

TWINNING CONTRACT

BA 15 IPA SR 01 17

Support to the reform of the statistics system in Bosnia and Herzegovina



STUDY VISIT REPORT

on

**Services Producer Prices Index
Activity 2.4.4**

Study visit to Finland

11-13 September 2018

Version: Final

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List of Abbreviations

BHAS	Agency for Statistics of Bosnia and Herzegovina
BiH	Bosnia and Herzegovina
CBBH	Central Bank of Bosnia and Herzegovina
EC	European Commission
EU	European Union
FBiH	Federation of Bosnia and Herzegovina
FIS	Institute for Statistics of Federation of Bosnia and Herzegovina
MS	EU Member State
RSIS	Institute for Statistics of Republika Srpska
RTA	Resident Twinning Adviser
ToR	Terms of Reference

1. General comments

This study visit report was prepared within the EU Twinning Project "Support to the reform of the statistics system in Bosnia and Herzegovina". and organised under component 2 - Business Statistics, activity 2.4.3. Services Producer Prices Index (SPPI).

Primary goal of the study visit was to introduce the BiH statisticians to current practice and development of SPPI in Statistics Finland. In addition, this was excellent opportunity to gain knowledge and best practices from Statistics Finland experience in production of deflators on higher level of NACE Rev.2 and to learn in detailed way on IT solutions used for SPPI production. Currently, BiH produces SPPI for 8 selected service industries for which the regular data collection process has been established. Through current IPA 2015 TP we are developing an index for M71.1 Architectural and engineering activities and related technical consultancy. Most of procedures currently used for production of SPPI's are performed manually, in MS Excel, without any IT support. One of priorities in BiH statistical system is to develop common IT solution for Services Producer Prices Index (SPPI) and Construction Producer Price index (CPPI) in order to reduce burden on statisticians and improve overall quality of produced indices. This SV covered topics essential for future development of SPPI in BiH. Beside above mentioned themes, we were interested to get more information about deflators and use of administrative sources for production of turnover indices.

The staff of BHAS, and RSIS would like to express their thanks to all officials and individuals met for the kind support and valuable information which they received during the stay in Denmark and which highly facilitated the work. Representatives of FIS did not take part in study visit.

This views and observations stated in this report are those of the consultant and do not necessarily correspond to the views of EU, BHAS, FIS, RSIS, CBBH, Statistics Denmark, INSEE, Statistics Finland and Croatian Bureau of Statistics.

2. Lessons Learned

At the beginning of study visit participants from BHAS and RSIS were introduced with overall structure, historical development and legal basis of Statistics Finland. Also, we were introduced with responsibilities of Price Statistics Division and current status of SPPI production in Finland. The first day of the study visit we were informed about GSBPM (Generic Statistical Business Process Model) used for production of official statistics in Finland and fact that significant flow of data comes from administrative sources and registers. The main reason for the introduction of GSBPM is to improve the quality of statistics, standardize statistical production process, provide more efficient use of IT system and improve overall quality of statistical products, metadata and dissemination of official statistics. They presented us whole chain of production process for business statistics, starting from the sample selection, data collection process, linking with VAT data, calculation method used and integration of Business Statistics data for the purpose of production on National Accounts. For statistical institutions in BiH it is important to increase use of administrative data for statistical production and in that way reduce burden on reporting units and statisticians and improve quality of produced statistics in Bosnia and Herzegovina. Activity on use of administrative data for statistical purposes is crucial for modernization of statistical production process in BiH and could be further supported through current IPA 2015 Twinning Project.

Next topic was business data collection in Statistics Finland and use of XCola - electronic web questionnaire. We were introduced with main functionality of application, questionnaire design, data collection process and editing procedures.

Use of XCola application benefit considerably in increase of cost-efficiency and reduce response burden on enterprises. This was very interesting topic having in mind intention of statistical institutions in BiH to introduce web based surveys (data collected by e-mail or using internet). BiH statisticians presented overview of activities carried out since the last mission, the first results of pilot survey for NACE activity M71.1 (data collection process, non-response, FAQ, etc.) and example on SPPI calculation for NACE activity H49.41, in order to verify the calculation method used for the SPPI in Bosnia and Herzegovina. It was concluded that the method is appropriate and should be applied in regular production of SPPI in BiH.

