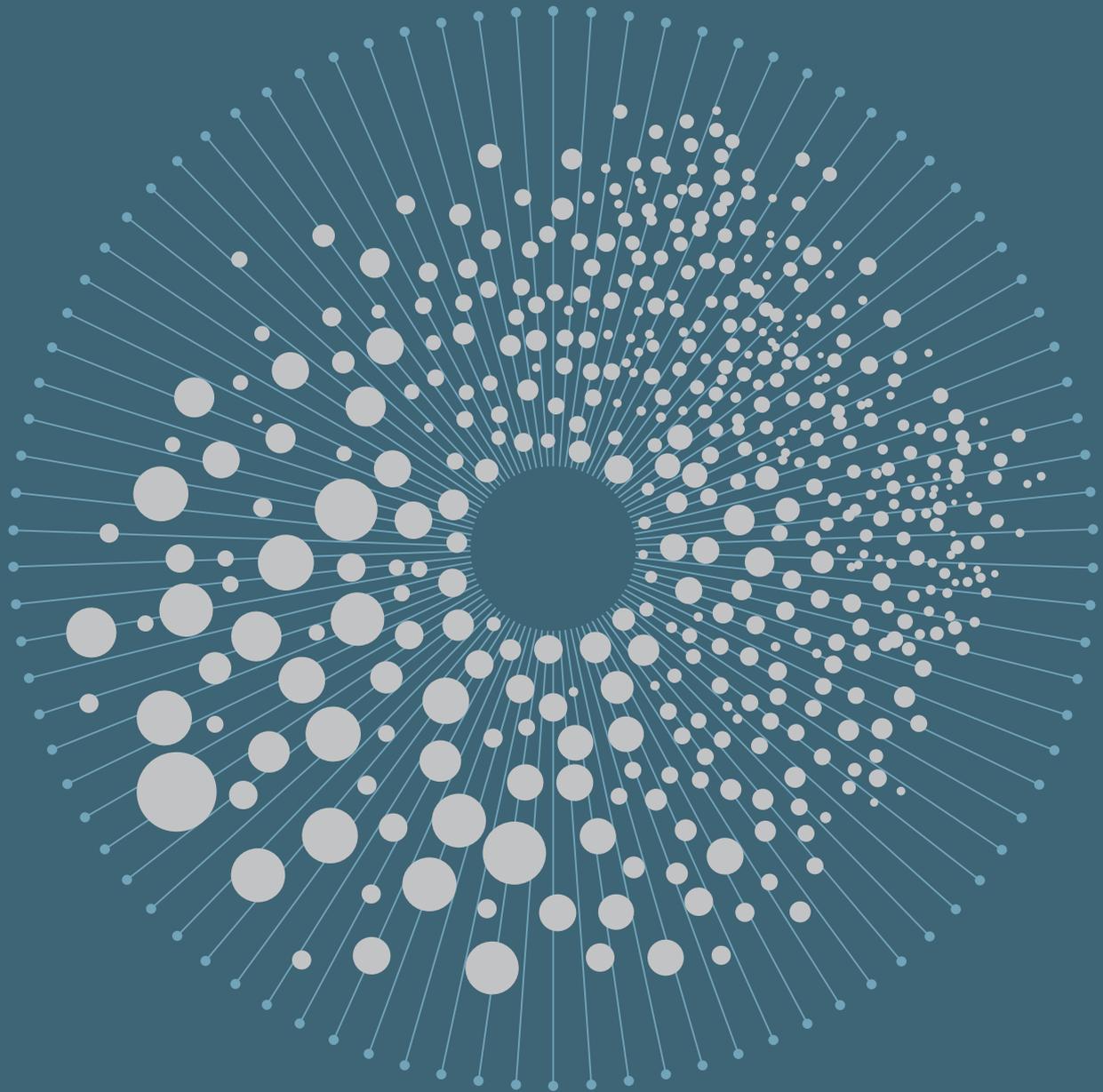


# THE CORK SECTOR

DESCRIPTION

2023.

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DESCRIPTION

2023.

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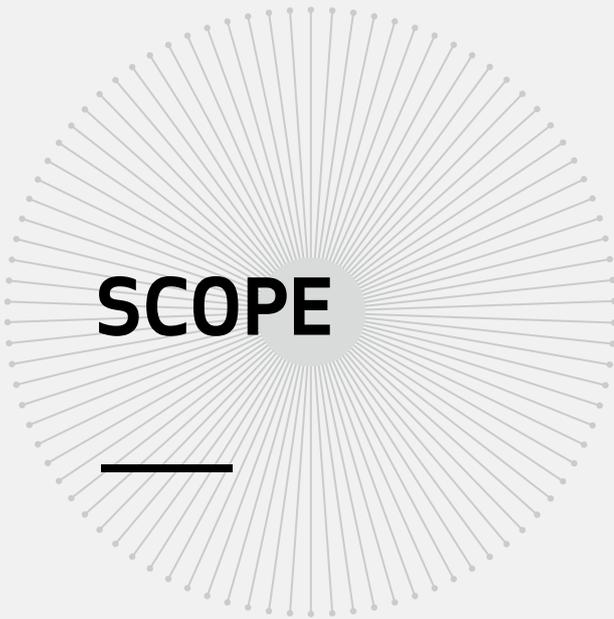


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**The last few years have been particularly turbulent in economic terms. The fight against the COVID-19 pandemic in 2020 led to severe restrictions on mobility and economic activity, generating an unprecedented recession in peacetime, at least in modern times.**

Once the most critical period of the pandemic was over, the economy recovered quickly, but was faced with the largest inflationary surge in decades, forcing central banks to reverse the direction of monetary policy and rapidly raise interest rates. The cork industry, like most economic activities, was affected by these phenomena. APCOR decided to develop, in this context, an updated portrait of the industry's situation as a strategic support tool for companies.

Accordingly, the second chapter of this document, following this Introduction, portrays the economic importance and situation of the cork industry in Portugal. It shows that the industry makes a very important contribution to the national economy in areas such as output, employment and foreign trade. This contribution is, as might be expected, particularly notable in the locations

favoured by the industry, particularly in the municipality of Santa Maria da Feira.





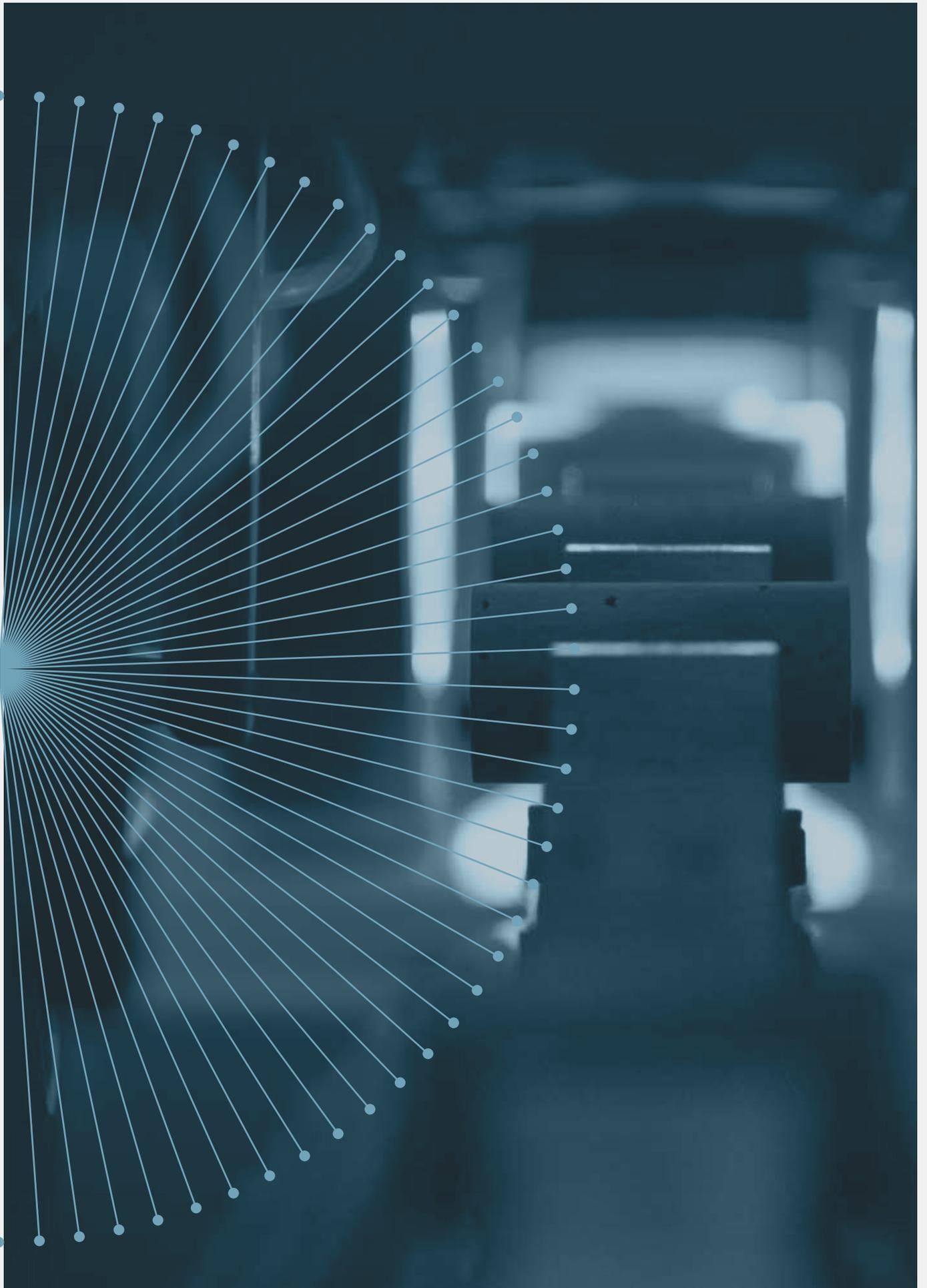
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This chapter also shows that, over the last decade, there has been a change in the industry's busi-

ness structure, above all due to the disappearance of small companies focused on cork preparation, while the number of cork stopper companies and producers of other cork products has increased. This transformation was not unrelated to the strong growth in investment, reflecting the growing technological intensity of the cork industry. These changes have led to productivity growth that has clearly exceeded that of the Portuguese manufacturing industries as a whole. The chapter ends with an analysis of the economic and financial performance of the companies in the sector which, despite the surrounding economic turbulence, was very positive. The third chapter provides a more in-depth analysis of the international cork trade and Portugal's role in that trade. Portuguese cork exports have been growing and breaking records, already surpassing 1.2

billion euros per year. This growth is essentially due to the growth in value of the product, since the export volume has not significantly increased because it is limited by the raw material's availability. The Portuguese industry's need for raw materials is, in fact, the explanation for the growth of cork imports. Nevertheless, the trade balance of cork products has increased and now exceeds one billion euros, making a fundamental contribution to combating the deficit in the external accounts of Portugal.





# ECONOMIC IMPORTANCE OF THE CORK INDUSTRY

# 01

**According to the most recent statistics, relating to 2021, the cork industry<sup>1</sup> achieved a turnover of 1853 million euros and gross added value of 364 million.**



These figures represent, respectively, 0.4% and 0.3% of the total of the national economy. The relative importance of the cork industry increases to 1.8% and 1.5%, respectively, when referring to the smaller group of manufacturing industries. It should also be noted that the cork industry accounts for almost half (47%) of the turnover of the wood and cork industries and 40.2% of those industries' added value.

