deteriorating, at least for the time being.

Spanish agrifood exports maintain their advantageous position in the world

World share (%) ⁽¹⁾



Share in the European top 5 (%) ⁽²⁾



Notes: (1) Data by value. (2) Data by volume. (*) Up to June. Top 5: Spain, Germany, France, Italy and Netherlands.
Source: CaixaBank Research, based on data from the WTO, DataComex and Eurostat.

The structure of Spain's agricultural sector

What does the latest agricultural census tell us about Spanish farms?

The publication of the latest agricultural census by Spain's National Statistics Institute, corresponding to 2020, not only allows us to describe exhaustively how the Spanish agricultural sector has evolved in recent decades in supply terms but also to detect any structural changes and predict new trends, strengths and weaknesses. The typical farm is still characterised by being small, economically modest and run primarily by a relatively older male, with little generational renewal, one of the major handicaps facing the sector. However, successive censuses reveal a gradual process of increased concentration among farms, which are becoming larger and more productive, as well as a greater presence of women in the sector.

Profile of an average Spanish farm

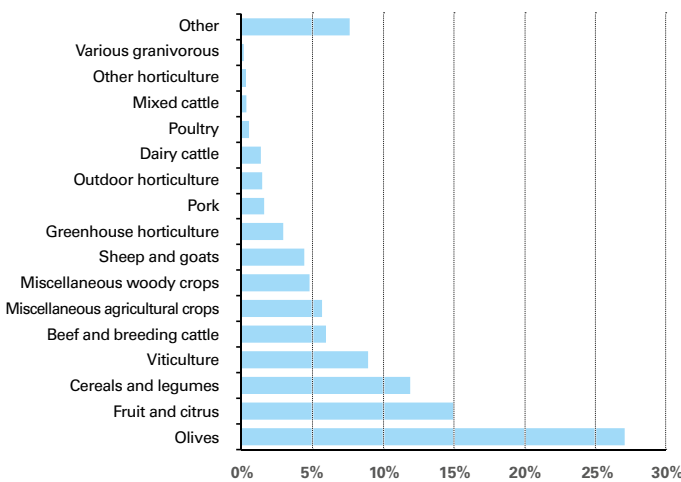
Spain's agricultural sector is characterised by a plethora of small farms: more than half have 5 hectares or less. Average production is around 49,600 euros per year per farm, although 63% produce less than 15,000 euros per year. In terms of ownership, the vast majority are owned by individuals (94% of the total) and the owner is usually the head of the farm (81%), predominantly male (71%) and of an advanced age (41% are aged over 65).

The average size of Spanish farms is small although livestock establishments are larger than agricultural farms

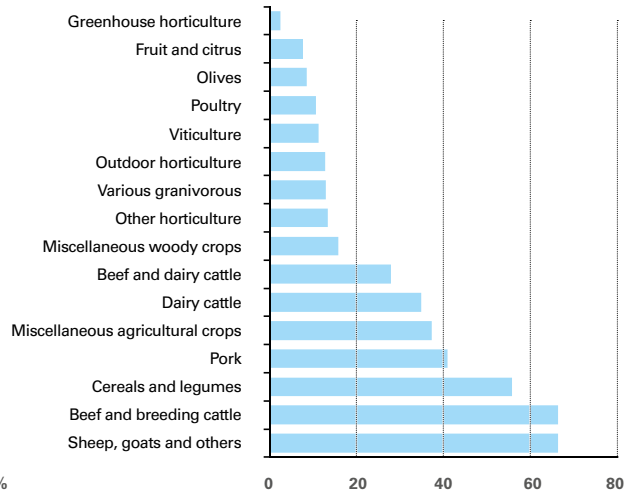


Profile of Spanish farms according to their technical-economic orientation (TEO)

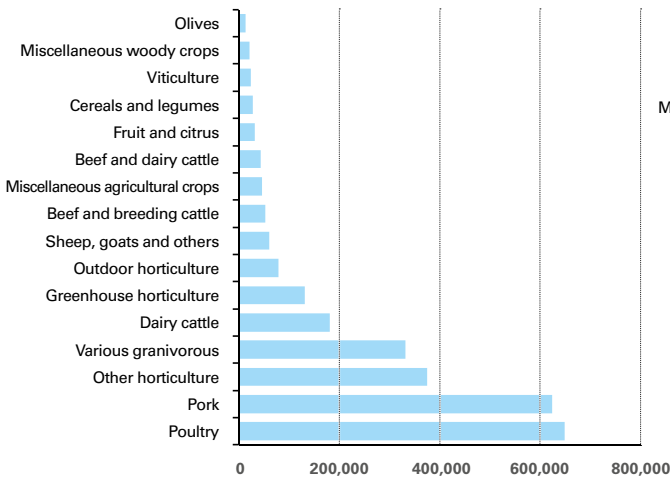
Number of farms by TEO



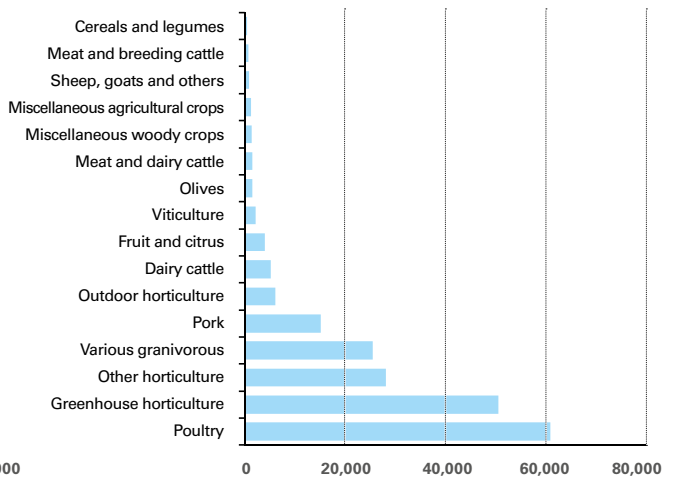
Utilised agricultural area by type of farming
hectares



Average production by type of farming
euros



Average production by utilised area
euros/hectare



Source: CaixaBank Research, based on data from the National Statistics Institute (Censo Agrario 2020).

An analysis by productive specialisation (the technical-economic orientation or TEO) makes it possible to differentiate between agricultural and livestock farms. The former clearly dominate in number (more than 80% of the total) but only account for about half of the utilised area and production (30,128 euros per farm on average). Livestock establishments account for only 2 out of 10 farms but have a larger area and economic dimension (135,225 euros per farm on average). By sector, olives, fruit and citrus, and cereals and legumes account for the majority of farms in Spain's agricultural sector. However, sheep and goats, cattle, and cereals and legumes occupy the most agricultural land (in all, the three occupy more than half the total area). In terms of productivity (euros per hectare), the poultry and pork sectors, in the case of livestock farming, and horticulture, in the case of agriculture, are particularly significant.

24 The EU's average productivity totals 2,230 euros per hectare according to Eurostat data, compared with 1,887 euros per hectare for Spanish farms. The gap widens greatly when we compare these figures with other European economies (2,351 euros in France, 2,812 euros in Germany, 4,702 euros in Italy and 13,683 euros in the Netherlands).

