

Chapter 1 - The 'perfect storm' of the last three years

Between 2020 and 2022, the effects of a series of completely unexpected events combined explosively into a so called 'perfect storm': the Covid-19 pandemic and lockdown; the succession of extreme weather events; rising energy and commodity prices due to supply-side bottlenecks; Russian invasion of Ukraine, with the further rise in gas prices and its impact on commodity markets and global value chains.

These events led to a return to inflation, initially 'financed' by massive post-Covid demand support interventions and accommodative monetary policies, and subsequently fuelled by the ability of larger firms to pass on higher costs on selling prices. The inflation rate has been kept under control by moderate wage dynamics and the restrictive monetary policy stance of central banks, which have raised interest rates several times since 2022, but the scenario in mid-2023 remains very uncertain: the war in Ukraine continues; core inflation remains high; signs of difficulties are emerging in many economic systems.

In 2020, Italy saw its real GDP fall sharply, but the results in 2021 and 2022 were better than both the world and the euro area averages, bringing GDP back above the level of 2019. However, GDP per capita remains below the European average and the gap widens over the decade 2012-2022. The increase of fertiliser and energy product prices has pushed up costs in the agricultural sector. Moreover, international prices of agricultural commodities, which have been on the rise since the end of 2020, continued to increase due to a number of factors related to global demand, supply and stocks, variables in which China plays a major role and which have been influenced by exogenous factors, such as climate trends in the main producing countries and the war between Russia and Ukraine. Agricultural prices have started to fall since the second half of 2022 but are expected to settle at higher levels than in the years before Covid-19, in a scenario of permanent uncertainty.

The increase in international prices spread rapidly in Italy due to its dependence on foreign countries for energy products, raw materials and intermediate goods; in this scenario, the agro-food industry was one of the most affected sectors and one of the main transmission centres of price increases.

In the first months of 2023, the general consumer price index in Italy followed the fall in international prices of energy, fertilisers and agricultural commodities, but the consumer price index for food continued to rise, reaching a peak in March (+12%) and declining slightly in the following two months; however, compared to the EU average and the three major countries commented in the report (France, Germany and Spain), this price dynamic was lower.

Inflation is never neutral, in fact its impact has been asymmetric between sectors and companies, with a different impact on profit margins for small and medium-sized companies compared with larger ones; the latter, thanks to their greater market power, are able to pass on cost increases on sales prices and renegotiate supply contracts. In this sense, some companies have been able to take advantage of price dynamics, contributing to a "profit" component of inflation.

The combined effect of inflation and low income growth - especially for employees - has eroded household purchasing power and saving rates, with large distributional imbalances: the inflation rate suffered by the poorest households was about two and a half points higher than the richest households' one.

Chapter 2 - Inflation and food consumption

Consumer prices for food rose by 8.1% in 2022, slightly lower than the general rate (8.8%) and significantly lower than the EU average (10.2%). In the four major partners, the lowest food inflation rate was in France (+6%), a country less dependent on imports. In Italy, the biggest increases were in seasonal products, especially vegetables and fresh fish, as well as oils and fats and cereal derivatives. Even in the first half of 2023, food prices in Italy rose less than in the rest of the EU, but food basket inflation was higher than overall inflation.

Food price rises mainly affect poorer households, for whom food consumption at home accounts for 33% of total consumption, while for richer households it accounts for 17%. For the latter the food expenditure share has risen since the beginning of the decade, probably due to improvements in the quality of the goods consumed.

Out-of-home food consumption has increased its importance over the past decade, growing twice as fast as domestic consumption until 2019; after a dip in 2020 due to the lockdown and a partial recovery in 2021, returned to pre-pandemic levels in 2022. Food service market is growing globally and the role of Italian cuisine in restaurants' market value remains prominent, accounting for just under 20% in 2021.