Whatever the basis of comparison, the relative weight of the cork industry is much lower if it is evaluated alternatively in terms of the number of companies or people employed (Table 1), indicating that this industry has larger companies and higher productivity levels than the national average.

**TABLE 1 - ECONOMIC IMPORTANCE OF THE CORK INDUSTRY (2021)**

	Cork industry	% Wood and cork industries	% Manufacturing industries	% Portuguese economy
Turnover	1,853	47.0%	1.8%	0.4%
GVA	364	40.2%	1.5%	0.3%
No. companies	815	16.7%	1.2%	0.1%
People employed	8,555	28.6%	1.2%	0.2%

Source: INE (Statistics Portugal), Integrated company accounts.  
Notes: Monetary values expressed in millions of euros.

1. "cork industry" here is understood to include the subclasses 16293 - Cork preparation industry, 16294 - Manufacture of cork stoppers and 16295 - Manufacture of other cork products from the Portuguese Classification of Economic Activities (rev. 3).

## 8\_ 1. ECONOMIC IMPORTANCE OF THE CORK INDUSTRY

The importance of the cork industry is also evident in terms of foreign trade, which is analysed in greater detail in the following chapter. Portuguese exports of cork and its products exceeded 1.2 billion euros in 2022, representing 1.5% of total Portuguese exports of goods. In a year in which the Portuguese trade balance recorded a deficit of 31 billion euros, cork products, on the other hand, had a positive balance of one billion euros.

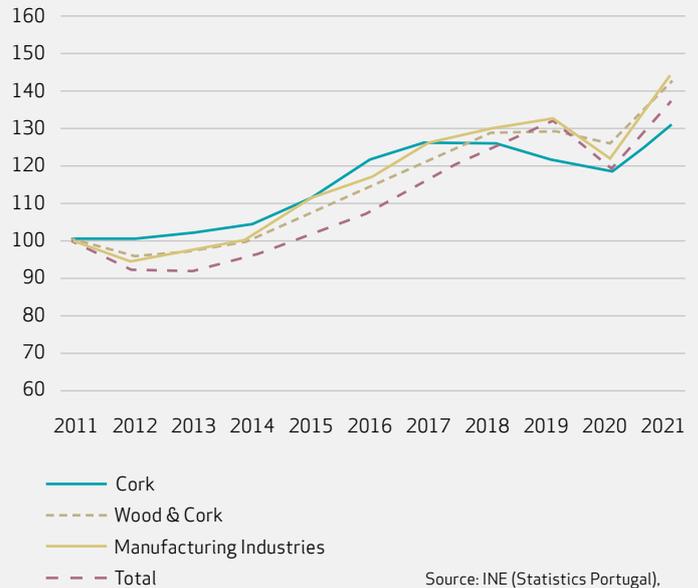
The importance of the cork industry in the Portuguese economy has no parallel in other European countries. So much so that most of them, such as Spain and France, do not publish independent statistics for this industry, but instead aggregate it with the wood industry. In Italy, where autonomous data on cork is available, the local statistics office only records the existence of 145 companies and 1,145 workers in the industry, figures that represent 0.39% and 0.3% of the respective totals of the manufacturing industries. These percentages are much lower than those registered in Portugal.

The cork industry has seen divergent trends in these indicators over the last decade. As Chart 1 shows, the cork industry's turnover grew strongly from 2011 to 2018 (+41%), ending the decade 48% higher than in 2011, despite the fall that occurred in 2020.

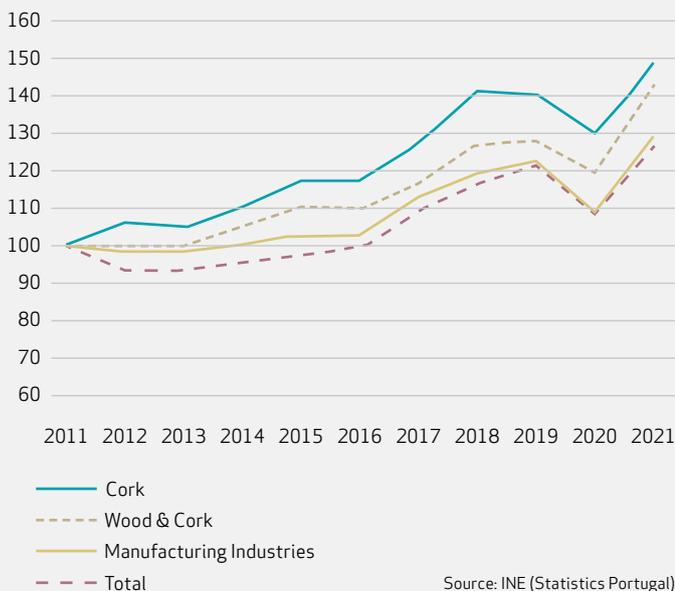
This growth clearly surpassed that recorded by the wood and cork industry as a whole (+42%) and also by the manufacturing industry (+28%) and the national economy (+26%).

The value added of the cork industry also grew significantly (+31%), albeit at a lower rate, over the decade (Chart 2). However, growth in the wood and cork industry (+42%), manufacturing industries (+44%) and the national economy (+37%) – was higher, due to the slowdown in the growth of value added of the cork industry from 2017 onwards.

**CHART 2 – GROSS VALUE ADDED 2011-2021 (2011=100)**

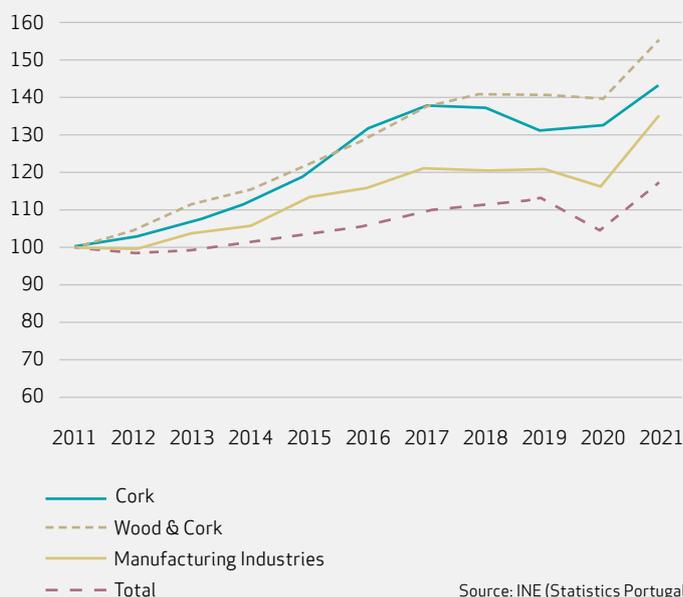


**CHART 1 – TURNOVER 2011-2021 (2011=100)**



On the other hand, the number of companies and the number of people employed in the cork industry fell by 11% and 8% respectively over this decade, in contrast to the Portuguese economy as a whole where they grew significantly (+21% and +17% respectively). The combination of the increase in value added and the reduction in the number of people employed resulted in an increase in productivity (value added per worker) which can be seen in Chart 3: this indicator increased by 43% in the cork industry, in the period indicated in that chart, which is far more than in the manufacturing industries (+34%) or in the national economy as a whole (+18%). However, the wood and cork industry as a whole achieved even stronger growth (+55%).

**CHART 3 – GROSS VALUE ADDED PER WORKER 2011-2021 (2011=100)**



Source: INE (Statistics Portugal),  
Integrated company accounts.

## 1.1. REGIONAL DISTRIBUTION OF THE INDUSTRY

The strong geographical concentration is one of the most striking characteristics of the cork industry. Table 2 shows that around 80% of the industry is located in the NUT II North region, with small fluctuations in this percentage depending on the indicator considered. Alentejo is the other region in the country where the industry is quite significant, accounting for 15% of turnover and 12.5% of national GVA. It should be noted that the weight of Alentejo in terms of these indicators is more than double what it has in terms of number of companies, indicating that the cork companies located there are of a considerably larger average size than in other regions of the country.



**TABLE 2 – DISTRIBUTION OF THE CORK INDUSTRY BY NUT II (2021)**

	North	Alentejo	Other Regions
Turnover	77.0%	15.3%	7.8%
GVA	79.6%	12.5%	7.9%
No. companies	83.2%	6.0%	10.8%
People employed	78.6%	11.7%	9.6%

Source: INE (Statistics Portugal),  
Integrated company accounts.

**TABLE 3 – NUMBER OF CORK INDUSTRY COMPANIES BY MUNICIPALITY (2021)**

Municipality	No. companies	%
Santa Maria da Feira	635	77.9%
Montijo	20	2.5%
Lisboa	14	1.7%
Évora	13	1.6%
Vila Nova de Gaia	11	1.3%
Espinho	9	1.1%
Ovar	9	1.1%
Vendas Novas	7	0.9%
Grândola	6	0.7%
São Brás de Alportel	5	0.6%
Others	86	10.6%
Total	815	100%

Source: INE (Statistics Portugal), Integrated company accounts..

According to these two indicators, the rest of the country as a whole accounts for less than 8% of the cork industry, which is about half of Alentejo's sectoral relevance. The geographical concentration of the industry over the last decade has only slightly changed with a slight reduction in the preponderance of the northern region in favour of other regions.

The concentration of the cork industry is particularly expressive when analysed at municipal level (Table 3). In 2021, INE (Statistics Portugal) recorded the existence of companies of the industry in 64 municipalities. The municipality of Santa Maria da Feira alone is home to 77.9% of these companies. The second most important municipality in terms of number of companies is Montijo, which accounts for just 2.5% of the national total. Apart from these two, the ten municipalities with the highest representation of the cork industry are mainly neighbouring municipalities of Feira (Vila Nova de Gaia, Espinho, Ovar) and municipalities in Alentejo (Évora, Vendas Novas, Grândola)<sup>2</sup>.

2. If establishments are counted instead of companies, then Ponte de Sor is added to those Alentejo municipalities.

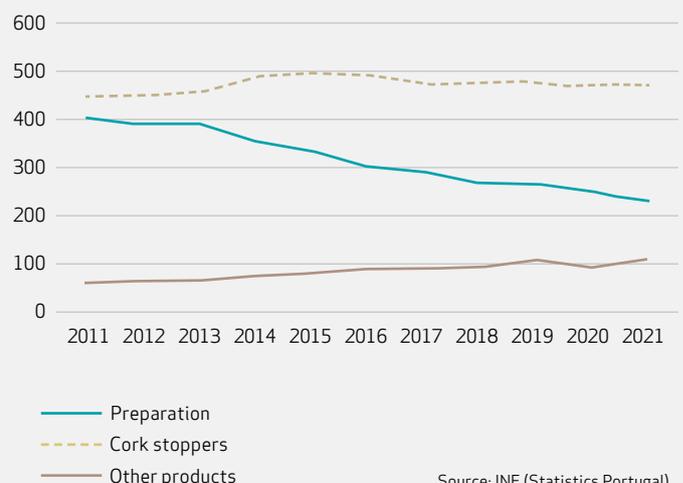
## 1.2. BUSINESS STRUCTURE

The number of active companies in the cork industry fell from 914 to 815 between 2011 and 2021, a reduction of 11%, according to Instituto Nacional de Estatística (Statistics Portugal).

However, this reduction did not impact on the industry evenly.

Instituto Nacional de Estatística (Statistics Portugal) classifies companies in the cork industry into three activities: preparation of cork, manufacture of cork stoppers and manufacture of other cork products<sup>3</sup>.

