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**Mini-Presentation for Output on
Business Support Service Activities Not Elsewhere Classified
(ISIC 829)**

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1. INTRODUCTION

Since 2017, the Croatian Bureau of Statistics has supplemented the quarterly dynamics of conducting turnover survey with the monthly dynamics. The data is based on the Monthly Report on Service Activities and administrative data sources (databases of value added tax reports). The series are transmitted to Eurostat and nationally disseminated at the division level, for N 82 - Office administrative, office support and other business support activities within the t+60 days deadline, which is in line with the present requirement defined by the EBS Regulation for small countries.

In Croatia, Business support service activities group n.e.c is a quite small service according to the share of turnover and the number of enterprises within non-financial services. In the group N 829, small sized enterprises take the biggest share of the group turnover but according to the number of enterprises, micro sized enterprises occupy the largest share of the group's total number of enterprises. In Croatia, since 2021, a significant increase in turnover has been recorded in group N 82.9 - Other business support service activities, with the greatest impact on this growth coming from class N 82.99 - Other business support service activities n.e.c.. The increase in turnover of class N 82.99 in Croatia is most likely the result of a combination of outsourcing trends, business digitalization and EU-funded projects.

2. DESCRIPTIONS AND CHARACTERISTICS OF THE INDUSTRY

2.1 DEFINITION OF THE INDUSTRY

Definition of Service

The Business support service activities n.e.c group is one of the components of ISIC section N - Administrative and support service activities.

This group includes the activities of collection agencies, credit bureaus, business information agencies and all support activities not elsewhere classified. These activities are predominantly provided to businesses.

Classification Issues

According to the International Standard Industrial Classification of All Economic Activities (ISIC), Rev. 4, group 829 - Business support service activities n.e.c. includes the following three classes:

82.91 Activities of collection agencies and credit bureaus

This class includes:

- collection of payments for claims and remittance of payments collected to the clients, such as bill or debt collection services

- compiling of information, such as credit and employment histories on individuals and credit histories on businesses and providing the information to financial institutions, retailers and others who have a need to evaluate the creditworthiness of these persons and businesses

82.92 Packaging activities

This class includes:

- packaging activities on a fee or contract basis, whether or not these involve an automated process:
 - o bottling of liquids, including beverages and food
 - o packaging of solids (blister packaging, foil-covered etc.)
 - o security packaging of pharmaceutical preparations
 - o labelling, stamping and imprinting
 - o parcel-packing and gift-wrapping

This class excludes:

- manufacture of soft drinks and production of mineral water, see 11.07
- packaging activities incidental to transport, see 52.29

82.99 Other business support service activities n.e.c.

This class includes:

- providing verbatim reporting and stenotype recording of live legal proceedings and transcribing subsequent recorded materials, such as:
 - o court reporting or stenotype recording services
 - o public stenography services
- real-time (i.e. simultaneous) closed captioning of live television performances of meetings, conferences
- address bar coding services
- bar code imprinting services
- fundraising organisation services on a contract or fee basis
- repossession services
- parking meter coin collection services
- activities of independent auctioneers
- administration of loyalty programmes
- other support activities typically provided to businesses not elsewhere classified

This class excludes:

- provision of document transcription services, see 82.19
- providing film or tape captioning or subtitling services, see 59.12

For national purposes, the Croatian Bureau of Statistics uses the NKD 2007 – National Classification of Activities (Official Gazette of the Republic of Croatia, Nos 58/07 and 123/08). There are no differences between the NKD 2007, the Statistical Classification of Economic Activities in the European Community NACE Rev.2. and the ISIC classification for group N 829

Business support service activities n.e.c.. The Decision on the National Classification of Activities, 2007 version – NKD 2007, will be applied in the Monthly Survey on Service Activities until 31 December 2027 in line with the transitional provision from Article 6 of the Decision on the National Classification of Activities, 2025 version – NKD 2025 (NN, No. 47/24): "For statistical and analytical purposes of official statistics of the Republic of Croatia, in the transitional period until 31 December 2027, the Decision on the National Classification of Activities, 2007 version – NKD 2007 (NN, Nos 58/07 and 72/07 – correction) shall be concurrently applied" and the Regulation (EU) 2019/2152 of the European Parliament and of the Council of 27 November 2019 on European business statistics, repealing 10 legal acts in the field of business statistics.

In the Central Product Classification (CPC) Version 2.1, the products of Business support service activities n.e.c. (ISIC 829) are classified under the group - Other support services (CPC 859), further divided into five subclasses. On the other hand, in the Statistical Classification of Products by Activity (CPA v 2.1), the products of Business support service activities n.e.c. (ISIC 829) are classified under category Business support services n.e.c., further divided into six subcategories.

Table 1. CPC and CPA product classification for Business support service activities n.e.c

CPC Version 2.1	CPA V 2.1
85910 - Credit reporting services	82.91.11 Credit reporting services
This subclass includes: - services consisting of the reporting of credit ratings of persons and businesses - evaluation of the financial status and credit experience of prospective customers, of loan applicants, etc. - credit investigation services	Exactly the same as CPC 85910
85920 - Collection agency services	82.91.12 Collection agency services
This subclass includes: - services consisting of the collecting of accounts, cheques, contracts or notes and of the remittance of the money to the client - collection of regular accounts (e.g., utility bills) and the recovery of delinquent accounts - outright purchase of delinquent accounts and debts and subsequent recovery	Exactly the same as CPC 85920
85400 - Packaging services	82.92.10 Packaging services
This subclass includes: - packaging of goods for others, such as food products, pharmaceuticals, household cleaners, toilet preparations and hardware, using a variety of automated or manual packaging techniques, including blister forming and packaging, shrink or skin wrapping, form filling and sealing, pouch filling, bottling and aerosol packaging. This	Exactly the same as CPC 85400

