Report on sector review of business statistics in Serbia

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Table of contents

List of abbreviations

ANJL	Local units survey
BS	Business statistics
CPI	Consumer price index
CV	Coefficient of variation
ESCoP	European Statistics Code of Practice
ESS	European Statistical System
EU	European Union
GDP	Gross domestic product
IPC	Index of production in construction
IPI	Industrial production index
KAU	Kind-of-activity unit
MIGs	Main Industrial Groups
NA	National accounts
NACE	Statistical Classification of Economic Activities
NSI	National Statistical Institute
NSS	National Statistical System
NUTS	Nomenclature of Territorial Units for Statistics
PPI	Producer prices index
RSD	Serbian Dinar
SAQ	Self-assessment questionnaire
SBR	Statistical Business Register
SORS	Statistical Office of the Republic of Serbia
SBS	Structural business statistics
SR	Sector review
STS	Short-term statistics
TQM	Total Quality Management
VAT	Value-added tax

Preface

1. The Sector Review (SR) of business statistics (BS) in Serbia was undertaken within the framework of the Eurostat-funded project *'Assessment of the statistical systems and selected statistical areas of the enlargement and ENP countries'*. ICON-INSTITUT, in consortium with DevStat, contracted by Eurostat (No 14472.2013.002-2013.694), organised all activities and tasks related to the SR. Eurostat initiated the SR following a request by the Statistical Office of the Republic of Serbia (hereinafter referred to as SORS).
2. The assessment covered two domains of business statistics: structural business statistics (SBS) and short-term statistics (STS).
3. Two experts conducted the SR: Ms Violeta Kunigeliene (leading expert) and Ms Virginia Balea (supporting expert).
4. Prior to the mission, SORS staff completed a self-assessment questionnaire (SAQ) assessing how well business statistics in Serbia comply with the European Statistics Code of Practice (ESCoP) and with specific EU regulations concerning business statistics. Responses to the SAQ served as the starting point for the review, which took place in Belgrade from 19 to 22 October 2015.
5. The questionnaire covered the following areas: institutional environment, statistical processes, statistical outputs and future planning.
6. The findings of the review resulted from the analysis of documents provided by SORS, documents available on the SORS website and information collected and discussed during the in-country mission.
7. Discussions supplemented the information provided in the questionnaire. SORS provided an additional set of electronic documents during the in-country mission.
8. The collaboration between the review experts and the SORS team was very constructive throughout all phases of the SR.

Executive summary

9. The Sector Review (SR) was tailored to the needs of SORS. The aim of the SR was to assess the alignment of Serbian business statistics with European and international standards. The SR covered structural business statistics and short-term statistics.

10. The main goals of the SR were as follows:

    - ✓ to assess the administrative and technical capacity of the National Statistical System of Serbia to produce SBS and STS;
    - ✓ to assess the level of compliance with EU requirements;
    - ✓ to assess the statistical production of SBS and STS;
    - ✓ to propose a list of recommendations to improve the BS production process.

11. The review was based on the documentation provided by SORS, information collected during the mission and discussions throughout the mission.

12. The Statistical Business Register (SBR) was established in 2005, with administrative data from the Serbian Business Registration Agency and Tax Authority as the main source of information. The unique identification number allows the linkage between various sources of information. The KAU and LKAU are not included as separate units in the SBR.

13. NACE Rev. 2 was introduced in SBR in 2010.

14. The current SBR does not allow easy identification of business demographic events; therefore, business demography statistics cannot be properly computed.

15. Regarding SBS, the first data collection was carried out in 2005. The survey mainly covered small enterprises.

16. Currently, the main sources of data for SBS are administrative data and annual financial reports. The annual financial report includes a part named Statistical Report, which contains a breakdown of items from the balance sheet, income statement and capital flow tables, as well as some other data required for statistical purposes.

17. For large enterprises, additional information is collected through the SBS survey to meet national user needs and requirements of EU regulations.

18. Since 2011, NACE Rev. 2 has been introduced in STS.

19. The usage of administrative data allows better computation of estimates and the reduction of burden on respondents.

20. Further analysis of available administrative data sources has to be carried out in order to assure the consistency of structural business statistics and short-term statistics with other business statistics and national accounts.

21. The level of commitment of human resources engaged in business statistics is very high, but the number of human resources should be increased.

22. STS and SBS data compiled and produced by SORS are available free of charge on the website, through databases or various publications. Data are disseminated in a centralised manner.