Chart 4 shows the reduction in the number of companies in the cork industry is exclusively due to the cork preparation activity: the number of companies in this activity went from 405 in 2011 to just 232 in 2021, a reduction of 43%. In contrast, the number of companies working in the other products segment went from 65 to 111 (+71%). The number of cork stopper manufacturers was more stable, rising from 444 to 472, an increase of just 6%, although in this case we can see a non-linear evolution, with the sharpest growth until 2015, followed by a slight decline in the second half of the decade.

**CHART 4 – NUMBER OF COMPANIES BY CORK INDUSTRY SUB-SECTOR 2011-2021**

Source: INE (Statistics Portugal), Integrated company accounts.

3. The Classification of Economic Activities contains three subclasses for the cork industry, as already mentioned: 16293 - Cork preparation industry; 16292 - Manufacture of cork stoppers; 16295 - Manufacture of other cork products.

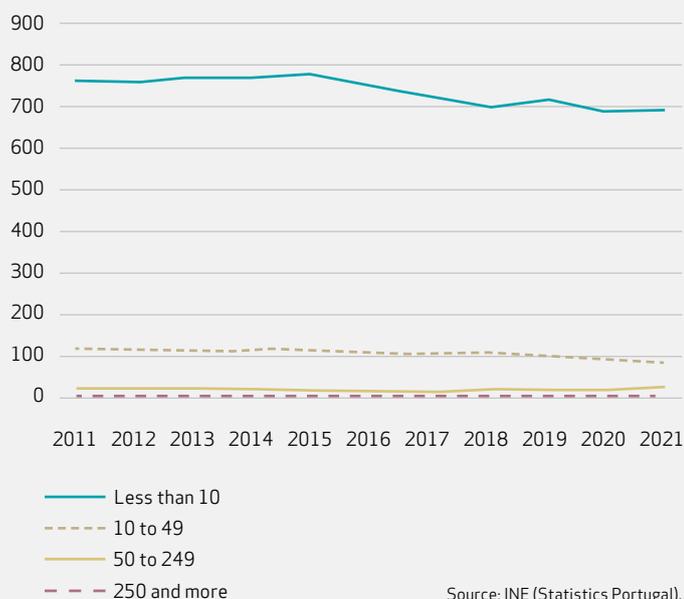
The sectoral composition of the cork industry underwent a marked change over the decade: the percentage of cork preparation companies fell by 16 percentage points (from 44% in 2011 to 28% in 2021), in contrast to a 9 percentage points increase in the percentage of cork stopper manufacturers (from 49% to 58%) and of other cork products by 7 percentage points (from 7% to 14%)<sup>4</sup>.

As well as being restricted to cork preparation companies, the reduction in the number of companies occurred exclusively in small companies. The number of companies with 250 or more workers (5) has not changed in the last decade and the number of companies with between 50 and 249 workers has even increased by 8%. On the other hand, the number of companies with 10 to 49 employees fell by 27%, from 122 to 89, and those with fewer than 10 employees fell by 9%, from 761 to 693 (Chart 5).

Lastly, an analysis by legal form of the companies (Chart 6) shows that the drop in the number of companies is concentrated exclusively in "sole proprietorships"<sup>5</sup>.

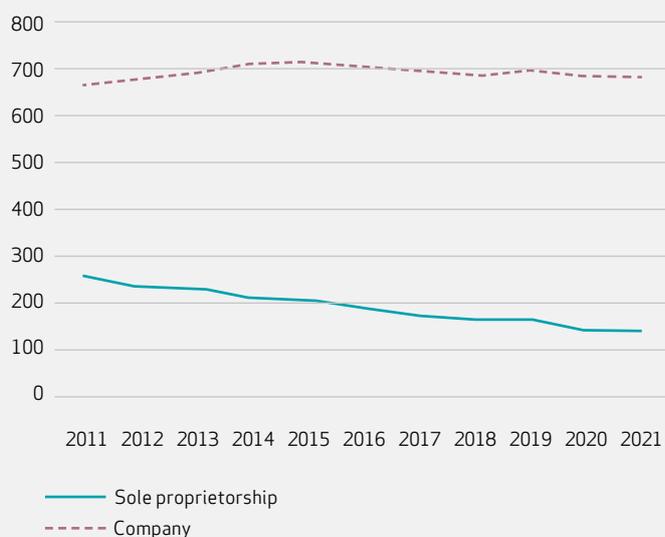
Over the decade as a whole, the number of companies with a corporate form working in the cork industry even increased slightly, from 660 to 678, although with more notable growth until 2015, when it reached a maximum of 713, followed by a tendency of decline. A breakdown of this analysis by sub-sector shows a drastic reduction (-74%) in the number of sole proprietorships working in the cork preparation area over the decade, a smaller reduction in the manufacture of cork stoppers (-18%) and a very sharp increase (+329%) in the area of manufacture of other products. On the other hand, the number of companies only fell in cork preparation (20%), while it increased in the manufacture of cork stoppers (+11%) and other products (+40%).

**CHART 5 – NUMBER OF COMPANIES IN THE CORK INDUSTRY BY NUMBER OF EMPLOYEES 2011-2021**



Source: INE (Statistics Portugal), Integrated company accounts.

**CHART 6 – NUMBER OF CORK INDUSTRY COMPANIES BY LEGAL FORM 2011-2021**



Source: INE (Statistics Portugal), Integrated company accounts.  
Note: "Sole proprietorship" includes sole traders and self-employed workers.

4. It should be noted that the CAE codes that companies use in the statistics do not always correspond to their current activity, so these analyses should be understood as illustrative of trends rather than exact representations of reality.

5. INE (Statistics Portugal) counts companies and individual companies as companies, the latter corresponding to sole proprietors and self-employed workers.

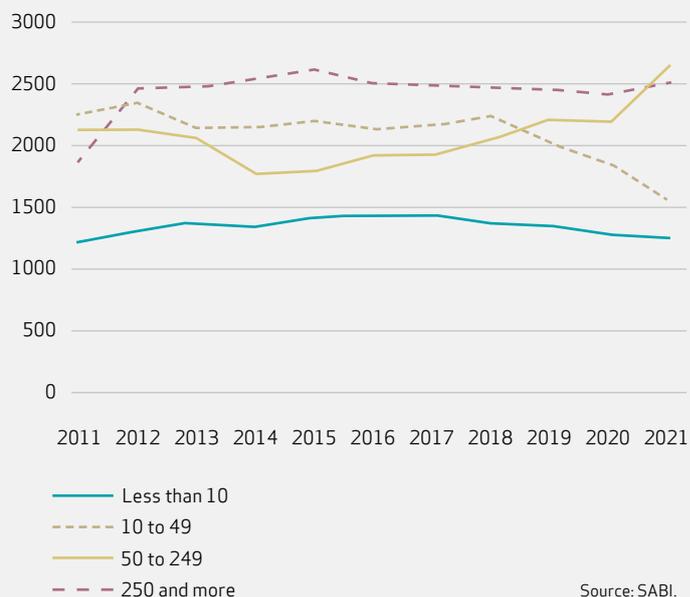
In short, the data available from the INE (Statistics Portugal) suggests that the last decade has seen the disappearance of a large number of small and very small companies working in the cork preparation area, with an increasing concentration of the industry's economic activity in more structured, corporate entities.

Analysing the number of companies is, however, an imperfect way of assessing the concentration of economic activity. A more relevant analysis would assess, for example, the distribution of the number of people employed, or turnover by companies in the various size brackets. The SABI<sup>6</sup> database was used for this purpose. This database contains data on 622 cork industry companies employing 8012 people, for the year 2021. These figures correspond to 76% and 94%, respectively, of the figures reported by INE (Statistics Portugal).

This source confirms the trend of increasing concentration of corporate businesses that the INE (Statistics Portugal) data showed. As Chart 7 shows, in recent years, particularly from 2017 onwards, there has been rapid growth in the number of people employed by companies employing between 50 and 249 workers, while at the same time the number of those employed by companies with between 10 and 49 workers has been declining as well as, although to a lesser extent, those with fewer than 10 workers. The percentage of workers in the cork industry employed by companies with at least 50 workers rose from 53% in 2011 to 60% in 2020 and 64% in 2021<sup>7</sup>.

The same phenomenon of transferring activity from smaller companies to those with more than 50 workers is visible when variables such as sales volume or assets are considered. However, when analysed at company level, concentration in the cork industry remains very moderate. Chart 8 shows that the share of the four largest companies in the total operating income of the cork industry reached a peak of 42% in 2015 and has since shown a downward trend to values of around 35%, similar to those seen a decade ago.

**CHART 7 – NUMBER OF PEOPLE EMPLOYED IN THE CORK INDUSTRY, BY BRACKETS 2011-2021**



On the other hand, the Herfindahl index, which is an important indicator of concentration that reaches a maximum of 10,000 points in a monopoly situation - did not exceed 647 points in 2015 and has since fallen to around 500, corresponding to an industry that has very little concentration.

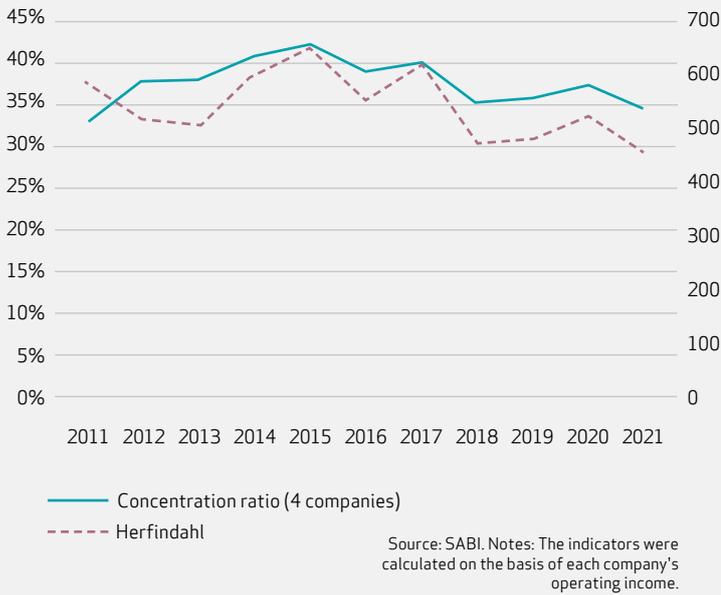
The outlook changes when the integration of companies into business groups is taken into account<sup>8</sup>. Chart 9 shows that, in this case, there is an upward trend in concentration, whether measured by the share of the 4 main groups or by the Herfindahl index. The two indicators have been growing gradually, with the first now approaching 60% and the latter 2000 points. The latter figure is equivalent to what would be obtained in an industry in which there were 5 companies with identical shares, which would indicate a not insignificant level of concentration.

6. SABI is a database of economic and financial information on Iberian companies, marketed by Bureau Van Dijk. In Portugal, this database is built on IES corporate tax declarations.