In Italy, total expenditure on food accounts for 23% of total household consumption, slightly higher than the EU average (22%), with a greater emphasis on out-of-home consumption (8% of total expenditure, compared with 7% of the EU average). Data from European countries confirm Engel's law: the lower the level of per capita income, the higher the share of food in total expenditure; but the weight of food expenditure and the mix between domestic and out-of-home consumption are also determined by different cultural factors and market trends (gourmet food, aperitifs, street food).

Over the last decade, Italy has witnessed a shift in the composition of the household food consumption basket towards higher-priced products, mainly affecting wealthier households. At constant prices, expenditure has stagnated, while at current prices it has grown at a rate of 1.7% per year, less dynamic than the EU average. Nevertheless, per capita expenditure on food is among the highest in the EU, ranking 7th among the 27, behind Spain.

According to the Ismea Observatory analysis based on Nielsen data, consumer behaviour has been influenced by the exceptional events of the last three years, with domestic food expenditure increasing by more than 7% in 2020, remaining stable in 2021 and increasing again by more than 5% in 2022 mainly due to the price effect. The Covid-19 pandemic has left some legacies, such as domestic consumption of gourmet food and choices related to health, wellness and sustainability, but inflation has again changed purchasing strategies, including sales channel choice, in favor of discounts. In 2022, the volume of domestic purchases of food and non-alcoholic beverages decreased (-3.7%), with an increased propensity towards less expensive products, although without abandoning products for quick consumption and satisfaction. Many items are back to "normal" pre-pandemic levels, while the decline in household purchases of products such as still wine, sparkling wine, fish, extra virgin olive oil and beef is due to the recovery in out-of-home consumption, as confirmed by cash & carry sales figures: +21% in 2022, after a limited +5% in 2021 and -17% in 2020. Sales in 2022 were also affected by a new buying spree immediately after the invasion of Ukraine, which mainly affected cereal derivatives and vegetable oils, explaining the significant decline in purchases of these products in the first half of 2023.

The impact of inflation on household consumption varies according to the composition of the household, the age of the buyer and its income range. In 2022, young people without children and large households with children and young people slowed down the growth of consumption; on the other hand, households with babies, those over 55 living alone, and low-income households, unable to cut their already low consumption volumes, increased their expenditure. Thus, they were more heavily affected by inflation.

Chapter 3 - Agri-food production and growth

In 2022, the value added of the Italian agri-food industry amounted to 64 billion euro: 37.4 billion for the agricultural sector and 26.7 billion for the food industry. The sector represents 3.7% of the value added of the whole economy, but as we will see, its role is much greater.

In the decade 2012-2022, the food industry showed a trend of relative real growth, while agriculture experienced many unfavourable years, mainly due to climatic trends: 2022 was the hottest and least rainy

year since weather data have been monitored in Italy, and 2023 could be even worse. This has caused Italy to fall back to third place in the EU ranking of agricultural production, after France and Germany (it was previously second only to France). But above all, since 2021, Italy has surrendered to France its decade long leadership in terms of value added. In terms of the production mix, livestock plays a minor role in Italy compared to its main partners; among the Mediterranean crops, wine stands out, especially quality wine (12.9%), for which it ranks higher than France (10.1%); vegetables and fruit also have a significant weight, 12.6% and 7.8% respectively, second only to Spain (both 13.3%).

Italy's weight in EU production is 14% overall, but rises to 37% for wine, where it is second only to France (43%), and 33% for olive oil, where it follows Spain (48%). For fruit, Italy accounts for 18% of EU production and faces strong competition from Spain, which accounts for 28%. Italy also confirms its vocation for secondary activities and services in agriculture, which together account for 18% of national agricultural production, confirming its leadership in Europe in terms of diversification and multifunctionality of the agricultural sector.

However, the diversity of production and the focus on quality have not been enough to avoid the disappointing results of recent years: between the average data for 2018-19 and 2021-22, agricultural value added fell by 7.1% in terms of volume, a result similar to France (-6.8%) and worse than Spain (-4.2%); Germany, on the other hand, shows double-digit growth in value added (+33.6%), thanks to a fall in intermediate consumption in terms of volume and an increase in production. In addition to climatic effects, Italian agriculture also suffers from a number of structural weaknesses, such as the low presence of young farm managers (only 9%, compared with 12% on average in the EU) and the correspondingly low level of training of those who manage the majority of farms.