1 Legal and institutional basis

1.1. Mandate for data collection

23. The legal basis is the Law on Official Statistics. The Law provides the legal framework for the production and dissemination of official statistics and for the organization of the system of official statistics of the Republic of Serbia. The activities of official statistics are based on a five-year statistical programme and annual implementation plans.
24. The Law stipulates that the annual implementation plan shall contain the list of statistical surveys to be conducted, the list of administrative data sources, and the list of data obtained through constant monitoring and observation methods used in official statistics.
25. Article 2 of the Law gives SORS explicitly the responsibility for providing "on impartial basis, the figures and representative data and information on mass economic, demographic and social facts, and on the phenomena of working and living environment, for all respective users: economic entities and their associations, government bodies, authorities of autonomous provinces and local self-government units, cultural, educational and scientific institutions, and public at large. Official statistics are envisaged to fulfil the international obligations of the Republic of Serbia regarding the production, dissemination, analysis and publication of official statistical data".
26. All business statistics produced by SORS are compulsory according to the same Law.
27. The classification of economic activities in Serbia CA 2010 is harmonised with NACE Rev. 2. CA 2010 was officially adopted by the Serbian Government in July 2010 (Government Regulation No 54/10).
28. At the EU level, SBS are compiled under Parliament and Council Regulation 295/2008 and amendments of Council Regulation 58/1997 on SBS. SBS in the EU are produced in accordance with the definitions, breakdowns, deadlines for data delivery and quality aspects specified in Implementing Regulations 250/2009 and 251/2009.
29. The legal basis for European STS is Regulation 1158/2005 (previously – Regulation 1165/98).

1.2. Adequacy of resources

30. The department of Business Statistics has eight divisions. SBS is managed within the Structural Business and Environment Statistics Division, where just a few staff members are assigned the task of compiling structural business statistics. STS is managed within several organizational units, and there are sufficient resources for the preparation of STS indicators.

1.3. Commitment to quality

31. In 2011, SORS drafted and adopted a quality policy which presents a general framework based on which SORS shall conceive, design and implement the quality management system.
32. The strategy of official statistics for 2016-2020, which was approved by the National Assembly of the Republic of Serbia in June 2015, defines the continuation of the activities on the implementation of the quality management system based on the principles of Total Quality Management (TQM), principles of the European Statistics Code of Practice, the UN Fundamental Principles of Official Statistics and the Declaration on Professional Ethics of the International Statistical Institute.
33. Formally, the organizational structure for quality management is part of the division on Coordination of Regional Offices, Quality Management and Elections with a small number of employees. A working group for quality management has been established

with 10 experts from different areas (statistics, sampling, dissemination and IT), reporting directly to the Board of Directors and the Director of the SORS. So far, SORS has not started a systematic implementation of the quality policy. However, internal manuals and rulebooks are produced and managed by sector experts.

2 Main findings

2.1. General overview

34. According to the organizational chart, both SBS and STS are part of the Business Statistics Department, which considerably facilitates the interaction and exchange of information and methodologies among the persons responsible for different surveys.

35. Field activities are carried out by statistical regional offices and by the Institute of Statistics and Informatics of Belgrade.

36. SORS has access to micro-data from the financial statements of enterprises kept by the Serbian Business Registration Agency. These administrative data are currently used in SBS.

37. IT activities are managed in the sector of IT data processing and inside single operational units. SORS uses modern software and has developed an integrated IT tool for data collection and processing, which enables the consistent treatment of data. The security of databases is guaranteed through the daily backup of micro-data to specific servers.

38. For large enterprises, apart from administrative data, a survey is also carried out for SBS.

39. The SBR is updated continuously on the basis of administrative data and information received from statistical surveys. The main variables refer to the identification of the units and additional variables used for the purpose of business demography and sampling. In Serbia, an enterprise is the basic statistical unit and is equivalent to a legal unit.

40. The number of human resources engaged in structural business statistics is very limited, and this might put some of the business statistics processes at high risk.

2.2. Sound methodology

Structural business statistics

41. Experts in business statistics are committed to producing reliable and high quality statistics aligned with EU standards.

42. SBS is based on two types of data sources: administrative sources (for small enterprises) and a statistical survey combined with administrative data (for medium and large enterprises).

43. The observation unit in the SBS survey is the enterprise, which is equivalent to a legal unit. This allows using administrative data. Taking into account the structure of the Serbian economy, the 'enterprise approach' does not cause significant errors. There are no differences in coverage between administrative and statistical sources.

44. The administrative sources used for the SBS are the annual financial statements of enterprises, which are under the responsibility of the Serbian Business Registration Agency. In addition to the balance sheet and income statement (profit & loss account), the Serbian Business Registration Agency introduced an annex called Statistical Annex.

The purpose of the Statistical Annex is to supplement data from the income statement with data needed for SBS and national accounts.

45. The survey (SBS-01) covers all active large and medium-sized enterprises (enterprises with 50 and more employees). Units with less than 50 employees but defined as medium or large according to an additional criterion from annual financial statements are also included into the survey.