<p>service may also include the labelling or imprinting of the package.</p> <ul style="list-style-type: none"> - parcel packing and gift wrapping - coin and currency packing services <p>This subclass does not include:</p> <ul style="list-style-type: none"> - packing and crating services incidental to transport, cf. 64-67 - package design services, cf. 83919 - solely printing information on packaging materials, cf. 89121 - packaging services that include processing of client-owned materials into a different product (e.g., mixing water and concentrate to produce soft drinks, cooking fish prior to canning, blending creams and colouring materials into cosmetics), cf. 88 and 89 	
	<p>82.99.11 Verbatim reporting and stenotype recording services</p>
	<p>Part of subclass CPC 85999</p> <p>This subcategory includes:</p> <ul style="list-style-type: none"> - specialised stenotype services such as court reporting - public stenography services
	<p>82.99.12 Telephone based support services</p>
	<p>This subcategory includes:</p> <ul style="list-style-type: none"> - telephone answering services - telephone wake-up services <p>This subcategory excludes:</p> <ul style="list-style-type: none"> - automatised computer-based information services, see 63.99.10 - call centre services, see 82.20.10
<p>85952 - Mailing list compilation services</p>	
<p>This subclass includes:</p> <ul style="list-style-type: none"> - services consisting of compiling lists of names and addresses from telephone directories and other sources <p>This subclass does not include:</p> <ul style="list-style-type: none"> - compilation services of facts and information, cf. 83990 	<p>Part of subcategory 82.99.19 Other miscellaneous business support services n.e.c.</p>
<p>85999 - Other support services n.e.c.</p>	<p>82.99.19 Other miscellaneous business support services n.e.c.</p>

<p>This subclass includes:</p> <ul style="list-style-type: none"> - business brokerage and appraisal services other than for real estate - business services of intermediaries and brokers - specialist advice other than for real estate, insurance and engineering (specialist services in art, specialist services for courts of law, etc.) - services by agencies and agents on behalf of individuals seeking engagements in motion pictures, theatrical productions, modelling or other entertainment or sports attractions - placement of books, plays, artwork, photographs, etc., with publishers, producers, etc. - booking and casting services - motion picture, television and other theatrical casting services - issue of reduced-price coupons and gift stamps - management services for copyrights and their revenues (except from films) - management services for rights to industrial property (patents, licences, trademarks, franchises, etc.) - auctioning services other than in connection with legal procedures - reading of electric, gas and water meters - data preparation services - <i>specialized stenotype services such as court reporting</i> - <i>public stenography services</i> - other business support services not elsewhere classified <p>This subclass does not include:</p> <ul style="list-style-type: none"> - maintenance of electricity, gas and water meters, cf. 69112, 69120, 69210 - services related to advertising and sales promotion, cf. 836 - management services for motion picture rights, cf. 96140 - art facilities operation services, cf. 96230 - management services for artistic rights, cf. 96290 - sports events organization services, cf. 9651 	<p>This subcategory includes:</p> <ul style="list-style-type: none"> - real-time (i.e. simultaneous) closed captioning of live television performances of meetings, conferences - <i>address bar coding services</i> - bar code imprinting services - fundraising organisation services on a contract or fee basis - repossession services - parking meter coin collection services - issue of reduced-price coupons and gift stamps - auctioning services other than in connection with legal procedures - reading of heating, electric, gas and water meters - data preparation services - other business services n.e.c. <p>This subcategory excludes:</p> <ul style="list-style-type: none"> - captioning services other than simultaneous closed captioning, see 59.12.16 - services related to advertising and sales promotion, see 73.1 - document transcription services, see 82.19.13
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CPA differs from CPC not only in that it is more detailed but also as regards its structure. The structure of CPA is based on the criterion of economic origin of products, with the framework being based on NACE. There are minor differences between the CPA and the CPC classification in the area of business support service activities n.e.c.

The CPA classification provides more detail by introducing a separate category for verbatim reporting and stenotype recording services (CPA 82.99.11) as well as a subcategory for telephone-based support services (CPA 82.99.12). The CPC classification establishes a distinct category for mailing list compilation services (CPC 85952), whereas in the CPA this activity is not singled out but included in the broader subcategory 82.99.19 Other miscellaneous business support services n.e.c.

Changes in NACE Rev. 2.1

As of 1st January 2025, the updated activity classifications NACE Rev. 2.1 in the European Union and the corresponding NKD 2025 in Croatia have officially entered into force. To ensure smooth transition from the previous classification (NKD 2007), a dual coding system in Statistical Business Registar will be applied until the end of 2027.

Section N has been renamed to Section O. A new definition of intermediation services has been introduced, reflecting their growing importance, especially via digital platforms. These activities facilitate transactions between buyers and sellers for the ordering and/or delivery of goods and services. They are performed for a fee or commission, without providing the service or taking ownership of the goods. Such services can be carried out via digital platforms or traditional channels. Revenue for the intermediation activities can include other sources of income, such as revenues from sale of advertising space.

New classes have been added across nearly all sections to enable statistical monitoring of intermediation activities over the next decade. Activities are reflected in divisions where goods/services are produced. Thus, those new categories, combined with previously dedicated categories, can identify all non-financial intermediation services, which are now a significant component in the delivery of the underlying goods or services of the respective divisions. Intermediation services (except monetary intermediation) which cannot be classified in the dedicated classes or belong to several divisions, are integrated into a dedicated class 82.40 'Intermediation service activities for business support service activities n.e.c.'.

2.2 MARKET CONDITIONS AND CONSTRAINTS

Importance of the Industry

Activity N 82 is one of the six subsections (divisions) within the section N - Administrative and support service activities of the NACE Rev. 2 classification. In terms of turnover, in 2023, the strongest division in section N was N 79 (Travel agency, tour operator reservation service and related activities), producing 30.5% of turnover. The division with the highest number of enterprises and employment was N 81 – Services to buildings and landscape activities, representing 28.3% of all enterprises and 31.5% of total employment in Section N. Division N 82 – Office administrative, office support and other business support activities contributed 10.6% to the total turnover of Section N. It also accounted for 10.2% of total employment and 10.2% of all enterprises in this section.

Table 2. Distribution of turnover, enterprises and persons employed for section N in Croatia, 2023

NACE Rev. 2 code		Turnover	Number of enterprises	Number of persons employed
		In %	In %	In %
N 77	Rental and leasing activities	28.0	31.1	14.1
N 78	Employment activities	10.2	4.7	18.6
N 79	Travel agency, tour operator reservation service and related activities	30.5	21.0	10.8
N 80	Security and investigation activities	7.1	1.5	18.0
N 81	Services to buildings and landscape activities	13.7	31.5	28.3
N 82	Office administrative, office support and other business support activities	10.6	10.2	10.2
Section N	Administrative and support service activities	100.0	100.0	100.0

Source: Structural Business Statistics, 2023, Croatian Bureau of Statistics

According to the Structural Business Statistics (2023), N 82 - Office administrative, office support and other business support activities (NACE Rev.2) is quite a small industry within non-financial services (sectors G, H, I, J, L, M, N and S, division 95). Division N 82 generated 0.45% of the total turnover in non-financial services, with the share of employment of 0.98%. Group N 82.9 Business support service activities n.e.c. contributed with 0.18% of turnover and 0.22% of employment share.