Comparison of farms in Europe

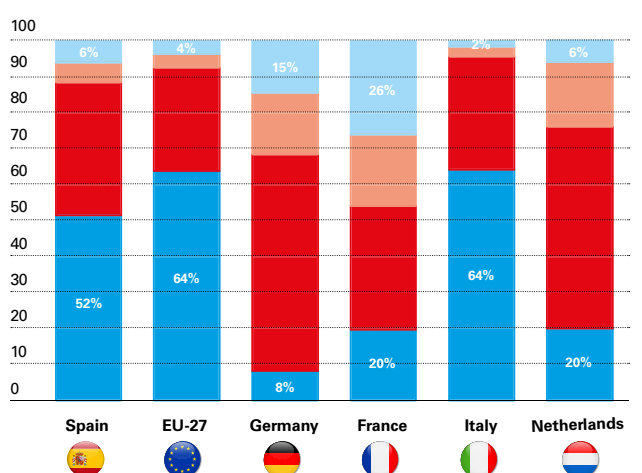
Comparisons with other European agricultural sectors (Germany, France, Italy and the Netherlands) reveal differences with respect to other systems that are more productive than the Spanish system,²⁴ where there's a greater proportion of large farms, with a much higher production per farm,²⁵ and where the participation of private enterprise is somewhat greater (the case of France stands out, where only 59% are owned by individuals). The majority of farm managers are also men, as in Spain (68% on average in the EU), but the generational renewal is less of a concern (there's a higher proportion of people under 45 years of age and a lower proportion of people over 65, except in Italy).

²⁵ The average standard production in the EU is lower than in the Spanish sector (39,677 euros per year on average in 2020 according to Eurostat data), although this reaches levels between 150,000-175,000 in the cases of Germany and France, and exceeds 450,000 in the Netherlands.

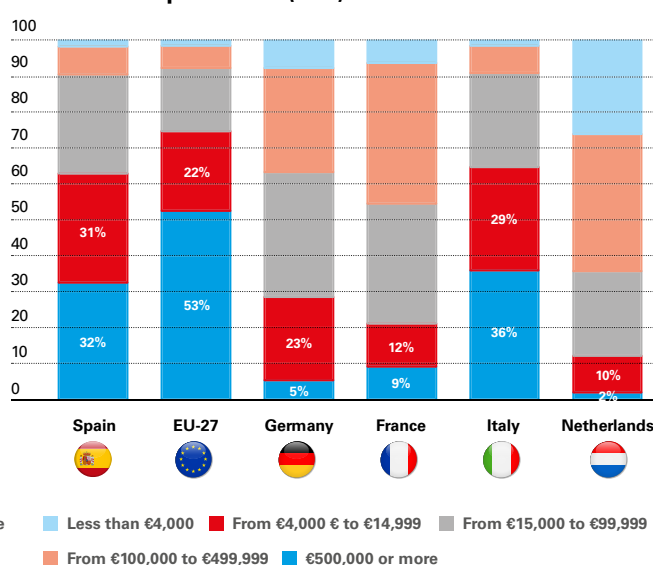
Comparison of Spain's agricultural sector with other European economies

% of total farms with utilised agricultural area

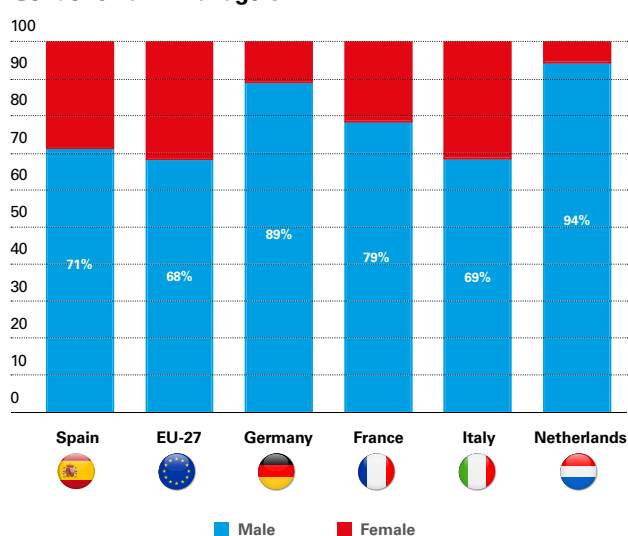
Farm size



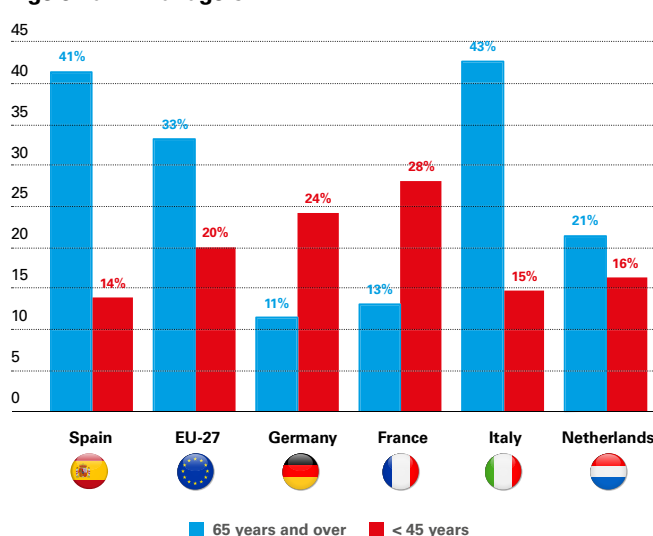
Total standard production (TSP)



Gender of farm managers



Age of farm managers



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



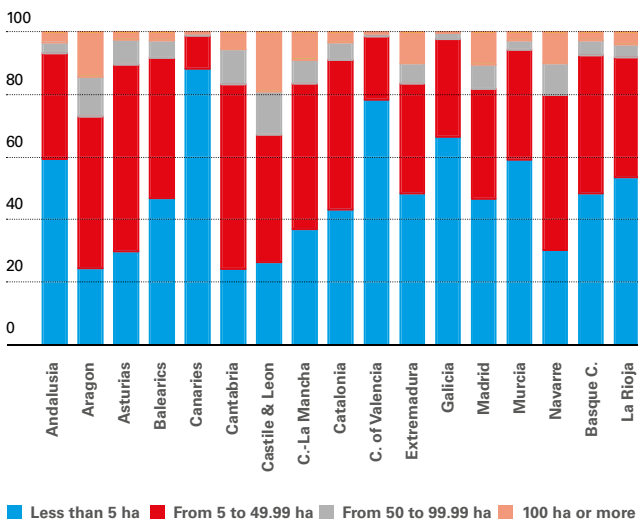
Comparison of farms by autonomous community

It's also useful to examine the regional differences within Spain since these farms can be defined by a wide range of characteristics. In terms of size, the proportion of small farms is especially evident in the Canary Islands, Community of Valencia and Galicia, while larger establishments tend to be concentrated in Castile & Leon and Aragon. In terms of production volume (TSP), farms with a production of less than 15,000 euros per year predominate (excluding the Canary Islands and Aragon). However, when production per farm is taken into account, regions such as Murcia, Catalonia and Aragon have establishments with a high production rate (more than 80,000 euros per farm), a figure that resembles other European economies. In terms of farm managers, the regions on the Cantabrian coast have a higher proportion of women and greater replacement by younger generations.

