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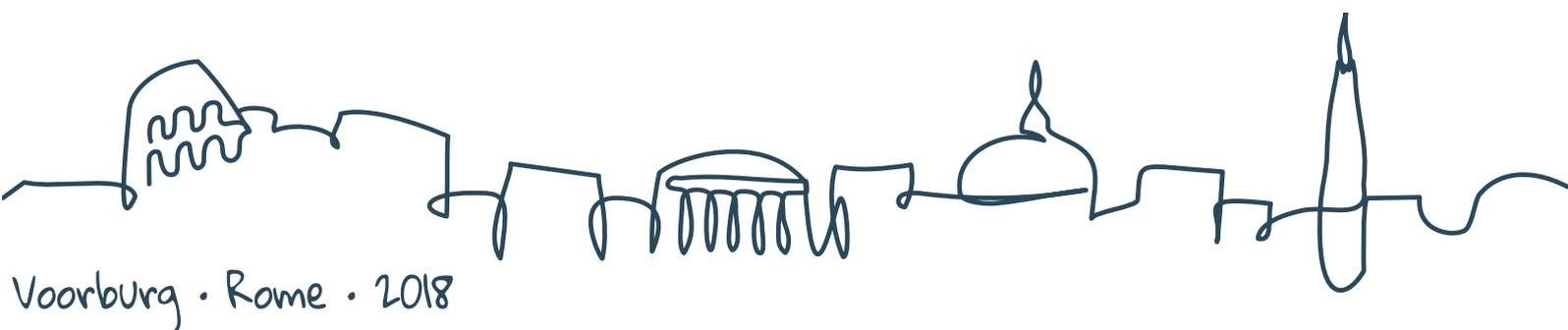
Cross-cutting topic

Preliminary Analysis of Export of Services Output in Croatia

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Introduction

Recently, the export of goods and services has been an often discussed topic, but generally, when talking about export, it usually refers to the product export, although the fastest growing type of export is the export of services. According to the International Monetary Fund Working Paper "World Trade in Services: Evidence from a New Dataset" (2017), from 1970 to 2014, services constituted one-fourth of the world trade and they were an increasingly important component of global production. More and more companies are finding profit in exporting services, and several trends ensure that these exports grow rapidly. Many traditionally manufactured product exports increasingly contain technology that requires installation, troubleshooting, maintenance, and repairs. Furthermore, the pervasiveness of the Internet and the explosion of cloud-based communication has enabled the free flow of information and related services across country boundaries. Software has become the main component of all hardware systems. This has given services a physical presence like goods; they can be produced and stored. This paper presents a preliminary analysis of export of services output. In Croatia, short-term surveys do not collect export of services output separately, but interest in this topic is growing.

1 Description and characteristics

1.1 Description of export of services

In national accounts, export of services consists of all services rendered by residents to non-residents. Any direct purchases by non-residents in the economic territory of a country are recorded as exports of services; therefore, all expenditure by foreign tourists in the economic territory of a country is considered as part of the exports of services of that country. International flows of illegal services must be included as well.

The National Accounts General Methodology from the 23rd Voorburg Group 2008 provides some notable description:

„With respect to goods the situation is relatively straightforward, with goods usually passing through the customs frontiers of the countries of the resident and non-resident units. With respect to services, delivery (and hence production) typically occurs within the geographical boundaries of the purchasing unit (or sometimes outside all geographical boundaries). On this matter, the SNA notes the following:

It should be noted, however, that GDP is not intended to measure the production taking place within the geographical boundary of the economic territory. Some of the production of a resident producer may take place abroad, while some of the production taking place within the geographical boundary of the economy may be carried out by non-resident producer units. For example, a resident producer may have teams of employees working abroad temporarily on the installation, repair or servicing of equipment. This output is an export of a resident producer and the productive activity does not contribute to the GDP of the country in which it takes place. Thus, the distinction between resident and non-resident institutional units is crucial to the definition and coverage of GDP. In practice most of the productive activity of resident producers takes place within the country in which they are resident. However, producers in service industries which typically have to deliver their outputs directly to their clients wherever they are located are increasingly tending to engage in production in more than one country, a practice which is encouraged by rapid transportation and instantaneous communication facilities. Geographical boundaries between adjacent countries are becoming less significant for mobile service producers, especially in small countries bordered by several other countries."