Between 2010 and 2020, as part of a slow process of concentration and reorganisation in the sector, the utilised agricultural area (UAA) decreased less than the number of farms; the UAA per farm increased from 7.9 to 10.7 hectares between 2010 and 2020, a higher growth than the main European partners, but the level is still significantly lower than the EU average.

The production of the Italian food industry performed well in the period 2019-2022, better than the EU and the euro area, but in 2023 it experienced a setback, with a fall in volumes in the first four months of the year (-2.1%). Despite better performances in recent years, the Italian food industry remains in third place in the EU ranking, where Italy accounts for around 12% of total value added, behind Germany and France but ahead of Spain. Italy is the undisputed leader in the pasta industry, accounting for more than 73% of the EU turnover, but also plays a major role in wine (28%), bakery products and biscuits (21%), processed fruit and vegetables, coffee, tea and herbal infusions, and the milling and rice industries, with a similar share of 17% of the EU turnover.

The importance of the Italian food industry and its strong export orientation feeds a flow of imports of agricultural raw materials and semi-finished products. Wine, fruit and vegetables and poultry are the only sectors where self-sufficiency exceeds 100%, while the other sectors generate more or less significant net import flows.

Chapter 4 - The agri-food supply chain: prices, costs and profitability

The evolution of product prices at different stages of the Italian agrifood supply chain in the period from 2020 to 2022 shows an improvement in the terms of trade for agriculture compared to 2019, and a relative deterioration for the food industry. Consequently, agricultural value added, despite its contraction in constant values, grows in current prices, while the food industry value added shows a clear recovery in real terms in 2021 and 2022, but declines in current prices in both years, especially in 2022.

Agriculture has thus recovered its volume losses thanks to the rebalancing of the relationship between prices and costs. However, the disaggregation of the terms of trade of the agricultural sector, elaborated on the basis of Ismea data, shows that the positive evolution between 2019 and 2022 is only due to the vegetable products sector: this sector shows an improvement in the terms of trade between 2020 and 2021, but a significant decrease in 2022, as a consequence of the increase in the prices of energy products and fertilisers. Nonetheless, the sector managed to maintain its 2019 level. On the contrary, in the animal products sector, the deterioration of the terms of trade in 2020, partly caused by the closure of the Horeca channel during the health emergency, was not offset by the recovery in 2022. Finally, partial data for the first half of 2023 show a deterioration in the indicator for both crops and livestock.

On the other hand, over the past two years production costs in the food industry rose faster than revenues, especially in small and medium-sized industrial businesses. These companies faced greater difficulties in passing on increased costs to sales prices, especially in the modern retail distribution channel. In addition to the rise in agricultural product prices, these firms had to cope with the even greater impact of increased energy products, packaging and transport prices.

In general, the agri-food chain is characterized by price volatility and price-transmission asymmetries between different stages of the production process, which affect the functioning of the market and the value distribution between different actors. Agricultural prices suffer from high volatility, as a result of a high market risk in agriculture combined with the production risk associated with yield variability. For some commodities (vegetable oils, cereals, oilseeds), prices are strongly influenced by import prices, and the instability of world markets has an impact also on the cost side, through the purchase prices of fertilizers and chemical products.

Upward shocks to agricultural prices transfer quickly downstream, on the costs of the processing industry. The food industry then gradually compensates for reduced margins by increasing selling prices at a slower pace, but maintaining the increases even after the upstream phase has reduced its prices. The distribution sector tends to follow the same strategy, diluting the transmission of consumer price increases over time to avoid excessive and sudden reductions in household spending, but then tending to maintain a higher price level even when purchasing costs are reduced. This mechanism cushions the immediate impact of cost increases on final prices but prevents consumers from benefiting from lower prices during market downturns, with prolonged negative effects on demand. However, the way in which prices are passed on varies greatly from product to product, depending on the structure and characteristics of the relevant supply chain: number and size of operators, perishability of the product, logistics, sourcing methods, type of contract.

