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Sector Analyses

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Analysis of Selected Sectors of the Croatian Economy

Editor Ivana Rašić

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Introduction

The *Sector Analyses* publication reports on the conditions, trends, and business events in selected sectors of the Croatian economy: chemical industry, retail trade, food and beverage industry, telecommunications, energy – renewable energy sources, pharmaceutical industry, construction, and tourism. This edition of *Sector Analyses* brings a summary of the sectoral analyses published in 2025. In addition to an analysis of the main indicators for the selected sectors of the Croatian economy, there is a comparative analysis with the EU and a report from the Zagreb Stock Exchange. The publication also gives an overview of the financial indicators of the leading companies in the observed Croatian sectors and brings the latest expectations.

Chemical Industry¹

— The chemical sector, defined on the basis of the statistical classification of economic activities [NACE Rev. 2, i.e., the European Classification of Economic Activities 2007], in a broader sense includes the manufacture of chemicals and chemical products [division C20], the manufacture of rubber and plastic products [division C22], and the manufacture of basic pharmaceutical products and pharmaceutical preparations [division C21]. The manufacture of chemicals and chemical products includes the manufacture of basic chemicals, fertilizers and nitrogen compounds, plastics and synthetic rubber in primary forms; manufacture of pesticides and other agrochemical products; manufacture of paints, varnishes and similar coatings, printing inks and mastics; manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations; manufacture of other chemical products and manufacture of man-made fibers. On the other hand, the manufacture of rubber and plastic products includes the manufacture of rubber tires and tubes; manufacture of other rubber products; manufacture of plastic products; manufacture of plastic plates, sheets, tubes, and profiles; manufacture of plastic packing goods; manufacture of builders' ware of plastic and other plastic products. Among the existing products of the chemical industry and the plastic and rubber industry in Croatia, the manufacture of technical gases, polymers, rubber, and plastic products, cleaning preparations, and paints and varnishes is at the forefront.

Table 1
Main sector indicators, year-to-year rates of change in 2023 and 2024, in %

Source: The author's calculation according to data from the Croatian Bureau of Statistics.

	2023	2024
Manufacture of chemicals and chemical products – C20		
Production	-2.6	3.7
Employment	-0.9	-0.2
Gross wages (nominal)	10.9	14.2
Manufacture of rubber and plastic products – C22		
Production	-3.6	-0.2
Employment	-1.6	0.8
Gross wages (nominal)	14.7	13.9

1 Rašić, I. (2025). Chemical Industry. *Sector Analyses*.

According to the latest available data from 2022, the share of the chemical sector in Croatia's gross domestic product (GDP) was 0.77 percent. The manufacture of chemicals, chemical products, and man-made fibers accounted for 0.22 percent, while the manufacture of rubber and plastic products accounted for 0.55 percent of GDP that year. At the same time, the share of the manufacture of chemicals, chemical products, and man-made fibers in the total gross value added (GVA) of the manufacturing industry was 1.8 percent, while the share of the manufacture of rubber and plastic products amounted to 4.5 percent. For comparison, a year earlier, 3 percent of the GVA of the entire manufacturing industry was achieved in the manufacture of chemicals and chemical products, while 4.9 percent was achieved in the manufacture of rubber and plastic products. In the total employment of the manufacturing industry in 2024, the chemical industry sector participated with a share of 7 percent. If viewed separately, the manufacture of chemicals and chemical products in the total employment of the manufacturing sector in 2024 accounted for 2.48 percent, while the manufacture of plastic and rubber products accounted for 4.55 percent. In the total export of the manufacturing industry realized from January to December 2024, the chemical sector participated with 10.5 percent, whereby the manufacture of chemicals and chemical products participated with 6.8 percent, and the manufacture of plastic and rubber products with 3.7 percent. At the same time, in the total import of the manufacturing industry, the chemical sector participated with 12 percent [the manufacture of chemicals and chemical products with 7.9 percent and the manufacture of plastic and rubber products with 4.1 percent]. Compared to the previous year, in 2024, the export of the chemical sector increased by 7.7 percent, while import increased by 2.4 percent. In the manufacture of chemicals and chemical products, exports [10.5 percent] are increasing faster than imports [1.2 percent]. Simultaneously, in the manufacture of semi-finished and finished rubber and plastic products, exports are increasing more slowly than imports. Thus, in the period from January to December 2024, the export of the manufacture of plastic and rubber products increased by 2.9 percent and import by 4.8 percent year-on-year. Due to the dependence on imported raw materials, both industries constantly record a foreign trade deficit. In 2024, the foreign trade deficit of the manufacture of chemicals and chemical products was 1.5 billion euros, and that of rubber and plastic products was 761.6 million euros.

In 2024, after three consecutive years of decline, the manufacture of chemicals and chemical products achieved year-on-year growth of 3.7 percent. In 2021, this industry recorded a year-on-year decline of 12.9 percent, in 2022 it recorded a decline of 21.4 percent, while in 2023 it recorded a decline of 2.6 percent. In 2024, the year-on-year growth in the manufacture of chemicals and chemical products was accompanied by wage growth and a slight decline in employment. Compared to 2023, in 2024, the average monthly nominal gross wages of persons employed in

this industry increased by 14.2 percent, while employment decreased by 0.2 percent on average. When analyzing wage trends, one should also take into account the fact that, according to data from the Croatian Bureau of Statistics, inflation of 3.7 percent was recorded last year at the level of the entire Croatian economy. The average gross wage paid in December 2024 in the manufacture of chemicals and chemical products was 1,738 euros, which was 7.4 percent below the economy average and 4.7 percent above the average for the entire manufacturing industry.

The manufacture of rubber and plastic products has recorded a year-on-year decline for the second year in a row. While in 2023 it was 3.6 percent, in 2024 it was 0.2 percent. For comparison, this industry achieved year-on-year growth in both 2021 and 2022, of 4.7 and 3.7 percent, respectively. Although seasonally adjusted data show that in the last quarter of 2024, the manufacture of rubber and plastic products achieved an increase in production of 3.4 percent compared to the previous quarter, it cannot be said with certainty that this industry has recovered.

Figure 1
Manufacture of chemicals and chemical products, 2021 = 100, from January 2015 to January 2025

Source: The Institute of Economics, Zagreb, based on source data from the Croatian Bureau of Statistics.

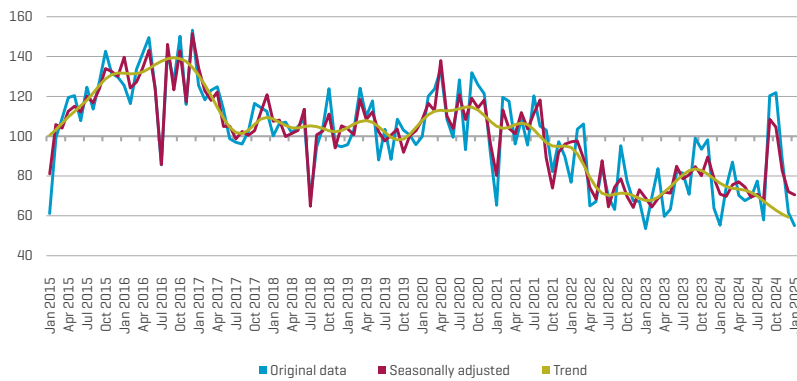
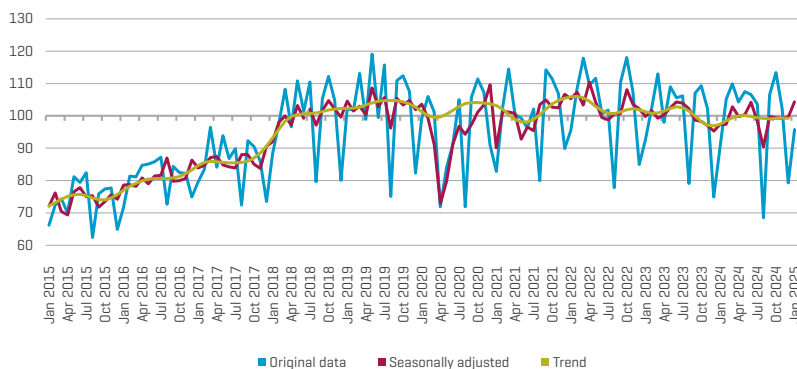


Figure 2
Manufacture of rubber and plastic products, 2021 = 100, from January 2015 to January 2025

Source: The Institute of Economics, Zagreb, based on source data from the Croatian Bureau of Statistics.



The operations of the leading companies in the manufacture of chemicals and chemical products during 2023 were marked by a decline in total revenue and employment. The total revenue of the ten leading companies in the manufacture of chemicals and chemical products in 2023 was 28.8 percent lower compared to 2022, while the number of persons

employed was 2.8 percent lower (85 employees fewer than a year earlier). In 2023, the ten leading companies cumulatively operated with a loss of 31.1 million euros.

According to FINA data for 2023, the ten leading manufacturers of chemicals and chemical products contributed 56.5 percent to the total revenue of this industry. According to the same source, in 2023, 392 business entities were active in the C20 "Manufacture of chemicals and chemical products" activity, while the total revenue of the activity amounted to 789.9 million euros.

Measured by total revenue, the top ten leading companies in the chemical industry in 2023 are Saponia d.d. (107.9 million euros), Petrokemija d.d. (97.8 million euros), Hempel d.o.o. (40.7 million euros), and Messer Croatia Plin d.o.o. (37.4 million euros). They are followed by Scott Bader d.o.o., Chromos-Svjetlost d.o.o., Meteor grupa – Labud d.o.o., LUSH manufaktura d.o.o., Adriatica Dunav d.o.o., and Maxam Detines d.o.o. Interestingly, in 2022, Petrokemija d.d. was in the leading position, and the company Maxam Detines d.o.o. was included in the top ten leading companies in the manufacture of chemicals and chemical products for the first time, while the company Ireks Aroma d.o.o. is no longer part of this group.

According to FINA data, in 2023, 802 business entities were active in the C22 "Manufacture of rubber and plastic products" activity, generating total revenue of 1.3 billion euros. An analysis of the financial indicators of the ten leading companies in the manufacture of plastic and rubber products indicates a decline in the sector during 2023.

The main characteristics of the business operations of the observed group of manufacturers of plastic and rubber products are a decline in revenue, profit, and employment. In 2023, the total revenue of the ten leading companies in this sector amounted to 465.4 million euros and was lower by 6.6 percent compared to the previous year. The number of persons employed decreased from a total of 2,180 in 2022 to 2,106 in 2023 (a decrease of 3.4 percent). Ten leading manufacturers in both observed years, 2022 and 2023, cumulatively operated profitably, whereby in 2022 they realized a cumulative profit of 29.1 million euros, and in 2023 of 20.4 million euros (a decrease of 29.9 percent).

Only one company from the manufacture of chemicals and chemical products, i.e., Saponia d.d., was listed on the Zagreb Stock Exchange, while not a single company from the manufacture of plastics and rubber was listed on the Zagreb Stock Exchange. As of March 9, 2022, the Petrokemija d.d. company is no longer listed on the Zagreb Stock Exchange.

Table 2

Ten leading companies in the manufacture of chemicals and chemical products – selected financial indicators, 2023

	Total revenue (in millions of euros)	Debt ratio	Current ratio	Gross margin (in %)
Saponia d.d.	107.9	0.3	2.6	3.3
Petrokemija d.d.	97.8	1.0	0.6	-64.1
Hempel d.o.o.	40.7	0.5	1.7	10.7
Messer Croatia Plin d.o.o.	37.4	0.1	5.1	19.0
Scott Bader d.o.o.	33.7	0.4	1.7	4.3
Chromos-Svjetlost d.o.o.	30.6	0.0	25.5	10.8
Meteor grupa – Labud d.o.o.	30.0	0.6	1.0	17.7
LUSH manufaktura d.o.o.	24.2	0.2	4.9	9.2
Adriatica Dunav d.o.o.	23.7	0.5	2.6	2.3
Maxam Detines d.o.o.	20.0	0.5	1.5	19.0

Source: The author's calculation according to data from FINA.

Table 3

Ten leading companies in the manufacture of plastics and rubber – selected financial indicators, 2023

	Total revenue (in millions of euros)	Debt ratio	Current ratio	Gross margin (in %)
Bomark Pak d.o.o.	105.8	0.57	1.5	3.5
Gumiimpex-GRP d.d.	74.4	0.91	1.3	5.4
Muraplast d.o.o.	68.9	0.40	2.0	7.0
Deceuninck d.o.o.	50.1	0.89	1.0	0.6
Alpla d.o.o.	32.4	0.51	1.9	2.7
Aquaestil plus d.o.o.	31.9	0.44	2.3	3.3
Marlex d.o.o.	28.1	0.36	3.5	7.9
Vargon d.o.o.	27.6	0.21	1.8	5.2
Plastform d.o.o.	24.2	0.26	2.7	2.3
Heplast-pipe d.o.o.	22.0	0.44	2.0	6.7

Source: The author's calculation according to data from FINA.

According to CEFIC data, in the first three quarters of 2024, the manufacture of the chemical sector in the European Union recorded year-on-year growth of 2.6 percent. For comparison, in 2022, the manufacture of this sector decreased by 6.1 percent year-on-year, and in 2023 it decreased by 8.5 percent. If we look at production by individual activities of the EU-27 chemical sector, the largest decline in manufacture in 2023 compared to 2022 is observed in the manufacture of basic chemicals, led by the manufacture of petrochemicals [-10.6 percent], and the manufacture of polymers [-10.5 percent]. This is followed by the manufacture of specialty

chemicals and the manufacture of basic inorganics, with a year-on-year decline in manufacture of 6.3 and 5.2 percent, respectively. Year-on-year increase in manufacture in 2023 was recorded only in the manufacture of consumer chemicals (soaps, detergents, and cosmetics), i.e., by 3.2 percent. A decline in production compared to 2023 was also recorded last year at the level of the entire manufacturing industry of the European Union, i.e., by 2.6 percent. This decline was largely contributed to by negative trends in the manufacture of leather, electrical equipment, and the automotive sector. According to data for 2023, the export of the European Union's chemical sector is experiencing a year-on-year decline of 6.8 percent, while the import is experiencing a year-on-year decline of 20.4 percent. If the structure of exports and imports of the chemical sector of the EU in 2023 is observed according to product groups, it is evident that more than half of exports refer to the export of specialty chemicals (31.4 percent) and the export of petrochemicals (24.7 percent). This is followed by polymers, with a share of 15.2 percent, and consumer chemicals, which represent 17.8 percent of the total export. The positive balance of EU-27 foreign trade with the rest of the world was recorded in consumer chemicals (28.3 billion euros), specialty chemicals (24.3 billion euros), and polymers (4 billion euros). On the other hand, greater imports than exports were realized in petrochemicals (-19.0 billion euros) and basic inorganics (-3.3 billion euros). Dynamically, the share of the European Union's chemical industry on the world market has decreased over the last decade. Thus, despite the increase in total sales of the chemical sector from 510 billion euros in 2013 to 655 billion euros in 2023, the share of the EU-27 in the total world sales of chemicals decreased from 16.4 percent to 12.6 percent.