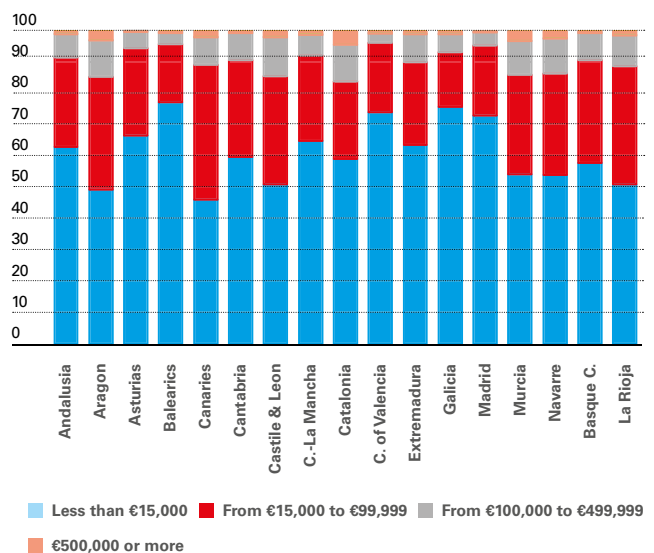
Comparison of farms between autonomous communities

% of total farms with utilised agricultural area

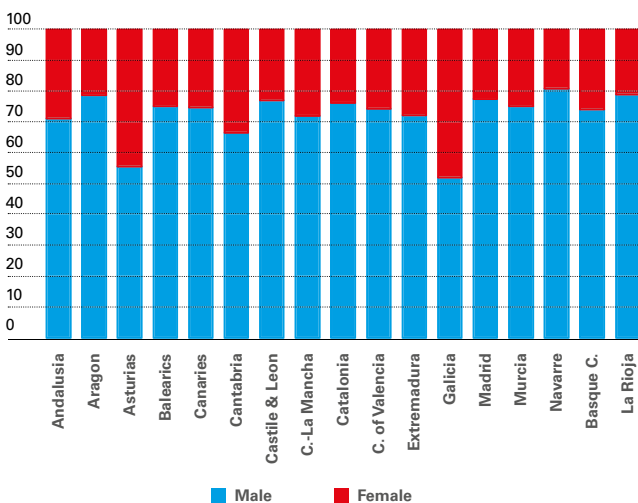
Farm size



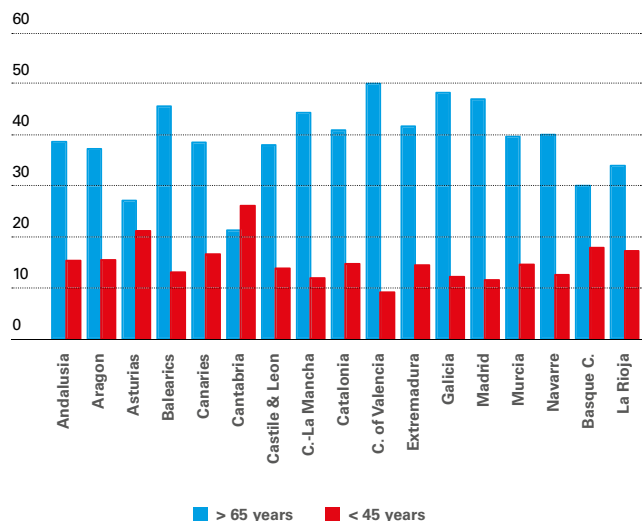
Total standard production (TSP)



Gender of farm managers



Age of farm managers



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

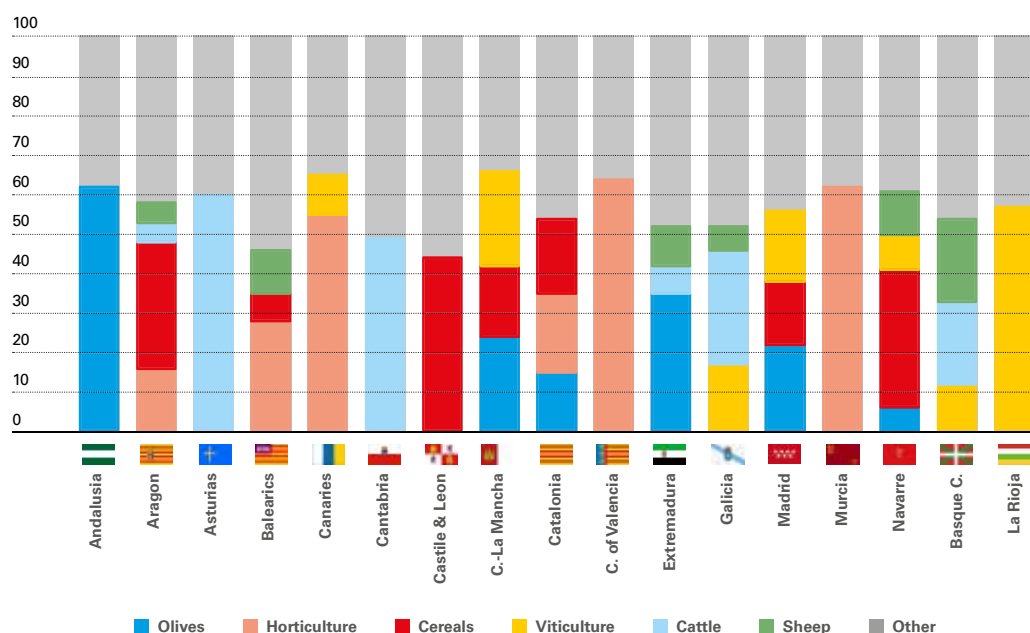
Farms in Spain are characterised by a high degree of heterogeneity, largely due to regional specialisation in terms of production

One important factor is the extent to which each autonomous community specialises in a particular type of production. First, it's important to note that the sectors that stand out at a national level are actually concentrated within a few regions: olive farms are concentrated in Andalusia (with more than 60% of the country's farms specialising in this sector); fruit and citrus farms in the Community of Valencia (45% of the total), and cereals and legumes in the two Castilian regions (62% of the total). Livestock farms are more prevalent in Catalonia, Galicia, Castile & Leon and Andalusia, among other regions.

In general, most regions are considerably diverse in sector terms but some are notably specialised in a single sector. This is the case of Andalusia (olives), Asturias and Cantabria (cattle), C. of Valencia and Murcia (fruit) and La Rioja (viticulture).

Productive specialisation of farms by region

% of total farms in each region



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



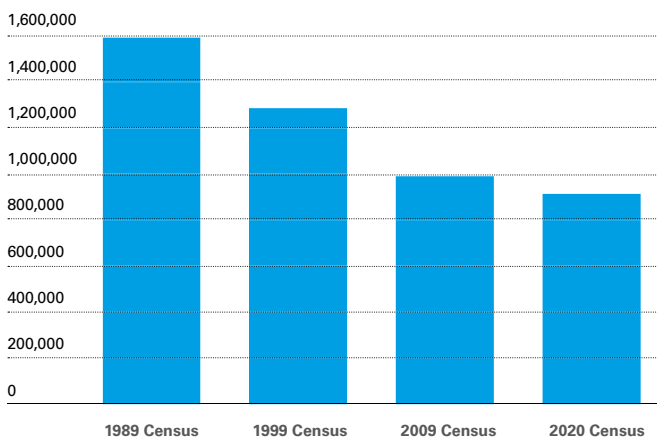
Spanish agriculture is becoming more concentrated

The number of farms in Spain has declined substantially over the last three decades. Specifically, from nearly 1.6 million farms in 1989, the sector currently has 914,871 (–42.6%).²⁶ Despite this reduction in the number of farms, however, between 1990 and 2020 the sector posted strong growth in agrifood production and exports in real terms of more than 80%, reflecting the significant productivity gains achieved during this period.²⁷ On the one hand, the yields of utilised agricultural land have doubled since 1990: 2,400 euros are currently produced for each utilised hectare in the Spanish countryside, compared with an average of 1,165 euros in 1990. The gains are even clearer in terms of agricultural income per annual work unit (AWU), another way of measuring the sector's productivity: 32,300 in 2020, three times more than in 1990.

²⁶ Only farms with utilised agricultural area have been considered in this article's analysis.

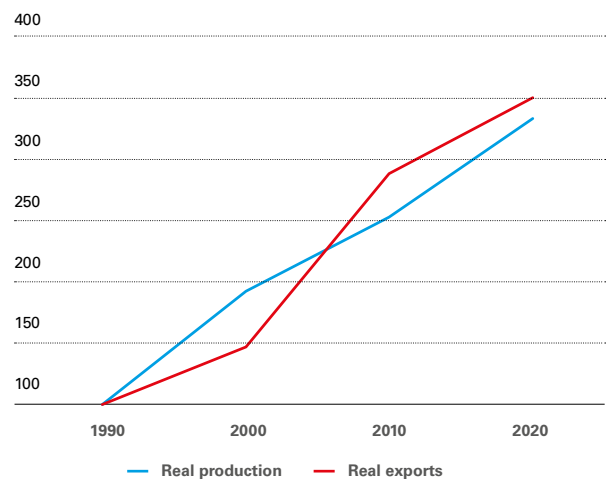
²⁷ Utilised agricultural area has remained fairly stable at around 23-24 million hectares, so the increase in production is almost exclusively due to greater yield per hectare.