In addition to the time factor, the different structure and solidity of the stages of the supply chain also play a role. Suffice it to say that the average value added per company is less than 32 thousand euros at the agricultural stage, compared with 527 thousand euros for the food, beverages and tobacco industry, 144.5 thousand euros for distribution (wholesale and retail) and 84 thousand euros for catering services.

Overall, the Italian food supply chain (including the downstream stages of food distribution and catering services) is more fragmented than in the rest of the EU, due to the greater presence of micro, small and medium-sized enterprises at all stages.

Italy accounts for the 14% of the EU's agri-food chain value added, with a lower share than Germany and France in each stage, except for the agricultural phase, where Italy accounts for 16.6% of the EU's agriculture and ranks second, just behind France.

Both in Italy and France, the agri-food chain accounts for almost 8% of the value added in the economy, slightly more than in the EU (7.3%), but less than in Spain, where the agri-food chain accounts for 10% of the value added of the national economy.

The weight of the agri-food chain in the economy is significantly higher when valued at final market prices, i.e. including the transport, intermediation and distribution margins associated with and activated by agri-food production. Including the food services also valued at the purchase prices paid by final consumers, the estimated share of GDP rises from 7.7% to 15.2%. These figures show that the agri-food chain has a great capacity to activate and generate employment in several related sectors: transport and logistics services, intermediation and distribution, which together account for a further 7.5% of the total economy, de facto doubling the weight of the agri-food sector.

Regarding the economic performance of agriculture, it should be recalled that the operating income of the agricultural entrepreneur, in addition to being characterized by variability and risk, is structurally lower than the average wage of an employee in Italy; this gap, which also exists in other EU countries, justifies the persistence of public support through the CAP. Over the last decade, the operating income of Italian agriculture has increased thanks to a significant reduction in the weight of depreciation on value added, due to the fall in investment in the sector that lasted until 2015. In any case, depreciation in Italian agricultural holdings is still more skewed towards buildings than the EU average and other countries.

When it comes to other factors of production, access to land remains a sore point for Italian agriculture, mainly due to the limited availability. Eurostat estimates that the average price of a hectare of arable land in Italy is almost six times higher than in France and twice as high as in Spain. Nevertheless, there is an increase in the use of rented land by Italian farmers: according to the latest census, half of the UAA in 2020 was rented and, to a lesser extent, on a free loan basis; in ten years, the number of holdings owning only their own land has fallen by 44%.

In terms of the labour factor and its cost, the comparison between the main European countries shows Italy in between, on the one side France and Germany, where labour costs are higher, and Spain on the other. In general, for all these countries, labour costs in agriculture are lower than in other sectors.

Chapter 5 - Employment, productivity and investment

Between 2012 and 2022, employment in agriculture fell by 2.8% (compared to an increase of 3.1% for the rest of the economy), as a result of a combination of different trends over the decade: a 2% growth between 2012 and 2018 (the year in which employment peaked at 939 000 persons) followed by a 4.7% decline between 2018 and 2022.

The overall employment rate places Italy at the bottom of the EU ranking, especially for young people, women and in rural areas; however, the decline in the number of people employed in the agricultural sector over the decade was much lower in Italy than the EU average (-2.8% against -17.5% in the EU). In the post-pandemic period, the decline in Italy was in line with the EU (-3.4% between 2019 and 2022), while in Germany (-7.2%) and Spain (-7%) the decline was bigger.