Although it is difficult to predict the longer-term impact of the war on the EU economy, its effects are already visible and are reflected in inflation, more fragile supply chains with possible disruptions in the supply of fossil raw materials and energy sources, and weakened growth prospects. Therefore, growth expectations for 2025 are still limited. Bearing in mind the uncertain global economic and business environment, the European Chemical Industry Council (CEFIC) does not forecast a near recovery in chemical manufacturing in the EU-27 and points to limitations in demand growth due to unfavorable economic conditions in Germany and the USA, while the situation in China will remain unchanged. The business and trade environment in which European chemical companies operate is exposed to high risk arising from additional US import duties. Growth in the manufacture of chemicals in the EU-27 is expected to slow from an estimated 2 percent in 2024 to less than 0.5 percent in 2025.

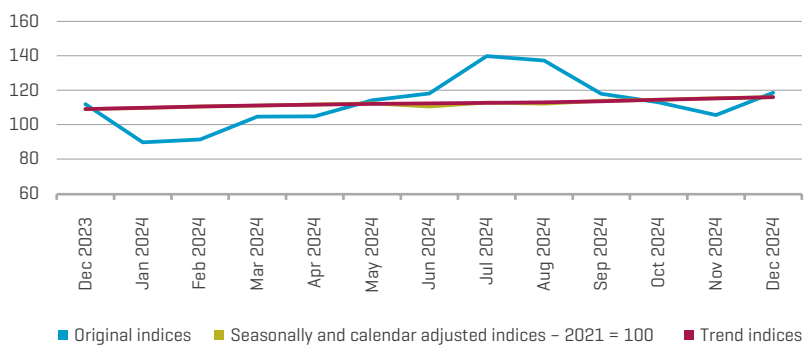
Retail Trade²

Trade is an important economic activity that has a significant impact on economic growth, employment, and generation of income. According to data of the Croatian Bureau of Statistics (CBS), in 2024, the share of trade in the gross domestic product (GDP) expressed in market prices was 24.6 percent,² in the employment of legal entities 15.3 percent, and in the number of active legal entities 14.5 percent.

Retail trade turnover is a key indicator of the success of the sector, economic activity, and consumer trends. Methodologically speaking, the most important indicator is the real turnover in retail trade, which includes the correction of turnover for inflation. In 2024, the real turnover in retail trade cumulatively increased by 7.7 percent year-on-year and grew throughout the year in all months. At the same time, the nominal turnover, which shows the total value of turnover in current prices, amounted to 9.8 percent, while the price component amounted to 2.1 percent. The data indicate that the retail market has stabilized and that in 2024 the main driver of retail growth was a higher volume of products and services purchased, and not just an increase in prices. Consumer activity was positive throughout the year, indicating a good economic situation, growing purchasing power of citizens, and increased spending. This is also indicated by the increase in seasonally adjusted and trend series by 7 percent in December 2024 compared to the same month of the previous year [Figure 3].

Figure 3
Real turnover in retail trade – seasonally adjusted and trend series, 2021 = 100

Source: The Institute of Economics, Zagreb, based on source data from the Croatian Bureau of Statistics.



² Anić, I.-D. (2025). Retail Trade. *Sector Analyses*.

An increase in nominal turnover in retail trade was achieved by all trade professions. The largest increase in turnover was achieved by sales in pharmacies (22.0 percent, with a price increase in the health category by 5.4 percent), sales of motor vehicles, parts and accessories for motor vehicles, motorcycles and motorcycle parts (17.4 percent, with a price decrease in the motor vehicle category by 1 percent), and sales in other non-specialized stores (11.2 percent). In the food sector, where the inflation rate was 3.9 percent, non-specialized stores selling mainly groceries achieved a turnover increase by 8.5 percent, while specialized grocery stores achieved a turnover increase by 7.8 percent. These trends indicate a change in the structure of consumption and consumer preferences towards health and the purchase of motor vehicles and consumer goods, with a stable real increase in food retail.

Retail trade employs a large number of people, especially in urban areas. In 2024, employment in legal entities in trade (G) increased year-on-year by 3.7 percent (7,958 persons employed in absolute amount), in retail trade (G47) by 3.7 percent (4,424 in absolute amount), and in craft trade by 10 percent, while employment in the economy grew at a rate of 14 percent. In 2024, the Croatian retail sector faced challenges in finding an adequate workforce. The combination of demographic changes and increased demand for employees, especially during the season, has resulted in the need to hire pensioners, students, and foreign workers. A record number of 32,573 pensioners working in retirement was recorded at the end of July, and the majority of them (around 5,500) are employed in trade. An increasing number of foreigners are employed in retail trade in Croatia, and employers have also increasingly hired students, since the flexibility of student work allows employers to respond to seasonal and occasional labor needs. A specific feature of retail is also that it traditionally employs a significant number of women (71.8 percent of retail employment in 2024), which is associated with traditional jobs in the sector, such as sales, working at the cash register, work in stores, and jobs that require communication and organizational skills. In 2024, the number of women employed in retail increased compared to the previous year.

In 2024, average monthly gross wages per person employed in legal entities in retail trade (G47) increased by 13.8 percent, and net wages by 14.0 percent. Statistical data show that wages in retail trade are low compared to trade and the economy and that there are wage gaps between men and women. In 2024, net wages in retail trade were lower by 9.3 percent compared to trade and lower by 18.9 percent compared to the economy. Furthermore, men had 18.1 percent higher net wages per person employed in legal entities than women. Low wages increase labor turnover and reduce motivation and productivity of employees.

FINA data were collected in order to analyze the operations of the largest retail companies. The latest available data are for the year 2023. In 2023, companies in retail trade (G47) achieved a nominal increase in sales revenue by 17.9 percent. This increase was influenced by inflationary trends [the consumer price index in that year was 8 percent, and the increase in food prices was 12.7 percent]. Costs of goods sold increased by 3.4 percent, and as they increased slightly less than sales revenue in absolute amounts, gross margins increased as a result (18.1 percent). Profit before tax [the difference between gross margin and operating expenses] increased by 38.5 percent. The data show that during times of high inflation, with an increase in revenue and profit, retailers had the capacity to open new stores or expand existing ones, as indicated by an increase in fixed assets (8.5 percent) and new employment (1.3 percent). Ultimately, sales revenue grew faster than new employment, leading to an increase in labor productivity.

Table 4
Selected performance indicators of the ten leading retailers in 2023

	Sales revenue (in billions of euros)	Gross margin (in % of sales revenue)	Profitability of sales (in %)	Debt ratio	Current ratio	Average period of payment of liabilities to suppliers (in days)
Konzum plus	1.83	27.0	1.11	0.82	0.53	50.3
Lidl Hrvatska	1.18	25.0	5.92	0.47	0.67	45.7
Spar Hrvatska	0.92	22.0	0.15	0.78	0.80	39.5
Plodine	0.80	23.0	8.02	0.59	0.58	58.7
Kaufland Hrvatska	0.72	27.0	2.39	0.37	1.41	24.4
Tommy	0.61	28.0	3.87	0.79	0.82	48.1
Studenac	0.61	25.0	1.09	0.85	0.75	76.8
Pevox	0.43	33.0	12.76	0.25	5.59	18.3
dm-drogerie markt	0.38	35.0	3.47	0.80	1.14	33.3
Tisak plus	0.29	22.0	1.70	0.69	0.78	46.2

Notes: The table covers the division G47 without G47.3 activity (retail sale of automotive fuel in specialized stores). Profitability of sales = net profit after tax / business income * 100; debt ratio = total liabilities / total assets; current ratio = current assets / current liabilities. Average period of payment of liabilities to suppliers = 365 / liabilities turnover ratio; liabilities turnover ratio = sales revenue / liabilities to suppliers.

Sources: FINA and author's calculation.

Table 4 shows the results of the leading ten retailers in 2023 individually. In that year, Konzum plus was the leading retailer in Croatia, with sales revenue of EUR 1.83 billion. Konzum was the leading retailer in the City of Zagreb and six counties (Zagreb, Krapina-Zagorje, Varaždin, Karlovac, Lika-Senj, and Osijek-Baranja County), just like the previous year. The second retailer was Lidl. In that year, it increased sales revenue by 14.3 percent. Another member of the Schwarz Group is Kaufland, which in 2023, with 48 discount stores, increased sales revenue by 16.4 percent, fixed assets by 8.7 percent, and the number of persons employed by

4.4 percent, according to FINA data. Together, these two retailers have higher revenue than Konzum. Among the top ten retailers in Croatia is Spar Hrvatska, which is part of the Spar Holding AG group from Austria, which was ranked 77th among the 250 largest retailers in the world. In 2023, Spar Hrvatska was in third place in Croatia in terms of sales revenue, which amounted to EUR 0.9 billion, with an increase by 21.1 percent compared to the previous year. Plodine is in fourth place in terms of sales revenue of EUR 0.8 billion. In 2023, among the leading retailers are Tommy, Studenac, Pevex, dm-drogerie markt, and Tisak plus.

Retail trade in the EU is characterized by strong competition and slow market growth. In 2024, turnover in retail trade increased in real terms by 1.3 percent compared to the previous year – turnover in food products by 0.6 percent, and turnover in non-food products (excluding fuel trade) by 2 percent. There are significant differences between EU countries. Inflation slowed in all EU countries, and Croatia was among the countries with the highest price increases. Compared to EU countries, Croatia is in the group of countries that have a consolidated retail trade, with a higher number of persons employed per retailer. However, in most performance indicators (margins, labor productivity, and wages), it is behind the EU average.

The year 2025 remains highly uncertain due to geopolitical tensions between the US, Russia, China, and the EU, the war in Ukraine, the need for increased defense funding, and possible trade barriers, which creates uncertainty regarding further economic and retail trade growth. The European Central Bank predicts low GDP and consumption growth rates in the eurozone in 2025 and 2026, while Croatia should achieve slightly higher growth rates than the EU average, but also a higher price increase, which again reduces consumer purchasing power. However, these trends should be reflected in an increase in turnover in retail trade.

Food and Beverage Industry³

The food and beverage industry represents one of the most important industrial sectors in Croatia. Compared to other branches of the manufacturing industry, the manufacture of food products and beverages still accounts for the largest share of Croatia's gross domestic product (GDP) and total employment. The share of the food and beverage industry in Croatia's GDP in 2022 was 2.3 percent (of which the share of the food industry was 1.8 percent, while the share of the beverage industry was 0.5 percent). At the same time, the share of the food and beverage industry in the GDP of the total manufacturing industry was 18.1 percent. Moreover, the manufacture of food products appropriates a share of 14.4 percent, while the beverage industry manufacture share amounts to 3.7 percent. In 2024, the share of the food and beverage industry in total employment was 3.3 percent (of which the share of manufacture of food products was 2.9 percent, and the share of manufacture of beverages was 0.4 percent). In January this year, the food and beverage industry participated in the total employment of the manufacturing industry with a share of 21.2 percent. At the same time, the share of the manufacture of food products was 18.8 percent, and the manufacture of beverages was 2.4 percent of total employment in the manufacturing industry.

Table 5
Trends of the main sector indicators, year-on-year change, 2024, in %

Source: The author's calculation according to data from the Croatian Bureau of Statistics.

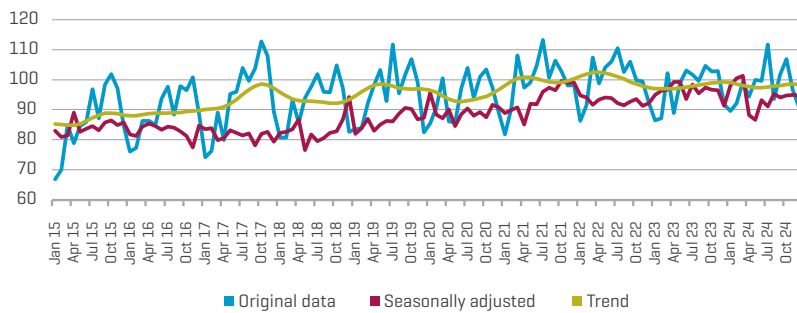
Food industry	2024
Manufacturing activity	0.6
Employment	1.9
Average gross wage	14.3
Beverage industry	2024
Manufacturing activity	2.5
Employment	4.8
Average gross wage	8.6

³ Palić, P. (2025). Food and Beverage Industry. *Sector Analyses*.

After the decline in the production activity of this industry by 2.9 percent in 2023, in 2024, it recorded a year-on-year increase by 0.6 percent. Alongside the increase in the overall activity of the food industry, the number of employees has increased. Furthermore, this industry has recorded an increase in wages. In December 2024, the food industry employed 43,407 employees, which, compared to the same month in 2023, represents a 1.0 percent increase in employment. In December 2024, monthly gross wages in the food industry nominally increased by 13.4 percent year-on-year. At the same time, the average gross wage paid in December 2024 amounted to 1,515 euros.

Figure 4
Food industry,
2021 = 100

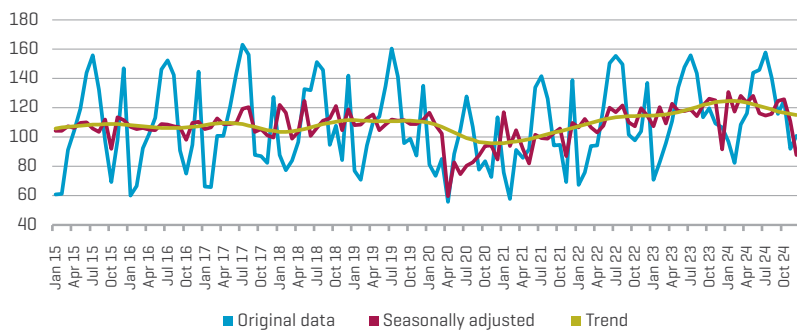
Source: The Institute of Economics, Zagreb, based on source data from the Croatian Bureau of Statistics.



The production activity of the beverage industry at the level of 2024 recorded a year-on-year increase of 2.5 percent, while in 2023, it recorded an increase of 3.2 percent. Parallel to the increase in activity during 2024, the beverage industry is marked by an increase in the number of persons employed. Thus, in December 2024, this industry employed 5,627 employees, which is 3.5 percent more than in the same month of 2023. Also, in December 2024, the average gross wage in this industry was nominally higher by 9.6 percent compared to December 2023. The average nominal gross wage paid in December 2024 in the beverage industry was 1,914 euros, which was 2.0 percent above the average of the economy and 15.3 percent above the average of the entire manufacturing industry.