The Eurostat provides some context for international trade of services on their web page, specifically the following:

"The main principles of compiling The International Trade in Services (ITS) statistics are, as described in the Manual on Statistics of International Trade in Services (MSITS), 2010, to record services transactions between residents and non-residents. These principles are consistent with those described in the BPM6¹ and the 2008 SNA². This allows compilers to use many of the same data sources for compiling both balance of payments and international trade in services statistics (MSITS 2010, p.29). Besides the trade in services between residents and non-residents (ITS statistics), services may also be supplied through foreign affiliates in the host countries. These types of transactions are covered by foreign affiliates' statistics. Hence, the wider scope of trading in services also adds the commercial presence of the service suppliers' statistics to the balance of payments' perspective, and is also described as international supply of services. For example, a foreign bank creates a subsidiary in a host economy to supply banking services".

¹ *Balance of Payments and International Investment Position Manual (BPM6) published by the International Monetary Fund (IMF) in 2009*

² *System of National Accounts 2008*

1.2 Characteristics and challenges

In national accounts terms (UN, 2011), globalization is the process of replacing national economic structures and transactions by international ones. Corporations organize their production and marketing at a global level, with vertical production processes spanning several countries. Capital such as intellectual property can be used simultaneously across the world in a multinational enterprise. Labor is mobile, and income returned to the home country can be an important part of its national income. Household and business spending becomes more international as the worldwide web expands spending opportunities. The increasingly global nature of economic transactions and arrangements presents a challenge to the application of national accounts concepts and the use of data collection and compilation systems for measuring developments in the domestic economy.

Features of export which directly affect statistical measures include the following:

- global companies that provide services in the local markets through subsidiaries present a challenge in the collection of high quality data
- service exports are often under-reported, meaning that they are growing much faster than any reported numbers
- there is no recognized set of "harmonized codes" to categorize services, so they are categorized inconsistently
- there is no physical border for them to cross, and no manifests or bills of lading to be checked and reported at customs
- there is often no paperwork declaring value.

Services are increasingly provided through different media such as telephone, the web, and the cloud. Even services provided by workers who travel to a foreign location are difficult to track. Some of these workers have applied for a work visa, but then there is no good way to track whether services are provided or not, let alone their value.

2 Balance of Payments

The Eurostat defines the balance of payments as a statistical summary of the transactions of a given economy with the rest of the world. It comprises three elements:

- the current account covers international transactions in goods, services, income, and current transfers

- the financial account deals with transactions involving financial claims on, or liabilities to, the rest of the world, including international purchases of securities, such as stocks and bonds
- the capital account covers international capital transfers (e.g. debt forgiveness) and the acquisition/disposal of non-produced, nonfinancial assets (such as patents).

Compiling and disseminating consistent and timely balance of payments as well as international investment position statistics is possible only by using internationally agreed methodological standards. Starting with the first edition of the Balance of Payments Manual released by the Fund in January 1948, and continuing towards the latest edition of the Balance of Payments and International Investment Position Manual (BPM6), released in 2009, the guidelines have evolved to meet changing circumstances. The Manual serves as a base to the Member States for preparing the balance of payments and international investment position statistics according to internationally accepted standards. The end result is achieving statistics comparable between countries and producing high quality data which reflect the economic reality.

In Croatia, the compilation of the GDP at market prices, according to the expenditure approach at current prices, is based on data from regular surveys of the Croatian Bureau of Statistics, the Ministry of Finance, the Croatian National Bank (CNB) and the Financial Agency.

Data on exports of services, which are based on the balance of payments data of the Croatian National Bank, are affected by the following most important changes in the balance of payments current account, which resulted from the Balance of Payments Manual 6 (BPM6): the manufacturing services on physical inputs owned by others (finishing, working or processing) are included in the services account in the BPM6. Conclusively, the balance of payments includes only the net value of a service, which implies a processing fee and not the value of remanufactured goods. In financial services, a novelty introduced by the BPM6 includes indirectly measured fees for financial intermediary services (financial intermediary services indirectly measured – FISIM), which means that one part of income from investment is reclassified from the primary income to services. It should be noted that, since the implementation of BPM6, repairs of goods are no longer included in imports and exports of goods, but they have become part of the services account.

The balance of payments of the Republic of Croatia is compiled and published on a quarterly basis, three months after the end of the reporting quarter. Data sources include the following:

- 1) estimates and statistical research carried out by the Croatian National Bank
- 2) special reports of the Croatian National Bank (International Transaction Reporting System (ITRS), monetary statistics, securities statistics and reserve assets)

3) reports of the government institutions (Croatian Bureau of Statistics, Ministry of Finance, Croatian Health Insurance Fund and Croatian Pension Insurance Institute).