The overall decrease in agricultural employment is linked to the trends of the self-employed workers, whose share in the sector's total employment is higher than in the rest of the economy. The number of self-employed workers has indeed fallen by 73,000 (-14.9%) over the last decade, while the number of salaried workers increased by 47,000 (+10.8%), exceeding the number of self-employed workers. The increase in salaried workers is probably a sign of a greater "structuring" of the sector, with a shift from small individual and family farms to full-fledged enterprises. Nevertheless, the rate of undeclared work in Italian agriculture remains very high, reaching an all-time high in 2020 (24.4%), more than double than in the rest of the economy (12%).

In contrast to agriculture, employment in the food industry increased significantly over the decade (+8%). This trend is in contrast with the rest of the industry and sectors such as total manufacturing (-3.5%) and textiles (-12.7%).

Real labour productivity in the agricultural sector, i.e. the ratio of value added at constant prices to employment, fell over the decade, in sharp contrast to the EU average, while it rose in the Italian economy as a whole and in the food industry. Indeed, the decline in real value added in the agricultural sector exceeded the decline in employment. Structural constraints (small farm sizes, ageing, low level of education and training of farm managers and workers) hinder the productivity dynamics of Italian agriculture.

In monetary terms, the situation is better: in 2022, an employed worker in the agricultural sector in Italy generated EUR 42 000 of value added, compared to an EU average of EUR 30 000. However, France and Germany performed even better. The reasons for the lower productivity are to be found in a greater fragmentation of supply, the prevalence of labour-intensive production and the difficulty for farms - especially in some sectors and in some areas of the country - to export and/or to integrate some stages of the downstream supply chain (processing, packaging and marketing).

Improvements in productivity should also come from the modernization of holdings and the introduction of technological and organizational innovations. From this point of view, figures are encouraging, considered that since 2015, the agricultural sector has increased its investments twice as much (+60.2%) as the rest of the economy (33.9%). The vitality of investment in the Italian primary sector in recent years, also favoured by public incentives and support, is confirmed by both the record number of registrations of agricultural machinery in 2021 (+24% compared to 2019 and +30% compared to 2020) and the growth in innovative investment.

The increase in the propensity of agricultural enterprises to invest (the ratio of investment to value added) reaches 29.3% in 2021, returning to the 2011 level) is offset by relatively poor access to credit. Nonetheless, thanks to the public support received mainly by the agricultural sector, the weight of the agri-food sector on the total stock of loans granted in Italy is greater than the share of the sector in terms of value added. The analysis of Italian bank loans in 2022 shows a decline in the stock of loans to agricultural enterprises (-8.5% over the last decade and -0.7% on an annual basis). In contrast, loans to the food industry increased by 6.2% between 2012 and 2022 and by 3.5% in the last year.

In 2022, medium- and long-term agricultural loans used to finance fixed investments with multiannual depreciation, fell even more sharply (-38.2% in ten years and -6.8% in one year). The contradiction with the figure showing an increase in agricultural investment in 2022 can be explained by the importance of self-financing and the mix - common in agriculture - between company and family capital and between short-term and long-term management.

The latest survey on credit, based on the Ismea panel of agricultural enterprises, confirms that in 2022 only a quarter of the farmers relied on the credit system, but the share increases for larger enterprises, both in terms of farm area (39% for enterprises with more than 50 hectares) and turnover (43% for enterprises with a turnover over 500 thousand euros). Young farmers are slightly more inclined to use credit than their older counterparts, the share of requested loans being 28% for the former group and 24% for the latter.

Chapter 6 - International trade and competitiveness

Over the last decade, the weight of agri-food trade in world exports increased from 7.8% in 2012 to 8.4% in 2022. In the two-year period 2021-22, trade in value terms increased even more due to both a growth in prices and a recovery in demand, mainly for raw materials and semi-finished products, and especially from China.

In the five-year period 2018-22, the growth rate of imports of the world's biggest agri-food product importers - the USA and China - was higher than the global average (9.6%), while in the top ten, the highest average annual growth was in Italy and Canada (+11%) and Spain (+10%). In 2022, the USA was still the

leader in agri-food exports, with an annual growth rate in exports of 24%; Brazil did even better (+53%), while Italy also managed to rank among the top ten exporting countries (+25%).