Number of farms with utilised agricultural area



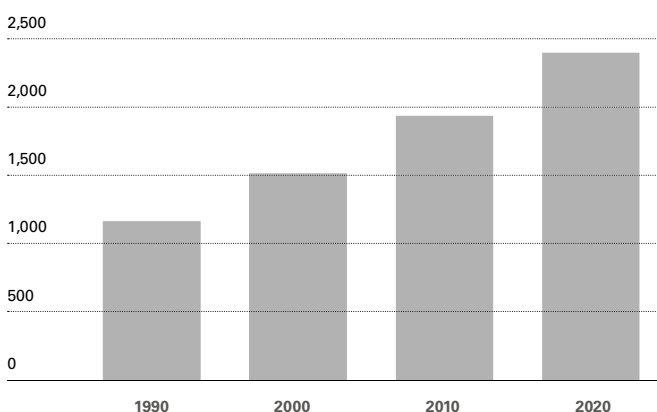
Economic activity indicators agricultural sector

Index (100 = 1990)



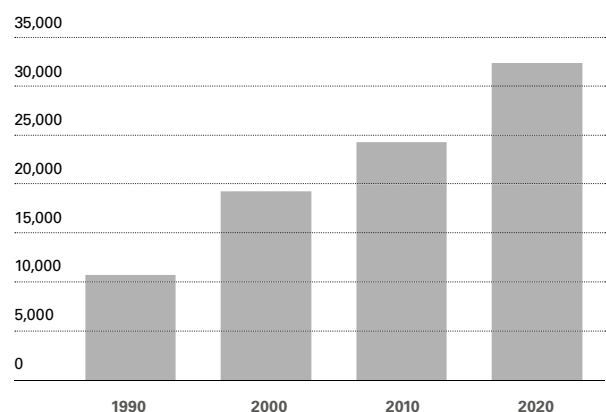
Agricultural production per utilised agricultural area

euros/hectare



Agricultural income per annual work unit

euros/work unit



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

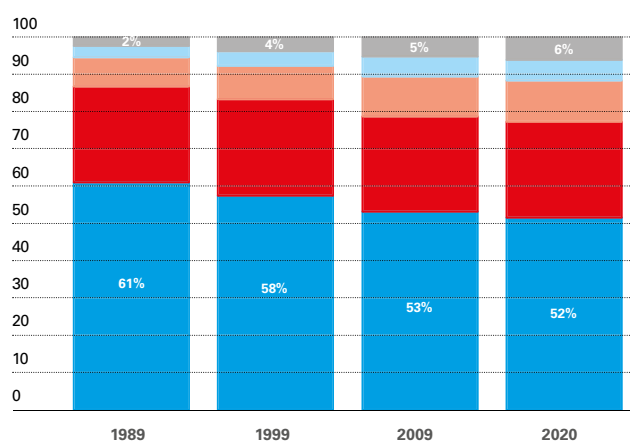
If we focus on the last decade and compare the 2009 census with that of 2020, we can see that the greatest decline in the number of farms has occurred among smaller establishments (10.3% fewer farms of less than 5 hectares) and lower turnover (~20% of those with an annual turnover of less than 4,000 euros). On the other hand, the largest (those with 100 hectares or more increased by 9%) and most economically significant (those with an annual turnover in excess of 500,000 euros increased by almost 75%). This alone suggests some efficiency gains in the sector, since large farms tend to be more efficient as they have a greater capacity to innovate, to introduce new technologies and take advantage of the synergies of these investments, among other aspects. The smaller number of farms, despite a slight increase in the utilised agricultural area between 2009 and 2020 (0.7%), means that the average size of each farm has grown over the last decade (up 7.4% to an average of 26.4 hectares per farm in 2020).

On balance, the agricultural sector is becoming more concentrated with fewer but increasingly larger and more productive farms. According to the 2020 census, farms of 100 hectares or more, although they account for only 6% of the total, represent 58% of the utilised agricultural area (this figure was 47% in the 1989 census) and almost 30% of total production (24% in 2009).

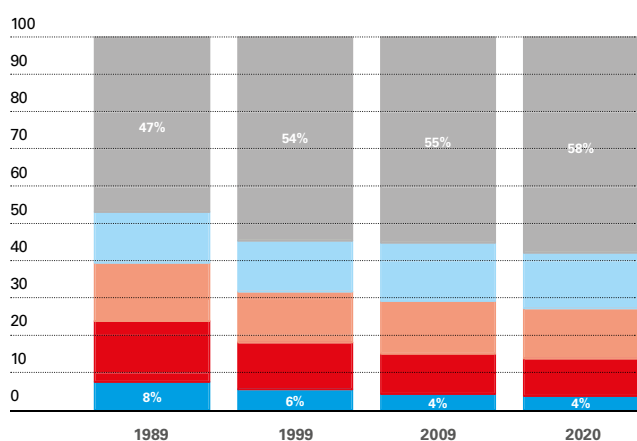
Greater concentration of the sector towards increasingly larger farms

Percentage of total farms

Number of farms by size



Utilised agricultural area by farm size



■ Less than 5 ha ■ From 5 to 19.99 ha ■ From 20 to 49.99 ha ■ From 50 to 99.99 ha ■ 100 ha or more

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

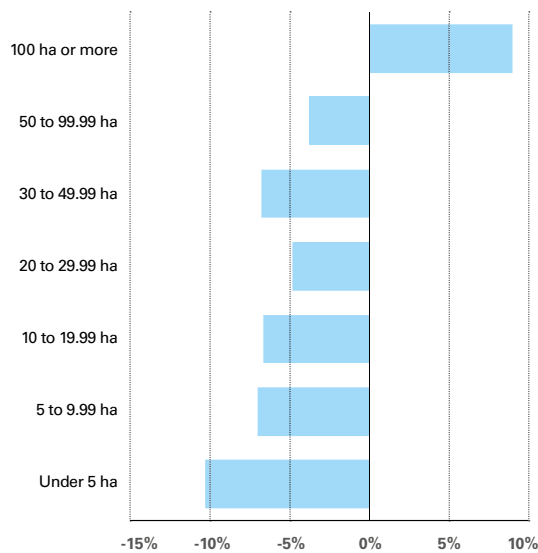
In terms of economic sectors (TEO), the drop between 2009 and 2020 was widespread and the only significant increase was in greenhouse horticulture, viticulture and olives. It should be noted that greenhouse horticulture is one of the sectors with the highest production per farm (PPF). This therefore explains, to a large extent, the productivity gains made by Spain's agricultural sector in recent years.