The second day of the study visit we were introduced with HITS - IT application used for compilation of price indices and index calculation in Finland. The common production system of price indices has possibilities to connect/link collected prices to many different indices. SPPI and PPI have the same production systems and electronic data collection systems in Statistics Finland. We were acquainted with main functionalities of HITS application including validation and editing data in Finnish SPPI, quality adjustment methods, treatment of missing observations – imputation methods, calculation procedures, publishing of chain indices and data warehousing. The system has been designed, not only for calculation, but also for planning and administration of price indices. We went through practical examples about the validation in both micro and macro level. Also, we had presentation on imputation methods used for SPPI, treatment of temporarily or permanently missing price observation, quality changes and their treatment in index calculations. BiH statisticians were very interested about this topic and we discussed quite detailed about it. Since the common IT application for CPPI and SPPI in BiH is in the development phase, the lessons learned during the study visit will be very helpful for our further work. During the next two missions, common IT application will be installed and tested and by the end of 2018 MS expert will provide the IT application including technical documentation.

The third day of the study visit we were introduced with deflation process and the deflation software used in Statistics Finland. Their focus is on production of deflators on higher level, two-digit level of NACE, in order to provide alignment with turnover value indices. This is one of requirements for SPPI proposed in new FRIBS regulation. Finnish expert told us about their good experiences in establishment of Deflator group – cooperation between representatives of price statistics, national account, business statistics, SBS and SBR. Based on information and recommendations provided by Statistics Finland, statistical institutions in BiH will consider the possibility to implement similar procedures in development of deflator group in BiH statistical system. . Very important topic was use of non-survey data sources (i.e. registers, administrative data, etc.) which could be used as inputs for SPPI production in order to enable production of deflators on two-digit level of NACE Rev. 2. It's very useful to share knowledge and good practices about compiling deflators in order to produce new ISP (Index of Services Production). In this initial stage of deflator's development we are focused on the setting up of appropriate methodology for calculation of deflators and production of volume indices in line with new FRIBS requirements, as they are defined in the Guideline for developing an Index of services production (ISP). In that way we should be able to produce new deflators for the different service industries without additional burden on businesses and statisticians.

Besides that, we were introduced with sample procedures used for SPPIs in Statistics Finland, which are based on probability proportional by size (PPS) design and stratified sampling. We went through the Finnish PPI rules on stratified sampling in enterprises. The statistical institutions in BiH are also considering using either PPS or stratified sampling on their SPPI. There are many advantages of using these sampling methods (fewer companies needed for a representative sample, sample is not dominated by only one company and lower probability of being included for smaller companies) but it is also sometimes challenging to determine which companies should be included in population. Currently, in BiH we are using cut-off method (top-down approach) for establishing SPPI samples.

Also, we don't have a possibility to use for example SAS to draw a PPS sample, so a stratified sampling might be easier to apply.

Finnish expert presented good experiences in Nordic co-operation in SPPI – it's very useful to share knowledge and good practices about compiling statistics with countries with similar economic conditions. It was concluded that good cooperation between the three statistical institutions in BiH is very important and that we should work on improvement of cooperation with the neighbour countries NSI's. As a result it would improve the quality of statistics and countries could share good practices and solutions for the challenges they are confronting.

3. Conclusions and recommendations

1. This study visit was very extensive and covered a lot of different topics. Mostly, topics were related to development and production of SPPIs. We had heard a lot of useful recommendations based on Statistics Finland experience which will be used in our work on further development and production of SPPI in BiH.
2. We were introduced with HITS software used for SPPI production in Finland. Since the common IT application for CPPI and SPPI in BiH is in the development phase, the lessons learned during the study visit will be very helpful for our further work.
3. It is important to introduce web data collection in order to increase the data quality and to reduce response burden on reporting units in BiH. We were introduced with main functionality of XCola application (questionnaire design, data collection process and editing rules) which benefit considerably in increase of cost-efficiency and reduce response burden on enterprises in Finland.
4. Another important topic was about use of administrative sources for production of turnover indices (i.e. VAT data). Having in mind that we still don't use administrative data for production of turnover indices in BiH, experience gained is very useful and will be used as bases for our developing activities.
5. Based on information and recommendations provided by Statistics Finland, statistical institutions in BiH will consider the possibility to implement similar procedures in development of deflator group in BiH.
6. Importance of reaching goals based on activities planned through IPA 2015 Twinning Project for sub-component 2.4 Services Producer Prices Index (SPPI) to contribute to further harmonization of BiH statistics with EU requirements.
7. Received valuable materials will be further analyzed and made available to all interested in the statistical system of BiH.