46. This survey covers the non-financial business economy, i.e. active incorporated enterprises engaged in the production and selling of goods and services, as well as the part of other legal units that produce and provide market-oriented services, which is established according to a practical criterion stating that their income from selling goods and services exceeds 50% of the total operating income, provided that they have submitted financial statements for the previous year.

47. The SBS survey covers enterprises engaged in all activities of the Classification of Activities, except for Section K – Financial and insurance activities, and O – Public administration and defence and compulsory social security.

48. The SBS-01 questionnaire has six tables. The first part is used for updating the Statistical Business Register. The next four tables contain the breakdown of income, turnover of business services by residence of clients, breakdown of costs by category, employment and current and capital transfers. Through table 6, regional data are collected, namely the number of local units, total turnover, persons employed, wages and salaries and fixed assets of the enterprise by classes of the CA 2010 and municipalities.

49. The questionnaire includes the definition of the main variables covered in the above-mentioned tables.

50. Among the variables included in the Statistical Annex, the following variables are used for SBS purposes:

- Average number of employees;
- Stocks;
- Revenue by type.

51. Structural business statistics are published annually – fifteen months after the reference period – in accordance with the release calendar. Although data can be compiled at the NACE class level, they are released at the division level.

52. The main SBS indicators compiled and published are as follows:

- Number of enterprises;
- Turnover;
- Production value;
- Value added at factor costs;
- Gross operating surplus;
- Personnel costs;
- Gross salaries and wages;
- Number of persons employed.

53. For investment variables, data are collected through an investment survey by the department for national accounts.

54. So far, SORS has not delivered any SBS data to Eurostat. In 2015, several activities were undertaken to prepare for the first data transmission to Eurostat for Annex 4 “Construction”. The first data transmission will be done for the reference year 2013.

55. According to the requirements of the SBS regulation, some series can be produced and disseminated. The current situation is presented below, in the following annexes:

56. Annex 1. Out of 6 series, the following can be compiled:

    1A. Annual enterprise statistics for services;

    1B. Annual enterprise statistics by size class for services;

    1C. Annual regional statistics for services;

    1E. Annual enterprise statistics for special aggregates of activities;

    1P. Annual preliminary results for services.

57. Most variables of the series above are available at most levels of breakdowns (NACE and size class).

58. The following variables are available: number of enterprises, turnover, production value, value added, gross operating surplus, total purchases of goods and services, purchases of goods and services for resale in the same condition as received, personnel costs, gross investment in tangible goods and number of persons employed.

59. Annex 2. Out of 12 series, the following can be compiled:

    2A. Annual enterprise statistics for industry;

    2B. Annual enterprise statistics by size class for industry;

    2C. Annual regional statistics for industry;

    2D. Annual KAU statistics for industry;

    2F. Multiannual enterprise statistics – subcontracting for industry;

    2G. Multiannual enterprise statistics – breakdown of turnover for industry;

    2I. Annual enterprise statistics on environmental protection expenditure broken down by size class;

    2K. Multiannual enterprise statistics on environmental protection expenditure broken down by size class;

    2P. Annual preliminary results for industry.

60. Annex 3. Out of 12 series, the following can be compiled:

    3A. Annual enterprise statistics for distributive trade;

    3B. Annual enterprise statistics by size class for distributive trade;

    3C. Annual regional statistics for distributive trade;

    3D. Annual enterprise statistics by size class of turnover for distributive trade;

    3E. Multiannual enterprise statistics – breakdown of turnover by product type for wholesale and retail trade and repair of motor vehicles and motorcycles;

    3H. Multiannual enterprise statistics – breakdown of turnover by type of activity for wholesale and retail trade and repair of motor vehicles and motorcycles;

    3I. Multiannual enterprise statistics – breakdown of turnover by type of activity for wholesale trade;

3K. Multiannual regional statistics for distributive trade;

3P. Annual preliminary results for distributive trade.

61. Annex 4. Out of 9 series, the following can be compiled:

4A. Annual enterprise statistics for construction;

4B. Annual enterprise statistics by size class for construction;

4C. Annual regional statistics for construction;

4D. Annual KAU statistics for construction;

4F. Multiannual enterprise statistics – subcontracting statistics for construction;

4G. Multiannual enterprise statistics – breakdown of turnover statistics for construction;

4H. Multiannual enterprise statistics – subcontracting by size class for construction;

4P. Annual preliminary results for construction.

62. Similar variables and breakdown as for Annex 1 are available.

Annexes 5 to 7 can be calculated from surveys on the financial sector within the national accounts unit. The main variables that can be compiled are the following:

- Number of enterprises;
- Production value;
- Value added at factor cost;
- Personnel costs;
- Number of persons employed;
- Number of employees.