Figure 5
Beverage industry,
2021 = 100

Source: The Institute of Economics, Zagreb, based on source data from the Croatian Bureau of Statistics.



In April 2025, compared to April 2024, food manufacturing prices increased by 1.9 percent, while beverage manufacturing prices recorded a year-on-year increase by 2.8 percent. At the same time, producer prices at the level of the manufacturing industry recorded a decline by 1.7 percent.

In the period from January to December 2024, the manufacture of food products recorded a year-on-year increase in labor productivity at a rate of 1.5 percent. At the same time, the labor productivity of the manufacture of beverages recorded a year-on-year increase by 1.2 percent. In 2024, the food, beverage, and tobacco industry accounted for 12.3 percent of the total merchandise exports of the manufacturing industry. In 2024, the food, beverage, and tobacco industry also participated in the total imports of the manufacturing industry with 13.4 percent. It is important to note that the food, beverage, and tobacco industry realizes a foreign trade deficit. During 2024, exports of the food, beverage, and tobacco industry decreased by 1.4 percent compared to 2023, while in 2024, imports of the food, beverage, and tobacco industry increased by 9.6 percent.

By looking at the latest financial indicators for the ten leading companies in the food industry, it can be concluded that this sector showed an increase in activity during 2023 [Table 6]. In 2023, total revenue was higher by 12.0 percent compared to 2022. Moreover, along with the increase in revenue, employment decreased by 0.6 percent, while labor productivity increased by 12.6 percent in 2023. In 2023, an increase in profit before tax was recorded for the ten largest companies in the manufacture of food products [EUR 134.3 million] compared to 2022 [EUR 104.5 million].

Table 6
Ten leading companies
in the food industry
– selected financial
indicators, 2023

Source: The author's calculation according to the Fina Info.BIZ database.

	Total revenue (in millions of euros)	Debt ratio	Current ratio	Gross margin (in %)
Vindija d.d.	473.5	0.6	0.8	5.4
Podravka d.d.	359.4	0.2	1.5	8.8
Dukat d.d.	352.9	0.2	1.4	5.0
Mesna industrija braća Pivac d.o.o.	334.3	0.5	0.5	2.7
PIK Vrbovec plus d.o.o.	327.6	0.8	1.7	-1.7
PPK d.d.	289.1	0.2	4.7	4.0
Ledo plus d.d.	179.3	0.1	2.9	4.3
Enna Fruit d.o.o.	170.8	0.7	1.1	3.4
Kraš d.d.	167.2	0.3	2.3	4.4
EMPWR d.o.o.	160.2	0.4	3.4	14.6

According to the financial indicators for the ten leading companies in the beverage industry, it can be concluded that the activity of this sector increased during 2023 [Table 7]. After a decline in activity in 2018, 2019, and 2020, in 2021 and 2022, the ten leading beverage companies recorded a year-on-year increase in total revenue by 21.2 percent and 19.9 percent, respectively. This trend continued in 2023, when the ten leading companies in the beverage industry recorded a year-on-year increase by 17.6 percent. Furthermore, the year-on-year increase in revenue with a simultaneous increase in employment [the number of persons employed increased by 2.4 percent] resulted in an increase in labor productivity. Moreover, in 2023, labor productivity increased by 14.9 percent compared to 2022.

Table 7
Ten leading companies in the beverage industry – selected financial indicators, 2023

Source: The author's calculation according to the Fina Info.BIZ database.

	Total revenue (in millions of euros)	Debt ratio	Current ratio	Gross margin (in %)
Coca-Cola HBC Hrvatska d.o.o.	210.7	0.5	1.1	5.8
Jamnica plus d.o.o.	201.4	0.7	1.3	4.1
Zagrebačka pivovara d.o.o.	199.1	0.6	0.9	20.7
Heineken Hrvatska d.o.o.	141.3	0.4	1.2	4.9
Badel 1862 d.d.	74.5	0.3	3.2	20.2
Carlsberg Croatia d.o.o.	70.2	0.5	1.1	4.9
Slavonija slad d.o.o.	48.2	0.7	2.4	15.7
Agrolaguna d.d.	20.3	0.6	1.0	-0.8
Maraska d.d.	18.2	0.7	2.0	-2.2
Kis pića d.o.o.	16.6	0.6	1.9	5.3

Five companies from the food industry and one company from the beverage industry [Maraska d.d.] are listed on the Zagreb Stock Exchange. Of the ten leading food companies, Podravka d.d. was listed on the Zagreb Stock Exchange. According to the latest data, Podravka d.d. [with a weight in the index of 8.99 percent] is part of the CROBEX stock index of the Zagreb Stock Exchange. Moreover, Podravka d.d. [with a weight in the index of 17.37 percent] was included in the composition of the CROBEX 10 index, which represents ten shares with the highest free float market capitalization and turnover. The CROBEXnutris sector index of the Zagreb Stock Exchange currently includes the shares of Atlantic Grupa d.d. and Podravka d.d. The CROBEXnutris index tracks yields and risks in the manufacture of food products.

The food and beverage industry is one of the biggest drivers of the economy in the European Union and represents a very important sector. Although sales in the entire manufacturing industry in the EU-27 recorded a

0.7 percent decline in the fourth quarter of 2024 on a year-on-year basis, sales in the food products and beverage industry recorded an increase by 3.4 percent. The highest annual sales increase in the fourth quarter of 2024 was recorded by Greece (4.8 percent), Romania (4.5 percent), and Poland (3.8 percent). On the other hand, the only country that recorded a percentage decline in sales was Lithuania (0.4 percent). In the fourth quarter of 2024, the food and beverage industry production increased by 0.1 percent compared to the third quarter of 2024. Furthermore, on a year-on-year level, in the fourth quarter of 2024, an increase in the food and beverage industry production of 1.8 percent was recorded, while total industry production fell by 1.5 percent on a year-on-year level.

The upward trend in the prices of most agricultural crops from 2018, 2019, 2020, 2021, and 2022 reversed in 2023 and continued in 2024. In the fourth quarter of 2024, agricultural prices recorded a decline by 4.4 percent compared to the same quarter of the previous year. On the other hand, producer prices in the food industry increased by 1.3 percent in the fourth quarter of 2024 compared to the fourth quarter of 2023.

Employment in the manufacturing industry at the EU-27 level recorded a year-on-year decline by 0.8 percent in the fourth quarter of 2024. On the other hand, an increase in employment of 1.4 percent was recorded in the food industry, while an increase of 1.9 percent was recorded in the beverage industry. The highest increase in employment in the manufacture of food products at the EU-27 level in the fourth quarter of 2024, compared to the fourth quarter of 2023, was recorded in Latvia (3.7 percent), the Czech Republic (3.6 percent), and Portugal (3.2 percent). On the other hand, among the analyzed countries, Finland (4.5 percent), Ireland (1.4 percent), and Lithuania (0.1 percent) recorded the largest decline in employment in the manufacture of food products at the EU-27 level. Lithuania (6.6 percent), Italy (6.5 percent), and Croatia (5 percent) achieved the greatest increase in employment in the manufacture of beverages, while the largest decline in employment in this industry was achieved by Ireland (14.4 percent), Sweden (7.6 percent), and Latvia (5.3 percent). Exports of the food products and beverage industry at the EU-27 level recorded a year-on-year increase of 8.5 percent and 4.0 percent, respectively, in the fourth quarter of 2024. At the same time, the imports of the food industry increased by 16.4 percent, while the imports of the beverage industry increased by 9.9 percent.

It is precisely in the context of such global trends and changes in consumer habits that it is important to realize that the food and beverage industry in Croatia has multiple effects on GDP, employment, and exports, and that it strongly influences the development of related sectors such as tourism.

In times when many sectors are going through challenging periods, the food and beverage industry represents one of the few strongholds for stability and growth. Therefore, strategic priorities should be strengthening exports, encouraging innovation and investment, as well as continuously building a recognizable image of Croatia in the context of food and beverage quality.

Telecommunications⁴

The Croatian Regulatory Authority for Network Industries (HAKOM) data for the fourth quarter of 2024 show that the trends from previous years continued in the telecommunications sector. More precisely, the use of telephone services in the fixed network has decreased compared to the previous period, while the use of mobile network services and internet access services has increased. At the end of 2024, the total number of connections in the fixed network was 1,201,798, which is a year-on-year decrease of 0.1 percent. In the fourth quarter of 2024, a total of 1,101,644 users of telephone services in the fixed network generated 215,203,351 minutes of outbound traffic in the fixed network. In the fourth quarter of 2024, the number of users in the fixed network decreased by 1.2 percent year-on-year. In the same period, total outbound traffic in this network decreased by 16.3 percent. Taking this data into account, teleoperators recorded a decline in total revenue from telephone services in the fixed network in the analyzed period. Compared to the fourth quarter of 2023, total revenue from this type of service decreased by 5.5 percent. In total, in the last three months of 2024, 29.8 million euros in revenue were generated from providing telephone services in the fixed network. Only 7.5 percent of that amount refers to wholesale revenue, which decreased by 19.0 percent compared to the fourth quarter. The remainder, i.e., EUR 27.5 million, refers to retail revenue, which also recorded a year-on-year decline of 4.2 percent. The largest share of the fixed network services market is held by HT Group. In the fourth quarter of 2024, its share was 60.2 percent of the total number of users of telephone services in the fixed network. In the same period, A1 Hrvatska provided telephone services in the fixed network to 26.5 percent of users, while Telemach Hrvatska provided them to 11.8 percent of users.

Table 8
Fixed and mobile communication network in the fourth quarter of 2024

Source: The Institute of Economics, Zagreb, based on source data from HAKOM.

	Fixed network	Mobile network
Number of users	1,101,644	4,717,531
Outbound traffic (in min.)	215,203,351	2,738,298,749
Total revenue (in euros)	29,768,676	167,898,798

⁴ Božić, Lj. (2025a). Telecommunications. *Sector Analyses*.

At the end of 2024, trends in the use of telephone services in the mobile network were different from those in the fixed network. More precisely, in the mentioned period, the number of users of telephone services in the mobile network increased by 3.4 percent, compared to the fourth quarter of 2023. In the last quarter of 2024, there were 4,717,531 users of telephone services in the mobile network. The majority of them, i.e., 81.5 percent, relate to private users. At the end of 2024, the number of private users of telephone services in the mobile network increased by 3 percent year-on-year. This is a consequence of the increase in the number of users with a subscription, i.e., their number increased by 6.1 percent compared to the fourth quarter of the previous year. Users with a subscription thus accounted for 61.1 percent of the total number of private users. In the same period, the number of users without a subscription decreased by 1.5 percent compared to the fourth quarter of 2023. In the last quarter of 2024, the number of business users increased by 5.2 percent compared to the same period in 2023 and amounted to 872,405 users. At the end of 2024, the density of mobile service users was 121.8 percent, which is an increase of 3.4 percent year-on-year. In the fourth quarter of 2024, the total outbound traffic of telephone service operators in the mobile network was 1.7 percent higher compared to the previous year. In the last three months of 2024, 2,738,298,749 minutes of mobile phone calls were made. In the same period, the duration of roaming calls from companies' own users was reduced by 13.7 percent in international networks, while the duration of roaming calls from foreigners in national networks increased by 8.13 percent year-on-year. In the fourth quarter of 2024, the number of sent SMS messages was lower by 10.6 percent compared to the fourth quarter of 2023. Moreover, the number of sent MMS messages decreased by 10.2 percent.

Given the increase in the number of users, as well as of outbound traffic, in the fourth quarter of 2024, the total revenue from telephone services in the mobile network increased by 10.8 percent year-on-year. It should be emphasized that this increase is a consequence of an increase in retail revenue of 14.3 percent compared to the same period in 2023. In the fourth quarter of 2024, wholesale revenue decreased by 18.8 percent compared to the last quarter of 2023. Retail revenue from telephone services in the mobile network accounts for 92.3 percent of the 167.9 million euros in total revenue from telephone services in the mobile network in the last three months. In the last three months of 2024, retail revenue from sales to private users amounted to 114.8 million euros, 78.5 percent of which was generated from the sale of telephone services to customers with a subscription. In the fourth quarter of 2024, total revenue from sales to users with a subscription increased by 17.2 percent, compared to the same period in 2023. In the last three months of 2024, retail revenue from business users amounted to 40.2 million euros, which is an increase of 14.9 percent compared to the same period in 2023.

The largest share of the market of telephone service in the mobile network, measured by the number of users in the fourth quarter of 2024, was held by Hrvatski Telekom. Its share in the mentioned period amounted to 44.4 percent of users of telephone services in the mobile network. It is followed by A1 Hrvatska with 34.1 percent and Telemach Hrvatska with 21.5 percent of users of telephone services in the mobile network.

In the analyzed period, the number of broadband connections increased as well, i.e., by 5.1 percent year-on-year. In the last three months of 2024, there were a total of 6,886,349 broadband internet connections in Croatia. In that period, the number of broadband internet connections via fixed networks was 1,147,086, which is an increase of 3.4 percent compared to the same period in 2023. As for the number of broadband connections via mobile networks, it amounted to 5,739,263, and it increased by 5.5 percent year-on-year.

In the fourth quarter of 2024, HT Group had the largest share of the total number of broadband connections. Its share in the mentioned period was 58.8 percent of the total number of connections via the fixed network and 43.2 percent of the total number of connections via the mobile network. A1 Hrvatska had a share of 27.7 percent in the total number of connections via the fixed network and 37.3 percent in the total number of connections via the mobile network. The shares of Telemach Hrvatska represented 8.9 percent of the total number of connections via the fixed network and 19.5 percent of the total number of connections via the mobile network.

In the analyzed period, a year-on-year trend of increasing the number of connections via the 5G network was observed, while the number of users of 3G and 4G network is declining or, in the case of business users, it is mildly increasing compared to the number of users of 5G network in the fourth quarter of 2024. The number of private users of broadband internet access via 3G and 4G networks decreased by 4.9 percent, while the number of private users accessing the internet via 5G networks increased by 36.8 percent. In the case of business users, the number of those who used 3G and 4G networks to access the internet in the fourth quarter of 2024 increased by 3.7 percent compared to the same period in 2023. At the same time, the number of business users accessing the internet via 5G networks increased by 55.5 percent.