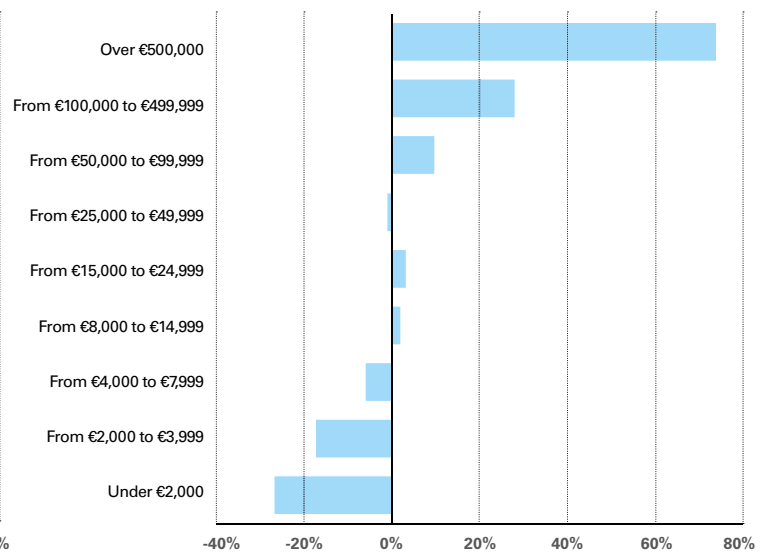
By autonomous community, the reduction in the number of farms is fairly widespread throughout the country with the exception of Andalusia and La Rioja. Asturias, the Basque Country and Catalonia, among others, have seen both a sharp drop in their number of smaller farms and an increase in larger ones, which is why they stand out as regions where the concentration of the sector has accelerated over the past decade. It should be noted that there's also a certain positive relationship between those communities that have increased their number of farms larger than 100 hectares and those that have increased their productivity the most (see the chart below).

Change in the number of farms between 2009 and 2020

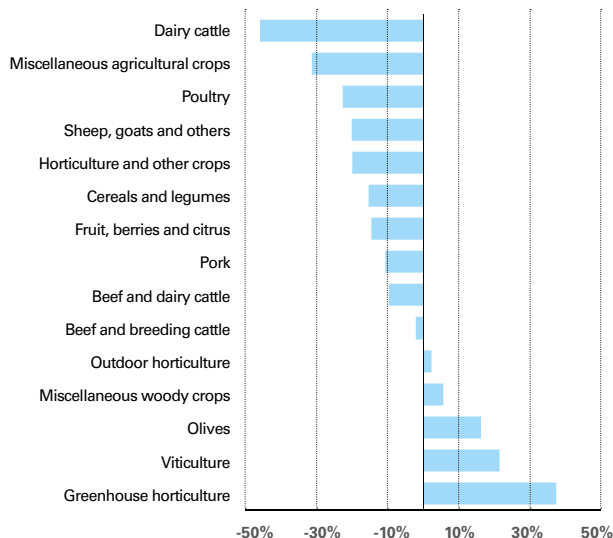
By farm size



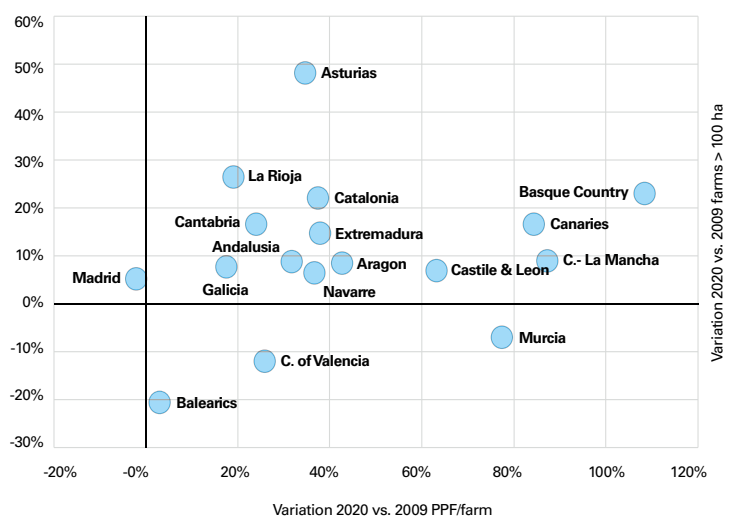
By total standard production



By technical-economic orientation



Relationship between productivity and size by autonomous community



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



The trend in farm managers leaves a lot to be desired. On the positive side, there's an increasing proportion of women (29% in 2020 compared with 22% in 2009), with a particularly notable improvement in regions such as Castile-La Mancha, Valencia and Andalusia. However, there's still room for improvement in the training of farm managers: only 4.1% have vocational training in agriculture, an improvement from 1.5% in 2009. Finally, the great unresolved issue in the sector continues to be generational renewal, as there are fewer and fewer managers under 45 years of age (14% of all farms in 2020 compared with 21% in 2009) and more managers aged over 65 (41% in 2020 compared with 30% in the previous decade). This situation is particularly marked in the cases of Andalusia, Castile & Leon and Extremadura, while an improvement can be observed in the regions on the Cantabrian coast.

The industry's next steps are aimed at boosting the role of women and generational renewal

On balance, it seems evident that Spain's agricultural sector is evolving towards greater productivity, concentrating activity in fewer farms that are proportionally larger and with a greater economic dimension. This continuous improvement and modernisation of the agricultural system is evident in the productivity gains made by Spain's agricultural sector in recent years, although it's true that the country's average farm size is still modest compared with other European economies with an agricultural system of a similar size.



According to the data provided by the agricultural census, the poultry, fruit and vegetable, and pork sectors are the most productive (concentrated in the regions of Catalonia, Extremadura and Castile & Leon). Greater productivity gains should be aimed at boosting sectors with a larger presence in the Spanish sector, such as olives, fruits, and cereals and legumes, which account for 60% of Spanish farms.

The situation of farm managers is also key. Further steps are needed to boost the role of women in the sector in Spain and, above all, to promote training and professionalisation, as well as to stimulate generational renewal (Spain is at the bottom of the European ranking in this respect). More than 40% of today's managers will retire over the next 10 years, which means that around 200,000 young people will need to enter the industry to make up for their loss.

In this regard, the new CAP has a Strategic Plan whose aim is to make agriculture more innovative and digital, more committed to generational renewal and with more aid to promote the incorporation of younger members of the population. Specifically, over 220 million euros will be allocated to specific aid for young people, the largest amount invested in this objective in the 60-year history of the CAP and 50% more than in the previous period. An additional 15% will also be allocated in the case of farm owners being young farmers or livestock breeders.

According to the data provided by the agricultural census, the poultry, fruit and vegetable, and pork sectors are the most productive and are concentrated in Catalonia, Extremadura and Castile & Leon

Rural tourism

The rise of rural tourism in Spain: an opportunity for rural development

In recent years, rural tourism has become increasingly important in Spain, opening up new avenues to diversify the sources of income for rural economies. In this article, based on internal CaixaBank data, we look at the upturn in the sector after the COVID-19 pandemic and its implications for the economic resilience of rural Spain and for the tourism industry, given its high level of sustainability both from the point of view of its impact on the environment and its greater geographic diversification and more limited seasonality compared to other, more traditional forms of tourism such as sun, sea and sand destinations.

Rural tourism: driving the economy of Spain's agricultural areas

Rural tourism is playing an increasingly important role in boosting the economies of Spain's most agricultural areas. According to CaixaBank's internal data on card payments,²⁸ **rural tourism has gone from representing 10.9% of total tourism expenditure in 2019 to 11.9% in 2023,²⁹ a relatively significant gain in share that indicates the stronger position of this type of tourism post-pandemic.**