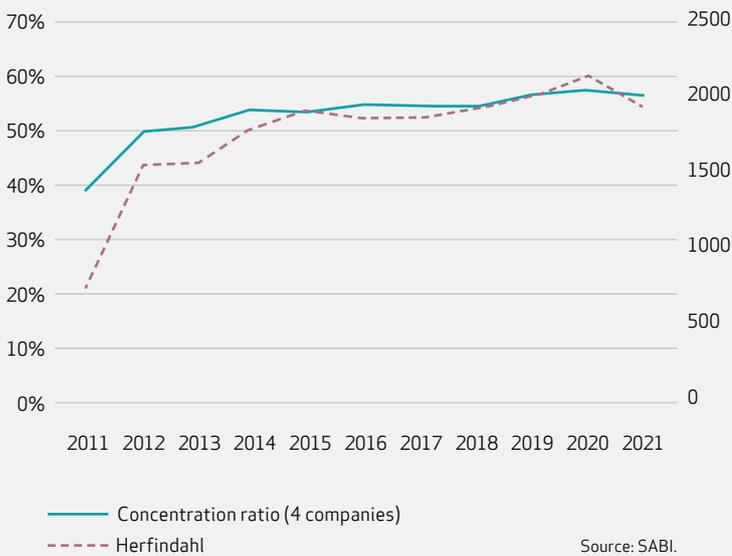
7. The figures for 2021 should be viewed with some caution: since this database is based on the IES corporate tax declarations submitted by companies, the figures it shows may be influenced by phenomena such as delays in complying with reporting obligations, which are more significant in recent years.

8. For this analysis, two companies were considered part of the same group when, according to the information in the SABI database, they have the same largest shareholder or the same global ultimate owner.

**CHART 8 – CONCENTRATION INDICATORS IN THE CORK INDUSTRY, ASSESSED AT INDIVIDUAL COMPANY LEVEL 2011-2021**



**CHART 9 – CONCENTRATION INDICATORS IN THE CORK INDUSTRY, ASSESSED AT COMPANY GROUP LEVEL 2011-2021**

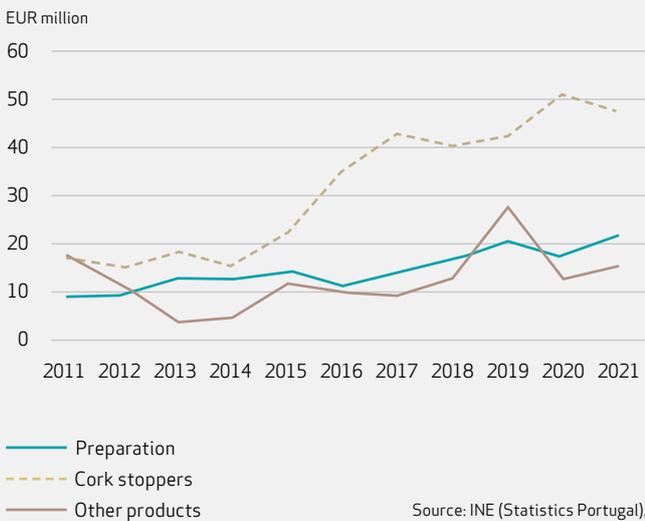


### 1.3. INVESTMENT

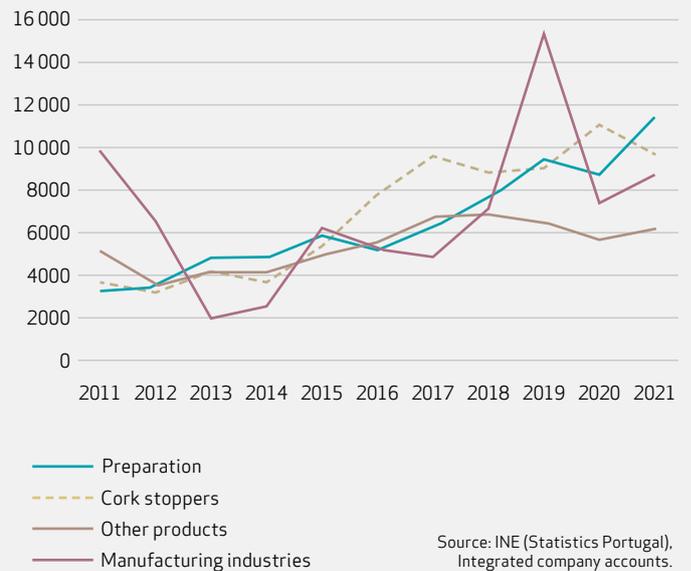
The cork industry has increasingly invested in fixed capital over the last decade: sector investment went from around 40 million euros a year at the start of the decade to over 80 million in recent years. Chart 10 shows that the manufacture of cork stoppers was mainly responsible for this growth, with annual investment rising from less than 20 million euros at the start of the decade to around 50 million at the end. However, the other sub-sectors of industry also showed a trend of increased investment, albeit more moderate and, in the case of "other products", with significant fluctuations.



**CHART 10 – GROSS FIXED CAPITAL FORMATION IN THE CORK INDUSTRY 2011-2021**



**CHART 11 – GROSS FIXED CAPITAL FORMATION PER WORKER 2011-2021**



This increase in investment in the cork industry has led to an increase in its contribution to investment by the manufacturing industries and the Portuguese economy: in the last three years, the cork industry's contribution to investment in the manufacturing industries rose from around 1.5% to nearly 2.0%.

The increase in investment in the cork industry is also evident when, instead of total investment, the average investment per worker is considered (Chart 11): in 2011, the cork preparation and stopper manufacturing industries invested an average of 3,000 to 4,000 euros per worker, below the average of the manufacturing industries, which was around 5,000 euros;

in 2021, these industries invested 10,000 to 11,000 euros per worker, considerably more than the 6,000 euros of the manufacturing industries. The level of investment by the industry in the "other cork products" area shows more marked fluctuations, but in the last three years it has also exceeded the average for Portuguese manufacturing industries.

The analysis of investment as a proportion of GVA gives a similar picture, with all cork industry sub-sectors (20% to 30%) investing more than the average for manufacturing industries (18%), since 2019. However, if the comparison is made for the weight of investment in turnover, rather than in GVA, the difference blurs considerably.

## 1.4. ECONOMIC AND FINANCIAL PERFORMANCE

The cork industry has performed quite favourably over the last decade in economic and financial terms<sup>9</sup>.

Overall, its turnover increased by 39%, from 1.3 to 1.8 billion euros. The growth was particularly strong (57%) for manufacturers of cork stoppers, and lower for manufacturers of other cork products (19%) and the cork preparation industry (17%). However, this evolution must be interpreted in the light of the aforementioned evolution in the number of active companies in the three sectors. In fact, in the "other cork products" sector, the slight growth in overall turnover did not keep pace with the much faster growth in the number of companies engaged in business activity: consequently, the average turnover per company fell by 18%, from 5 to 4 million euros (Chart 12).

This is, however, a very heterogeneous sub-sector, comprising both manufacturers of construction materials, typically of a large size, and much smaller companies focused on other applications of cork.

It was mainly the latter that increased in number. Overall, the turnover of cork stopper manufacturers increased much more than that of cork preparation companies. However, the average turnover per company in the two sub-sectors evolved almost in parallel, due to the sharp reduction in the number of cork preparation companies (Chart 13).

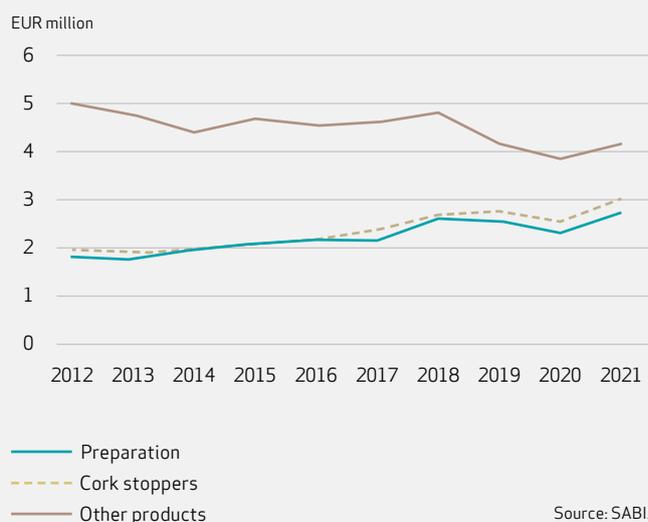


9. The analysis presented in this section focuses on the accounts of cork industry companies available in the SABI database, which comprises 622 companies for 2021.

**CHART 12 – TURNOVER BY CORK INDUSTRY SUB-SECTOR 2012-2021**



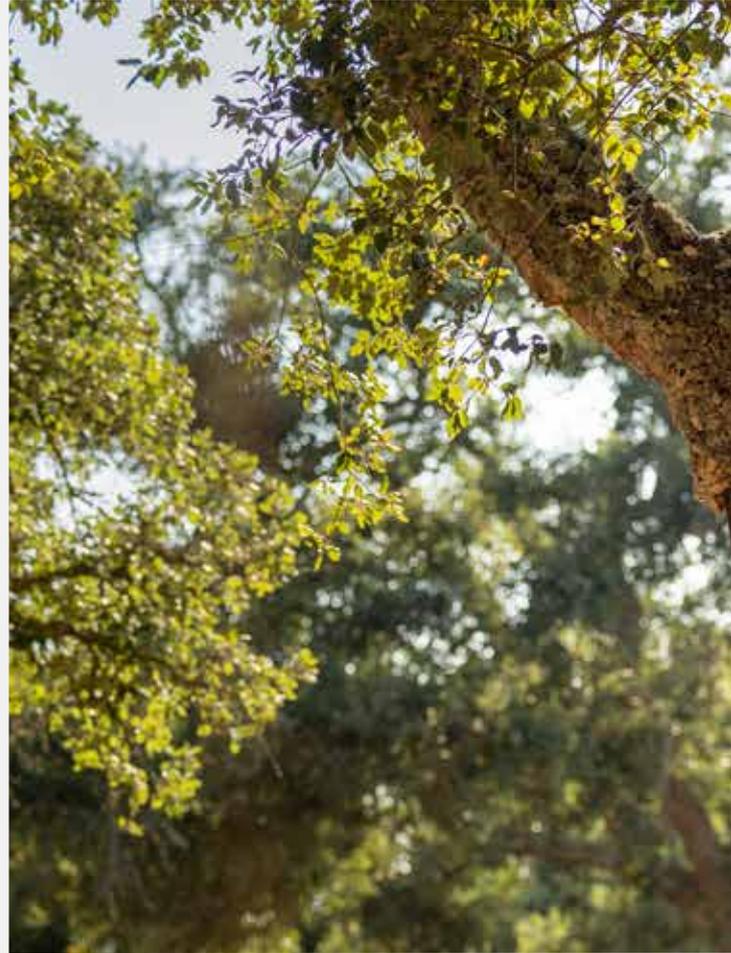
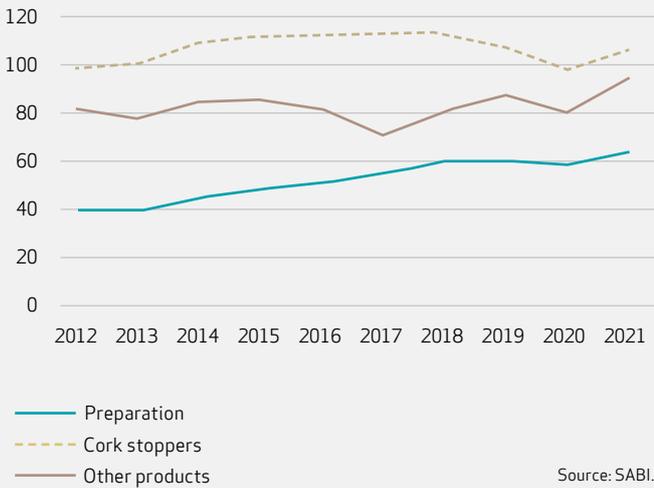
**CHART 13 – AVERAGE TURNOVER BY COMPANY OF THE CORK INDUSTRY SUB-SECTOR 2012-2021**



The industry's total assets grew less than its turnover, just 10%, which implies that, overall, there was an operational improvement in terms of asset turnover. This trend was common to all three sub-sectors. Analysing the evolution of average assets per company, there was a reduction of almost 50% (-48%) in "other cork products" and increases of 28% and 46% respectively in cork preparation and the manufacture of cork stoppers, below the turnover growth in both cases.