Data traffic in fixed and mobile networks is increasing as well. In the mentioned period, data traffic in fixed networks increased by 26.8 percent compared to the fourth quarter of the previous year. In the same period, data traffic in mobile networks recorded a year-on-year increase of 0.5 percent. Far more data traffic was generated via fixed networks in the fourth

quarter of 2024: 994,597 TB compared to 332,026 TB achieved via mobile networks. According to data from the Croatian Bureau of Statistics, the average number of persons employed in the telecommunications sector in 2024 was 9,733, which is 3.6 percent more than in 2023. On a monthly basis, the highest number of persons employed in this sector was recorded in December 2024, when it amounted to 10,756. According to provisional data from the Croatian Bureau of Statistics, 2025 began with 9,690 persons employed in this industry. Subsequently, in February 2025, there was an increase in the number of persons employed in the telecommunications sector by 6.5 percent compared to the previous month, and by 7.4 percent compared to February 2024. In March and April 2025, there was a decrease in the number of persons employed in the telecommunications industry, but it still remained higher than in the same months of 2024. The average monthly gross wage of persons employed in the telecommunications sector in 2024 was 2,150 euros. Compared to the average of 2023, the gross wage of persons employed in the telecommunications sector increased by 6.4 percent. In 2024, the highest average gross wage was paid out in March and amounted to 2,478 euros. The average gross wage paid in the telecommunications sector in January 2025 decreased slightly compared to the same month in 2024. It amounted to 2,082 euros, which is 8.5 percent lower compared to January 2024. However, in February and March of 2025, gross monthly wages were paid in amounts higher than those from the previous year. Thus, in February of 2025, the average gross wage of persons employed in the telecommunications sector increased by 31.8 percent year-on-year. In March of 2025, the increase in the monthly gross wage was 14 percent on a year-on-year basis. Regarding the prices of telecommunications services, data from the Croatian Bureau of Statistics show that there was a price increase of 0.6 percent in 2024 compared to 2023. At the same time, prices of mobile telephony services (3.8 percent) and other information transmission services (6.5 percent) increased. In the same period, prices for internet access services decreased by 2.2 percent, while prices for telecommunications service packages decreased by 3.8 percent compared to 2023. In 2024, the prices of fixed telephony services remained at the price level of 2023.

In the European Union, in 2023, according to Eurostat data, a total of 37,705 companies were registered in the telecommunications sector. Spain ranks first in terms of the number of companies in the telecommunications sector, with 6,497 companies in 2023. It is followed by Poland with 6,270 companies operating in the telecommunications sector in that year. Therefore, one-third of companies in the telecommunications sector in the EU operate in two EU countries. Malta ranks last in terms of the number of companies in the telecommunications sector, with 52 companies operating in 2023.

In 2024, the production volume in the telecommunications sector at the EU level increased by 2.9 percent compared to 2023. In 2024, the largest year-on-year increase in production in the telecommunications sector was achieved by Bulgaria [7.6 percent] and Sweden [7.2 percent]. In Croatia, in 2024, the production volume of this sector increased by 1 percent compared to the previous year. The largest decline in production in the telecommunications sector in 2024 was in Spain, where production volume decreased by 7.3 percent year-on-year. The largest year-on-year increase in turnover in the telecommunications sector in 2024 was achieved in Denmark. In this European Union country, turnover in the telecommunications sector increased by 19.7 percent compared to 2023. It is followed by Hungary, with a year-on-year increase in turnover in the telecommunications sector of 15.9 percent. In the same period, there was a decline in turnover in the telecommunications sector in Romania, Slovakia, and Greece. In 2024, producer prices in this sector at the EU level were 0.2 percent lower than in 2023. If they are observed separately, the largest decrease in producer prices in the telecommunications sector was recorded in Slovakia, where the year-on-year rate of change was -5.2 percent. Croatia is among the countries where producer prices in the telecommunications sector increased in 2024, that is, by 6.9 percent compared to 2023.

Table 9
Performance indicators of leading companies in the telecommunications sector in 2024

	Total revenue (in millions of euros)	Index 2024/2023	Debt ratio	Current ratio	Gross margin (in %)	Labor productivity (in thousands of euros)
HT d.d.	976.0	110.5	0.2	2.1	16.8	289.9
A1 Hrvatska d.o.o.	579.1	108.9	0.6	0.7	14.8	354.2
Telemach Hrvatska d.o.o.	310.1	111.4	0.9	0.7	3.7	483.8
Odašiljači i veze d.o.o.	49.0	137.3	0.1	4.5	9.4	142.6
HEP-Telekomunikacije d.o.o.	20.7	103.6	0.2	0.6	3.1	530.2
Roaming Networks d.o.o.	17.6	94.1	1.2	0.6	6.0	302.9
Teleperformance HRV d.o.o.	9.3	139.3	0.8	1.6	6.9	35.8
Nokia Solutions and Networks d.o.o.	8.3	85.6	0.4	2.3	3.0	245.3
Croatel d.o.o.	7.8	115.6	0.1	5.4	29.6	95.2
Printec Croatia d.o.o.	7.8	82.1	0.4	2.3	-2.4	85.5

Note: Debt ratio = total liabilities/total assets; current ratio = current assets/current liabilities; gross margin = gross profit/total revenue * 100; labor productivity = total revenue/number of persons employed.

Sources: Fina Info.BIZ and the author's calculation according to FINA data.

When it comes to total revenue generated in 2024, the ten leading companies in the telecommunications sector (engaged in wired, wireless, and satellite telecommunications) include HT d.d., A1 Hrvatska d.o.o., Telemach Hrvatska d.o.o., Odašiljači i veze d.o.o., HEP-Telekomunikacije d.o.o., Roaming Networks d.o.o., Teleperformance HRV d.o.o., Nokia Solutions and Networks d.o.o., Croatel d.o.o., and Printec Croatia d.o.o. The majority of these companies made the list of the ten leading companies in the sector in previous years as well. The only novelty is the inclusion of the Teleperformance HRV d.o.o. company among the leading companies in terms of total revenue in the telecommunications sector. In 2024, the total revenue at the level of the ten leading telecommunications companies increased by 10.3 percent compared to 2023.

In 2024, the gross profit generated by the ten leading companies in the sector amounted to 271.0 million euros, which is 17.9 percent more compared to 2023. The ten leading companies in the sector, with the exception of the Printec Croatia company, ended 2024 with a profit. In 2024, Printec Croatia operated at a loss of 186,513 euros. Hrvatski Telekom had the highest gross profit in 2024. It amounted to 164.31 million euros and increased by 7.1 percent compared to the gross profit this company generated in 2023. The ten leading companies in the telecommunications sector employed 6,551 employees in 2024, i.e., 5.8 percent more than a year earlier. More than half of the persons employed, that is, 3,367, were employed at Hrvatski Telekom. This company increased the number of persons employed by 4.2 percent year-on-year in 2024. The biggest increase in the number of persons employed in 2024 was recorded for the Teleperformance HRV company, i.e., it increased by 27.5 percent compared to the number of persons employed in 2023. The increase in total revenue at the level of the ten leading companies in the sector was greater than the increase in the number of persons employed and resulted in an increase in labor productivity of 4.2 percent.

Energy: Renewable Energy Sources⁵

Eurostat results⁶ indicate that, in 2023, the total share of energy from renewable sources in gross final energy consumption reached 24.5 percent at the level of the European Union, which is about 1.5 percentage points more compared to the previous year. The achieved share of energy from renewable sources needs to be doubled by 2030 to achieve the ambitious target of at least 42.5 percent of energy from renewable sources, which simultaneously reduces greenhouse gas emissions and the EU's dependence on imported energy sources. Achieving this target depends significantly on the successful implementation of the Energy Efficiency Directive, which was also revised in 2023. This Directive establishes the principle of “energy efficiency first” as a basic principle of the Union's energy policy. Energy efficiency helps reduce overall energy consumption, which significantly contributes to the reduction of greenhouse gas emissions by avoiding the unnecessary use of energy and, thus, the burning of fossil fuels. Together with other rules related to energy and climate, the Directive aims to reduce greenhouse gas emissions by at least 55 percent compared to 1990, or an additional reduction of 11 percent in total energy consumption by 2030.

The Republic of Croatia, as one of the 27 member states of the European Union, participates in achieving the common target. In 2023, the total share of energy from renewable sources continued its two-year decline, reaching 28.05 percent – a 2.95 percentage point decrease from the 2020 share. In 2023, Croatia had a 58.83 percent share of renewable energy in electricity production, 0.92 percent of renewable energy in transport, and 36.17 percent in heating and cooling, making the total share of energy from renewable sources in gross final energy consumption 28.05 percent, or an annual decrease of 0.04 percentage points. In total, 24 member states of the European Union achieved an increase in the share of RS in gross final energy consumption in 2023, and two member states recorded

5 Kulišić, B. (2025). Energy: Renewable Energy Sources. *Sector Analyses*.

6 Renewable energy statistics, https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Renewable_energy_statistics#Share_of_renewable_energy_more_than_doubled_between_2004_and_2022

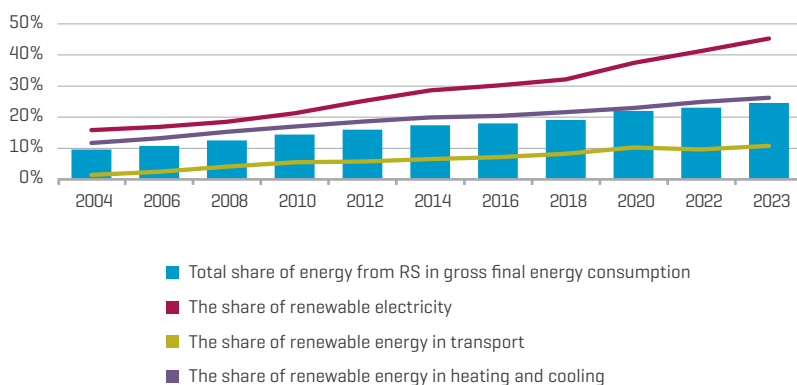
a decrease in the share of RS compared to 2022, while one member state, Croatia, maintained the same share as the previous year. The largest shares of energy from RS are recorded in: Sweden [66.4 percent], Finland [50.7 percent], Denmark [44.4 percent], Latvia [43.2 percent], Estonia [41 percent], Austria [40.8 percent], and Portugal [36.2 percent]. Other member states have less than a third of the share of energy from RS, while Ireland [15.3 percent], Malta [15.1 percent], Belgium [14.7 percent], and Luxembourg [14.4 percent] have the smallest share of energy from RS. The largest relative increase in the share of energy from RS was achieved by Austria [6.7 percentage points], Bulgaria [3.5 percentage points], and Spain and Finland [3 percentage points each].

Greater efforts are expected from the 21 member states, given that only six member states are either above the expected target [Sweden with 66.4 percent, Finland with 50.7 percent, Denmark with 44.4 percent, and Latvia with 43.2 percent] or very close to it [Estonia with 41 percent and Austria with 40.8 percent]. Deviation from common policies related to the European Union’s climate and energy targets is recorded in five member states [Croatia, Bulgaria, Italy, Slovakia, and Ireland], which achieved a lower share of renewable energy than in 2020, which was the year of the first legislative framework defined by the RED I Directive. Of these countries, Croatia experienced the largest decline by 3 percentage points. When observing the achievement of the share of renewable sources, it is important to highlight two decisive factors: the increase in energy production from renewable sources by components or sectors and the reduction in total energy consumption, as defined by the Energy Efficiency Directive. It is thus possible for a member state to achieve an increase in production of energy from renewable sources that is not reflected in the percentage share due to an increase in total energy consumption. Similarly, it is possible that constant production of energy from renewable sources is recorded as a percentage increase due to a decrease in total energy consumption.

Figure 6
Evolution of the share of energy from renewable sources in the total gross final energy consumption of the European Union from 2004 to 2023, by components*

Note: * According to the methodology from Directive 2009/28/EC until 2020 and Directive [EU] 2018/2001 from 2021 onwards.

Source: The Institute of Economics, Zagreb, based on source data from Eurostat.



In Croatia, in 2013 and 2023, a total share of energy from renewable sources in gross final consumption of 28 percent was achieved. The share of renewable electricity amounted to 59 percent, the share of renewable energy in heating and cooling amounted to 31 percent, while the share of renewable energy in transport amounted to 1 percent. The evolution of the share of energy from renewable sources in the total gross final energy consumption of the Republic of Croatia indicates uneven growth, with continuous growth of renewable electricity.

Strong electrification is being recorded in all member states, with all states achieving higher shares of electricity from renewable sources in 2023 compared to those achieved in 2020. In 2023, the share of electricity from renewable sources at the EU level was 45.3 percent, while 12 member states produced more electricity from renewable sources than the European Union average. In 2023, Austria (87.8 percent) and Sweden (87.5 percent) were close to achieving 90 percent of their electricity from renewable sources, followed by Denmark with 79.4 percent. In 2024, Austria, Sweden, and Latvia already had a more favorable initial position in the production of electricity from renewable sources, due to their large share of hydropower in production. The biggest jump in production of electricity from renewable sources was made by Denmark, which increased its share from 23.8 percent (in 2004) to 79.4 percent (in 2023) in less than two decades.

The achieved share of electricity from renewable sources of 45.3 percent or 105.8 Mtoe is mainly due to investments in electricity production from wind power plants (40.7 Mtoe or 39 percent) and solar power plants (21.7 Mtoe or 20 percent). Hydropower production (29.8 Mtoe or 28 percent) was stable throughout the observed period. The acceptance of wind and solar electricity production requires investment in electricity grid infrastructure in order to accommodate the increased share of unstable production in the grid and ensure a stable supply of electricity to consumers at affordable prices. The only renewable source that enables stable electricity production is biomass, which participates in production with 6.6 Mtoe or 6 percent, as power plants running on solid biofuels, such as wood chips or pellets, and as biogas, which is categorized under other technologies. Other technologies achieved production of 7 Mtoe or a share of 7 percent.

The Republic of Croatia recorded a share of 58.83 percent of electricity from renewable sources, which is higher than the EU average of 45.3 percent for 2023. When looking at the structure of electricity production from renewable sources in the Republic of Croatia, the dominance of hydropower in large hydroelectric power plants, which have maintained production from the years before accession to the European Union in 2013, can be observed. In 2023, hydroelectric power plants accounted for 63 percent or 589.6 ktoe. This is followed by wind power plants with

Figure 7
Production of energy from renewable sources in gross electricity consumption in the Republic of Croatia, from 2004 to 2023*

Notes: * According to the methodology from Directive 2009/28/EC until 2020 and Directive [EU] 2018/2001 from 2021 onwards.

Production from hydropower plants has been normalized, with pumps turned off. Production from wind power plants has been normalized. Solar power plants include photovoltaic power plants and solar thermal power plants. All other technologies include electricity generation from gaseous and liquid fuels from biomass, renewable municipal waste, geothermal energy, tidal energy, and ocean energy.

Source: The Institute of Economics, Zagreb, based on source data from Eurostat.