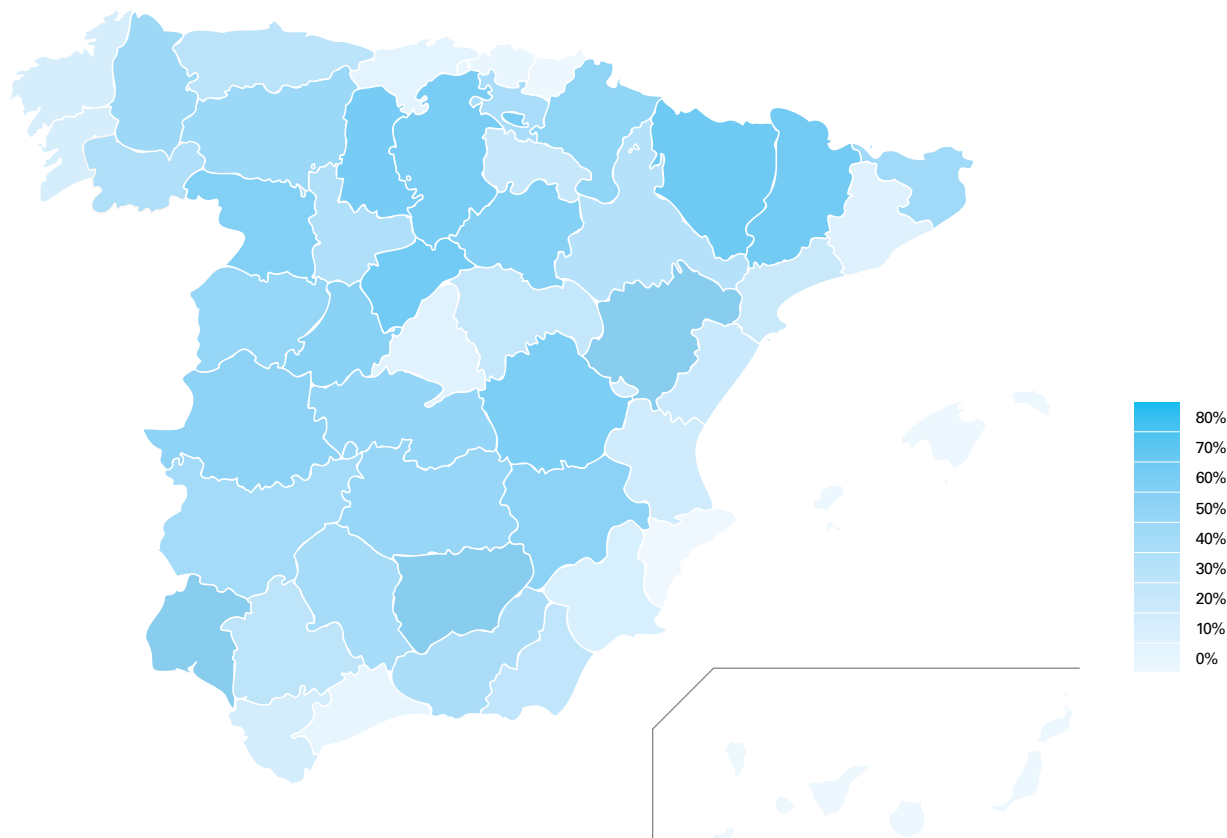
²⁸ Rural tourism expenditure corresponds to spending with cards issued by foreign institutions (international tourists) and spending with cards issued by Spanish institutions on transactions carried out in locations other than their usual place of expenditure (domestic tourists), these payments being made via CaixaBank POS terminals in rural municipalities. All non-coastal municipalities with less than 30,000 inhabitants, or less than 100 inhabitants per km², are classified as rural municipalities.

²⁹ Data up to June 2023.



The relative weight of rural tourism and the primary sector in Spain's provinces

Tourism expenditure in rural municipalities as a percentage of total tourism expenditure (%)



		% of rural tourism ⁽¹⁾	% GVA of the primary sector ⁽²⁾
	Spain	12	2
Andalusia	Jaén	58	8
	Cordoba	29	6
	Granada	23	6
	Seville	13	4
	Huelva	18	7
	Almería	14	15
	Cádiz	8	3
	Malaga	2	2
Aragon	Huesca	74	13
	Teruel	69	6
	Zaragoza	13	4
Balearics	Balearics	1	1
Canaries	S. C. Tenerife	0	2
	Las Palmas	0	1
Cantabria	Cantabria	5	1
Castile & Leon	Segovia	79	6
	Palencia	70	5
	Burgos	68	4
	Zamora	61	7
	Soria	53	6
	Svila	53	3
	Salamanca	37	5
	León	32	4
	Valladolid	23	3
Murcia	Murcia	6	5

		% of rural tourism ⁽¹⁾	% GVA of the primary sector ⁽²⁾
Castile-La Mancha	Cuenca	67	15
	Albacete	46	9
	Toledo	39	5
	Ciudad Real	39	8
	Guadalajara	65	3
Catalonia	Lleida	72	5
	Girona	30	3
	Tarragona	11	1
	Barcelona	3	0
C. of Madrid	Madrid	4	0
C. of Navarre	Navarra	44	3
C. of Valencia	Castellón	11	2
	Valencia	8	2
	Alicante	1	2
Extremadura	Caceres	47	7
	Badajoz	29	8
Galicia	Lugo	28	9
	Orense	18	7
	La Coruña	8	3
	Pontevedra	7	4
La Rioja	La Rioja	16	5
Basque Country	Alava	34	2
	Vizcaya	3	0
	Guipúzcoa	1	0
P. of Asturias	Asturias	14	1

Notes: (1) Tourism expenditure corresponds to spending with cards issued by foreign institutions (international tourists) and spending with cards issued by Spanish institutions on transactions carried out in locations other than their usual place of expenditure (domestic tourists), these payments being made via CaixaBank POS terminals. All non-coastal municipalities with less than 30,000 inhabitants, or less than 100 inhabitants per km², are classified as rural municipalities. 2023 data from January to June. (2) Percentage of total GDP of the economy in 2019.

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

The above map shows that rural tourism is of great importance in the tourism mix of Spain's inland provinces, regions where the primary sector also plays an important part in the economy. Such regions include Castile-La Mancha and Castile & Leon. For example, in Cuenca rural tourism accounts for 67% and the primary sector contributes 15% of the province's GVA, while Segovia is the province with the highest rural tourism expenditure (79%). Both the primary sector and rural tourism are also relevant in Extremadura, Aragon and parts of Catalonia (Lleida and Girona) and the Basque Country (Alava).

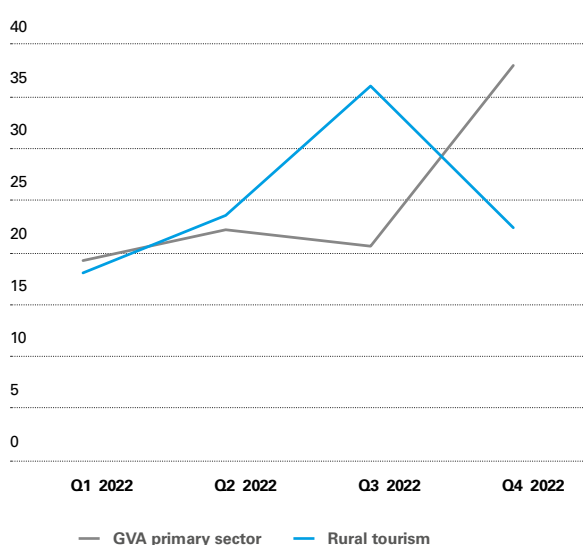
Rural tourism contributes to diversifying the sources of income in agricultural areas and can also help to spread economic activity throughout the year

Tourism and agriculture are two very different economic activities but their sectors share certain characteristics: Spain enjoys an important competitive advantage in both, both produce considerable exports and help to balance Spain's current account, and both tend to generate income on a relatively seasonal basis, which implies a high seasonality of employment in these sectors. However, rural tourism not only contributes to diversifying the sources of income in agricultural areas but can also help to spread economic activity throughout the year since the seasonal pattern of rural tourism does not coincide with that of agricultural production, as can be seen in the chart below. Although rural tourism is very seasonal, with 43.8% of its expenditure concentrated between June and September and a peak of 16% in August, the fact that it's relatively more robust during the winter months makes it less seasonal than coastal tourism.³⁰

³⁰ 50.8% of expenditure in coastal municipalities is concentrated in the period from June to September while the seasonality in urban municipalities is less marked (37.3% of expenditure is concentrated in the period June-September).