The following table presents the 12 main BPM6 standard services components.

Service Sector: 1-digit level	2-digit level
Charges for the use of intellectual property n.i.e.	--
Construction	Construction abroad Construction in reporting economy
Financial services	Explicitly charged and other financial services Financial intermediation services indirectly measured (FISIM)
Government goods and services n.i.e.	--
Insurance and pension services	Auxiliary insurance services Direct insurance Pension and standardized guaranteed services Reinsurance
Maintenance and repair services n.i.e.	--
Manufacturing services on physical inputs owned by others	Goods for processing abroad Goods for processing in reporting economy
Other Business Services	Professional and management consulting services Research and development services Technical, trade-related, and other business services
Personal, cultural, and recreational services	Audio-visual and related services Other personal, cultural, and recreational services
Telecommunications, computer, and information services	Computer services Information services Telecommunications services Air Transport
Transport	Other mode of Transport Postal and courier services Sea Transport
Travel	Business Personal

Source: BPM6, IMF

These 12 services components together match the General Agreement on Trade in Services (GATS)³ product coverage, with some exceptions. The service categories are described in the Extended Balance of Payments Services Classification (EBOPS 2010),

³ The General Agreement on Trade in Services (GATS) is a treaty of the World Trade Organization (WTO) that entered into force in January 1995 as a result of the Uruguay Round negotiations. The treaty was created to extend the multilateral trading system to service sector. All members of the WTO are parties to the GATS.

which is completely consistent with the BPM6, but provides more detailed breakdowns in a number of areas.

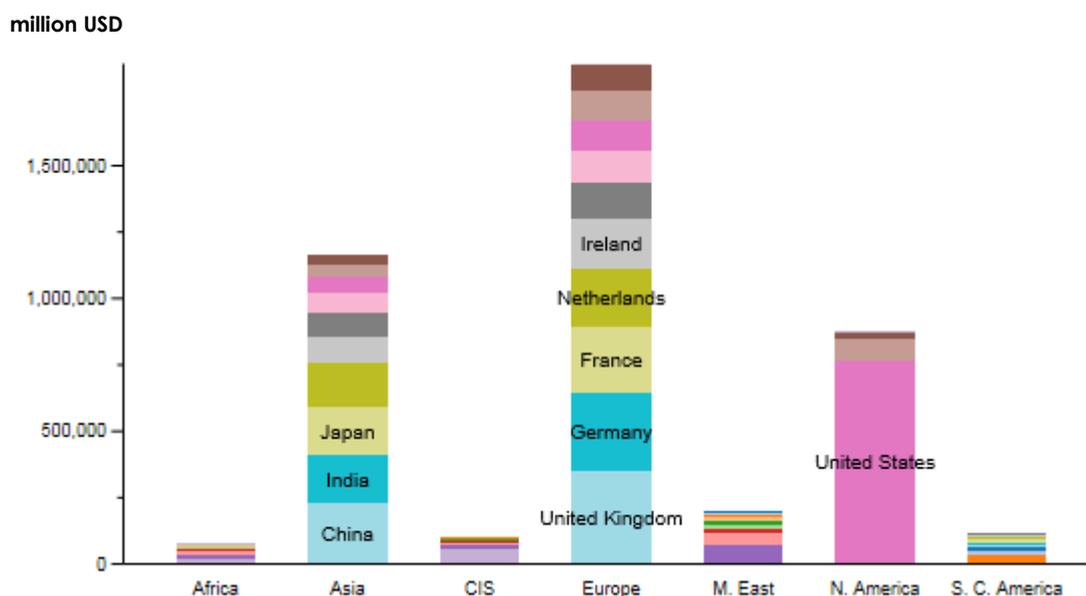
3 Export of services - market conditions

3.1 Service exporters in the world

Statistics on trade in commercial services on the World Trade Organization website are mainly drawn from the IMF Balance of Payments Statistics or from the Trade in Services by Partner Country dataset of the OECD. Data for the Member States of the European Union, as well as the EU (28) aggregate data are drawn from Eurostat's online database. For other economies that do not report to the IMF (e.g., Chinese Taipei), data are drawn from national sources.