63. For Annex 8, turnover by residence of clients can be calculated.

Short-term statistics

Industry (Annex A)

64. Variables required in the regulation are: production value, turnover, number of persons employed, gross wages and salaries, hours worked (labour indicators: number of persons employed, gross wages and salaries, hours worked are presented below in paragraphs 109-112).

65. Monthly data for the calculation of the production index are collected from statistical units on the 8th day after the end of the reference month. The survey population includes enterprises with the main activity listed in NACE Rev. 2 sections B, C, D and industrial KAUs of non-industrial enterprises. The monthly survey is a sample survey and is based on the SBR. The monthly industrial survey includes data on the production of commodities according to the Nomenclature of Industrial Commodities in terms of quantity in the reporting month and from the beginning of the year. The National Nomenclature of Commodities is based on the CPA 2002 (6 digits) with 2 digits for national purposes. Each month, data are provided by 1600 respondents, which represent 80 per cent of the turnover by each activity. Response rate is 100 per cent.

66. The calculation of the production index is based on EU recommendations (Laspeyres index, annual chain-linked index).

67. The production index is published on the last working day of the month for the previous month in a press release (according to a release calendar). The base period is average of the previous year. Indices are published related to the previous year in unadjusted and adjusted forms. There are four types of unadjusted indices: reference month, compared to the average of the previous year; reference month, compared to the same month of the previous year; period from the beginning of the year to the end of reference month, compared to the average of the previous year; period from the beginning of the year to the end of the reference month, compared to the same period of the previous year. There are some series of seasonally adjusted industrial production indices for total industry (B+C+D) and for Section C (Manufacturing). Moreover, data on the production index are published on the website in the form of tables as preliminary data. Monthly indices are not published periodically in the database. These indices are published in the database after the reference year as final data. For data updating, annual industrial survey data are used.

68. The base year is changed every year, and a chain-linking method is used. Indices for Eurostat are calculated on the average of the base year 2010.

69. All data are published at the section level by NACE Rev. 2 and by Main Industrial Groups (MIGs).

70. Production index metadata were developed in line with ESS standards and submitted to Eurostat via eDAMIS.

71. In the monthly turnover survey, enterprises with the principal activity classified in NACE Rev. 2 sections B (Mining and quarrying) or C (Manufacturing) are included. At the level of NACE Rev. 2 divisions, the smallest enterprises according to the last annual turnover in financial statements are excluded. Selected business entities whose main activity is not in section B or C, but that have significant industrial turnover in these sections (as secondary activity) are included. The total population includes about 19000 of enterprises. The sampling frame includes about 4200 enterprises that cover at least 90% of turnover at the level of NACE Rev. 2 divisions that are within the target of the survey. About 560 units are surveyed every month. For the total monthly turnover, the estimates of the coefficients of variation are around 2.0-3.0%. The estimate of the non-response rate is around 10%. In order to speed up data collection or reduce non-response, non-responding units are followed up by phone contacts. The statistical survey on turnover in the industry has been implemented since January 2007. The time series cover the period back to January 2000. Data for the period January 2000 - December 2006 were estimated. Indices for Eurostat are calculated on the average of the base year 2010.

72. Metadata on the turnover index were developed in line with ESS standards and submitted to Eurostat via eDAMIS. A statistical release is published every month on the 20th day after the end of the reference month. This release is available in paper and electronic forms. The statistical release contains an unadjusted monthly turnover index for total (B+C), MIGs, section B and C separately for turnover in the total industry, turnover on the domestic market and non-domestic market. There are two types of indices: reference month compared to the average of the previous year and reference month compared to the same month of the previous year. Information on the turnover index is also published in the monthly Statistical Bulletin. Turnover data are also published in the database.

73. Turnover indices in industry for all months of the current year are published and treated as preliminary results. At the end of the year, after possible changes, they become final.

Construction (Annex B)

74. Variables required in the regulation are: production, production of building construction, production of civil engineering, number of employees, wages and salaries, hours worked (labour indicators: number of employees, wages and salaries, hours worked are presented in paragraphs 109-112), building permits: number of dwellings, square meters.

75. The data source for the construction index is a quarterly survey on construction. Respondents are obliged to provide data on the 14th day after the end of the reference period.

76. The survey covers legal entities registered in Section F of NACE Rev. 2. – Construction (divisions 41, 42 and 43), as well as legal entities that are not registered in the construction industry but perform significant construction works. A cut-off system is applied to the value. The lower limit is not exactly determined and depends on the territory in which construction work is performed. Small units are not estimated because a cut-off system is applied. In the quarterly survey, about 500 reporting units are covered.