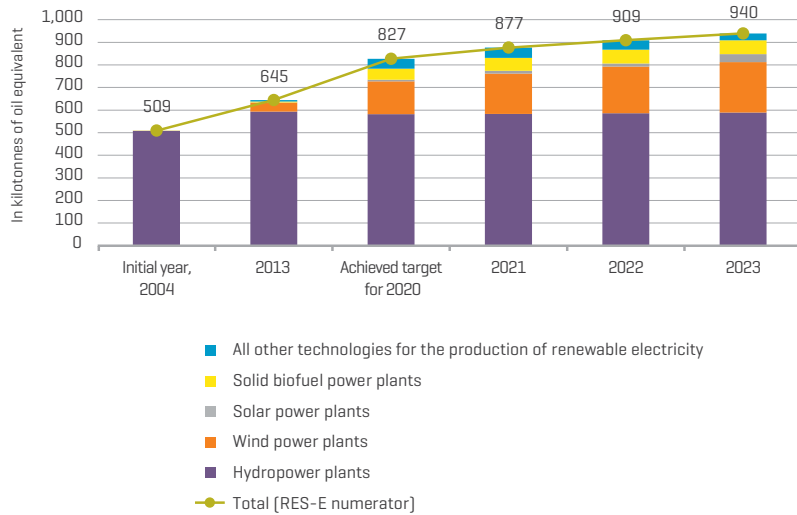
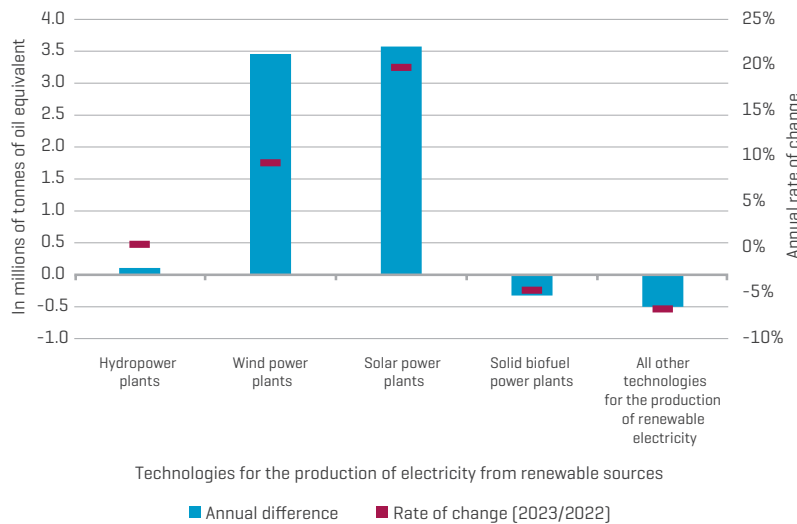


Figure 8
Annual change in electricity production from renewable sources in the European Union for 2023 compared to 2022, by production technology (in absolute and relative amounts)

Note: Production from hydropower plants has been normalized, with pumps turned off. Production from wind power plants has been normalized. Solar power plants include photovoltaic power plants and solar thermal power plants. All other technologies include electricity generation from gaseous and liquid fuels from biomass, renewable municipal waste, geothermal energy, tidal energy, and ocean energy.

Source: The Institute of Economics, Zagreb, based on source data from Eurostat.



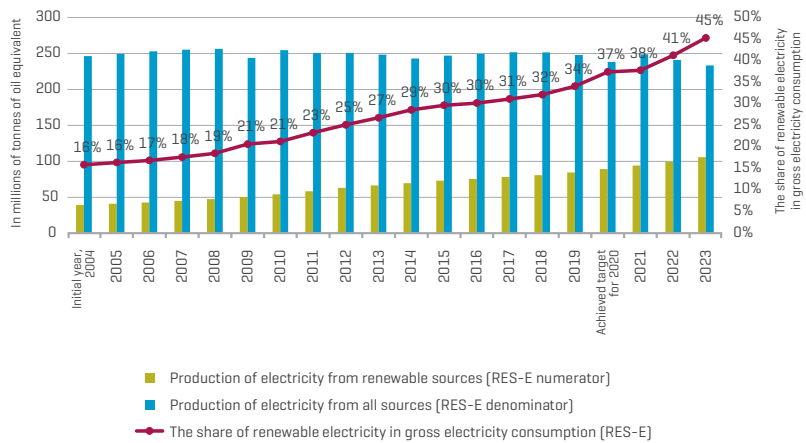
24 percent or 222.7 ktoe and power plants using solid biofuels (dominantly wood chips) with 60.7 ktoe or 6 percent. Solar power plants (35.5 ktoe) generate a modest 4 percent, considering the 20 percent share in the entire European Union and the number of sunny hours in the Republic of Croatia. All other technologies for electricity production from renewable sources account for 31.1 ktoe or 3 percent.

In 2023, investments in solar power plants were a dominant phenomenon in the Republic of Croatia, with an annual rate of change of as much as 172 percent or an increase in production capacity of 22.5 ktoe. A negative rate of change was recorded by solid biofuel power plants (-2 percent or -1.2 ktoe) and all other technologies for the production of renewable electricity (dominantly biogas power plants) (-25 percent or -10.4 ktoe).

Figure 9
Production and share of electricity from renewable sources in gross electricity consumption in the European Union, from 2004 to 2023*

Note: * According to the methodology from Directive 2009/28/EC until 2020 and Directive (EU) 2018/2001 from 2021 onwards.

Source: The Institute of Economics, Zagreb, based on source data from Eurostat.



Within the European Union, the Republic of Croatia contributes with 0.94 Mtoe of electricity production from renewable sources, achieving a significant 59 percent share of renewable electricity in gross electricity consumption. There is no noticeable decline in total electricity production from all sources; thus, the national trend differs from the overall trend of the European Union.

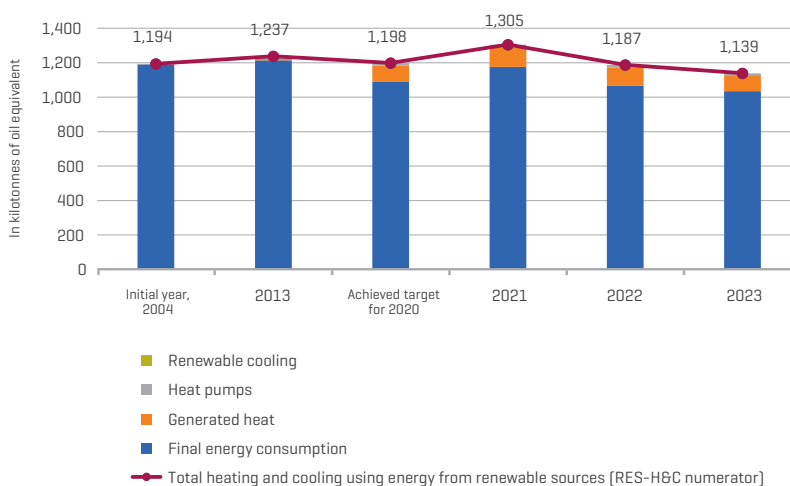
The energy used for heating and cooling depends not only on production, but also on consumption, which is determined by the needs for heating and cooling. Due to mild and shorter winters, the heating season is shortened, which reduces the fuel consumption needed for heating. Hot summers increase the demand for cooling, often through increased electricity consumption in air conditioning units.

In 2023, at the EU level, the total share of energy from renewable sources used for heating and cooling was 26.2 percent, with 17 member states above the average and 10 below it. The Republic of Croatia achieved a 36.2 percent share in heating and cooling from renewable sources. The production of energy from renewable sources for heating and cooling in the Republic of Croatia has also ranged within a narrow range of 1.1 to 1.3 Mtoe from 2004 to 2023. The shares of technologies that produced energy for heating and cooling changed slightly, with an increase in the share of extracted heat. The share of heat pumps is not visible in Figure 10, and it amounted to 15.7 ktoe or 1.4 percent. In 2023, the share of extracted heat was 8 percent or 88.6 ktoe. The majority source of renewable energy in heating and cooling in the Republic of Croatia (91 percent or 1,034 ktoe) is final thermal energy consumption, predominantly produced from solid biofuels, i.e., biomass such as firewood, wood pellets in households, and some wood residue or chips in larger plants and district heating.

Figure 10
Production and share of energy from renewable sources in heating and cooling in the Republic of Croatia, from 2004 to 2023*

Note: * According to the methodology from Directive 2009/28/EC until 2020 and Directive [EU] 2018/2001 from 2021 onwards.

Source: The Institute of Economics, Zagreb, based on source data from Eurostat.



In the Republic of Croatia, in 2023, compared to 2022, a decrease in final consumption by -3 percent and generated heat by -16 percent is recorded. There are no records for renewable cooling. Unlike electricity consumption and the transport sector, total fuel consumption for heating and cooling at the EU level is decreasing, while the share of total heating and cooling energy from renewable sources is increasing. The real quantity, measured in Mtoe, has been increasing continuously since 2004, while the relative share, measured in percentage, has followed this increase with larger shares due to reduced total consumption. Since the Russian aggression against Ukraine in 2022, the reduced consumption of fossil gas for heating, driven by the REPowerEU plan, has resulted in a significant decrease in fuel consumption for heating and cooling.

The Republic of Croatia joined the European Union with a high share of energy from renewable sources for heating and cooling of 37 percent, which was achieved mainly through the consumption of firewood in households. By observing the trend in the consumption of energy from renewable sources for heating and cooling in the Republic of Croatia in the period from 2004 to 2023, one can observe a correlation in total fuel consumption for heating and cooling with total heating and cooling energy from renewable energy sources since 2013, resulting in a trend in the share of energy from renewable sources in heating and cooling between 36 and 39 percent. In 2023, the share of energy from renewable sources in heating and cooling in the Republic of Croatia was 36 percent, i.e., one percentage point lower than the previous year.

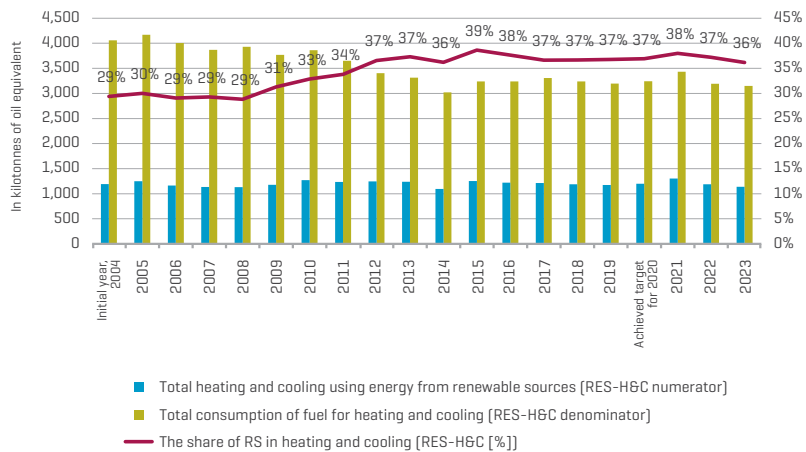
In 2023, the share of energy from renewable sources in transport accounted for 10.8 percent of gross final energy consumption at the EU level, which represents an increase of 1.2 percentage points compared to the previous year. All renewable energy used in transport has been taken into account: liquid biofuels, hydrogen, biomethane, "green" electricity, etc. Sweden already achieves a 29 percent share of energy from renewable energy

Figure 11
Trend in consumption of energy from renewable sources in heating and cooling in the Republic of Croatia in the period from 2004 to 2023 and corresponding shares*

Notes: * According to the methodology from Directive 2009/28/EC until 2020 and Directive (EU) 2018/2001 from 2021 onwards.

In the period from 2004 to 2010, the consumption of all biofuels was included in this category. Since 2011, only biofuels that comply with sustainability criteria and greenhouse gas emission savings have been included.

Source: The Institute of Economics, Zagreb, based on source data from Eurostat.



sources in transport (33.6 percent), but most member states are far from the new target for 2030. The closest to Sweden is Finland (20.6 percent), followed by the Netherlands (13.4 percent), Austria (13.2 percent), Belgium (12.1 percent), Spain (12 percent), Germany (11.9 percent), Portugal (11.2 percent), Denmark (10.8 percent), Malta (10.7 percent), Italy (10.3 percent), France, and Slovenia (10 percent each), as member states that recorded more than a 10 percent share of RS in transport in 2023. A total of 13 member states recorded a decrease in the share of energy from renewable sources in transport in 2023 compared to 2020. In 2023, the share of energy from renewable sources in transport in the Republic of Croatia did not maintain continuity of growth and recorded a decline in the production of compliant biofuels to a level below the level achieved in 2013, when the Republic of Croatia joined the European Union. The renewable electricity used in transport amounted to 13.49 ktoe. By using the methodology for calculating the share of energy from renewable sources in transport (RES-T denominator), with multipliers, the total share amounts to 21.87 ktoe (Figure 12).

Figure 12
Production of energy from renewable sources in transport in the Republic of Croatia, from 2004 to 2023, by fuel*

Notes: * According to the methodology from Directive 2009/28/EC until 2020 and Directive (EU) 2018/2001 from 2021 onwards.

** In the period from 2004 to 2010, the consumption of all biofuels was included in this category. Since 2011, only biofuels that comply with sustainability criteria and greenhouse gas emission savings have been included.

Source: The Institute of Economics, Zagreb, based on source data from Eurostat.