FIGURE 1

International Trade in Commercial Services, 2017



Source: WTO, 2017

TABLE 1

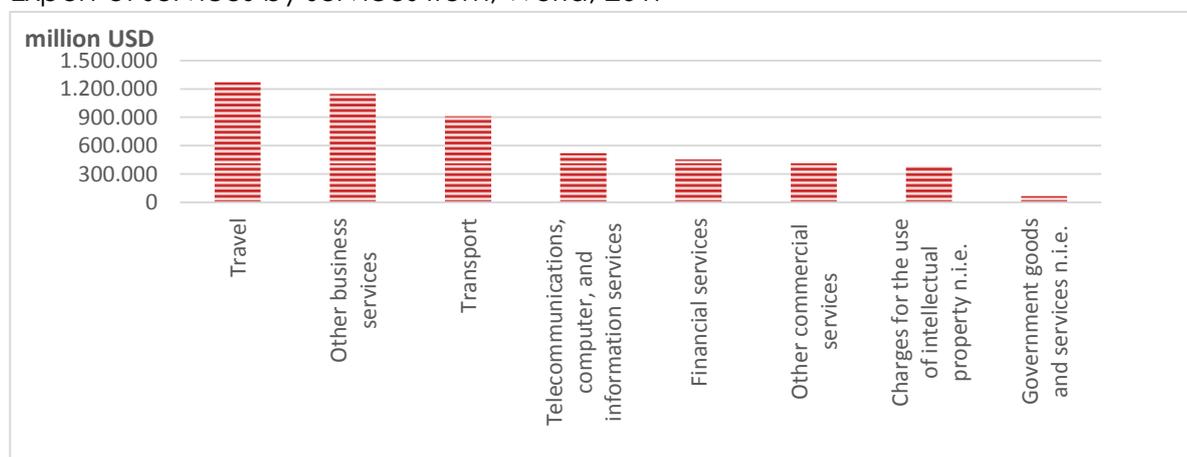
Leading exporters of services, 2017
 Data from 146 countries

Rank	Country	Total Services Export to World, million USD	Share in total World Services Export
1	United States	780,874.95	14.73%
2	United Kingdom	350,687.32	6.62%
3	Germany	304,058.25	5.74%
4	France	249,473.75	4.71%
5	China	228,090.29	4.30%
6	Netherlands	218,310.05	4.12%
7	Ireland	186,490.97	3.52%
8	Japan	184,770.76	3.49%
9	India	183,980.37	3.47%
10	Singapore	164,679.62	3.11%
11	Spain	139,071.77	2.62%
12	Switzerland	120,663.29	2.28%
13	Belgium	118,869.37	2.24%
14	Italy	110,788.00	2.09%
15	Hong Kong, China	103,701.61	1.96%
16	Luxembourg	102,328.17	1.93%
17	Korea, Republic of	87,496.60	1.65%
18	Canada	86,875.81	1.64%
19	Thailand	75,651.12	1.43%
20	Sweden	72,934.87	1.38%
...			
50	Croatia	15,015.79	0.28%

Source: WTO, 2017

FIGURE 2

Export of services by services item, World, 2017



Source: WTO, 2017

In 2017, by the type of services, the highest values of the export of services in 146 countries were recorded for: travel services; other business services (this category includes, among others, services in the areas of research and development (R & D), professional and management consultancy, technical and trade-related services, architectural, engineering and scientific services, security and investigative services, real estate and other services to businesses); transport services; telecommunications, computer and information services and financial services.

3.2 Export of services in Croatia

Service activities account for more than a half of the real sector in the Republic of Croatia. About 100 thousand, i.e. over 72%, of the total number of all business entities are engaged in service activities and that sector employs more than 58% of total number of persons in employment in the non-financial business economy. The share of turnover generated by the service sector is also significant, almost 60% of total turnover, while its share in total value added amounts to over 56%.

The export of services (% of GDP) in Croatia was reported at 27.3 % in 2017 (CBS, Statistics in Line, Gross Domestic Product, 2018).

In the years before the global financial crisis, Croatia's imports grew rapidly in comparison to its exports. The bursting of the financial bubble initiated a sharp adjustment process: first imports compressed and subsequently exports expanded. Croatia now has a comfortable current account surplus but the economy needs to generate persistent surpluses to ensure the sustainability of the external liabilities it accrued in the previous decade. The persistently negative merchandise trade balance was partly offset by the large surplus in the balance of services, driven by Croatia's all-important tourism sector. EU accession in July 2013 boosted exports, paving the way to a turnaround in the current account balance. Access to the EU single market significantly improved the export capacity of Croatian firms (EC, Kristian Orsini, 2017).