77. There are no unit and item non-response rates because the reporting units that did not send filled-in questionnaires or did not fully complete the questionnaire are contacted by phone and asked to send the filled-in questionnaire for the current month or to provide the missing data. The index of production in construction (IPC) is a simple index. Indices for Eurostat are calculated on the average of the base year 2010. Indices that have been published in national publications are calculated based on the previous quarter and the previous year. Producer price indices of elements and materials incorporated in construction are used as the price deflator for the index of production in construction. The data are working day and seasonally adjusted.

78. Data are published in statistical releases on the 40th day after the end of the reference period and are preliminary. There is a routine revision each quarter. Data can change due to questionnaires arriving late or corrections initiated by data suppliers. Revisions due to errors are implemented immediately after detection. A calendar for data revision does not exist. There can be 1 to 5 corrections per year. One correction is mandatory (when quarterly and annually data are compared); other corrections are done only if the data has significantly changed.

79. Quarterly data are not published in the database. Data are published in the monthly statistical bulletin.

80. Metadata on the production index in construction index were developed in line with ESS standards and submitted to Eurostat via eDAMIS.

Building permits

81. Data on building permits are collected by using the monthly survey on building permits. This survey includes all permits issued for all types of constructions by the Classification of Types of Constructions (CC) and permits issued for all types of work: new construction, renovation, reconstruction, maintenance. There are 165 reporting units, which issued 7668 building permits in 2014. The survey has been conducted since 2006. In 2006, it was conducted as a pilot survey, and since 2007 it was conducted as a regular statistical survey. Data for the period of 2000-2006 were estimated. The correction of data for the previous month is possible. After that, the data do not change until February of the next year. All permits that were received after the deadline of the survey are entered in February of the next year – then the data become final.

82. There are no unit and item non-response rates because the reporting units that did not send filled-in questionnaires or did not fully complete the questionnaire are contacted by phone and asked to send the filled-in questionnaire for the current month or to provide the missing data. Data on building permits are presented only as absolute values. There is no seasonal or working-day adjustment of the statistical data on building permits; it is in accordance with the STS requirements.

83. Data on building permits are regularly published in statistical releases, monthly statistical bulletin. Data on building permits are regularly published in an online database since 2007 and are regularly submitted to Eurostat.

84. Metadata on building permits were developed in line with ESS standards and submitted to Eurostat via eDAMIS.

Retail trade

85. Variables required in the regulation are: turnover, deflated turnover, number of persons employed, wages and salaries, hours worked (labour indicators: number of persons employed, wages and salaries, hours worked are presented in paragraphs 109-112).

86. The observation unit in retail trade is the enterprise with principal activity classified as retail trade (Division 47 of NACE Rev. 2) with the cut-off limit that depends upon the size of the enterprise and annual turnover. Included are all large and medium enterprises and small enterprises with an annual turnover higher than RSD 1.3 million. Annual turnover and size classes (large, medium and small) for enterprises are taken from financial statements for the year t-2, where t is the current year. The size of the enterprise is defined according to the annual turnover, number of employees and assets of the enterprise. Excluded enterprises make up less than 1% of the turnover. Furthermore, selected business entities whose main activity is not retail trade but which carry out significant retail trade activity (as secondary activity) are included.

87. The combination of a statistical survey (for legal entities) and administrative data source (for unincorporated enterprises) is used.

88. For a monthly statistical survey, the sampling frame is based on the data of the SBR. A stratified simple random sample is drawn. The sampling frame is stratified according to economic activity, financial statements, size classes and annual turnover. Data are submitted on the 15th calendar day after the end of the reference month. Data collection is closed 25 days after the end of the reference month. For unincorporated enterprises, administrative source are used (VAT returns obtained from the Tax Administration). Data on VAT returns are gained from the Tax Administration on CD-Rom. The response rate in 2014 was about 87%.

89. The retail trade turnover index is a simple index. The retail trade volume of sales index is obtained by deflating the turnover value index with an appropriate consumer price index.

90. In the quarterly survey, quarterly data are split by month. In a quarterly questionnaire, turnover data on wholesale trade, maintenance and repair of motor vehicles and motorcycles are collected.

91. All indices published in the monthly statistical release ought to be regarded as preliminary, meaning that certain corrections can appear on the basis of the estimated results, obtained from the regular quarterly survey conducted with a larger number of units in the sample.

92. The time series are seasonally and working day adjusted.

93. The preliminary results of the retail trade survey are published on the last day of the next month after the reference month. Preliminary data are revised using the final monthly data of the quarterly survey (t+60) that is implemented with a large number of units in the sample.

94. Metadata on retail trade index was developed in line with ESS standards and submitted to Eurostat via eDAMIS. On the NSI website metadata is not published yet.

Other services (Annex D)

95. Variables required in the regulation are: turnover, number of employees, gross wages and salaries, hours worked (labour indicators: number of employees, gross wages and salaries, hours worked are presented in paragraphs 109-112).