The asset turnover ratio for the industry as a whole, rose from around 74% in 2012 to close to 100% in 2021, although it developed differently in the sub-sectors (Chart 14). The asset turnover of cork stopper manufacturers is the highest, at over 100%, and it has grown the least. Cork preparation has an intermediate level of turnover, with significant growth since 2017 that has allowed it to catch up with cork stopper manufacturers. The asset turnover of "other cork products" showed a strong growth trend (+59%) throughout the decade, boosting its profitability.

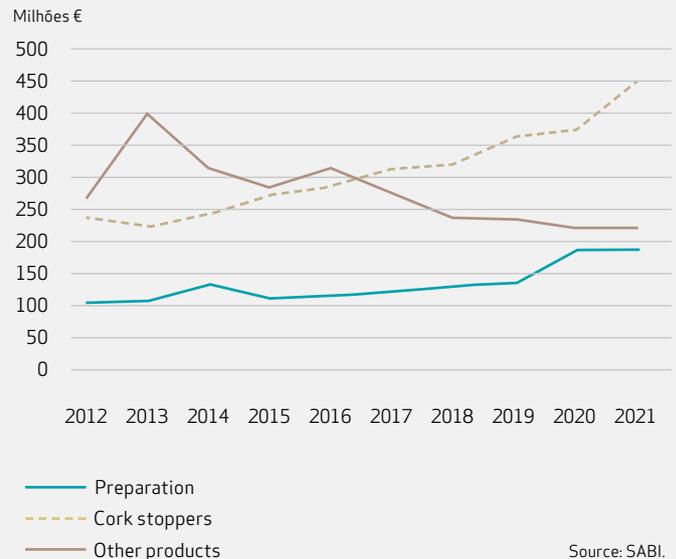
**CHART 14 – ASSET TURNOVER BY CORK INDUSTRY SUB-SECTOR 2012-2021**



In financial terms, the cork industry has increased its equity by 42% over the last decade, from around 600 to over 850 million euros. This growth was sharper in the preparation of cork (+83%) and the manufacture of cork stoppers (+90%) sub-sectors, while there was a decrease in "other cork products" (-17%), as shown in Chart 15. This evolution of average equity per company is unchanged when cork stopper manufacturers are considered, but the trends observed in the other sub-sectors are heightened.

A comparison of the industry's equity with its assets indicates an increase in its financial autonomy, from 34% in 2012 to 44% in 2021. However, this growth has not been uniform: after a sharp increase from 2012 to 2013, financial autonomy remained roughly stable until 2017. It then fell sharply in 2018. Following that, there has been growth, which led, in 2021, to the highest value of the decade.

**CHART 15 – EQUITY BY CORK INDUSTRY SUB-SECTOR 2012-2021**







# INTERNATIONAL CORK TRADE

## 02

**The cork industry, as already mentioned, is heavily orientated towards exports. The companies in the sample analysed in the previous section directly export around 60% of their turnover. Developments in international markets are therefore fundamental to the industry's performance.**

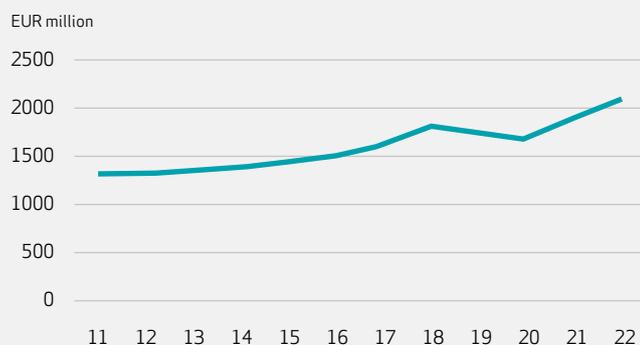
### 2.1. WORLD MARKET

World cork exports have been growing rapidly: between 2011 and 2022 they increased by almost 60%, surpassing 2000 million euros (Chart 16). Natural cork only accounts for 3% to 5% of this figure, depending on the year, while the rest is composed of processed products<sup>10</sup>.

Cork exports are highly concentrated geographically, with the top 10 exporters accounting for more than 90% of the world total. Portugal is the main player in these exports, with well over half of the world's total. However, Portugal's share has fallen in recent years, from 2018 onwards, from between 62% and 64% to 58.5% (Table 4). Following Portugal, at a considerable distance, are Spain (19.8%) and France (5.2%), whose shares have increased over the last decade thanks to growth rates close to 100%, far above the 49.5% achieved by Portugal.

Even higher rates can be seen in countries with very low shares, namely Chile (1.0%) and Poland (0.8%), certainly due to trading in cork from other origins.

**CHART 16 – WORLD CORK EXPORTS**



Source: International Trade Centre (2023).

<sup>10</sup> For the purposes of analysing international trade, "cork" means the set of products covered by Chapter 45 - Cork and articles thereof - of the Harmonised System (HS). The Harmonised System is the product nomenclature generally used in international trade and is made up of 6-digit codes. The Combined Nomenclature (CN) used by the European Union further breaks down the HS by adding two additional digits. Using these codes, we break down international trade in cork into natural cork (4501.10), cork stoppers (4503.10.10, 4503.10.90, 4504.10.11, 4504.10.19, 4504.90.20), building materials (4501.90, 4504.10.91, 4504.10.99, 4504.90.80) and other cork products (4502, 4503.90.00).

TABLE 4 – MAIN CORK EXPORTERS

Country	2011		2022		Change 2011-2022
	€ 10 <sup>6</sup>	%	€ 10 <sup>6</sup>	%	
Portugal	816	62.3%	1220	58.5%	49.5%
Spain	217	16.6%	413	19.8%	90.4%
France	51	3.9%	109	5.2%	112.7%
Italy	50	3.8%	68	3.3%	37.1%
China	13	1.0%	37	1.8%	193.0%
Germany	34	2.6%	28	1.3%	-17.6%
USA	26	2.0%	25	1.2%	-2.5%
Chile	6	0.4%	21	1.0%	286.5%
Morocco	9	0.7%	20	1.0%	139.3%
Poland	4	0.3%	18	0.8%	339.7%
<b>Total 10+</b>	<b>1224</b>	<b>92.0%</b>	<b>1959</b>	<b>94.0%</b>	<b>60.0%</b>

Source: International Trade Centre (2023).

Cork imports are much less concentrated, although their concentration has increased in the last decade, at least when measured by the share of the top 10 importers (Table 5). The world's largest importer is France. Its imports increased by 32.2% between 2011 and 2022, but its share of world imports fell from 17.3% to 14.7% (Table 5). American imports grew at a much faster rate (72.5%), allowing them to almost match

France's share in the ranking of world imports, with 14.4%. Italy (12.3%), Portugal (12.0%) and Spain (9.7%) have import figures that are not much lower. Portugal stands out from the other countries mentioned in that it mainly imports natural cork to supply its manufacturing industry. In the period shown in the table, it is also worth highlighting the growth in imports by the United Kingdom and Mexico, of around 200%.

TABLE 5 – MAIN CORK IMPORTERS

Country	2011		2022		Change 2011-2022
	€ 10 <sup>6</sup>	%	€ 10 <sup>6</sup>	%	
France	235	17.3%	311	14.7%	32.2%
USA	177	13.1%	306	14.4%	72.5%
Italy	122	9.0%	262	12.3%	115.1%
Portugal	137	10.1%	254	12.0%	85.9%
Spain	100	7.4%	207	9.7%	106.5%
Germany	102	7.5%	107	5.0%	4.7%
United Kingdom	25	1.8%	72	3.4%	187.6%
Mexico	16	1.2%	57	2.7%	245.5%
Argentina	32	2.4%	43	2.0%	34.5%
Chile	29	2.1%	43	2.0%	49.0%
<b>Total 10+</b>	<b>1224</b>	<b>72.0%</b>	<b>1959</b>	<b>78.3%</b>	<b>60.0%</b>

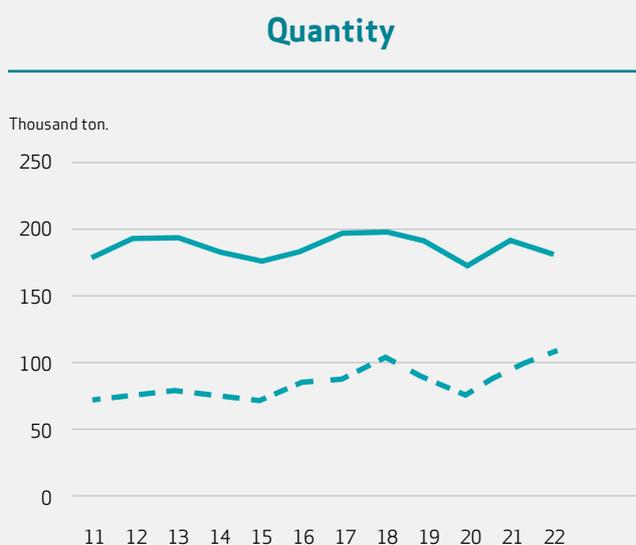
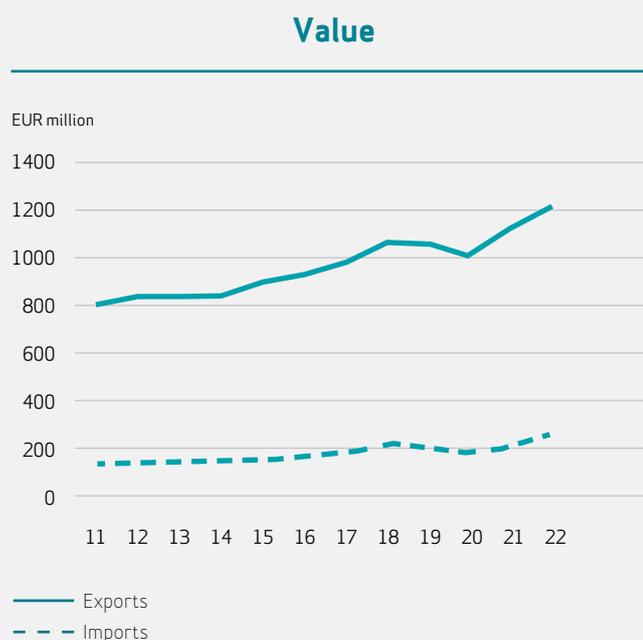
Source: International Trade Centre (2023).

## 2.2. PORTUGUESE FOREIGN TRADE IN CORK

The value of Portuguese exports of cork and cork products in 2022, as can be seen in Chart 17, reached an all-time high, surpassing 1.2 billion euros, a figure that represents a 45% increase on that recorded a decade earlier. This growth has been achieved mainly through an increase in the average value charged per kilogram, since the quantity exported has not significantly changed, undergoing more or less cyclical fluctuations. Although the heterogeneity of the industry's products and changes in the mix of products exported make it difficult to interpret this data, the average value per kilogram exported has increased by more than 50% in the last decade.