TABLE 2

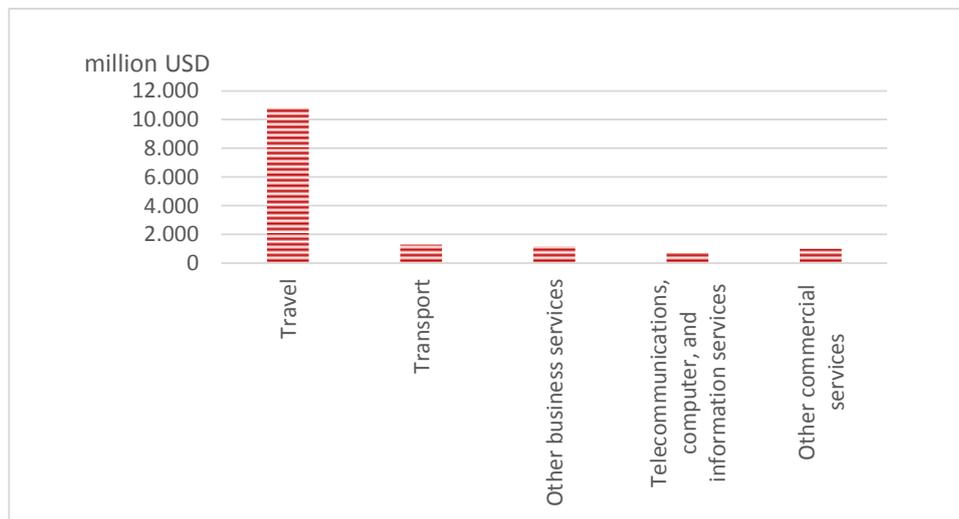
Croatian export of services, GDP, by expenditure approach, in current prices

Year	Export of services (% of GDP)
2008	21.9
2009	19.9
2010	19.7
2011	20.8
2012	21.8
2013	22.4
2014	23.5
2015	25.3
2016	26.2
2017	27.3

Source: CBS, 2018

FIGURE 3

Export of services by services items, Croatia, 2017



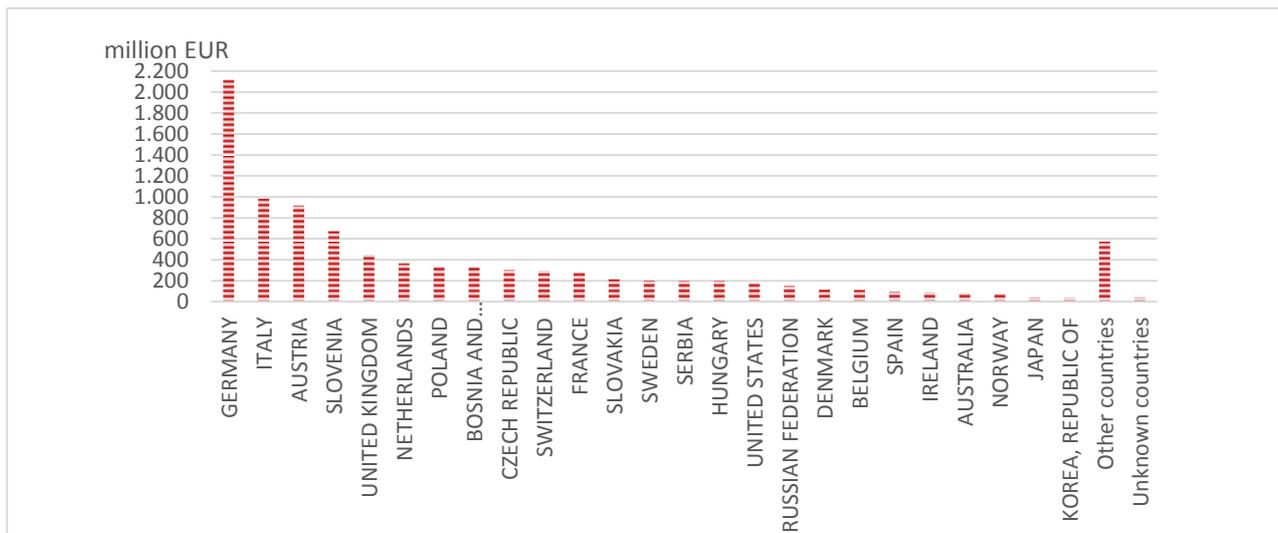
Source: WTO, 2017

In terms of composition, more than 70% of exports of services in Croatia relate to tourism activities. Croatia is one of the three EU-28 countries with the largest share of travel services exports in the country's GDP. Exports of travel services cover goods and services - for own use or to give away - that are acquired from an economy by non-residents during visits to that economy. The most common goods and services covered are

lodging, food and beverages, entertainment and transportation (within the economy visited), gifts and souvenirs.