In Italy the share of agri-food products in total exports rose from 8% to 10% over the decade. Both agricultural and processed products exports have increased, but the latter to a greater extent (+4% and +7% respectively).

Between 2019 and 2022, Italy's agri-food exports increased by 34% and exceeded EUR 60 billion in 2022, while imports increased by 37% over the same period. The agri-food trade balance improved over the three-year period, even turning into a surplus in 2020 and 2021. While the processing industry managed to maintain its surplus in 2022, the deficit of the agricultural phase increased, making the overall balance slightly negative again.

Over the last decade, the competitiveness of Italian agri-food products on foreign markets has increased: exports have grown at a higher average annual rate (+7.6%) than world exports (+5.6%), with an increase in Italy's world market share (from 2.8% to 3.4% in 2022). Spain's share (3,4% as Italy in 2022) also increased, while the shares of Germany and France (4.8% and 4.3% respectively in 2022) decreased. Italy improved its trade position in almost all the main importing countries.

In the comparison between the four EU partners, Germany has the highest level of trade integration in the agri-food sector, also due to the importance of its food retailing at international level, while France is the most oriented towards its domestic market.

The "import content" of a country's exports is an indicator that can provide specific information on its international positioning. Calculated according to an OECD definition, it estimates the value of imported goods and services needed to feed export flows. The higher the indicator, the more integrated a country is in global value chains. Germany, whose food industry is a strong exporter in sectors where it also depends heavily on imported raw materials or semi-finished products (e.g. fruit juices), ranks first (26%), followed by Italy, Spain and then France.

In EU trade, Italy and Spain each account for about 10% of the total value of agri-food exports (considering both intra- and extra-EU flows), while the shares of Germany and France are higher. France, except for wine, is oriented mainly towards the export of agricultural raw materials, while Italy and Germany are oriented towards the export of processed products. Italy is the world leader in exports of processed tomatoes, pasta, wine and cheese, while Spain focuses on fruit and vegetables, olive oil and pork. Overall, taking into account the top 20 products exported by each country, Italy is second only to France in terms of average export unit value, while Germany and Spain are characterized by lower average prices and thus a lower quality mix, which enables these countries to compete on price (e.g. Spain for fruit and vegetables and partly for olive oil).

An important aspect of a country's international competitive performance is its ability to reach distant (and often more dynamic) markets, as measured by the "distance index", which weights the kilometers travelled by the relative value of each exported product. For virgin and extra virgin olive oil, cheese, chocolate and coffee, Italy's distance index, which has increased over the last decade, is the highest between the four countries compared, while France has the largest export radius for wines. Finally, it should be noted that Germany's exports have the shortest export distances, especially at European level, as they are largely driven by the presence of German retail chains, which are particularly strong in the EU.

Although the current geopolitical framework does not enhance the idea of a globalization based on increased international cooperation, bilateral trade agreements continue to be concluded. Brexit has led to a slowdown in trade between EU partners and the UK, but the entry into force of the Trade and Cooperation Agreement in 2021 has given new impetus to trade. By contrast, the effects of the EU-China

agreement, which came into force in March 2021, are not yet visible; on the contrary, China's imports from the EU fell sharply in 2022, probably also because of the complications in international relations caused by the invasion of Ukraine and the related sanctions imposed by the EU on Russia.

In the context of international competition, the protection of GI products, which account for 21% of Italy's agri-food exports, is very important. In this respect, it is worth highlighting the problem of the proliferation of the so-called Italian sounding products. This is the result of marketing strategies that associate non-Italian agri-food products with signs that evoke a link with Italy to make them more attractive on international markets, generating misleading information and potentially damaging the reputation of genuine Made in Italy.

Chapter 7 - Italian and EU agri-food competitiveness

The competitiveness of the Italian agri-food sector is lower than the EU average for the agricultural phase and higher for the industrial phase. This is the result of the synthetic competitiveness indicator calculated for the EU countries, which averages a series of statistical indicators representing four main dimensions of competitiveness (costs, profitability, international trade, propensity to invest) measured for the agricultural sector and the food industry.