The seasonality of rural tourism and GVA of the primary sector

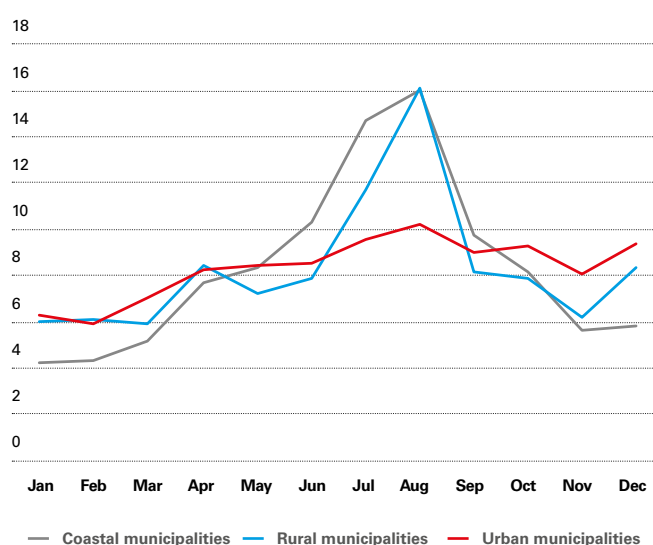
(% of tourism expenditure and GVA in each quarter)



Note: GVA data unadjusted for seasonal and calendar effects.
Source: CaixaBank Research, based on data from the National Statistics Institute and internal data.

The seasonality of tourism expenditure: urban, rural and coastal

(% of tourism expenditure in each month)



Note: Data from 2022.



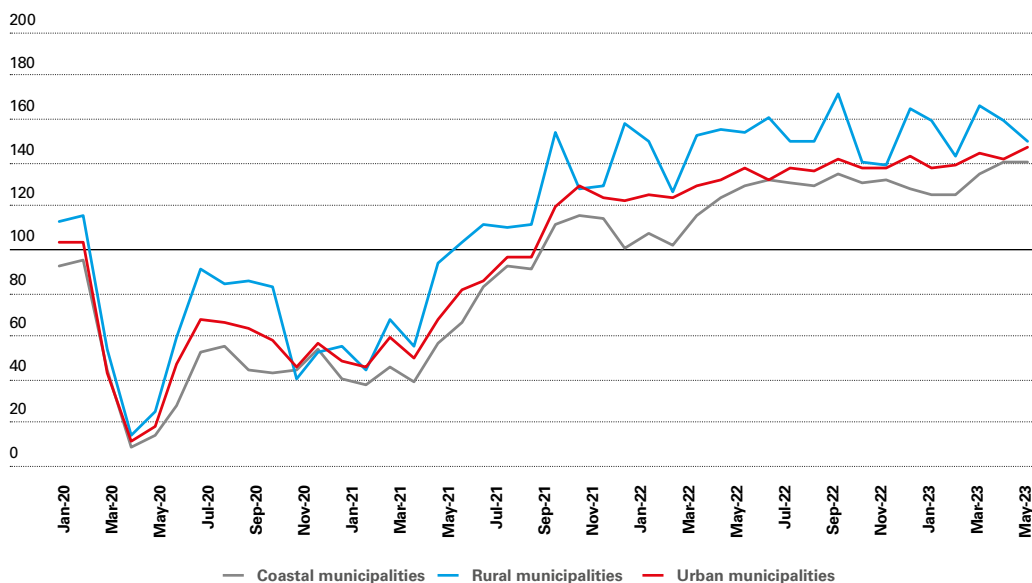
The resilience and growth of rural tourism post-pandemic

The development of rural tourism is closely related to the COVID-19 pandemic. The chart below shows month-by-month expenditure on coastal, urban and rural tourism, benchmarked by the same month in 2019. During the pandemic, we can see that rural tourism proved to be much more resilient than urban and coastal tourism, with expenditure in summer 2020 reaching 80% of the level recorded in 2019 and surpassing this 2019 level as early as the second half of 2021. During the pandemic, tourists opted for less crowded destinations that enabled more outdoor activities and social distancing.

Despite the fact that the progress of rural tourism is linked to the pandemic, we can also see that, once the restrictions on people's movements were relaxed, tourists have continued to choose this option. The growth in expenditure on rural tourism has outpaced that of coastal and urban tourism in each month of 2022 and 2023 (with data up to June), suggesting that the trend observed during the pandemic was not temporary but a reflection of a change in the preferences of tourists, who are now opting for nature-based holidays, undoubtedly influenced by the greater importance placed on environmental sustainability.

The recovery of tourism expenditure: urban, rural and coastal

Index (100 = same month in 2019)



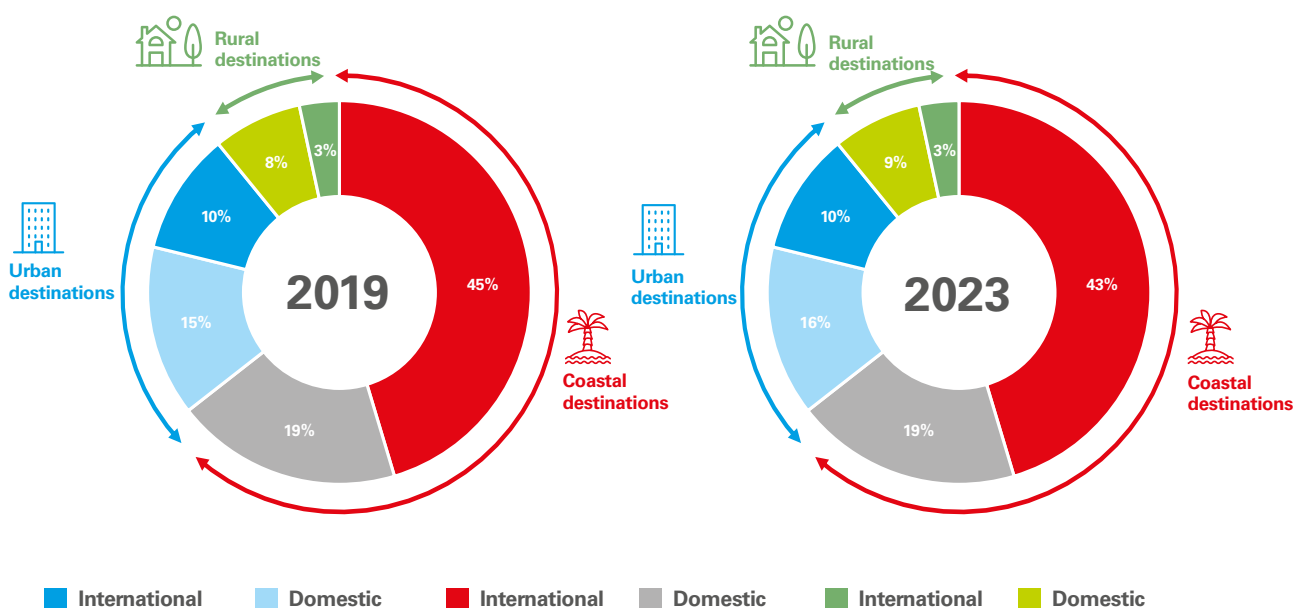
Notes: Expenditure with cards issued by foreign institutions (international tourists) and expenditure with cards issued by Spanish institutions in locations other than their usual place of residence (domestic tourists), registered at CaixaBank POS terminals. To differentiate between urban, rural and coastal municipalities, these have been classified according to their proximity to the sea and demographic characteristics (population and density).
Source: CaixaBank Research, based on internal data.