FIGURE 4

Travel export in Croatia by export destinations, 2017



Source: CNB, 2018

The Croatian National Bank (CNB) conducts several surveys (direct reporting) used for the collection of data on import and export of services completely in line with BPM6 and ESA 2010. Transportation, travel and other services are reported separately under the services account.

Revenues and expenditures on the basis of transportation are calculated as follows. Revenues and expenditures arising from transportation of goods and passengers, as well as the value of accompanying services, which together constitute the total value of these services, are compiled on the basis of the results of the Research on transactions related to international transportation services, carried out by the CNB.

Revenues from services rendered to foreign travellers and tourists, as well as expenditures incurred by domestic travellers and tourists abroad are shown under the position "Travel". The Croatian National Bank started to carry out the Survey on Consumption of Foreign Travellers in Croatia and Domestic Travellers Abroad and use its results for compiling the Travel position. Starting from the first quarter of 2012, the balance of payments data on revenues from services rendered to foreign travellers and tourists have not been computed using the standard methodological combination of volume indicators and estimated average consumption from the Survey on Consumption of Foreign Travellers, but have been based on a combination of the estimated level of tourism consumption in

2011 and an econometrically computed indicator – the first principal component of a group of variables that are assumed to follow the dynamics of tourism revenue.

Other services position is compiled by using different data sources: apart from revenues and expenditures related to insurance services and communication and construction services, which have been determined by the CNB special statistical research since 2001, the values of all other services were adopted from the ITRS until the end of 2010, when the reporting by transaction types was abolished. As of 2011, the uniform statistical survey is used for estimating the position of other services, which encompasses 30 different types of services, the classification of which is prescribed by the IMF's Balance of Payments Manual, 6th edition. That survey also includes communication services, as a result of which a special survey on communication services was abolished, while insurance and construction services continued to be monitored through separate surveys. Institutions providing construction services abroad for a period of less than a year are included in the sample for construction services survey.

4 Measurement issues and further steps

As already mentioned, some of the features of export which directly affect statistical measures are the following: global companies that provide services in local markets through subsidiaries present a challenge in the collection of high quality data; service exports are often under-reported, meaning that they are growing much faster than any reported numbers and those services are categorized inconsistently; there is often no paperwork declaring the value; and many more challenges which affect statistical measures. Also, EU-US bilateral asymmetries for services exports have shown an increasing trend in recent years because of differences in concepts, definitions, and compilation practices, which challenge direct comparability of data. Even between EU countries, there is an increasing trend of asymmetries for services exports, especially in travel services.

The Croatian Bureau of Statistics has been conducting a quarterly survey on turnover of service activities for years on the basis of the Council Regulation (EC) No 1165/98 of 19 May 1998 as well as its amendments. Since 2017, the CBS has supplemented the quarterly dynamics of conducting the turnover survey with the monthly dynamics of turnover changes in service activities. The data are based on the Monthly Report on Trade and Other Services and administrative data sources (data bases of value added tax reports). The short-term indicator "turnover from activities of other services" comprises the Sections from G to N.

In Croatia, short-term surveys do not collect export of services output separately, but interest in this topic is growing. In future, there is a potential to improve the quality of data

by introducing a sample of export-oriented units within the monthly survey on turnover of service activities. In Croatia, the principal data source for that sample could be the Annual Financial Report of Entrepreneurs (GFI-POD form) obtained from the Financial Agency.

The Register of Annual Financial Statements is a central source of information about the financial position and business performance of entrepreneurs. For the purpose of publication, entrepreneurs submit their annual financial statements and annual report, as well as auditor's report, to the Financial Agency. For statistical and other purposes, they submit their balance sheet, profit and loss account and additional information related to the previous calendar year also to the Financial Agency.. One of the additional information submitted for statistical purposes is annual turnover of export activities of entrepreneurs.

According to that information, export-oriented units could be easily detected. The introduction of a sample of export-oriented units within the monthly survey on turnover of service activities would detect turnover achieved by reporting units on foreign markets, on the monthly basis. This approach could lead to a better quality of data, contribute to a better estimate of the CNB data and could improve comparability of data with other countries. Also, there is a possibility to deflate export sales with BtoE SPPIs in the future.

The introduction of a sample of export-oriented units could be advisable, but we cannot overlook the fact that using the aforementioned approach is methodologically more demanding and requires many systematic analyses, but additional efforts could be awarded, considering the increased quality of statistical output.

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