Table 3. Share of N 82 in non-financial services (sectors G, H, I, J, L, M, N and S, division 95, NACE Rev. 2), 2023

NACE Rev. 2 code		Turnover	Number of enterprises	Number of persons employed
		In %	In %	In %
N 82.1	Office administrative and support activities	0.03	0.47	0.15
N 82.2	Activities of call centres	0.18	0.06	0.53
N 82.3	Organisation of conventions and trade shows	0.06	0.27	0.09
N 82.9	Business support service activities n.e.c.	0.18	0.21	0.22
N 82	Office administrative. office support and other business support activities	0.45	1.01	0.98

Source: Structural Business Statistics, 2023, Croatian Bureau of Statistics

Table 4 provides a comparative overview of the share of group N 82.9 - Business support service activities n.e.c. within division N 82, based on three key indicators: turnover, number of enterprises, and employment. Group N 82.9 - Business support service activities n.e.c. holds the largest share of turnover within division N 82, accounting for 41.5%. It also represents 22.2% of persons employed and 20.8% of enterprises, indicating a balanced and significant presence across all key

indicators. Group N 82.1 - Office administrative and support activities has the highest number of enterprises (46.6%) but contributes only 5.7% of turnover, suggesting a large number of small-scale or low-revenue businesses.

Group N 82.2 - Call centre activities dominate in terms of employment (53.7%) and also contribute substantially to turnover (40.4%), despite having a small share of enterprises (5.6%), which may indicate high operational scale or workforce intensity.

Group N 82.9 stands out as the most important generator of turnover within Division N 82, accounting for 41.5% of total turnover, while comprising only 20.8% of enterprises and representing 22.2% of total employment. These indicators suggest that enterprises in this group achieve above-average efficiency and high revenue per employee, pointing to strong market potential and competitiveness.

Table 4. Share of group N 82.9 in division N 82

NACE Rev. 2 code		Turnover	Number of enterprises	Number of persons employed
		In %	In %	In %
N 82.1	Office administrative and support activities	5.7	46.6	14.9
N 82.2	Activities of call centres	40.4	5.6	53.7
N 82.3	Organisation of conventions and trade shows	12.4	27.0	9.2
N 82.9	Business support service activities n.e.c.	41.5	20.8	22.2
N 82	Office administrative, office support and other business support activities	100.0	100.0	100.0

Source: Structural Business Statistics, 2023, Croatian Bureau of Statistics

Market Situation, Trends and Public Regulations

In Croatia, since 2019, the turnover of NACE group 82.9 - Business support service activities n.e.c. has been slowly but steadily increasing, especially from 2020 onward, with major increases in 2021 and 2022. Although the number of enterprises remained relatively stable, turnover increased significantly, suggesting that existing businesses became more productive or expanded their operations. NACE group 82.9 includes business support service activities, which may have seen rising demand due to digital transformation, outsourcing trends, and post-pandemic recovery. Companies and institutions increasingly delegate support activities to external providers to focus on their core business. Digital transformation has expanded services such as online administrative support. The sharp rise in turnover since 2021 aligns with global and national post-pandemic recovery, likely boosting business activity and market engagement.

The Croatian Personal Data Protection Agency (AZOP) has intensified inspections of agencies involved in debt collection, particularly regarding the processing of personal data. The law clearly states that Agencies may process only data related to the credit agreement. Collecting additional personal data is prohibited, except for data available in public registers. Debtors must be protected from aggressive or misleading communication, including harassment, coercion, and threats. On December 30, 2023, the Act on the Manner, Conditions and Procedure of Servicing and Trading Claims (Official Gazette 155/2023) came into force. Key provisions include: The Croatian National

Bank (HNB) is responsible for licensing and supervising providers of non-performing loan servicing. HNB maintains a Registry of Authorized Loan Servicing Providers, last updated on September 1, 2025. The law sets strict rules for communication with debtors, prohibits unfair business practices, and mandates GDPR compliance in personal data processing. The packaging sector is in a phase of transition, facing challenges related to the implementation of new regulations and high expectations regarding sustainability and the circular economy.

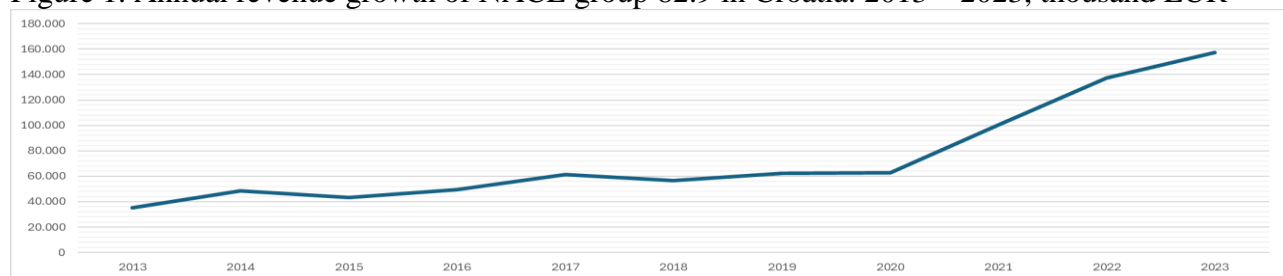
Table 4. Trends in NACE group N 82.9 in Croatia (2013 – 2023)

Year	Number of enterprises	Turnover (thousand EUR)
2013	255	35.243
2014	259	48.444
2015	223	43.521
2016	221	49.418
2017	224	61.299
2018	227	56.810
2019	316	62.163
2020	304	63.000
2021	324	100.438
2022	311	137.562
2023	318	157.465

Source: Structural Business Statistics, 2013 – 2023, Croatian Bureau of Statistics

From 2013 to 2020, the annual revenues of NACE group 82.9 remained relatively stable, fluctuating moderately between approximately 40,000 and 60,000 thousand euros. Starting in 2021, a significant upward trend is observed, with revenues increasing sharply over the next two years. This growth culminates in 2023, when revenues exceed approximately 160,000 thousand euros, representing the highest point in the observed period. This sharp increase in the last three years may reflect structural changes in the sector, increased demand for services, or broader economic recovery and expansion.