In the agricultural phase, Germany and Italy have a negative competitiveness gap with the EU average, while for France and Spain the gap is positive, but with an opposite trend: France's advantage decreases over time, while Spain's increases.

Germany has a structural disadvantage also in the industrial phase, while again, it is Spain that shows the best dynamics, with a positive competitiveness gap that increases over the years. France shows a slight deterioration, with a level of competitiveness close to the European average.

Overall, the competitiveness of Italian agriculture is in line with the EU average for the profitability index, but weaknesses emerge in international trade indicators (comparative advantage, export to import ratio and export to turnover ratio) and strengths in the propensity to invest and cost competitiveness. In other words, Italian agriculture is well positioned in terms of "internal" business competitiveness (profitability and costs indicators) and in terms of modernization and innovation efforts, as measured by the propensity to invest; on the contrary, the sector is lacking in terms of international competitiveness.

Italy excels in the industrial phase, as shown by most of the indicators. Only the propensity to export and, to a lesser extent, the revenues to costs ratio are below the EU average. In dynamic terms, the competitiveness of the food industry is improving, while that of agriculture is deteriorating.

In 2020 (the last year with available data for all indicators and all partners), the most competitive EU countries - both in the agricultural and in the industrial phase - are the Netherlands, Latvia, Belgium, and Spain; for the latter, in the agricultural phase, the indicators of comparative advantage, export to import ratio and labour productivity are clearly above the EU average. The same is true for the industrial phase, but with a much smaller gap compared to the other countries and the EU average.

Chapter 8 - Economic and financial performance of the food industry

In order to measure the economic and financial performance of the food industry, a synthetic indicator has been calculated, based on the balance sheet data of a sample of companies grouped into four "economic and financial sustainability classes": healthy; profitable but vulnerable; at risk; highly at risk. The indicator shows positive results for the period 2019-2021: the number of healthy companies increased. Although the number of companies at risk increased as well, in the year of the pandemic, at the end of the period the overall economic and financial situation of these companies improved thanks to the substantial public aid and the recovery of the sector.

The impact of the energy crisis and inflation, which manifested itself in 2022, is not captured by this analysis, as up-to-date data were not available at the time of writing. However, production costs for food companies and prices along the supply chain increased as early as 2021. Economic and financial conditions improved from 2019 to 2021 for all economic size classes, although the impact of the pandemic and the cost increases that started in 2021 hit mainly smaller companies. At a sectoral level, the incidence of distressed enterprises increased in 2020 in sectors such as dairy, confectionery, bakery products and wine - which suffered more than others from the fall in out-of-home consumption - while in other sectors the weight of healthy enterprises increased significantly.

In 2021 there was a strong recovery in the confectionery and wine sectors and an excellent performance in meat products, while other sectors performed worse. Rice, pasta and milling probably suffered compared to the particularly positive previous year, in which consumption of staple foods had increased enormously. The performance of the poultry sector was particularly negative, especially in terms of profitability and financial soundness, due to unfavourable events in 2020 (due to an increased demand in the first months of the lockdown, followed by an oversupply and a drastic fall in selling prices) and in 2021 (due to outbreaks of avian influenza in Veneto).

As far as profitability indicators are concerned, ROI gradually decreased over the three-year period, while ROE decreased slightly in 2020 and then rose in 2021, exceeding its 2019 level. The drop in profitability in the year of the pandemic is particularly relevant for the group of small enterprises; for large enterprises, opposite variations are observed between ROE and ROI, which could depend on the fact that financial management plays a more important role in these enterprises and can have a positive impact on the net result, offsetting any negative operating result.

Finally, solidity and liquidity indicators show an improvement, especially in the year of the pandemic, which can be explained by the strong public support received and aimed at alleviating the difficulties of companies affected by the lockdown.