96. For the calculation of the services turnover index, quarterly survey data are used. Since not all required population is included in the quarterly survey, administrative data from the Tax Administration and annual financial statements are used. 1187 enterprises are surveyed each quarter. The survey is based on random samples. The non-response rate stood at 18.2 per cent in 2013.

97. Another service survey was started in 2008. From the beginning of 2014, SORS started to calculate a turnover index for other services.

98. The monthly index of turnover in catering at constant prices is calculated by deflating the index at current prices by the corresponding price index of catering services. The monthly index of turnover in catering at current prices is calculated as a ratio of the turnover value in the specified month to the corresponding average value of the base year.

99. Services turnover indices in the current year are considered as provisional data until October of the next year.

100. Data for the variable services turnover are not yet disseminated.

101. In the framework of the IPA 2012 Multi-beneficiary statistical cooperation programme, one component of short-term statistics *Other services* variables was included, and it is expected that within the framework of this programme all the requirements according to the STS regulation will be implemented.

Producer prices

102. For producer prices in industry, the observation unit is an enterprise and its products. The reporting unit is an enterprise. Producer prices of industrial products are followed for over 1800 products, classified into sections B, C, D and E, from about 450 industrial producers.

103. Data on producer prices of industrial products are provided by enterprises using a monthly questionnaire for the domestic market and a monthly questionnaire for the non-domestic market. Data collection via web-questionnaires is planned in the nearest future. Industrial enterprises complete forms between the 15th and the 16th day every month with prices for the period and forward them to the respective statistical authorities until the 28th day of the current month. The industrial producer prices index (PPI) is based on the Laspeyres index.

104. The response rate is 70%. Enterprises are contacted by phone in order to receive data on time. Prices for temporarily missing products are compiled by asking the enterprise to estimate the missing price or repeating the last reported price.

105. No seasonal adjustments are made. The data are published as final and are not subject to any revisions.

106. A statistical release on the PPI for the domestic market, non-domestic market is published on the 5th day after the end of the reference month on the website. A statistical release for the total PPI is published two days later on the website.

107. No construction producer price index is calculated at present.

108. Deflators for domestic trade and other services are calculated from consumer prices.

Labour indicators

109. Data on labour indicators in STS are obtained from a monthly survey on employees, hours worked and wages and salaries. For all STS labour variables, a statistical unit corresponds to a local-kind-of-activity unit (LKAU).

110. This survey covers all legal entities having more than 50 employees. Data on the number of employees in small enterprises (less than 50 employees) which are not included in the monthly survey are obtained from a supplementary survey, which is carried out each year in March and September. The survey is carried out based on a stratified random sample. The sampling frame covers legal entities from the SBR with less than 50 employees. The total sample volume is approximately 370 units.

111. The main results on employment are published monthly and quarterly in different breakdowns. At the national level, data on employment (as provisional data) are published 70 days after the end of the reference period. Data on employment are regularly revised twice a year, in January and July, when data from semi-annually surveys become available.

112. Labour indicators and metadata are transmitted to Eurostat in line with ESS standards for metadata. On the NSI website metadata is not published yet.

2.3. Appropriate statistical procedures

<u>Administrative data:</u>

113. Article 9 of the Law on Official Statistics states the following: "*The Office shall participate in all activities related to the establishment of new or to the change of existing administrative data sources, or in the activities relative to the sources based on constant monitoring and observation and that are also relevant for official statistics*".

114. Article 24 makes clear reference to the utilization of administrative data: "*If administrative data sources are available, a statistical survey shall not be undertaken. When conducting a statistical survey, the burden on respondents shall be considered*."

115. By law, SORS has the right to access – for statistical purposes – all administrative data sources free of charge that are kept by government authorities, including identification codes.

116. Administrative data are used in SBS and STS to compile data and to detect, edit and impute item non-response.

<u>Non-response:</u>

117. In 2013 and 2014, the non-response in SBS was about 14%, mainly because of inactive and non-found (wrong address) enterprises. The annual average non-response rate in 2013 in STS was 16% for surveys based on random sample, mainly due to inactive enterprises which were included in the sample.

118. To compensate for non-response in the SBS sample, data from annual financial reports have been used as well as some adjustments.

Data processing:

119. SBS and STS staff members validate data by checking them against data from the previous year or cross-checking between variables. The statisticians responsible for SBS and STS apply logical and mathematical controls at the enterprise level. When differences and inconsistencies are detected, enterprises are contacted to confirm the correctness of the data.

120. The IT tool IST is an integrated tool which is used as a generator for input data, for web application, for data editing and data correction and for generating reports.

2.4. Non-excessive burden on respondents

A method of survey coordination was developed at the Statistical Office of the Republic of Serbia to reduce response burden. It is based on the system for coordination of frame populations and samples from the Business Register at Statistics Sweden (SAMU). (SAMPLE COORDINATION OF STATISTICAL BUSINESS SURVEYS, working paper 89, 2014).