Figure 1. Annual revenue growth of NACE group 82.9 in Croatia. 2013 – 2023, thousand EUR



Source: Structural Business Statistics, 2013 – 2023, Croatian Bureau of Statistics

Concentration within the Industry

Table 5 presents the structure of business support service activities (NACE Rev. 2, division 82.9) in Croatia in 2023, based on Structural Business Statistics. Data are shown as shares of turnover, number of enterprises, and number of persons employed. The largest share was recorded in other business support service activities n.e.c. -N 82.99, with 78.4% of turnover, 66.7% of enterprises, and 71.7% of persons employed. The data indicate that within division N 82.9, the activity group Other business support service activities n.e.c. -N 82.99 clearly dominates. In contrast, activities of collection agencies and credit bureaus - N 82.91 and packaging activities- N 82.92 have a significantly smaller role, together accounting for just over one-fifth of turnover and employment.

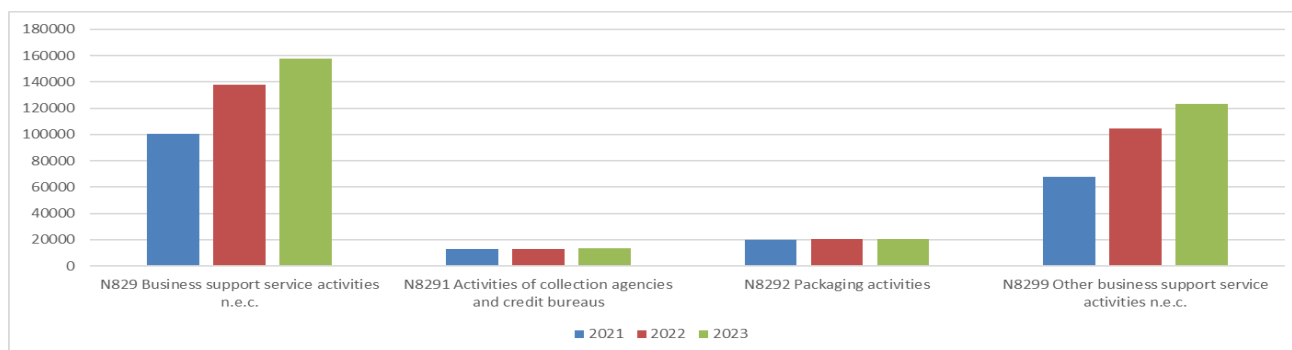
Table 5. Distribution of turnover, enterprises and persons employed for group N82.9 by classes, in Croatia, 2023

NACE Rev. 2 code		Turnover	Number of enterprises	Number of persons employed
		In %	In %	In %
N 82.91	Activities of collection agencies and credit bureaus	8.5	7.9	12.7
N 82.92	Packaging activities	13.1	25.5	15.6
N 82.99	Other business support service activities n.e.c.	78.4	66.7	71.7
N 82.9	Business support service activities n.e.c.	100.0	100.0	100.0

Source: Structural Business Statistics, 2023, Croatian Bureau of Statistics

The increase in turnover within class N8299 – Other business support service activities n.e.c. significantly contributed to the overall growth of group N829 – Business support service activities n.e.c. during the period from 2021 to 2023. Meanwhile, classes N8291 (collection agencies and credit bureaus) and N8292 (packaging activities) showed more modest growth. Although their contribution to total turnover is smaller, they still reflect positive development trends within their respective niches. This trend indicates that the growth of specialized services within N 82.99 significantly contributed to the overall performance of the group, while other classes showed consistent but less dynamic growth.

Figure 2. Turnover for group N82.9 by classes, in Croatia, 2021 - 2023



Source: Structural Business Statistics, 2021-2023, Croatian Bureau of Statistics

Table 6 shows the actual distribution of turnover, enterprises and people employed for division N 82. The data show that within division N 82, call centre activities -N 82.20 dominate in terms of both turnover (40.4%) and employment (53.7%). The second largest contribution comes from other business support service activities n.e.c. - N 82.99, which account for 32.5% of turnover and 15.9% of employment. By contrast, although combined office administrative service activities - N 82.11 represent more than one-third of enterprises (34.5%), their contribution to turnover (4.0%) is relatively small. This indicates structural differences across subclasses, with some activities being labour-intensive while others consist of many small enterprises with lower turnover.

Table 6. Distribution of turnover, enterprises and persons employed for division N 82 by classes, in Croatia, 2023

NACE Rev. 2 code		Turnover	Number of enterprises	Number of persons employed
		In %	In %	In %
N 82.11	Combined office administrative service activities	4.0	34.5	10.7
N 82.19	Photocopying, document preparation and other specialised office support activities	1.7	12.0	4.1
N 82.20	Activities of call centres	40.4	5.6	53.7
N 82.30	Organisation of conventions and trade shows	12.4	27.0	9.2
N 82.91	Activities of collection agencies and credit bureaus	3.5	1.6	2.8
N 82.92	Packaging activities	5.4	5.3	3.5
N 82.99	Other business support service activities n.e.c.	32.5	13.9	15.9
N 82	Office administrative, office support and other business support activities	100.0	100.0	100.0

Source: Structural Business Statistics, 2023, Croatian Bureau of Statistics

In 2023, a total of 318 enterprises were engaged in business support service activities n.e.c. -N 82.9 in Croatia. Together, they generated a turnover of EUR 157.5 million and employed 1,543 persons. The vast majority of enterprises (285 or 89.6%) belonged to the smallest size class (0–9 persons employed). These micro-enterprises generated 22.0% of total turnover and employed 33.2% of all persons in this group. Small enterprises with 10–19 persons employed accounted for 5.0% of enterprises, 10.2% of turnover, and 13.1% of employment.