Domestic tourists are driving rural tourism

The contribution of international tourists to rural tourism is relatively moderate: between January and June 2023, foreigners accounted for 27% of rural tourism expenditure, which represented 3.2% of all tourism expenditure in Spain, a very similar percentage to the same period in 2019. Consequently, the growth in rural tourism between 2019 and 2023 can be attributed to an increase in spending by domestic tourists, an aspect that would be linked to the aforementioned change in preference of Spanish tourists brought about by the pandemic that has continued up to the last few months. In contrast, the breakdown of expenditure between international and domestic tourists is very different in coastal municipalities, one of the most traditional destinations for the tourism industry and which accounted for 62% of total expenditure in 2023. Foreigners play a predominant role in this figure, contributing close to 70% of tourism expenditure in such municipalities. Finally, urban tourist destinations accounted for 27% of total tourism expenditure during S1 2023 and foreign tourists accounted for around 40% of total urban expenditure.

Tourism expenditure by type of municipality

% of total tourism expenditure



Notes: Expenditure with cards issued by foreign institutions (international tourists) and expenditure with cards issued by Spanish institutions in locations other than their usual place of residence (domestic tourists), registered at CaixaBank POS terminals. To differentiate between urban, rural and coastal municipalities, these have been classified according to their proximity to the sea and demographic characteristics (population and density). 2023 data from January to June.

Source: CaixaBank Research, based on internal data.

The change in preference of domestic tourists in favour of rural tourism represents an opportunity for the economic development of rural areas and has great potential to boost the sustainability of the tourism industry



The sustainability of rural tourism







































Two aspects stand out from a sustainability perspective: the potential for environmental sustainability and sustainability from the point of view of the geographic diversification of rural tourism.

Rural tourism is particularly sustainable in ecological terms. It's intrinsically associated with nature and, in fact, an important proportion of this tourism takes place in or near protected areas. This increases environmental awareness among the population and, in turn, leads to stricter regulations to promote environmental conservation. But it's important to note that it's a two-way relationship between rural tourism and a preference for sustainability; a more environmentally aware public will probably choose more sustainable destinations. Therefore, with the growing importance of the ecological transition, an attractive range of rural tourism services and products is key for this public to continue choosing destinations in Spain.

Rural tourism also seems to be a sustainable option given the crowding problems faced by urban and coastal destinations. Rural tourism helps to distribute tourists over a larger area, spreading the burden on local infrastructure and services and easing the pressure on tighter housing markets. Economic benefits for rural communities can also help to mitigate the phenomenon of rural depopulation.

Main indicators for the agrifood sector

Annual change, unless otherwise specified

	Average 2000-2007	Average 2008-2014	Average 2015-2019	2020	2021	2022	2023	Date of latest data	Trend
 Economic activity indicators									
Total GDP of the economy	3.7	-0.9	2.8	-11.2	6.4	5.8	2.2	Q2 2023	
GVA primary sector	1.4	0.6	1.4	1.1	4.2	-19.8	-1.9	Q2 2023	
GVA agrifood industry	3.6	-2.8	0.5	-12.8	-	-	-	2020	
Agrarian income (current prices)	3.0	2.1	3.6	-1.4	7.0	-6.2	-	2022	
Industrial production index: manufacturing industry	1.4	-4.8	2.4	-10.3	8.3	2.5	0.2 (*)	Jul-23	
Industrial production index: food	1.7	0.0	1.2	-4.8	4.3	0.2	-2.5 (*)	Jul-23	
Industrial production index: beverages	2.3	-1.7	0.4	-9.0	12.4	6.4	1.7 (*)	Jul-23	
Turnover index: manufacturing industry	5.5	-3.1	3.0	-12.0	16.0	21.5	1.2 (*)	Jun-23	
Turnover index: food	4.1	1.1	2.8	-2.0	8.3	20.0	11.3 (*)	Jun-23	
Turnover index: beverages	4.5	-1.2	2.1	-16.2	13.0	16.1	9.6 (*)	Jun-23	
 Demand indicators									
Retail sales index: whole economy	2.8	-4.0	2.3	-5.9	3.1	-0.8	7.5 (*)	Jul-23	
Retail sales index: food	1.5	-2.0	1.1	0.3	-0.8	-1.7	0.8 (*)	Jul-23	
Expenditure on food	2.6	-2.1	0.4	4.6	2.8	-4.9	-	2022	
Share of expenditure on food (%)	14.7	15.1	15.1	17.9	16.3	15.1	-	2022	
 Labour market									
Registered workers, whole economy	3.5	-2.1	3.1	-2.1	2.5	3.9	2.8	Aug-23	
Registered workers, primary sector	-1.4	-0.6	0.4	-1.6	-0.3	-3.3	-1.7	Aug-23	
Registered workers, agrifood industry	-	-0.8	2.9	-1.0	2.0	3.1	2.1	Aug-23	
Employees, whole economy	4.3	-2.4	2.7	-2.9	3.0	3.1	2.9	Q2 2023	
Employees, primary sector	-1.5	-2.3	1.6	-4.0	4.9	-3.5	-5.0	Q2 2023	
Employees, agrifood industry	-	-1.0	1.5	0.0	-2.7	5.3	3.1	Q2 2023	
 Foreign sector									
Agrifood exports	6.3	6.0	5.6	4.6	10.5	12.9	(*)	Jun-23	
Primary sector exports	4.7	4.2	5.3	5.4	6.8	4.8	(*)	Jun-23	
Agrifood industry exports	7.3	7.0	5.7	4.2	12.5	17.0	(*)	Jun-23	
Agrifood imports	6.7	2.0	4.5	-5.0	15.7	29.4	(*)	Jun-23	
Primary sector imports	5.2	0.9	4.5	-3.0	17.5	34.9	(*)	Jun-23	
Agrifood industry imports	7.6	2.5	4.4	-6.0	14.8	26.6	(*)	Jun-23	
Agrifood balance of trade (% of GDP)	0.1	0.4	1.0	1.6	1.5	1.3	(*)	Q2 2023	
Primary sector balance (% of GDP)	0.2	0.2	0.4	0.6	0.5	0.4	(*)	Q2 2023	
Agrifood industry balance (% of GDP)	-0.1	0.2	0.5	1.0	1.0	0.9	(*)	Q2 2023	
 Financing									
Outstanding balance of credit to the primary sector	9.9	-5.0	3.9	4.0	3.0	-1.6	-4.3	Q1 2023	
NPL rate, primary sector (%)	1.3	7.4	7.8	5.5	5.2	4.9	5.1	Q1 2023	
Outstanding balance of credit to the agrifood industry	10.4	-1.8	4.4	2.9	0.1	4.5	4.2	Q1 2023	
NPL rate, agrifood industry (%)	1.6	7.1	6.0	4.2	3.8	3.2	3.2	Q1 2023	

Notes: For indicators marked with an (*), the 2023 figure corresponds to the cumulative change for the year up to the latest data available. For 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.

CaixaBank Research

The *Sector Report* and the rest of the CaixaBank Research publications are available at the following website: www.caixabankresearch.com. Our research aims to stimulate debate and the sharing of opinions among all sectors of society, as well as to raise awareness of the important social and economic issues of our time.



Tourism Sector Report S1 2023

Although the current macroeconomic scenario presents a challenge, an analysis of the situation of the tourist industry leads us to predict a relatively positive outlook for 2023.



Real Estate Sector Report S2 2023

Spain's real estate market is slowing down at a gentler pace than expected. In the coming quarters we expect an adjustment in sales and more moderate growth in house prices.



Industry Sector Report 2023

In 2023, Spain's manufacturing industry faces the challenge of higher interest rates, the effects of supply problems with certain inputs and rising production costs.



Monthly Report

Analysis of the economic outlook for Spain, Portugal, Europe and internationally, as well as the trends in the financial markets, with specialised articles on key issues.



Economic and Financial News Briefings


Assessment of the main macroeconomic indicators for Spain, Portugal, the Euro area, US and China, as well as the meetings of the European Central Bank and Federal Reserve.



Consumption monitor

Monthly analysis of the trends in consumption in Spain using big data techniques, based on spending with cards issued by CaixaBank, spending by non-customers at CaixaBank POS terminals and withdrawals at CaixaBank ATMs.

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