Up to now, coordination at SORS has been implemented for business surveys of statistical enterprises that are based on random samples. The following has been achieved:

- Overlapping of samples of different surveys and repeated surveys is controlled.
- The burden for small enterprises that belong to strata with small sampling fractions (ratio of number of units in the sample and the total number of units in the stratum) is reduced.
- Comparability of statistics across surveys is increased.

121. A very good example of reducing the burden on respondents is structural business statistics, data being compiled by utilising already available sources (administrative sources and sources available within SORS).

2.5. Relevance

122. The release calendar is available on the official website of SORS and contains all statistical products. The Law on Official Statistics (Art. 40 – Data release calendar) states that '*The authorized producers of official statistics shall keep an updated and publicly available dissemination calendar. Any deviation from the time schedule determined by the calendar shall be announced and clarified in public*.'

123. SBS and STS indicators are relevant for all main users such as policy-makers, the media, researchers and students. The degree of relevance has been assessed by SORS as being high, among others through user satisfaction surveys.

124. Information on user satisfaction is collected through an online survey on the official website. SORS conducts a user satisfaction survey for all statistical fields every two years. Survey results are published on the website.

2.6. Accuracy and reliability

125. In order to ensure a high level of quality, source data, intermediate results and outputs are assessed and validated prior to publication, e.g. through a comparison with administrative data sources, at enterprise level and consistency checks between SBS and STS data. The SBS quality report was prepared for the reference year 2012.

126. The coefficient of variation (CV) for national SBS data is not calculated.

127. Regarding the STS surveys based on random samples, for the estimates of totals, accuracy is measured by coefficients of variations, standard errors or confidence intervals, while for indices – by standard errors and confidence intervals.

2.7. Timeliness and punctuality

128. SORS respects deadlines and submits SBS and STS data in time according to the regulation on defining the plan of official statistics.

129. In case of delay, users are informed in advance, and the new date of release is published. The information is available on the website of SORS.

130. The table below shows the main phases of the SBS and STS data production process.

Monthly/ quarterly and annual results for the year 2013	*Main dates in the national production process*					*Reasons for late delivery, if this has occurred*
	Date of the start of data collection	*Date of the end of data collection*	*Date of the end of quality check and weighting for statistics published in a press release*	*Date of the national publication of a press release*	*Date of the national dissemination of micro- and metadata*	
SBS	15/03	30/06		31/03		
STS						
PRICES *310 Output prices*	16th day, every month	28th day of the reference month		each month about 7th and relate to the previous month		
PRICES *311 Output prices of the domestic market*	16th day, every month	28th day of the reference month		each month about 5th and relate to the previous month		
PRICES *312 Output prices of the non-domestic market*	16th day, every month	28th day of the reference month		each month about 5th and relate to the previous month		
Industry	A110; A120, A121 A122	8th of the month; 20th of the month	4 days before the last working day of the month; 40 days following the end of the reference month	The last working day of the month; 45 days following the end of the reference month	not applicable	no delay
Construction	B110; B411 B412	5th day of the month; 15/1, 15/4, 15/7, 15/10	A few days before the publication of results	15th day of the month (45 days following the end of the month); 10/2, 11/5, 10/8 and 10/11	not applicable	no delay
Retail trade	Monthly: the 1st day after the end of the reference month Quarterly: the 1st day of the month after the reference quarter	Monthly: the 15th day after the end of the reference month Quarterly: the 25th day of the month after the reference quarter	Monthly: the 26th day after the end of the reference month Quarterly: 20.05. 20.08. 20.11. 20.02.	Monthly: the last working day of the month after the reference month Quarterly: 60 days after the end of the reference quarter	Metadata: at the beginning of the year	no delay
Services	15.04. 15. 07. 15.10. and 15.01.	05.05. 05.08. 05.11. and 05.02.	25.05. 25.08. 25.11. and 25.02.	/	/	Production of indicators D120 is the goal of MB IPA 2012 project

Monthly/ quarterly and annual results for the year 2013	*Main dates in the national production process*					Reasons for late delivery, if this has occurred
	Date of the start of data collection	*Date of the end of data collection*	*Date of the end of quality check and weighting for statistics published in a press release*	*Date of the national publication of a press release*	*Date of the national dissemination of micro- and metadata*	
SBS	15 March	20 April	30 June – in regional offices, then in the head office; data checking and editing before obtaining final results	Final results 31 March		

2.8. Coherence and comparability

131. SORS applies certain procedures and guidelines to monitor internal data coherence or consistency between preliminary and final data, between surveys (monthly, quarterly and annual surveys), and between business statistics and national accounts.