Enterprises with 20–49 persons employed represented 4.1% of all enterprises. Despite their small number, they generated the highest share of turnover (46.6%) and employed 30.5% of persons. Medium-sized enterprises with 50–249 persons, accounted for only 1.3% of enterprises but generated 21.2% of turnover and 23.2% of employment. According to 2023 data, there were no large enterprises in this sector in Croatia.

Table 7. Macroeconomic indicators according to NACE Rev 2. for group N 829, in Croatia, 2023

Size classes by number of persons employed	Number of enterprises		Turnover (thousand EUR)		Number of persons employed	
	No.	%	Thousand EUR	%	No.	%
TOTAL	318	100.0	157.465	100.0	1.543	100.0
0-9 persons	285	89.6	34.660	22.0	512	33.2
10-19 persons	16	5.0	16.063	10.2	202	13.1
20-49 persons	13	4.1	73.389	46.6	471	30.5
50-249 persons	4	1.3	33.353	21.2	358	23.2
250 and more persons	-	-	-	-	-	-

- no occurrence

Source: Structural Business Statistics, 2023, Croatian Bureau of Statistics

Type of Consumers of the Services

Customers in the Business support service activities n.e.c. are comprised of units from B2B segments (retailers, restaurants etc), but in some cases (especially credit reporting), they may also serve government or public sector entities.

The main consumers are companies and organizations that outsource administrative, technical, and operational tasks in order to improve efficiency and reduce costs.

Horizontal/Vertical Integration, Trends

In the context of N82.9, horizontal integration may include mergers between packaging companies or collection agencies, expansion of service portfolios to cover multiple support functions (e.g., combining administrative support with logistics), strategic alliances to increase market share or geographic coverage. There is a growing trend of consolidation among service providers to offer bundled solutions and improve competitiveness, especially in B2B markets.

For N82.9, vertical integration might include: a packaging company acquiring a logistics firm, a credit bureau developing its own data analytics platform, business support firms integrating software solutions to automate client services.

Digital transformation is driving vertical integration, with firms investing in technology and upstream/downstream capabilities to control more of the value chain and improve efficiency.

2.3 SPECIFIC CHARACTERISTICS OF THE INDUSTRY

Debt collection agencies and credit bureaus, classified under activity 8291, serve as intermediaries between creditors and debtors. Their services include contacting debtors, sending reminders, negotiating repayment plans, and collecting debts. Some agencies also purchase debts and collect them in their own name. Credit bureaus assess the creditworthiness of individuals and businesses by maintaining credit records and collaborating with financial institutions such as banks, leasing companies and insurers. The market is stable and dominated by four major players, with the business model well-suited for small enterprises. These services typically combine advisory support, debt collection, debt purchasing, and call centre operations, offering a full-service solution from initial request to final recovery.

Digital platforms operating under activity 8299 follow a three-party model involving a service provider (aggregator), a digital platform (technological intermediary), and the client (service recipient). To operate legally in Croatia, both platforms and aggregators must be registered in the Unified Electronic Work Record System (JEER). During the COVID-19 pandemic, delivery platforms experienced a growth in demand due to lockdowns and remote work. Thousands of individuals in Croatia partnered with platforms, especially in major cities. Platforms became a vital partner for restaurants, helping them continue operations through delivery services. The pandemic accelerated digital transformation across sectors that previously relied on physical presence, such as local shops, kiosks, supermarkets, and electronics stores.

Digital platforms see growth potential in Q-commerce, which focuses on fast delivery, targeted purchases, and mobile-first convenience. To support this, they're investing in micro-fulfilment centres and partnering with major retailers.

As e-commerce and logistics outsourcing continue to expand, operational pressure will increase. Therefore, business optimization and digitalization will be essential for future competitiveness and sustainable growth.

3. OUTPUT MEASUREMENT

3.1 GENERAL FRAMEWORK

Objectives of key users

Since 2017, the Croatian Bureau of Statistics has supplemented the quarterly dynamics of conducting turnover survey with the monthly dynamics. The data are based on the Monthly Report on Service Activities and administrative data sources (databases of value added tax reports). The survey covers enterprises and parts thereof (business units) registered in the Statistical Business Register with their main activity classified under sections G to N of the NKD 2007 (excluding group 70.1 and divisions 72 and 75). Data on retail trade activities (division G 47), were calculated on the basis of the Monthly Report on Retail Trade (TRG-1 form).

Office administrative, office support and other business support activities – N 82 are collected and disseminated nationally on the monthly basis at the two-digit level. The turnover data are also regularly sent to Eurostat, on the monthly basis (in the form of unadjusted, seasonally and working

day adjusted indices on the basis of 2021). The series are transmitted to Eurostat within the t+60 days deadline, which is in line with the present requirement defined by the EBS Regulation for small countries.

Turnover data from the Monthly Survey on Service Activities are used for the calculation of volume gross index (index of service production (ISP)). The volume of sales represents the value of turnover in constant prices and as such, it is a quantity index. It is normally calculated as turnover at current prices, deflated on the basis of sales. The primary aim of compiling an ISP is to measure short-term movements in the production activity of the services part of an economy. The gross value added from SBS data will be used for the calculation of the structural weights. Since these data are available on the 4-digit Nace level, the procedure of calculation of the weights is quite straightforward. The value added from the 4-digit Nace level will only be summed into the 3-digit level, which is the first level of ISP calculation. Intention is to update the weights every year. For the current year of index calculation structural weights are originating from two years ago because of availability of structural data. The quarterly index, obtained from the results of that Monthly Survey are effectively used in the National Accounts as inputs for the calculation of GDP.

Concept of national accounts, measurement issues

The concept and the methodology used are consistent with the European System of National and Regional Accounts (ESA 2010). The classification of business entities by activities is in line with the NKD 2007, which is directly comparable to the NACE Rev. 2 classification. The product classification, which is used for the calculation of GVA in current and constant prices by activities, is harmonised with the National Nomenclature of Industrial Products and Services, which is comparable to the PRODCOM classification. The GDP estimates include all activities within the ESA 2010 production boundary and cover the total territory of the Republic of Croatia. The estimates are prepared on an accrual basis. The calculation of the GVA at current prices is based on data from regular surveys of the Croatian Bureau of Statistics, the Croatian National Bank, the Croatian Financial Services Supervisory Agency, the Croatian Regulatory Authority for Network Industries and the Croatian Pension Insurance Institute (Croatian Bureau of Statistics, 2025, GDP, Notes on methodology). The deflators used in the quarterly GDP calculation for N 82.9 Business support service activities n.e.c. are a combination of the SPPI (Service Producer Price Indices) and IAS (Index of Average Gross Sallary).