**CHART 17 – PORTUGUESE FOREIGN TRADE IN CORK AND CORK PRODUCTS 2011-2022**

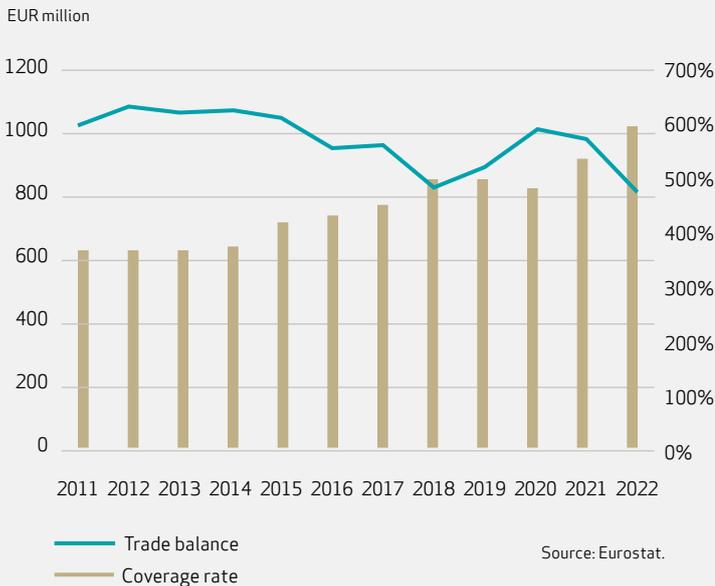


Source: Eurostat.



In contrast to exports, given the limited availability of domestically produced raw materials, the imported quantity has been on the rise, exceeding 100,000 tonnes in 2022, with a record value of 256 million euros. These imports have increased by 41% in volume and 93% in value in the last decade, implying a 37% increase in the average value paid per kilogram.

**CHART 18 – TRADE BALANCE AND COVERAGE RATE FOR CORK AND CORK PRODUCTS 2011-2022**



Foreign trade in cork and cork products is heavily in surplus (Chart 18): the trade balance in these products has risen from around 640 million euros at the start of the last decade to over 1 billion in 2022 (+60%). Despite the recent growth in imports, the coverage rate is extremely high, at around or exceeding 500%, a unique situation at national level.

Cork stoppers are the main product exported by the cork industry (Chart 19). Their contribution to export values over the last decade has gradually increased, from around 68% to 73.5% in 2022. Construction materials currently account for 24.6% of the total, with other products accounting for less than 2%.

In the cork stoppers area (Chart 20), there has been a progressive loss of relative importance of natural cork stoppers since 2011, compared to composite cork stoppers: the contribution of natural stoppers to cork stopper exports has fallen by 10 percentage points, from 62.7% to 52.9%; the contribution of sparkling wine stoppers has remained relatively stable, at around 18%; while the remaining composite cork stoppers have gone from 19.3% in 2011 to 29.5% in 2022. Or, to put it another way, exports of natural cork stoppers have increased by 31.8% since 2011, while those of composite cork stoppers (other than for sparkling wine) have increased by 138.6%.

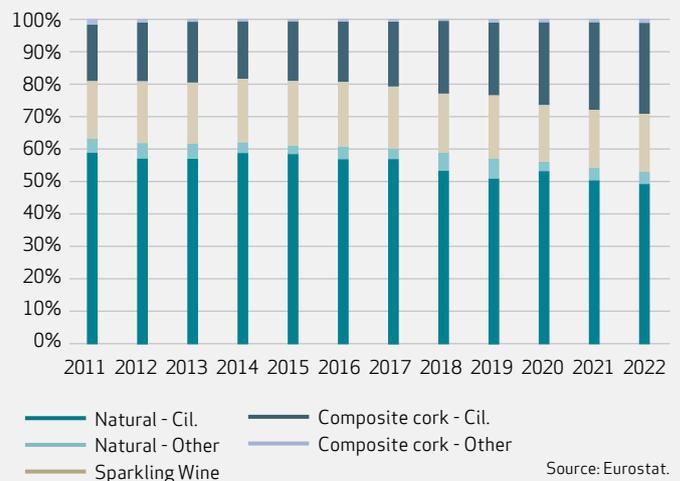
Not only has the growth rate of stopper exports increased in the different types of stopper, but the origin of this growth was also different (Chart 21). In the case of natural cork stoppers, the growth of 31.8% was exclusively explained by the growth in the average value charged, which rose from 25.71€/kg to 40.47€/kg, an increase of 57.4%.

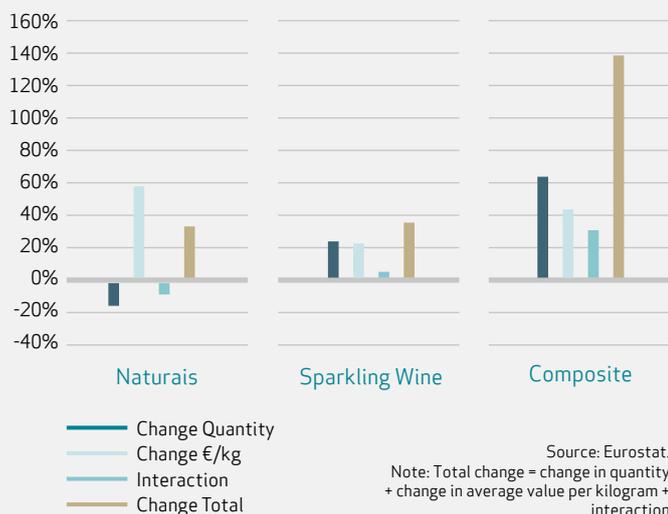
The total value exported did not increase to the same extent, because the quantity exported fell by 16%. On the other hand, the growth in exports of sparkling wine stoppers and other composite cork stoppers benefited from a combination of increases in quantity and average value per kilogram, the former stronger than the latter. For sparkling wine stoppers, the quantity increased by 25.5% and the average value by 22.6%, resulting in total growth of 53.9%. In the case of other composite cork stoppers, the quantity exported increased by 64.9% as well as the value per kilogram by 44.7%, leading to an increase in exports of around 140%.

**CHART 19 – COMPOSITION OF CORK AND CORK PRODUCT EXPORTS 2011-2022**



**CHART 20 – COMPOSITION OF CORK STOPPER EXPORTS 2011-2022**



**CHART 21 – BREAKDOWN OF CORK STOPPER GROWTH 2011-2022**

In contrast to exports, cork imports are predominantly of raw materials that usually represent more than half of the value imported (Chart 22). It should be noted, however, that the import of cork stoppers has become increasingly important, accounting for around a fifth of Portuguese cork imports in the last three years, despite a decrease in the average value of imported kilograms.

The geography of exports of cork and cork products is fairly stable: the five main export destinations in 2022 were the same as in 2011 and the combined share of total exports varied only slightly, from 66.7% to 68.9%.

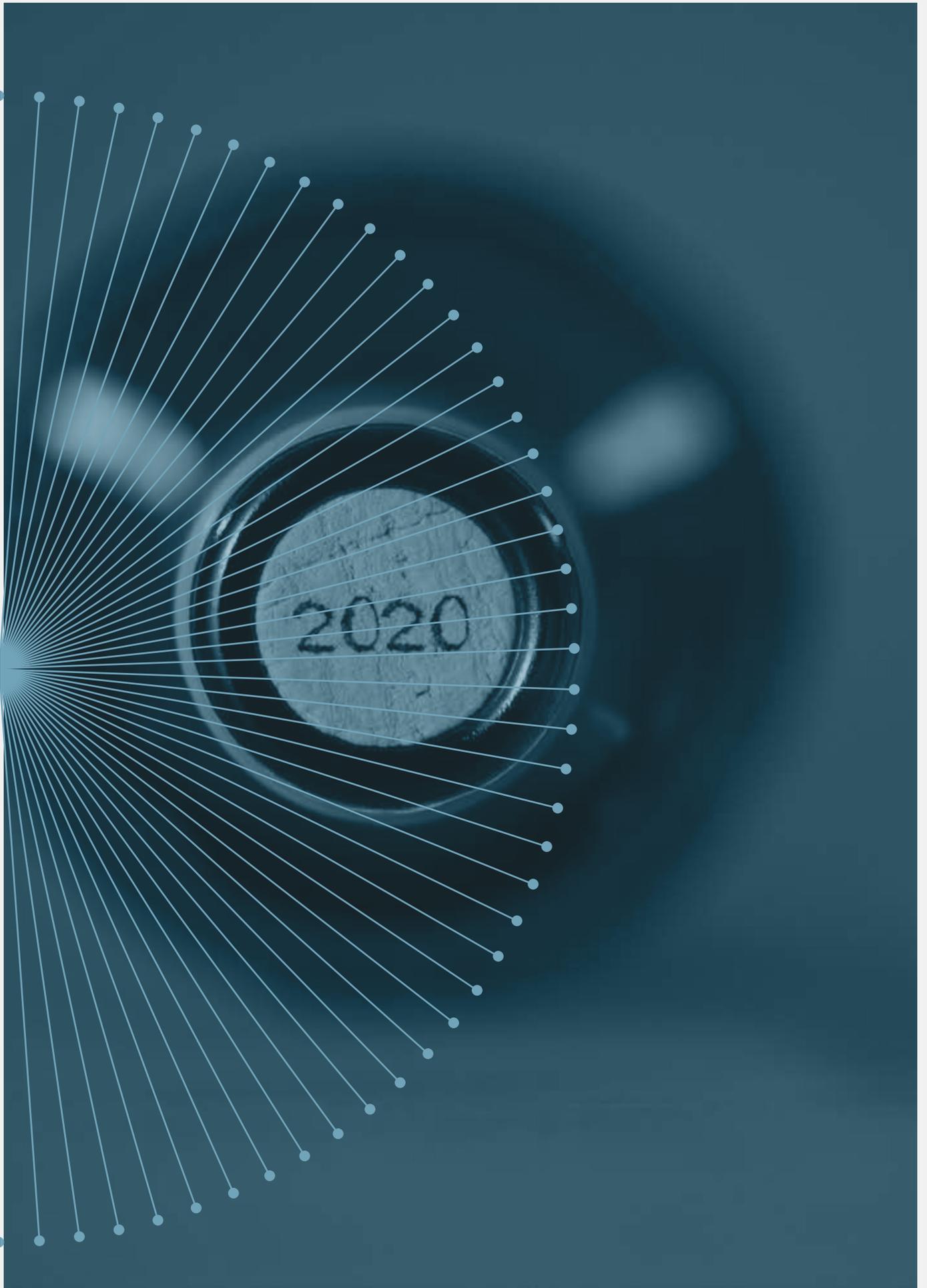
The only change among the top 10 destinations was Russia leaving this ranking, as a result of the sanctions imposed due to the war in Ukraine, which meant it swapped position with Mexico. Spain considerably increased its relative weight from 11.6% to 16.1%, but still remains the third main market, behind France and the USA. Germany, on the other hand, saw its share of exports fall from 9.6% to 6.4% (Chart 23).

**CHART 22 – COMPOSITION OF CORK AND CORK PRODUCT IMPORTS 2011-2022**

Breaking down the analysis by product, the four main destination markets for Portuguese cork stoppers (France, USA, Italy and Spain) are the same as for all cork exports, with the only difference being that Italy overtakes Spain, by a very small margin, in third place. It should be noted, however, that the fifth main market is already the United Kingdom, a country without significant wine production, with a share that reached 5% in 2022, compared to just 2% ten years earlier. The growth in exports to this market is linked to the upturn in importance of international trade in bulk wine, with bottling at destination, as a response to economic and environmental pressures.