132. Within IPA 2011, SORS has carried out a comparative exercise for the SBS data collected through both the SBS survey and the annual financial statement for key variables such as turnover and number of employees. For both variables, the comparison reveals very little difference between the two data sources. Concerning turnover at total level, the difference was 0.72% while for number of employees the discrepancy is less than 1%.

133. Until 2010, economic entities were classified according to the national activity classification, which was harmonised with NACE Rev. 1.1; since 2011, the revised classification NACE Rev. 2 is used.

134. The recalculation for previous periods has been carried out using the so-called micro-approach: data for previous periods have been calculated by assigning a new activity code at the level of the current statistical unit, and the estimates were recalculated. SORS stated that there were not enough auxiliary inputs to provide data of sufficient quality back-casting.

2.9. Accessibility and clarity

135. SBS and STS results are disseminated through a specific publication, which is available in PDF format on the website.

136. The results by activities are not presented for all variables, but the selection of variables was done according to the public interest. A more detailed analysis can be provided upon request.

137. SBS data are presented in the form of absolute figures, expressed in thousand euro and percentages. SBS data are available in electronic (Excel) format.

138. SORS is in line with EU requirements in preparing metadata for key STS and SBS indicators. There are metadata for two indicators: service producer prices and labour indicators, which are not yet produced. Metadata are not published on the national website, but are transmitted to Eurostat and published on Eurostat’s website. In order to meet users’ requirements, methodological notes for each BS survey, except for the STS domain *Other services*, are placed on the national website.

3 International organisations and activities related to the BS

139. SORS has implemented a multi-beneficiary IPA programme which has covered business statistics through data collection projects and a big number of meetings, trainings and workshops dedicated to the development and harmonization of business statistics with EU standards.

140. In the NSI, staff working on the related statistical areas attend meetings and trainings on the subject. According to internal procedures, the sector for EU integration and international communication provides the list with selected courses, seminars and workshops to assistant directors. Then assistant directors send it to the staff. Employees can apply to events from the list that are related to their work. Assistant directors send proposals to the Sector for EU integration, where a list of events and employees should be compiled. The Board of Directors makes a final decision on participants for each event.

141. SORS will continue to benefit from the IPA programme, through which it will receive continuous training in several statistical fields.

4 Further developments

142. It is necessary to continue the progressive approach towards full compliance with STS and SBS regulations. In order to do that, it is necessary to adopt a very detailed timetable of activities containing information on tasks, experts involved and timing.

143. In SBS, improvements should be done in data processing and dissemination. High priority should be given to the analysis of additional data sources to be used to increase the number of variables to be disseminated.

5 Conclusions and recommendations

144. The main recommendations of the sectoral review on business statistics are as follows. SORS is encouraged to:

- Plan a strategy for increasing the number of staff based on a progressive approach, by giving priority to the main gaps in business statistics.
- Attach the highest priority to comply with SBS and STS regulations for all the regulated indicators. Common variables should be identified, variables should be named alike and common definitions should be applied. Additional human resources are needed to support the current SBS production.
- Prepare a plan specifying activities, results and deadlines for all the cases where SORS is not compliant with EU requirements. The plan should take the available number of human resources into account.
- Improve the timeliness of data collection and publication to conform to international standards by allocating more resources (both human and financial) and by modernising data collection and processing. This is especially important for users who are interested in timeliness when statistics are used as decision making indicators.
- Draft and implement a revision policy. A manual on revisions should be prepared considering EU recommendations and a detailed timeline of implementing revisions for each subject matter.

- Continue the modernisation of data collection by extending online data collection and reducing the share of paper questionnaires. This will reduce costs and response burden, enabling SORS to allocate resources to improve the quality of BS.
- Treat STS and SBS data in a more consistent way and build a statistical data warehouse containing all business statistics. This will assure the coherence and quality of statistical data. Modern national statistical institutes are progressively developing integrated data release tools such as data warehouses.
- Start preparing quality reports and metadata for missing indicators. Information on how statistical outputs are produced is also needed to understand and use the data more effectively.
- Extend the SBS coverage by including entrepreneurs. This will ensure international comparability of the annual data.
- Start applying confidentiality treatment and procedures to SBS and provide training on confidentiality treatment software (e.g. tau-Argus).
- Standardise the methodology, editing rules and algorithms for data editing and imputation. Using standards and models to describe statistical processes will increase the coherence and quality of statistical data.
- Use the SBR as a basis for sampling in business statistics, not as auxiliary (consultative) database only. The Business Register should be the backbone of business statistics.

6 References

1. Law on Official Statistics
2. Organisational Chart of the Business Statistics Department
3. SBS questionnaires and methodology
4. Concepts and definitions of SBS
5. Draft Quality Report on SBS