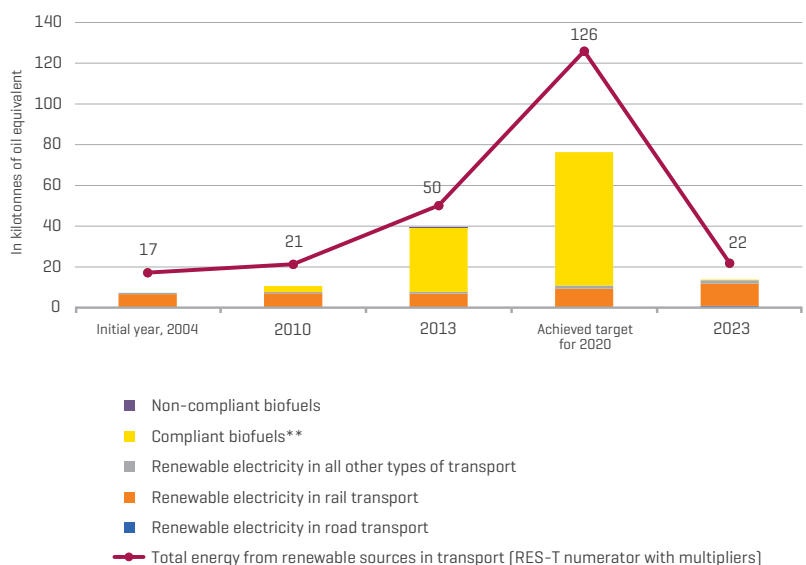
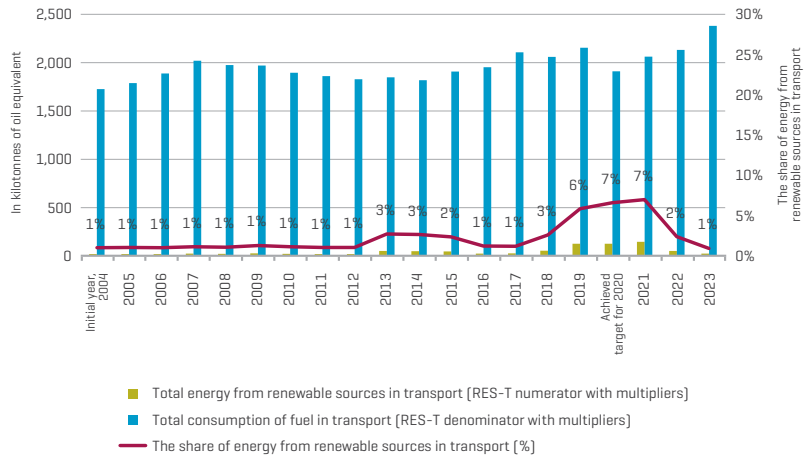


Figure 13
Trend in consumption of energy from renewable sources in transport in the Republic of Croatia in the period from 2004 to 2023 and corresponding shares*

Notes: * According to the methodology from Directive 2009/28/EC until 2020 and Directive (EU) 2018/2001 from 2021 onwards.

In the period from 2004 to 2010, the consumption of all biofuels was included in this category. Since 2011, only biofuels that comply with sustainability criteria and greenhouse gas emission savings have been included.

Source: The Institute of Economics, Zagreb, based on source data from Eurostat.



A more detailed insight into the group of compliant biofuels used in the European Union for 2023 shows the contribution of biofuels from food and feed [7.57 Mtoe or 49 percent], biofuels from waste and residues listed in Annex IX of the RED II Directive [7.57 Mtoe or 42 percent], and other compliant biofuels [1.67 Mtoe or 9 percent]. The share of biofuels from food and feed is limited to a total of 7 percent, while the energy value of biofuels produced from raw materials listed in Annex IX of the RED II Directive is double-counted.

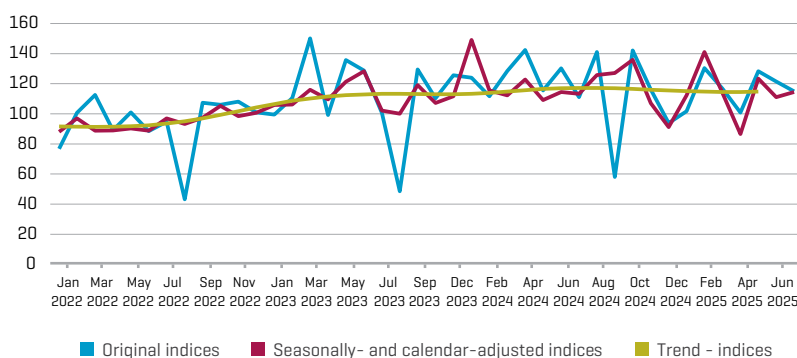
Of the compliant biofuels, in 2023, 0.28 ktoe or 100 percent of biofuels from food and feed were placed on the fuel market of the Republic of Croatia, while the share of biofuels from raw materials listed in Annex IX, whose energy value is double-counted through the multiplier, was not recorded.

Pharmaceutical Industry⁷

According to data from the Croatian Bureau of Statistics (CBS) for June 2025, the manufacture of pharmaceutical products and preparations accounted for 6.34 percent of total industrial production in Croatia. Data from the same source indicate an annual decline in the production volume of pharmaceutical products and preparations in the first six months of this year by 1 percent compared to the same period in 2024. In January 2025, there was a significant increase of 22.8 percent in the volume of industrial production of pharmaceutical products and preparations compared to the same month in 2024. However, in March of this year, the volume of industrial production of pharmaceutical products and preparations was almost 30 percent lower compared to March 2024. In June of this year, the production volume of pharmaceutical products and preparations increased by 1 percent year-on-year. In June, according to the original volume indices of industrial production, the manufacture of pharmaceutical products and preparations decreased by 1 percent compared to the 2024 average.

Figure 14
Manufacture of basic pharmaceutical products and pharmaceutical preparations (2021 = 100)

Source: Croatian Bureau of Statistics.



In June 2025, manufacturers' stocks of finished pharmaceutical products accounted for 13.5 percent of total manufacturers' stocks of finished products. Compared to the same month in 2024, the stocks increased by 27.3 percent. In June 2025, the stocks of pharmaceutical products and preparations decreased by 2.4 percent compared to May 2025. In June of this year, the stocks of finished pharmaceutical products increased by

7 Božić, Lj. [2025b]. Pharmaceutical Industry. *Sector Analyses*.

21.2 percent compared to the average of 2024. According to preliminary data from the CBS, employment in the pharmaceutical industry continued to increase this year compared to the average of 2024. Last year, an average of 6,154 persons were employed in the manufacture of pharmaceutical products and pharmaceutical preparations. Compared to the average number of persons employed in this industry in 2023, the number of persons employed increased by 3.2 percent. Data for July of this year indicate 6,239 persons employed. Compared to the previous month, the number of persons employed in this industry decreased by 0.3 percent but increased by 0.9 percent year-on-year. Labor productivity data for December 2024 indicate a decline of 19.7 percent compared to the same month in 2023.

In 2024, the average monthly gross wage of persons employed in the manufacture of pharmaceutical products and pharmaceutical preparations was 2,613 euros. The average gross wage of persons employed in this industry increased by 10.3 percent year-on-year. In the first six months, the average monthly gross wage in the pharmaceutical industry amounted to 3,122 euros, which is an increase of 13.7 percent compared to the same period a year earlier.

In 2024, pharmaceutical products and preparations worth 2.0 billion euros were imported from abroad, which is an increase of 11 percent compared to 2023. In 2024, the value of exports of pharmaceutical products and preparations was 1.3 billion euros, which is an increase of 13.9 percent year-on-year. Last year, therefore, the growth trend in the value of both imports and exports of pharmaceutical products continued. The value of imports of pharmaceutical products and preparations continued to significantly exceed the value of exports. In 2024, the export-import coverage ratio of pharmaceutical products was 63.7 percent. The provisional data from the Croatian Bureau of Statistics for the first five months of 2025 indicate that slightly fewer pharmaceutical products and preparations were exported in the said period compared to the same period in 2024. In the first five months of 2025, the value of exports of pharmaceutical products amounted to 517.6 million euros, which is a decrease of 0.4 percent year-on-year. During the same period, pharmaceutical products worth 895.9 million euros were imported. In the first five months of 2025, the value of imports of pharmaceutical products and preparations increased by 4.2 percent compared to the same period in 2024. In the first five months of 2025, imports of pharmaceutical products increased and exceeded the value of exports, which, at the same time, recorded a decline compared to the previous year.

Compared to July 2024, non-domestic market producer prices of pharmaceutical products and preparations were 3.4 percent higher in the same month of this year. During the same period, producer prices of pharmaceutical products on the domestic market increased by 2.8 percent. In July of this year, prices on the total market increased by 3.2 percent compared to July 2024.

According to a report by the Agency for Medicinal Products and Medical Devices (HALMED), in 2023, a total of 1,554.6 million euros was spent on medicines in Croatia. The largest share in the total value of medicine consumption in that year came from medicines for the treatment of malignant diseases and immunomodulators, for which 588.1 million euros were spent, which is 38 percent of total medicine consumption in financial terms. They are followed by medicines that affect the digestive system and metabolism, for which 155.2 million euros were spent in 2023, accounting for 10 percent of total medicine consumption in 2023. From the report on the operations of the Croatian Health Insurance Fund (HZZO), it can be concluded that the value of medicine consumption in Croatia increased in 2024. The Croatian Health Insurance Fund reported that 10 percent more funds were charged to mandatory health insurance funds for prescription drugs issued in pharmacies in 2024 compared to 2023. More precisely, the amount in question is 737.5 million euros. This is certainly related to the increase in medicine prices, but also to the increase in the number of prescriptions issued. In 2024, according to the HZZO business report, there were 3.7 percent more prescriptions compared to 2023. In 2024, the Croatian Health Insurance Fund also paid a total of 406.4 million euros for particularly expensive medicines, i.e., 5.9 percent more compared to 2023.

Measured by total revenue generated in 2024, the ten leading companies in the manufacture of pharmaceutical products and preparations are Pliva Hrvatska d.o.o., JGL d.d., Belupo d.d., Hospira Zagreb d.o.o., Genera d.d., PharmaS d.o.o., Krka-Farma d.o.o., Fidifarm d.o.o., TAPI Croatia Industries d.o.o., and Yasenka d.o.o. Together, these ten companies had a total revenue of 1,437.91 million euros in 2024. The largest part of this amount came from the total revenue generated by Pliva Hrvatska last year. More precisely, 62.3 percent of the total revenue of the ten leading pharmaceutical companies was generated by Pliva Hrvatska. Specifically, this amounts to 896.3 million euros in total revenue in 2024. The second company in terms of total revenue is JGL, whose total revenue last year amounted to 162.0 million euros. It is followed by Belupo, with a total revenue of 130.9 million euros. The total revenue of the ten leading pharmaceutical companies increased by 18.2 percent year-on-year. In 2024, most of the companies on the list of the ten leading companies in the sector achieved an increase in total revenue compared to 2023. The largest increase in total revenue year-on-year was achieved by Yasenka. In 2024, the total revenue of this company increased by 23.2 percent compared to 2023. The total revenue of

Table 10

Business indicators of the ten leading pharmaceutical manufacturers in Croatia in 2024

	Total revenue (in millions of euros)	Index 2024/2023	Debt ratio	Current ratio	Gross margin	Labor productivity [in euros]
Pliva Hrvatska d.o.o.	896.3	122.8	0.39	4.25	15.46	306,326.94
JGL d.d.	162.0	121.2	0.50	4.14	11.01	217,776.43
Belupo d.d.	130.9	112.2	0.09	5.97	25.24	134,349.55
Hospira Zagreb d.o.o.	90.7	86.8	0.15	1.32	25.47	214,994.69
Genera d.d.	46.1	111.3	0.26	4.42	5.35	140,606.90
PharmaS d.o.o.	38.0	106.3	0.61	1.44	10.49	316,642.13
Krka-Farma d.o.o.	29.5	99.7	0.13	3.39	4.78	179,915.20
Fidifarm d.o.o.	18.4	113.3	0.41	2.92	18.32	484,827.84
TAPI Croatia Industries d.o.o.	16.0	-	0.13	2.98	-4.33	45,378.99
Yasenka d.o.o.	9.9	123.2	0.30	1.25	4.46	155,002.03

Note: Debt ratio = total liabilities/total assets; current ratio = current assets/current liabilities; gross margin = gross profit/total revenue * 100; labor productivity = total revenue/number of persons employed.

Source: Fina Info.BIZ and the author's calculation according to FINA data.

Pliva also increased significantly, i.e., by 22.8 percent year-on-year. Hospira [-13.2 percent] and Krka-Farma [-0.3 percent] reported total revenue lower than a year earlier. TAPI Croatia Industries, a company to which Pliva has spun off the manufacture of active pharmaceutical ingredients, was founded in 2024, and therefore, no change in total revenue is reported on a year-on-year basis.

In 2024, the ten leading companies in the sector employed a total of 6,133 persons, which is 8.4 percent more compared to 2023. Pliva Hrvatska had the largest number of persons employed, with 2,926 persons employed last year, which is an increase of 2 percent compared to 2023. The largest year-on-year increase in the number of persons employed was recorded by Yasenka, which had 20.8 percent more persons employed in 2024. On the other hand, the number of persons employed decreased last year at Krka-Farma [15.4 percent], Fidifarm [11.6 percent], Hospira [0.2 percent], and Genera [0.6 percent].

In 2024, the growth trend in the production volume of pharmaceutical products and preparations continued at the level of the 27 member states of the European Union. Compared to the production volume in 2021, the manufacture of pharmaceutical products and preparations increased by 31.7 percent in 2024. Eurostat data show that, in the aforementioned period, the production volume of basic pharmaceutical products at the European Union level increased by as much as 95.1 percent. In 2024, the production volume of pharmaceutical preparations in the EU was

21.6 percent higher compared to 2021. In 2024, total turnover in the manufacture of pharmaceutical products and preparations at the European Union level increased by 38.9 percent compared to 2021. In 2024, the trend of increasing producer prices continued in the pharmaceutical industry at the EU level. In 2024, producer prices of pharmaceutical products and preparations in the total market were 6.2 percent higher compared to 2021.

In the European Union, the trend of increasing the number of persons employed in the manufacture of pharmaceutical products and preparations continued in 2024. Compared to 2023, 3.4 percent more employees were employed in this sector in the EU. Compared to the number of persons employed in this industry in 2021, there was an increase of 12.2 percent in 2024. At the same time, gross wages of persons employed in the manufacture of pharmaceutical products and preparations in the EU increased as well. More precisely, in 2024, they increased by 6.8 percent year-on-year and by as much as 25.5 percent compared to 2021. In 2024, the number of working hours for persons employed in the manufacture of pharmaceutical products and preparations increased as well. At the European Union level, they worked 3.2 percent more compared to 2023. Compared to the number of hours worked per person employed in 2021, the increase in 2024 was 11.9 percent.

The largest global and European companies involved in the manufacture of pharmaceutical products and preparations are investing more and more in research and development, which is key to success in this industry. The expiration of patent protection for the world's best-selling medicines generally means a decrease in their sales due to the emergence of biosimilar medicines. Because of this, medicine manufacturers are recording increased investments in the research and development of new medicines that will ensure high revenues in the future.

The best-selling medicine in the world is currently from the category of oncology medicines. However, there is already a noticeable increase in sales of GLP-1 medicines for the treatment of diabetes and obesity. These medicines are expected to become the best-selling medicines worldwide in the coming years. Announcements that they will be used to treat obesity in the future certainly support such forecasts.

Construction and Real Estate⁸

The construction sector is cumulatively recording a continuation of positive trends. This can be attributed primarily to the implementation of large-scale infrastructure projects, while the real estate market is experiencing a slowdown in activity. Despite numerous negative impacts to which this sector was exposed in the past (the 2009–2014 recession, the coronavirus pandemic, the outflow of qualified labor to more developed EU countries), construction still occupies a significant place in the Croatian economy. According to the latest available data from the Croatian Bureau of Statistics, in the first half of 2025, the construction sector participated in the structure of the total economy with a share of about 6.3 percent (Table 11). In addition to the effect on aggregate production, the contribution of construction to total employment was noted. The number of persons employed in this industry in August 2025 was 156,520, which is 8.9 percent of the total number of persons employed in the Republic of Croatia. At the same time, of the total number of persons employed in the construction sector, 82.0 percent were employed in legal entities, and 18.0 percent in trades.