Definition of output

The EBS Regulation defines turnover as the totals invoiced by the observation unit during the reference period, and this corresponds to market sales of goods or services supplied to third parties. Turnover also includes all other charges (transport, packaging, etc.) passed on to the customer, even if these charges are listed separately in the invoice. Subsidies received from public authorities or the institution of European Union are also included. Turnover excludes VAT and other similar deductible taxes directly linked to turnover as well as all duties and taxes on the goods or services invoiced by the unit. Reduction in prices, rebates and discounts as well as the value of returned packing must be deducted. Price reductions, rebates and bonuses conceded later to clients, for example at the end of the year, are not taken into account. Turnover should be recorded exclusive of VAT and similar deductible taxes directly linked to turnover. In the Monthly Report on Service Activities, business entities report their total turnover (business revenue) generated from their main activity as well as from their secondary activities. They also report turnover only from their main activity, which serves as a key indicator for analyzing the core business performance of enterprises.

The closest approximation of turnover in VAT declarations is the value of goods and services (before taxation) delivered to third parties that are declared to Tax Authorities for the purpose of VAT payments. Total turnover is the sum of non-taxable deliveries and taxable deliveries. Adjustment of the variables declared to the Tax Administration for the purpose of taxation to the statistical variable of turnover was a difficult task to achieve. Deliveries recorded in the value added tax databases may differ from the definition of turnover applied in statistical survey, which affects the comparability of data.

The possible differences between the turnover shown in the statistical form and the VAT form are most often due to:

- turnover from other activities (in the VAT form, the total turnover from all activities is reported but in the statistical survey, only the turnover from the main activity is included)
- advance payments (advance payments for future services and subscriptions are shown in the VAT form but not included in the statistical form as business income).
- reversals (reversals are reflected in the VAT return as negative adjustments).

3.2 MEASUREMENT ISSUES

Sampling design

Methodology used for the compilation of Service Turnover in Croatia is based on the industry approach. The sample frame consists of all units from the Statistical Business Register satisfying the following criteria: their main activity is Office administrative, office support and other business support activities (N 82), their KAU unit is Office administrative, office support and other business support activities (N 82), they have at least one employee, their turnover is not 0.

The survey is carried out by using the sampling method. The sample is selected once a year through the IT application (“MTOS”), which has been established on client-server platform. It is based on the size and on the annual turnover of business entities. All medium-sized and large enterprises (sizes 5, 6 and 7) are taken over from the Statistical Business Register. Units marked in the Register as small ones are also included if they exceed the determined threshold according to the turnover.

The threshold is set to 460 000 euros. All the ‘field units’ that were detected during the year as out-of-scope units should be excluded from the set of observed units.

A subset of units that will be included into the regular survey (USL-M form) is selected from all units selected in the sample. A selection criterion has been determined according to a particular turnover threshold, which has to be covered by these units. It means that for each NACE division (2-digit code) such number of largest units (according to the turnover) will be selected that they “cover” 50% of total turnover in division.

The statistical unit of the services turnover index is a kind-of-activity unit. The most significant multi-industry enterprises have been divided into kind-of-activity units to improve the homogeneity of the results of statistical surveys by activity, as well as their international comparability.

Based on the results of the initial analyses, the Croatian Bureau of Statistics decided that one part of the largest units should still be observed in a classic way. The main reason is that, for the units that have a significant impact on the final results, it is desirable that a more detailed control and especially the possibility of a follow-up in the case of suspicious data is enabled.

In 2025, the total statistical frame for Division N 82 consists of 1,840 units, of which 343 units belong to Group N 829. In 2025, the sample for Division N 82 consists of 91 units, of which 10 units are included in the regular Monthly Report on Service Activities (USL-M form).

Other data sources

In the activity NACE 82.91 – Collection agencies and credit bureaus, minor differences may be observed between reported turnover and VAT data.

In addition, there is potential for new data sources to be used in the future, which could further improve the coverage, quality, and timeliness of data for group N 829. In the future, the planned system Fiscalization 2.0 represents a potential new data source that could significantly enhance the quality and timeliness. Fiscalization 2.0 is a major reform of Croatia’s tax system, set to be implemented in 2026, with preparatory phases starting in 2025. It aims to modernize VAT reporting and expand Fiscalization beyond B2C to include B2B and B2G transactions. Its implementation will provide more detailed, timely, and comprehensive information on turnover in service activities based on CPA classification, thereby offering valuable input for improving both data collection and index compilation.

3.3 DESCRIPTION OF METHODS FOR MEASUREMENT

Frequency of collection and purposes

The Croatian Bureau of Statistics collects turnover data combining administrative data sources (databases of value added tax reports of the Tax Administration) and regular survey Monthly Report on Service Activities (USL-M form). Turnover data have been collected quarterly, but since the beginning of 2017, these data are collected on the monthly basis. The data is collected via a

web-based application (the so-called CAWI). The reporting units enter data directly into the USL-M form, which is available on the web site of the Croatian Bureau of Statistics.

The Croatian Bureau of Statistics (CBS) has signed an Agreement on mutual cooperation with the Tax Authorities. A key component of this agreement is a Catalogue listing the data required for statistical purposes, to be delivered on a monthly basis. As part of this arrangement, the Tax Authorities have committed to delivering the requested data within a t+36 days deadline. This timeline is well within Eurostat's transmission requirement for small countries, which is t+60 days. These deliveries starts in March 2015 with the data for January 2015.

The survey is mainly aimed at measuring turnover changes in service activities. Nominal turnover data is used for calculating the Index of Services Production (ISP) and GDP. Monthly Index of Service Production (ISP) data are transmitted to Eurostat at the division level for N 82. The first delivery took place in April 2020, while national dissemination of the data began in 2022. The main purpose of the indicator is to measure the dynamics of changes in the turnover of service activities in real terms.