Actions needed for moving forward

Action	Deadline	Responsible institution / person
1. Future work on the development of common IT application for SPPI and CPPI to enhance the existing as well as planned surveys, with the help of Danish experts	By the end of 2019	All three statistical institutions in BiH and MC expert
2. Conducting Pilot survey on SPPI for M71.1 - Architectural and engineering activities and related technical consultancy and establishing regular survey	By the end of 2019	All three statistical institutions in BiH And MC expert
3. Intensive use of administrative data sources for production of official statistics in BiH (i.e. VAT database)	to be defined with all three statistical institutions in BiH	All three statistical institutions in BiH Expert's support
4. Development of appropriate methodology for calculation of deflators and production of ISP in line with new FRIBS requirements	to be defined with all three statistical institutions in BiH	All three statistical institutions in BiH Expert's support
5. Implementation of GSBPM for modernization of statistical production process in BiH	to be defined with all three statistical institutions in BiH	All three statistical institutions in BiH Expert's support
6. Development of web data collection	to be defined with all three statistical institutions in BiH	All three statistical institutions in BiH Expert's support

Annex 1. Programme

Tuesday 11 September, 10th floor Meeting room Saunatupa

- 9:30–10:30 Welcome
Toni Udd, Head of Statistics, Economic and Environmental Statistics/Cost indicators
MS experts
- 10:30–12:00 Objectives of the study visit and overview on the agenda
Latest development of SPPI in BiH – follow up from the second mission
BC experts and MS experts
- 12:00–13:00 Lunch
- 13:00–15:30 Brief overview of the GSBPM
XCola – the electronic web questionnaire
MS experts
- 15:30–16:00 Discussion and reflection on lessons learned
BC experts and MS experts

Wednesday 12 September, 10th floor Meeting room Saunatupa

- 9:00–12:00 HITS – IT application for compilation of price indices:
Data editing and validation
MS experts
- 12:00–13:00 Lunch
- 13:00–14:00 HITS – IT application for compilation of price indices:
Imputation and index calculation
MS experts
- 14:00–15:30 Data warehouse:
Storing and dissemination
MS experts
- 15:30–16:00 Discussion and reflection on lessons learned
BC experts and MS experts

Thursday 13 September, 2nd floor, Meeting room 15 Sattuma

- 9:00–12:00 Deflation use of SPPI and the deflation software
MS experts
- 12:00–13:00 Lunch

13:00–14:30	Conclusions, discussion on lessons learned, next steps and main points to include in the Study Visit Report <i>MS experts</i>
14:30–15:00	Evaluation of the study visit <i>BC experts and MS experts</i>

Annex 2. Persons met

List of participants

Agency for Statistics of Bosnia and Herzegovina

Alen Bajramović, Head of Department for Services Statistics

Azra Bander Demirović, Junior Officer for Services Statistics

Sulejman Hasanović, Head of IT Department

Jasna Isaković, Head of Department for Sample design and Methodology

Institute for Statistics of Republika Srpska

Jelena Glamočika, Head of Department for Service Statistics

Aleksandra Đonlaga, Senior Statistician for Consumer Prices

Borjan Cvjetković, IT support

Vedrana Dejanović, Junior Officer for Sample design

Statistics Finland

Anna-Riikka Pitkänen, Senior Statistician, Economic and Environmental Statistics/Cost indicators

Susanna Tåg, Senior Statistician, Economic and Environmental Statistics/Cost indicators

Ville Markkanen, Senior Statistician, Economic and Environmental Statistics

Anni Huuskonen, Senior Statistician, Economic and Environmental Statistics/Cost indicators

Veli Kettunen, Planning Officer, Economic and Environmental Statistics/ Cost indicators

Toni Udd, Head of Statistics, Economic and Environmental Statistics/Cost indicators

Lis-Lotta Sjöblom, Senior Statistician, Economic and Environmental Statistics/National accounts

Ville Lindroos, Senior Statistician, Economic and Environmental Statistics/National accounts

RTA Office

Haris Imamović, Interpreter