Table 11
Main sector indicators

Note: The percentage changes are compared to the same period of the previous year.

Source: Croatian Bureau of Statistics.

	2022	2023	2024	2025	
Share in GDP (status, in %)	5.0	5.1	5.6	6.3	January–June
Share in total employment (status, in %)	8.2	8.6	9.1	8.9	August
Volume of construction works (percentage change)	4.0	5.2	14.2	7.2	January–July
Number of persons employed (percentage change)	4.4	8.6	9.1	8.9	August
Completed apartments (percentage change)	26.9	4.3	0.6	-	-
Building permits issued (percentage change)	5.8	3.6	2.2	-0.1	January–July
Price of sold apartments (percentage change)	20.2	2.7	11.5	15.9	January–June

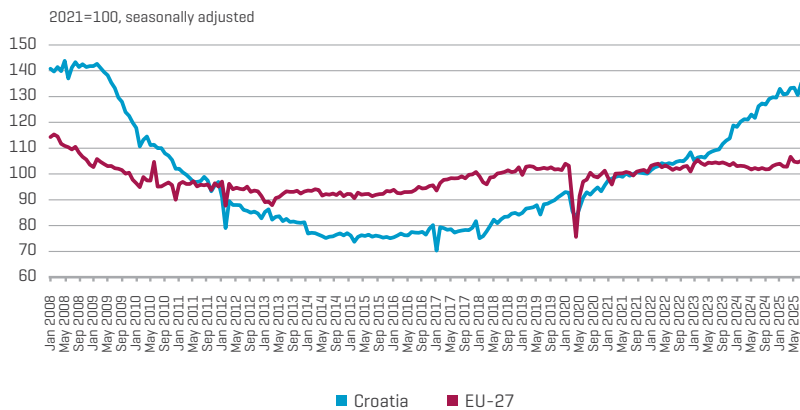
⁸ Buturac, G. (2025). Construction and Real Estate. *Sector Analyses*.

By observing the year-on-year rates of change of the main sector indicators in 2024, an increase in activity in construction can be observed (Table 11). Out of the analyzed indicators, the increase in the volume of construction works in 2024 by 14.2 percent year-on-year should be highlighted. The greatest contribution to positive trends came from the construction of large-scale infrastructure projects. At the same time, the analyzed indicators confirm a major slowdown in activity on the real estate market. In 2022, the number of completed new apartments increased by 26.9 percent, in 2023 by 4.3 percent, while in 2024 it increased by a negligible 0.6 percent (Table 11). At the same time, there is a faster growth in the average price of apartments sold. In 2023, it increased by 2.7 percent, by 11.5 percent in 2024, and by 15.9 percent in the first half of this year.

In 2024, the number of persons employed increased faster compared to other sector indicators (share in gross value added, completed apartments), which indicates a cumulative decline in the productivity of the sector. There is also a slowdown in the issuance of building permits. In 2023, their number increased by 3.6 percent year-on-year, by 2.2 percent in 2024, and decreased by 0.1 percent in the first seven months of this year.

Figure 15
Volume of construction works in the Republic of Croatia and EU-27, January 2008 – July 2025

Sources: Croatian Bureau of Statistics and Eurostat.

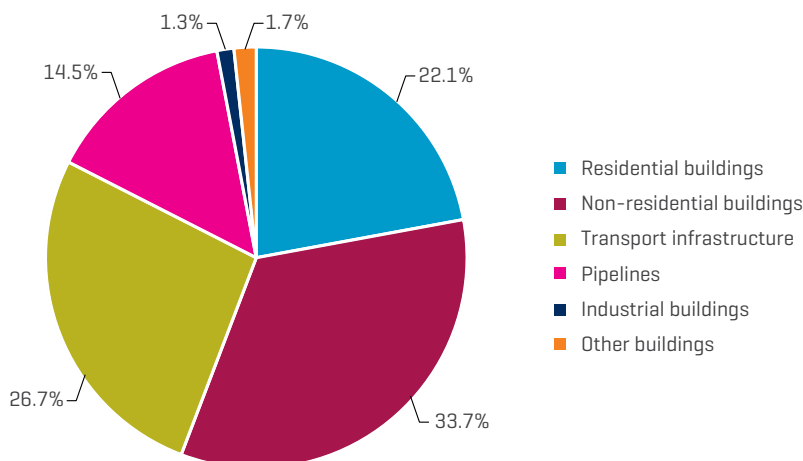


In 2024, after a significant slowdown in construction, the latest trends at the level of the entire European Union (EU-27) indicate a slight increase in this sector (Figure 15). Thus, the volume of construction works in the EU-27 in the first seven months of 2025 increased by 1.8 percent compared to the same period last year.

An analysis of the value of completed works by business entities with 20 or more employees, categorized by building type, shows that the trends in the construction sector are driven primarily by the construction of transport infrastructure and pipelines, the construction of non-residential buildings, and the construction of residential buildings (Figure 16). In the first six months of this year, the total value of the works carried out with own workers amounted to 3.5 billion euros. Of this amount, 41.2 percent

Figure 16
Structure of completed construction works by type of construction in the Republic of Croatia in the period from January to June 2025

Source: Croatian Bureau of Statistics.



of the works were realized in the construction of transport infrastructure and pipelines, 33.7 percent in the construction of non-residential buildings, and 22.1 percent in the construction of residential buildings.

Wages in construction are still below the economy average. In the period from January to July 2025, the average net wage in the construction sector was 19.6 percent lower than the average net wage in Croatia. This difference has been gradually increasing since 2007, when the average net wage in the construction sector was 13.5 percent lower than the national average. The average net wage paid in construction in the first seven months of 2025 was 1,152 euros. Compared to the same period in 2024, it nominally increased by 10.8 percent.

The increase in prices at the level of the overall economy, as well as the increase in construction activity, contributed to the increase in prices of building materials. Thus, in the January–August 2025 period, the average price of building materials was higher by 4.1 percent compared to the same period in 2024. At the same time, the producer prices of the overall industry increased by 0.6 percent on average.

In most EU member states, construction plays a significant role in overall economic activity. It is clear that, on average, this sector has a much greater importance for the economies of the “new” EU-27 member states than for the “old” member states.⁹ This can partly be explained by the achieved level of development, whereby in most of the old member states, other economic sectors have a much greater importance for the overall economy compared to construction. The share of construction in GDP in the new EU-27 member states is on average 5.7 percent, while in

⁹ The new EU member states are transitional countries of the fifth wave of EU enlargement that joined the European Union in 2004 and 2007. These are: Bulgaria, Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Romania, Slovakia, and Slovenia. Croatia has been a member state since 2013.

the old member states it is 4.5 percent. Among the new member states, Slovakia, Romania, Lithuania, Croatia, Latvia, Poland, and Slovenia have an above-average share.

Real estate market

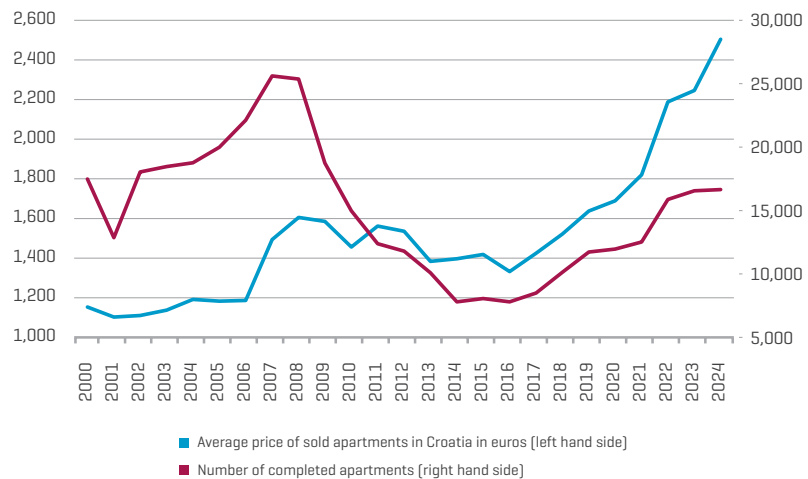
The real estate market in Croatia is experiencing a slowdown in activity. At the same time, in 2024, there was a significant slowdown in the increase of the number of new apartments built, and a significant increase in their average prices. The increase in apartment prices in Croatia was most prominent in the City of Zagreb. The significant decrease in the number of newly built apartments in the City of Zagreb in 2023 was reflected in a decrease in the supply of apartments and an increase in their prices in 2024. In 2023, the number of newly built apartments in the City of Zagreb decreased by 19.1 percent year-on-year, while the average price increased by 4.1 percent. In 2024, the increase in prices of newly built apartments more than doubled compared to 2023. The average price of newly built apartments increased by 8.7 percent. In 2024, a total of 16,654 apartments were built in Croatia, which is an increase of merely 0.6 percent year-on-year. For comparison, in 2023, the increase in the number of newly built apartments was 4.3 percent, and in 2022 it was 26.9 percent.

By analyzing the number of completed new buildings by building type, it can be stated that in 2024 there was an increase in the number of newly constructed residential and non-residential buildings on a year-on-year basis. At the same time, in 2024, the construction of residential buildings increased by 5.2 percent, while the construction of non-residential buildings increased by 9.2 percent. Regarding the construction of non-residential buildings, there was a significant decline in the construction of industrial buildings and warehouses, i.e., by 5.7 percent. At the same time, there was an increase in the construction of hotels and similar buildings (by 12.5 percent), the construction of buildings for wholesale and retail trade (by 9.2 percent), the construction of traffic and communications buildings (by 11.0 percent), and the construction of educational and healthcare buildings (by 48.1 percent). The analysis of residential building construction shows that the construction of residential buildings with three or more apartments increased the most, i.e., by 8.6 percent. The construction of buildings with one apartment increased by 5.9 percent, while the construction of buildings with two apartments decreased by 4.2 percent.

In 2024, there was an accelerated increase in the prices of new apartments. After a 2.7 percent year-on-year increase in the average price of newly built apartments in 2023, there was a strong price increase in 2024, amounting to 11.5 percent.

Figure 17
Average price of sold apartments per square meter and number of completed apartments in Croatia, 2000–2024

Source: Croatian Bureau of Statistics.



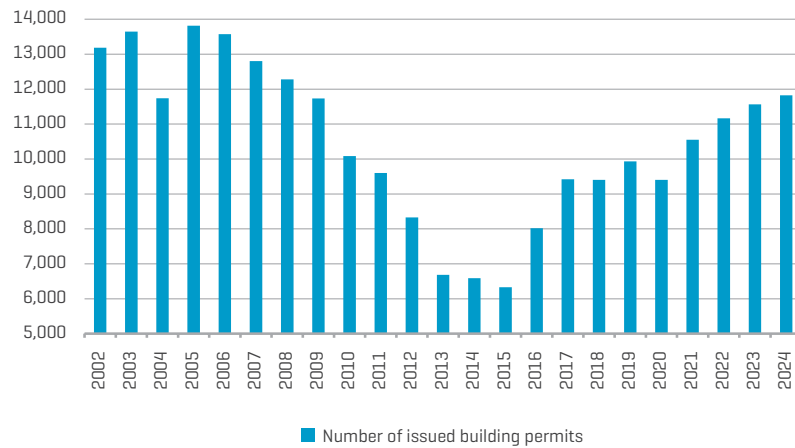
The latest trends from the first half of 2025 confirm the continued growth trend in prices of newly built apartments. Thus, in the first six months of this year, the average price of a newly built apartment at the level of the Republic of Croatia increased by 15.9 percent compared to the same period last year. A significant contribution to the price increase was made by the City of Zagreb, where the average price of a newly built apartment increased by 24.1 percent.

The average price increase of apartments in the Republic of Croatia and in the City of Zagreb is only partially due to the increase in the price of construction materials. The reasons are primarily due to the supply and demand for apartments. On the one hand, the supply is largely limited due to the lack of qualified labor and the outflow of a portion of the construction workforce to more developed countries of the European Union. At the same time, a decline in the productivity of the sector can be noticed. On the other hand, the demand pressure is influenced by a number of factors. One part certainly lies in the continued trend of uneven economic and regional development in Croatia, with a significant concentration of the economic structure, and consequently the workforce, in the City of Zagreb and its surroundings. Secondly, there is also the effect of still very low interest rates on savings, which has made the purchase of real estate a desirable investment for some investors. Finally, we should not overlook the effects of inflationary pressures and price increases, which additionally contributed to the demand for real estate in order to preserve as much as possible the value of savings resulting from income earned in previous periods.

A more detailed insight into expected trends in the real estate market is provided by an analysis of issued building permits. After a period of dynamic growth in the real estate market, judging by the number of building permits issued, a continuation of the slowdown in construction activities can be expected in the coming period (Figure 18). In 2022, the number

Figure 18
Building permits issued
in the Republic of
Croatia, 2002–2024

Source: Croatian Bureau of Statistics.



of building permits issued increased year-on-year by 5.8 percent, by 3.6 percent in 2023, and by 2.2 percent in 2024.

The major news in the real estate market is the introduction of the real estate tax. The mere introduction of this tax could cause residential real estate to lose its primacy as a desirable investment for investors. This could result in a decline in demand for newly built apartments and, consequently, reduced construction activity, particularly for new apartments. Judging by the first results after the introduction of this tax, this is exactly what happened. There has been a major slowdown in the construction of new apartments.

Given the considerable heterogeneity of the real estate market in Croatia, different degrees of elasticity to real estate taxes were expected. As expected, the demand for real estate in the coastal area exhibits a significantly higher degree of inelasticity to the introduction of the tax, given the substantial participation of foreigners in the real estate market in that area. For foreign investors, as well as some domestic ones, the purchase of residential real estate on the Croatian coast remains a desirable investment. In the City of Zagreb, the introduction of real estate tax could further contribute to limiting the supply of new apartments on the market, and, consequently, price increases.

It seems interesting to analyze the data of the Tax Administration and the Croatian Real Estate Exchange [Burza nekretnina] on the number of residential real estate transactions. Thus, in 2024, there was a slowdown in real estate transactions, with the number of residential real estate transactions decreasing by 5.1 percent year-on-year. This is a continuation of the trend from 2023, when, according to data from the Tax Administration and the Croatian Real Estate Exchange, the turnover of residential real estate decreased by 6.9 percent year-on-year. This can only be partly attributed to the increase in interest rates in the eurozone and the reduction of

inflationary pressures.¹⁰ The introduced real estate tax could contribute to the trend of a slowdown in the construction of new residential properties, accompanied by an increase in prices.