Monthly data processing and index calculation

The data for all the observed units are gathered from the VAT database and inserted into the production database "MTOS". The data for "survey units" are collected in the field inserted in the survey processor for logical controls and then into the database "MTOS". For the field units that responded, the reported turnover is taken. For the units, which are not field units, the turnover, calculated from VAT data, is taken. Units, for which we have no source for turnover, are at this stage only designated and will be imputed at later stage. Units for which a negative value of VAT turnover is calculated are only designated at this stage and will be imputed at a later stage. With the procedure outliers of the growth of the turnover in current month, according to the same month of the previous year, are detected. The outliers are only designated at this stage; their value will be re-estimated at the next stage. The missing values and the values that were in the previous step designated as outliers are imputed. There is also a possibility for manual correction of data, where necessary.

Each turnover value is assigned an indicator based on its source or method of adjustment, using the following code list (1- Value obtained from field survey, 2- Value derived from VAT data, 3- Value imputed due to missing data, 4- Value imputed due to negative turnover, 5- Value imputed due to outlier detection, 6- Manually corrected value from survey data, 7- Manually corrected value from VAT data, 8- Manually corrected value from imputed data).

Indices are calculated directly from microdata for matched units that have a (reported or imputed) turnover value in both periods, comparing the current month to the same month of the previous year. All other indices are derived using chaining procedures, which link monthly changes over time to construct longer-term trends.

For the units for which we have data from two sources (VAT data and field survey data), the comparison of turnover from two sources is carried out. The units with a significant difference will be written to the output (Excel sheet in the 'MTOS application'). Significant difference is defined

with regard to the relative absolute difference, taking field turnover as the basis, and considering the following rules:

- For units for which both turnovers are positive and the field turnover exceeds 130 000 euros, the threshold is set to 30% of the field turnover
- For units for which both turnovers are positive and the field turnover is between 13 000 euros and 130 000 euros, the threshold is set to 100%
- For units for which both turnovers are positive and the field turnover is under 13 000 euros, the threshold is set to 7.000 of absolute difference
- For units for which one of the turnovers is equal to or less than zero, the absolute difference to the zero value is considered. The threshold for significant difference in these cases is set

Detection of outliers

Procedure that was designed in order to decrease the oscillations in the turnover, calculated from the VAT data, is based on the Hidioglou-Berthelot method (HB method) that was designed exactly for the needs of detection of extreme values in periodic surveys. The outlying values of the growth of the turnover in current month, according to the same month of previous year, are searched. In other words, we are seeking for units that have too low or too high values according to the same month of previous year. In fact any previous period could be taken as a basis. The same month of previous year was selected since index according to this period is the one that is calculated directly from the micro-data.

The main steps of the procedure:

- Calculate ratio $r = T_t/T_{t-12}$ for all the units that have positive turnover for current and previous period
- Transform the ratios in such way that the transformed distribution is symmetrical.
- Based on the quartiles and interquartile range determine the lower and upper limit for outlying values.
- Designate the units for which the ratio is outside the limits as the outliers

The units that are at this stage designated as outliers are later in the process re-estimated by imputation methods.

Imputation of missing and non-plausible values

The following two methods should be used for two different cases:

Units with the missing value, for which we have a non-missing value from the previous period

In this case we take the value from the previous period (historical value) and multiply it with the growth (change) of the donor. The donor is chosen among the units that have the date for current as well as for previous period by using the nearest neighbour approach. The donor is selected in the set of data from previous period. In this set of data our unit has information on Turnover and

this information is used in order to find the most similar unit. Hence the donor is selected as the unit which is in the previous period by the turnover closest to the unit for which we intend to impute the value. When the donor is chosen we calculate the growth of this unit: $r_D = T_t^D / T_{t-1}^D$. Then the imputed value is calculated by taking the value from previous period and multiplying it with the growth of the donor.

$$T_t^{imp} = T_{t-1} \cdot r_D$$

In order to avoid the imputed result that would again have extreme growths, the set of possible donors should be limited to those units for which $r_D \in [0.5, 2]$

Units with the missing value, for which we don't have a value from the previous period

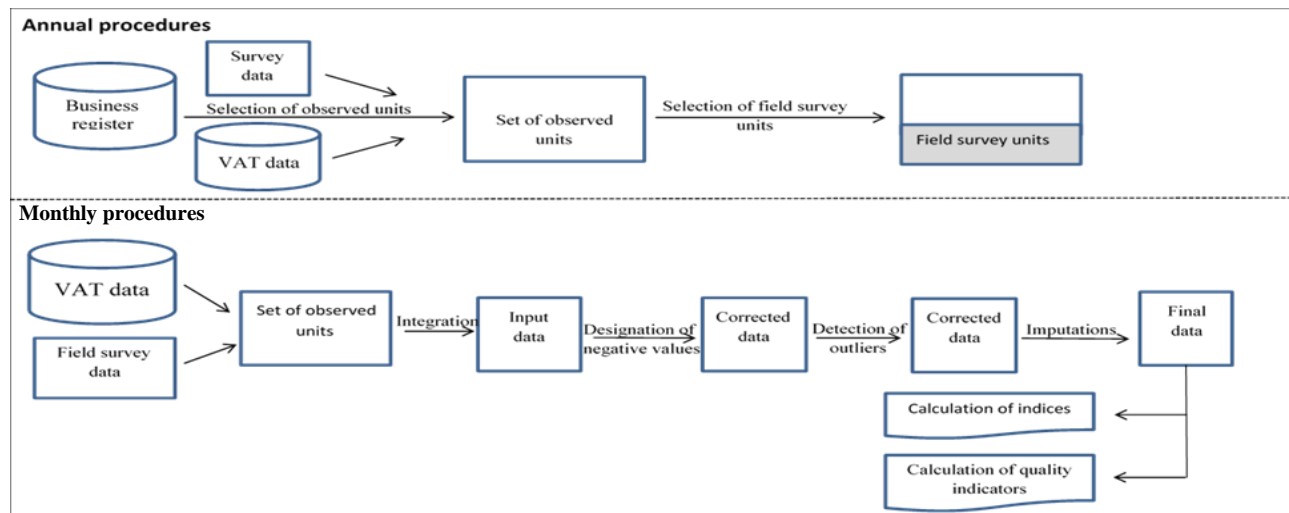
We firstly calculate the average Turnover per employee inside each 2-digit Nace group among all the units that responded:

$$r = \frac{\sum T_i}{\sum e_i}$$

where T_i is unit's turnover and e_i number of employees. The imputed value is then calculated by taking the ratio from corresponding Nace group and multiplies it with the number of employees for the unit to be imputed:

$$T_i^{imp} = e_i \cdot r$$

Graphical presentation of the process



3.4 EVALUATION OF COMPARABILITY OF OUTPUT DATA WITH PRICE DATA

The Croatian Bureau of Statistics began developing the Services Producer Price Index (SPPI) and Index of Service Production (ISP) for division N 82 in 2019, within the framework of the EU Grant