**CHART 23 – MAIN EXPORT DESTINATIONS FOR CORK AND CORK PRODUCT 2011-2022**

Exports of cork stoppers to Mexico have also been gaining importance, reaching a 4% share of the national total by 2022. Although the five main markets for cork construction materials are the same as for the industry's exports as a whole, their relative position is very different. Exports to Spain have been growing steadily and in 2022 reached 23.3% of the total, elevating our neighbouring country to the status of the main market for these products, to the detriment of Germany whose share fell to the lowest level in the last decade (18.4%). Exports to France have also increased considerably, with their share reaching 7.9% in 2022, behind the USA (11.3%) and ahead of Italy (4.2%). National imports of cork are highly concentrated geographically, with Spain accounting for almost three-quarters of the value imported (73.3%), varying from 47.6% in cork stoppers and 84.7% in natural cork.



## DETERMINING FACTORS OF DEMAND

# 03

**Direct demand from the end consumer has little impact on sales in the cork industry. Cork, for the end consumer, is generally integrated in a more complex product of which it is only a component and, in most cases, not the most prominent component, whether as a sealant for a bottle of wine, or as a material used in the construction of a building.**

The demand for cork products is therefore essentially derived from the demand for these more complex products. It is, therefore, not possible to envisage the future of the cork industry without taking into account the trends of the downstream markets, namely the wine packaging market and the building materials market. And these, particularly the latter, are influenced, among other factors, by the general economic situation.

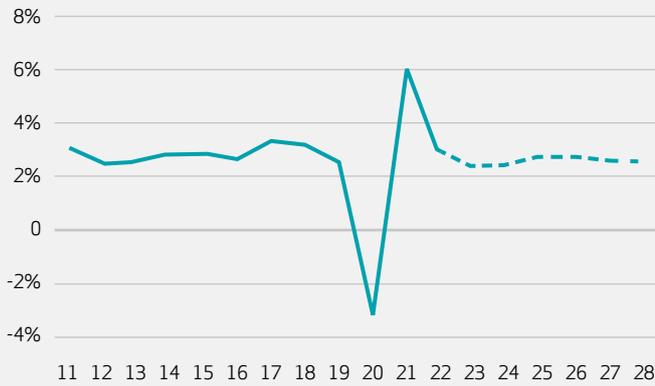


### 3.1. GENERAL ECONOMIC SITUATION

After the problems at the end of the previous decade associated with the financial crisis, the international economy had a relatively auspicious start to the second decade of the 21st century. The world's Gross Domestic Product grew at a fairly stable rate between 2011 and 2016, averaging 2.7% a year. The international economic situation improved in 2017 and 2018, with GDP growth exceeding 3%. However, growth slowed in 2019 to 2.5%. In 2020, as is well known, the COVID-19 pandemic had a destructive impact on the international economy, particularly through the severe restrictions on mobility that led to a sharp slowdown in international trade. The result, in macroeconomic terms, was an unprecedented 3.2% drop in global GDP. But the recovery from this period of slowdown, supported by very expansionary monetary and fiscal policies, resulted in an equally exceptional growth of 6.0% in 2021. Normality returned in 2022, with growth of 3.0%. The International Monetary Fund predicts, for the following years, that the world will return to a stable growth regime of around 2.4 to 2.7% a year, slightly weaker than at the start of the previous decade (Chart 24).

Overall, it can be said that, with the exception of the period of most intensity of the pandemic, the macroeconomic conditions, without being exceptional, have been suitable for the development of business activity. However, what matters for business is the economic situation in each specific market and not the world average. Chart 25 shows the evolution of GDP in the six main markets for Portuguese cork, with significant variations between countries notable in each year.

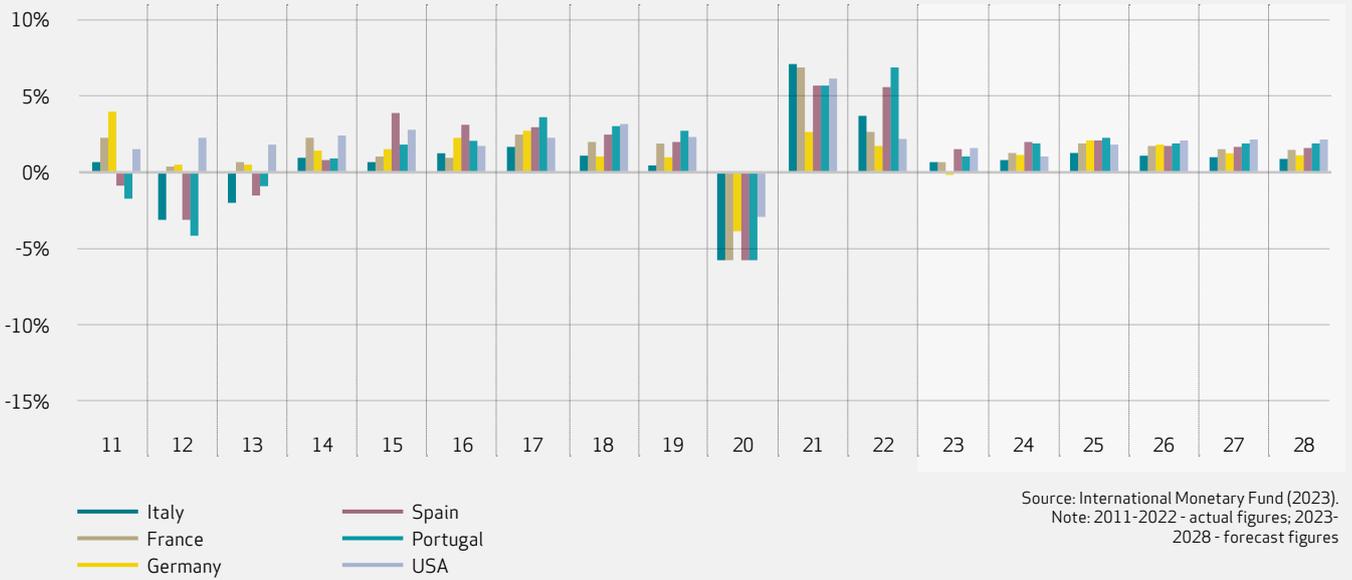
**CHART 24 – REAL WORLD GDP GROWTH**



Source: International Monetary Fund (2023).



**CHART 25 - REAL GDP GROWTH IN THE 6 MAIN MARKETS FOR PORTUGUESE CORK**



Source: International Monetary Fund (2023).  
 Note: 2011-2022 - actual figures; 2023-2028 - forecast figures



The USA presents the most favourable evolution, with an average annual growth rate in output over the last decade, even with the impact of COVID, of 2.1%. According to this criterion, Portugal would be in second place, with an average growth of 1.7%. France, Germany and Spain have similar growth rates, varying between 1.1% and 1.4% per year. Italy has the worst result, with an average annual growth of just 0.5% between 2013 and 2022. In IMF's forecasts for the coming years, Italy continues to stand out negatively, with an average of 0.9% between 2023 and 2028, while the other countries vary between 1.2% in Germany and 1.8% in Portugal and the USA. The difference between the figures and the world average as shown in Chart 24 is explained by the higher growth rates that the IMF predicts for other parts of the world, namely China and other emerging economies.

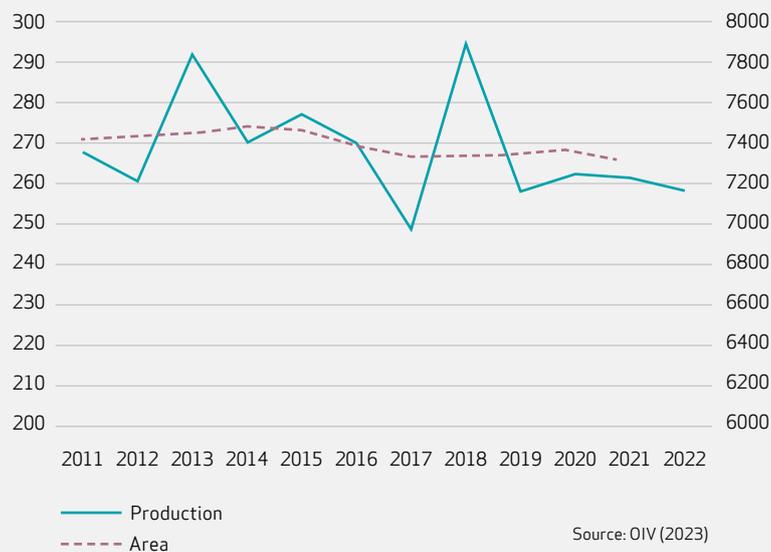
## 3.2. WINE MARKET

Although it has other applications, the industry's main product, the cork stopper, is par excellence a device for closing wine bottles, so what happens on the market is of the utmost importance to the cork industry. The demand for cork stoppers is mainly determined by the quantity of wine to be bottled. This depends, with some time lag, on the quantity of wine produced.

Over the last decade, according to the International Organisation of Vine and Wine (OIV), world wine production has

annually averaged around 270 million hectolitres, albeit with considerable fluctuations as can be seen in Chart 26: production reached figures that are greater than 290 million hectolitres in 2013 and 2018 and it recorded a low of 248 million in 2017. Annual production in recent years has been slightly below the average for the decade, at around 260 million hectolitres, suggesting a downward trend. The same is true of vineyard area, which has been decreasing, albeit at a very slow pace.

**CHART 26 - WORLD VINEYARD AREA AND WINE PRODUCTION (2011-2022)**



Wine production is highly concentrated geographically: the 3 main producing countries - Italy, France and Spain - usually account for around half of world production. The 8 main producers in the European Union, which also include Germany, Portugal, Romania, Hungary and Austria, have a combined share of 60% (Table 6). In turn, the 8 main non-EU producers (USA, Argentina, Chile, Australia,

South Africa, China, Russia and New Zealand) account for around a third of the world total (Table 7). Together, these sixteen countries account for over 90% of world wine production. Globally, over the decade, production increased by 11% in the main EU producers and fell by 12.5% in the main non-EU producers, with the former gaining share from the latter.

**TABLE 6 - WINE PRODUCTION IN THE 8 LARGEST PRODUCERS IN THE EUROPEAN UNION (MILLION HECTOLITRES)**

Country	2012		2022		2012-2022 change
	Production	Share	Production	Share	
Italy	45.6	17.5%	49.8	19.2%	9.3%
France	41.5	15.9%	45.6	17.6%	9.7%
Spain	31.1	11.9%	35.7	13.8%	14.7%
Germany	9.0	3.5%	8.9	3.4%	-0.8%
Portugal	6.3	2.4%	6.8	2.6%	7.1%
Romania	3.3	1.3%	3.8	1.5%	14.4%
Hungary	1.8	0.7%	2.9	1.1%	64.3%
Austria	2.1	0.8%	2.5	1.0%	18.9%
<b>Total 8+</b>	<b>140.8</b>	<b>54.0%</b>	<b>156.1</b>	<b>60.1%</b>	<b>10.8%</b>

Source: OIV (2023)  
Note: world market shares.