Special attention in future developments should be focused on the need for appropriate worker profiles in the construction industry, as well as on trends in the labor market.

Data for the period from January 2018 to August 2025 already indicate problems related to the lack of labor force. More precisely, the results suggest that during that period, the number of persons employed in construction increased significantly. However, at the same time, the increase in the number of persons employed exceeds the decline in the number of unemployed many times over, which indicates a significant import of labor from other countries. The increase in employment in construction is significantly higher than the increase in gross value added, which indicates a decline in the sector's productivity. An additional problem in attracting qualified construction professionals to Croatia can be the inadequate wages of those employed. More precisely, the average monthly net wages paid in the construction industry lag significantly behind the economy average, with indications that this gap has been gradually deepening since 2007. In that year, the average net wage in the construction sector was 13.5 percent lower than the economy average, and in the first seven months of 2025, it was 19.6 percent lower.

Table 12
Selected indicators of ten leading companies in the construction of residential and non-residential buildings in the Republic of Croatia in 2024

Sources: Fina Info.BIZ and the author's calculation according to FINA data.

	Total revenue (in millions of euros)	Debt ratio	Current ratio	Gross margin (in %)
Kamgrad	247.7	0.56	1.46	4.10
Strabag	197.4	0.34	2.01	0.91
Radnik	178.1	0.22	2.86	7.63
Ing-grad	131.3	0.46	2.00	15.66
GIP Pionir	111.8	0.17	6.81	5.08
Projektgradnja plus	97.0	0.46	2.44	4.76
Lavčević	60.0	0.49	1.52	0.17
Zagreb Montaža	57.8	0.67	0.93	4.48
AB gradnja	36.3	0.31	2.97	10.45
Mešić Com	32.8	0.57	1.74	22.74

¹⁰ Croatian Real Estate Exchange (2025), <https://www.burza-nekretnina.com>

A more detailed insight into the state and dynamics of the real estate market is provided by an analysis of the financial indicators of ten leading companies in the field of residential and non-residential building construction. FINA data indicate an increase in the activities of the leading companies in 2024. Increased activity is primarily reflected in the growth of total revenue, which cumulatively increased by 8.3 percent.

Tourism¹¹

According to the latest available data from the Croatian Bureau of Statistics, in the first nine months of this year, Croatia recorded 18.7 million tourist arrivals, resulting in 89.4 million overnight stays. Compared to the same period in 2024, the number of tourist arrivals increased by 2.3 percent, and the number of overnight stays increased by 1.2 percent. The increase in the number of arrivals and overnight stays was more pronounced among domestic tourists than among foreign tourists. Domestic guests achieved year-on-year growth in the number of arrivals of 8.6 percent and overnight stays of 6.1 percent in the first nine months of this year. Of the total number of tourist overnight stays from January to September this year, foreign guests accounted for 91.0 percent and domestic guests accounted for 9.0 percent.

An analysis of the dynamics of the number of arrivals and the number of tourist overnight stays in the first nine months of this year confirms that arrivals and overnight stays intensify during the summer months. They reach their peak in August. Of the total number of overnight stays achieved in the first nine months of this year, 71.1 percent were cumulatively achieved during the summer months (June, July, August). A trend of a gradual decrease in the stay of foreign guests in Croatian tourist destinations has been observed. Measured according to the indicator of overnight stays per tourist arrival, it can be stated that in the first nine months of 2025, foreign tourists stayed an average of 5.0 nights. At the same time, in 2024 they stayed an average of 5.1 nights, in 2023 they stayed 5.2 nights, and in 2022 they stayed 5.5 nights.

Compared to foreign guests, domestic guests stay significantly shorter in Croatian tourist destinations. There is also a noticeable trend among domestic guests to shorten their stays at tourist destinations. In the first nine months of this year, domestic tourists stayed an average of 3.3 nights at tourist destinations. At the same time, in 2024, domestic

11 Buturac, G. and Rašić, I. (2025). Tourism. *Sector Analyses*.

tourists likewise stayed 3.3 nights per arrival, whereas in 2023 and 2022, they stayed 3.4 nights per arrival.

An analysis of overnight stays by type of accommodation shows that, in the period from January to September this year, of the total number of overnight stays, most were recorded in resorts and similar facilities for short-stay accommodation (50.2 percent). At the same time, hotel accommodation accounted for 26.0 percent, while camping grounds, recreational vehicle parks, and trailer parks accounted for 23.8 percent of total overnight stays in commercial accommodation. Compared to the same period last year, the share of overnight stays in resorts and similar facilities for short-stay accommodation has increased significantly (from 46.4 percent to 50.2 percent).

By analyzing the structure of the source markets of foreign guests by country of origin, a pronounced degree of concentration can be observed, with tourists from Germany being the dominant ones. Given the market's relative proximity, this is expected, as it is the leading economic structure in the European Union. Of the total number of overnight stays by foreign guests in the first nine months of this year, 24.6 percent were from Germany. This is followed by overnight stays of tourists from Slovenia (9.4 percent), Austria (8.7 percent), Poland (8.5 percent), the Czech Republic (5.4 percent), and the United Kingdom (4.4 percent).

An increase in the number of overnight stays in the first nine months of this year, compared to the same period last year, was recorded by tourists from Slovenia (1.2 percent), Poland and United Kingdom (3.2 percent each), Bosnia and Herzegovina (9.5 percent), USA (10.3 percent), Ukraine (19.8 percent), Serbia (9.8 percent), Sweden (1.3 percent), and Switzerland (0.3 percent). In contrast, a decrease in the number of overnight stays was recorded by tourists from Germany (0.3 percent), Austria (0.1 percent), the Czech Republic (3.8 percent), Italy (0.4 percent), Hungary (3.4 percent), Slovakia (2.0 percent), the Netherlands (5.1 percent), and France (5.6 percent).

An analysis of tourism activity by county shows that the highest number of overnight stays and tourist arrivals in the period from January to September 2025 was achieved in seven coastal counties (Istria, Split-Dalmatia, Primorje-Gorski Kotar, Zadar, Dubrovnik-Neretva, Šibenik-Knin, Lika-Senj). A cumulative total of 85.2 million overnight stays and 16.5 million arrivals were realized in these counties. This accounts for 95.3 percent of the total overnight stays and 88.5 percent of the total tourist arrivals recorded in Croatia during the observed period.

The highest number of overnight stays was recorded in the Istria County, i.e., 27.3 million. This is followed by Split-Dalmatia County with 17.5 million, Primorje-Gorski Kotar County with 14.7 million, Zadar County with 10.2 million, and Dubrovnik-Neretva County with 7.7 million overnight stays. Apart from the coastal counties, the City of Zagreb continues to stand out in terms of tourism results, recording around 2 million overnight stays and 1.1 million arrivals in the first nine months of this year. Most counties recorded an increase in the number of overnight stays during the first nine months of this year compared to the same period in 2024. A slight decrease in overnight stays was recorded in Karlovac County [2.4 percent], Zagreb County [0.4 percent], and Požega-Slavonia County [3.4 percent]. At the same time, more significant decreases in overnight stays were recorded in Varaždin County [5.3 percent], Bjelovar-Bilogora County [21.9 percent], and Sisak-Moslavina County [16.4 percent].

If we look at the average length of stay of tourists in coastal counties during the first nine months of this year, it is noticeable that tourists stayed in Dubrovnik-Neretva and Lika-Senj counties the shortest [4 nights each]. In contrast, the longest stays of tourists were recorded in Istria [5.8 overnight stays], Zadar [5.6 overnight stays], and Šibenik-Knin County [5.5 overnight stays]. If these indicators are compared year-on-year, it is evident that, on average, tourists are staying somewhat shorter. In the first nine months of last year, an average of 5.9 overnight stays were realized in Istria County, and 5.7 overnight stays were realized in Šibenik-Knin County.

If we analyze the value of this indicator for counties in the continental part of the country, we notice that, on average, tourists stay in these destinations significantly shorter than in coastal counties. On average, during the first nine months of 2025, tourists stayed the longest at tourist destinations in Bjelovar-Bilogora County [2.8 nights], followed by Koprivnica-Križevci County with 2.5 overnight stays per tourist arrival. Slightly more than 2 overnight stays per tourist arrival were also recorded by the Požega-Slavonia, Međimurje, Virovitica-Podravina, Sisak-Moslavina, Krapina-Zagorje, and Varaždin counties. On average, tourists stayed the shortest in Brod-Posavina County, i.e., 1.5 nights.

According to Croatian National Bank [CNB] data, foreign exchange revenue from tourism increased by 5.9 percent year-on-year in the first two quarters of 2025. Compared to the same period in 2019, foreign exchange revenue from tourism increased by 55.8 percent during the first six months of this year. Given the year-on-year growth in foreign tourist arrivals and overnight stays during the first nine months of this year, it is expected that total international tourism revenue in 2025 will exceed that of last year.

Table 13

Selected indicators of the ten largest companies by revenue in 2024

	Total revenue (in millions of euros)	Gross profit (in millions of euros)	Debt ratio	Current ratio	Gross margin (in %)	Productivity (in thousands of euros)
Valamar Riviera d.d.	331.0	31.0	0.46	0.6	9.4	93.3
Maistra d.d.	244.6	40.1	0.32	1.3	16.4	99.7
Plava laguna d.d.	225.6	59.9	0.36	1.4	26.6	128.8
Imperial Riviera d.d.	114.1	11.8	0.35	0.6	10.3	109.7
Arena Hospitality Group d.d.	100.4	10.6	0.29	1.4	10.6	104.8
Sunce hoteli d.d.	81.0	9.3	0.24	2.0	11.5	89.1
HUP-Zagreb d.d.	70.0	2.3	0.56	1.2	3.3	82.6
Jadranski luksuzni hoteli d.d.	67.0	19.0	0.42	2.4	28.4	116.9
Jadranka turizam d.o.o.	65.4	4.8	0.35	0.9	7.4	80.2
Liburnia Riviera Hoteli d.d.	64.4	4.9	0.37	1.1	7.6	94.2

Note: Gross margin = gross profit/total revenue*100; current ratio = current assets/current liabilities; debt ratio = total liabilities/total assets; productivity = total revenue/number of persons employed.

Source: Poslovna Hrvatska.

According to the tourism satellite account, the tourism sector's share of Croatia's gross domestic product (GDP) in 2022 was 11.3 percent. For comparison, in 2011, the tourism sector accounted for 10.4 percent of Croatia's GDP. According to FINA data, in 2024, 1,626 business entities were active in activity 55.10 "Hotels and similar accommodation" which achieved a total revenue of 3.0 billion euros, which represents an increase of 10.5 percent compared to 2023. In 2024, the total revenue of the ten leading companies in this sector amounted to 1.4 billion euros, an increase of 8.7 percent compared to the previous year. The number of persons employed increased from a total of 13,561 in 2023 to 13,576 in 2024. All ten leading companies in the "Hotels and similar accommodation" sector concluded 2024 with a positive business result and cumulatively achieved a profit of 193.8 million euros.

Table 13 shows the key performance indicators of the ten leading companies in the Croatian tourism sector. Measured by total revenue, in 2024, the top ten leading companies in the tourism sector are Valamar Riviera d.d., Maistra d.d., Plava laguna d.d., Imperial Riviera d.d., Arena Hospitality Group d.d., Sunce hoteli d.d., HUP-Zagreb d.d., Jadranski luksuzni hoteli d.d., Jadranka turizam d.o.o., and Liburnia Riviera Hoteli d.d.

In 2024, all ten leading companies in the Croatian hotel sector achieved an increase in revenue compared to 2023. The largest year-on-year increase in total revenue was recorded by Imperial Riviera d.d. (24.4 percent), followed by Valamar Riviera d.d. with an increase of 10.5 percent.

In other companies, the year-on-year increase in total revenue ranged from 2.8 percent [HUP-Zagreb d.d.] to 9.4 percent [Jadranka turizam d.o.o.]. The majority of the companies also achieved positive trends when it comes to the number of persons employed. Three leading hotel companies recorded a decrease in the number of persons employed compared to 2023: Plava laguna d.d., HUP-Zagreb d.d., and Jadranski luksuzni hoteli d.d.

A total of 14 joint-stock companies from the accommodation and food and beverage service activities were included on the Zagreb Stock Exchange¹². Of the ten leading companies in this industry, six are listed on the Zagreb Stock Exchange. These include Arena Hospitality Group d.d., Imperial Riviera d.d., Liburnia Riviera Hoteli d.d., Maistra d.d., Plava laguna d.d., and Valamar Riviera d.d.

In order to facilitate monitoring market trends and making investment decisions, sector indices, which are common on major global stock exchanges, were introduced to the Zagreb Stock Exchange on February 22, 2013. One such index is CROBEXtunist, which monitors returns and risks in the tourism sector. This index currently includes shares of Arena Hospitality Group d.d., Helios Faros d.d., Plava laguna d.d., and Valamar Riviera d.d. According to trade data on the Zagreb Stock Exchange, from January to June of 2025, the CROBEXtunist index recorded a year-on-year growth of 14 percent, and the share of Valamar Riviera d.d. remains the seventh most traded stock. At the same time, the share of Liburnia Riviera Hoteli d.d. is the third in line for the largest year-on-year price increase [170.5 percent], while the share of Helios Faros d.d. had the largest year-on-year price decrease [-42.2 percent].

Positive trends in tourist turnover have also been recorded at the global level. Thus, in the first nine months of this year, 1.1 billion international tourist arrivals (visitors with at least one overnight stay) were achieved, which is around 50 million [5 percent] more compared to the same period in 2024. These trends indicate stable global travel demand throughout the year, despite high inflation in tourism prices and traveler caution due to geopolitical and trade tensions. Moreover, the third quarter of this year recorded a year-on-year growth of 4 percent in international arrivals, with a strong summer season in the Northern Hemisphere. According to projections by UN Tourism from January this year, in 2025, international tourist arrivals should increase by 3 to 5 percent. Although global tourism results for the period from January to September of this year are in line with this forecast, key risks remain high travel prices and geopolitical uncertainty.

¹² Information retrieved from the Zagreb Stock Exchange, <https://www.zse.hr>

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The Institute of Economics, Zagreb
Trg J. F. Kennedyja 7, 10000 Zagreb
Phone: +385 1 2362 200
Fax: +385 1 2335 165
<http://www.eizg.hr>

For the publisher

Ivana Rašić, Director

Editor

Ivana Rašić

Authors of the analysis

Ivan-Damir Anić, Ljiljana Božić,
Goran Buturac, Biljana Kulišić,
Petra Palić, Ivana Rašić

Executive editor

Doris Dresto

Translation

Studio Nixa prijevodi d.o.o.

Graphic editing

Jelena Marčetić

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