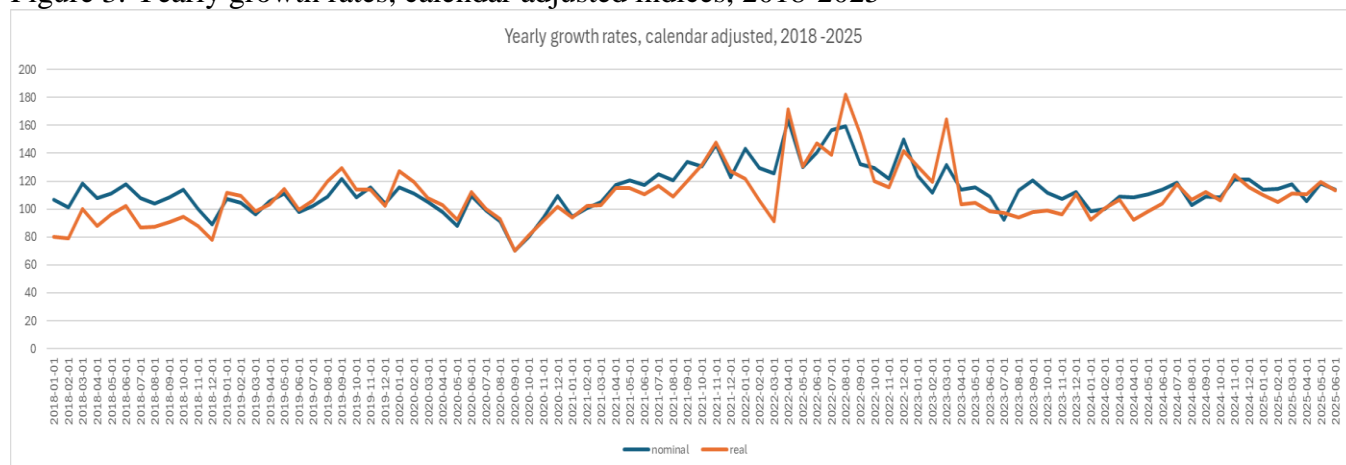
agreement. Since then, data collection for SPPI, division N82, has been conducted through a dedicated web-based application, and indices are published in the national Short-Term Statistics (STS) database and in the First Release. Data for division N 82 have been regularly transmitted to Eurostat since the first quarter of 2022, while the time series is available from 2015 onwards. The series for the period 2015–2018 was estimated on the basis of data from neighbouring countries, as national data were not yet available. The sample is designed using the cut-off method and ensures coverage of 70% of turnover within each activity class, except for class 82.19, which accounts for only 1.6% of turnover within division N 82.

The methodology for SPPI surveys is harmonised with the Regulation (EU) 2019/2152 of the European Parliament and of the Council of 27 November 2019 on European business statistics, repealing 10 legal acts in the field of business statistics, the Commission Implementing Regulation (EU) 2020/1197 and with the guidelines provided in the Methodological Guide for Developing Producer Price Indices for Services (OECD, Eurostat, 2014, Second Edition). Methodology used for the compilation of SPPI in Croatia is based on the product approach. Product-based indices are created from service groups selected by sampled reporting units. In the questionnaire form, reporting units have to provide information on the prices of representative services for each of the service group, for which they reported data on the turnover share. Price movements for those services are then aggregated to form price indices for service groups. The price index for the activity as a whole is calculated by using price indices of service groups.

Service Producer Price Index (SPPI) of group N 829 is used as a deflator for calculation of the Index of Service Production (ISP) for group N829. Service Producer Price Indices (SPPI) are available at the quarterly level and when these indices are used for deflation purposes, it becomes necessary to disaggregate them into three monthly indices to align with the monthly turnover data. The Croatian Bureau of Statistics uses two methods for disaggregation, depending on the data availability. For Group N 829, where a quarterly deflator is available (SPPI for N 829), and a sufficiently correlated auxiliary index (IAS for N82) exists, an auxiliary method is used.

Quarterly SPPI data are available for all three groups within Division N 82: 82.1- Office administrative and support activities, 82.2 - Call centre activities and 82.9 - Other business support service activities. In 2025, for Group N 829, data include 38 prices collected from 28 enterprises. Within Division N 82, more than 87% of total turnover is accounted by other business support service activities.

Figure 3. Yearly growth rates, calendar adjusted indices, 2018-2025



Nominal growth is generally higher than real growth, likely due to inflation. Significant changes may be visible during the pandemic years (2020–2021), followed by stabilization or new trends in 2024–2025.

4. EVALUATION OF MEASUREMENT

The main difficulties and challenges dealing with VAT data for statistical purposes were as follows:

- Changes in legal regulation of VAT
 - Changes in data records structure
 - Changes in the limitations of turnover for submission of VAT declarations
- Corrections of VAT data which are permitted in a period of a year for previous submissions
- Turnover from other activities (in the VAT form, the total turnover from all activities is reported but in the statistical survey, only the turnover from the main activity is included)
- Advance payments (advance payments for future services and subscriptions are shown in the VAT form but not included in the statistical form as business income)
- Reversals (reversals are reflected in the VAT return as negative adjustments)
- Data records on deliveries of machinery and equipment (sale of own property) which are declared for taxation purpose by VAT but should be excluded as turnover.
- Misclassified units – code for NACE is not always in line with the code in SBR. This requires constant comparison and matching with SBR to take over correct NACE code.
- Deadline for receiving monthly data

Deliveries recorded in the value added tax databases may differ from the definition of turnover applied in statistical survey, which affects the comparability of data but according to comprehensive analyses made the VAT data has proved to be a good source for activity N 829.

The implementation of the new classification system (NKD) will be challenging, particularly in back casting. There is also the potential use of a new administrative data source, Fiscalization 2.0, in the future.

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