**TABLE 7 - WINE PRODUCTION IN THE 8 LARGEST PRODUCERS OUTSIDE OF THE EUROPEAN UNION (MILLION HECTOLITRES)**

Country	2012		2022		2012-2022 change
	Production	Share	Production	Share	
USA	22.7	8.7%	22.4	8.6%	-1.5%
Australia	12.3	4.7%	12.7	4.9%	4.0%
Chile	12.6	4.8%	12.4	4.8%	-0.9%
Argentina	11.8	4.5%	11.5	4.4%	-2.8%
South Africa	10.6	4.1%	10.2	3.9%	-3.9%
Russia	5.7	2.2%	4.7	1.8%	-17.9%
China	16.1	6.2%	4.2	1.6%	-74.0%
New Zealand	1.9	0.7%	3.8	1.5%	97.4%
<b>Total 8+</b>	<b>93.6</b>	<b>35.9%</b>	<b>81.9</b>	<b>31.6%</b>	<b>-12.5%</b>

Source: OIV (2023)

The information available for the last decade therefore points to stability or a slight decrease in world wine production, with a more favourable trend in Europe than outside Europe. The annual fluctuations inherent, in particular, to climatic conditions are, however, more significant than this apparent trend.

Wine production is only roughly related to local needs for bottling solutions and bottle closures, mainly because many of the main producing countries export a large part of their production in bulk, with bottling taking place in the destination market, an option that has been reinforced by environmental concerns.

As can be seen in Table 8, the world's main wine exporter by volume is Spain, but more than half of its exports are in bulk<sup>11</sup>. This percentage is much lower in the other two major producing countries, Italy and France. Bulk exports are particularly common in the main non-European producers, such as Australia, Chile, South Africa and the USA, where they account for between 40% and 60% of total exports. With the exception of the USA, a large part of these countries' production is exported, and a considerable part of it in bulk, so their bottling needs are substantially lower than their production would suggest.

**TABLE 8 - TOP TEN WINE EXPORTERS (2022; MILLION HECTOLITRES)**

Country	Total	% in packaging of at least 10 litres
Italy	21.7	17.1%
Spain	20.9	55.3%
France	14.0	8.3%
Chile	8.3	39.2%
Australia	6.7	58.7%
South Africa	4.4	55.8%
Germany	3.5	6.0%
New Zealand	3.0	40.9%
USA	2.8	43.2%
Argentina	2.5	22.5%

Source: ITC (2023)

11. Bulk exports are considered to be those made in containers with a capacity of no less than 10 litres, since international trade statistics do not allow for a more accurate identification.

On the other hand, the main importers of bulk wine in Table 9 tend to have higher bottling needs than their domestic production. For example, the world's largest importer of bulk wine in 2022 was Germany, whose imports almost equalled domestic production (7.3 versus 8.9 million hectolitres) and the third was the United Kingdom, which has no significant domestic production. This explains why these two countries are, as we saw in the previous chapter, among the top 10 export destinations for Portuguese cork stoppers.

The demand for cork stoppers is therefore determined by wine production, which worldwide has been around 271 million hectolitres per year, without a well-defined trend. Despite the relative stability of global production, there have been cases of significant growth, such as in Chile and the USA which, according to the evolution of the cultivated area, suggests that it will continue in the coming years. Chile exports, however, most of its production in bulk, so its bottling needs are lower than would be expected from its level of production. On the other hand, other countries, particularly the United Kingdom, have significant bottling activity, despite their limited domestic wine production, in addition to their bulk imports, and are therefore important buyers of stoppers.

**TABLE 9 - TOP TEN BULK WINE IMPORTERS (2022; MILLION HECTOLITRES)**

Country	Total	In packages of at least 10 litres	% in packaging of at least 10 litres
Germany	13.5	7.3	54.1%
USA	14.4	4.9	34.0%
United Kingdom	13.0	4.7	36.2%
France	6.1	4.6	75.4%
Italy	1.9	1.7	89.5%
China	3.4	1.1	32.4%
Canada	4.2	1.0	23.8%
Denmark	1.9	0.8	42.1%
Czech Republic	1.7	0.8	47.1%
Belgium	3.3	0.5	15.2%

Source: ITC (2023)

Systematic statistical information on the closures used in wine bottles is extremely scarce, making it impossible to accurately describe the situation. However, various studies in different markets show that cork stoppers are largely dominant in higher quality wines and also show that wines sealed with cork tend to benefit from a significant price premium and better sales performance than those wines using other closures. Achieving this premium reflects consumers' appreciation of the different closures: neuroscience studies show that the stopper plays a crucial role in the sensory appreciation of wine, giving it higher quality.



### 3.3. BUILDING MATERIALS

The construction industry absorbs more than a quarter of the value of the cork industry's exports and therefore has a strong influence on its performance.

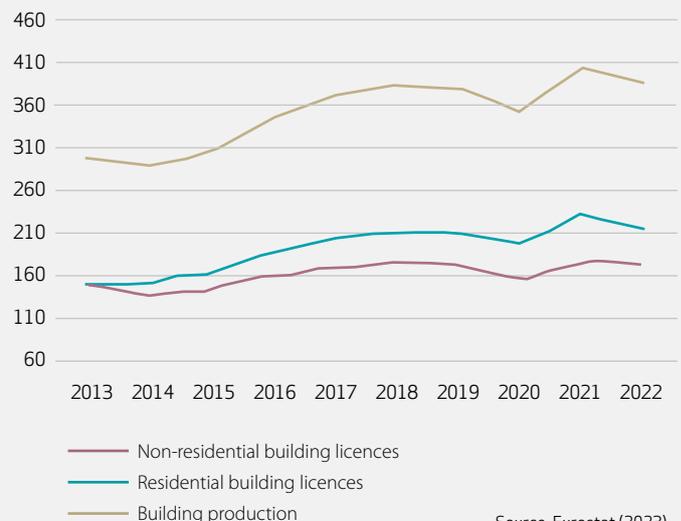
The construction industry in the European Union is going through a phase of expansion that began in 2013 for residential buildings and the following year for non-residential buildings (Chart 27). The growth in licensed construction area since 2014 was 26.8% for non-residential buildings and 40.8% for residential buildings. Production volume grew by 34.2% over the same period. These three indicators only fell in 2014 and 2020, over the last 10 years, a phenomenon that once again cannot be dissociated from the COVID-19 pandemic.

The aggregate indicators shown in Chart 27 do not, however, allow us to recognise the significant specificities that may exist nationally. In terms of this analysis, Chart 28 describes the evolution of the issuing of licences and the production of buildings in Portugal and in the seven main EU markets of Portuguese exports of cork construction materials. The heterogeneity of situations is evident.

In Spain and France - and to a lesser extent in Italy - the issuing of building licences was highly cyclical. In the first two countries, production reached a minimum in 2020, while in Italy, this occurred in 2014. In Portugal, on the other hand, the fluctuations in construction activity were smoother than in the other countries represented and predominantly in

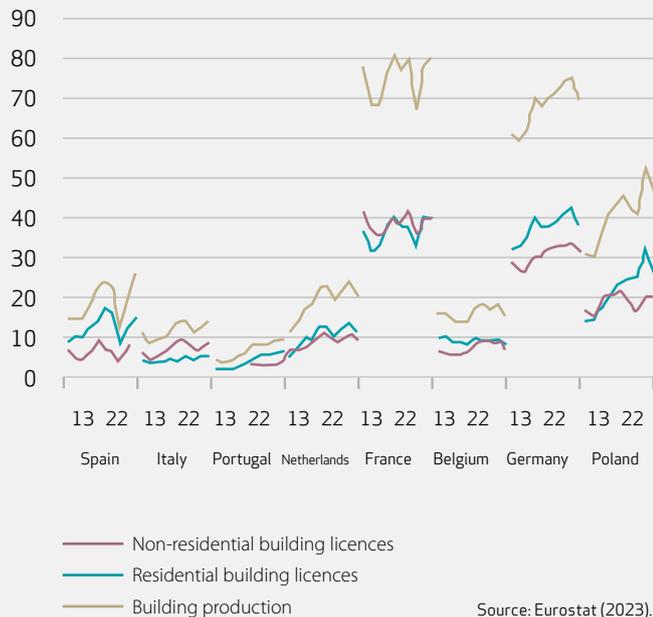
an upward direction. In Germany and Poland, although with greater fluctuations than in Portugal, the trend in the period analysed in the chart is also upwards.

**CHART 27 - BUILDING CONSTRUCTION OUTPUT AND BUILDING PERMITS ISSUED IN THE 27 EUROPEAN UNION COUNTRIES, IN SQUARE METRES (INDEX 2013-2022, 2015=100)**



Source: Eurostat (2023).

**CHART 28 - BUILDING CONSTRUCTION OUTPUT AND BUILDING PERMITS ISSUED IN SELECTED EUROPEAN UNION COUNTRIES, IN SQUARE METRES (INDEX 2013-2022, 2015=100)**



In the USA, the main non-EU market for Portuguese exports of cork construction materials, 2009 was the worst year in the last three decades for housing construction. However, since then, developments have been very favourable: the number of dwellings licensed for construction has grown every year, with a cumulative increase of 101% by 2022. In China, on the other hand, the area of buildings constructed each year increased 73% between 2009 and 2014, but since then it has trended slightly downwards. In fact, the area of buildings constructed each year fell by 4% between 2015 and 2022, but nevertheless grew by 77% compared to 2009.

To summarise, construction shows very different trends from country to country. There are also major cyclical fluctuations within the European Union, in countries such as Italy and France, relative to stability in Belgium and Italy, and a trend of moderate, but continued, growth particularly in relation to Portugal, but also Germany and Poland. Outside the EU, the USA has shown strong growth, while China's accelerated growth at the start of the decade has been followed by a slight decline in recent years.

The cork industry offers a wide range of products in the construction sector, including insulation, covering and flooring, among other less common applications. However, for each of these functions, there are several solutions available on the market, made from other materials.

This diversity of solutions makes it impossible to exhaustively characterise the offer available on the construction market. In addition, there are limitations in terms of collecting statistical data, the availability of which is limited, as was also mentioned in relation to bottle closure devices.





## CONCLUSIONS

# 04

**The cork industry has not escaped unscathed from the upheavals - such as the COVID-19 pandemic and the inflation crisis - that have marked the international economic landscape in recent years. However, the available data suggests that these phenomena have not jeopardised the very positive trajectory that has characterised the industry's development since the beginning of the last decade.**

The economic and financial indicators industrial companies show this. After some decline in 2020, the net results in 2021 and return on equity of cork companies reached historically high levels. They reached, in particular, an all-time high in the cork industry. In fact, return on equity didn't grow faster because companies strengthened their capital structures, reducing financial risk.

The last decade has seen strong growth in the turnover of cork companies, which has now exceeded 1.8 billion euros. The growth achieved in the cork industry was stronger than in other sectors, far outstripping that recorded in Portuguese manufacturing industries as a whole and in the national economy as a whole. Growth was particularly strong for cork stopper manufacturers (57%), while it was lower in other



segments of the industry. In a highly exporting industry, such as cork, this growth was necessarily associated with a positive performance in foreign markets. Portuguese cork exports in 2022 reached an all-time high of just over 1.2 billion euros, 45% more than a decade earlier. The growth in turnover and exports was accompanied by an increase in productivity, as measured by gross value added per worker. This indicator increased by 43% in the last decade in the cork industry, far more than in Portugal's manufacturing industries (+34%) or in the national economy as a whole (+18%). This increase in productivity has taken place in parallel with a change in business structure, with a sharp reduction in the number of small companies dedicated to cork preparation, accompanied by a less marked increase in companies dedicated to the production of cork stoppers and other products, as well as a sharp increase in annual investment in the sector.



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Porto, June 2023,

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