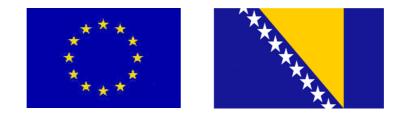**TWINNING CONTRACT**

BA 15 IPA SR 01 17

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

MISSION REPORT

Activity 2.4.1:
Assessment of current situation and plan for development of new SPPIs

Component 2: Business Statistics
Sub-component 2.4: Services Producer Prices Index

Mission carried out by
Susanna Tåg, Statistics Finland
Josipa Kalčić Ivanić, Croatian Bureau of Statistics

12-15 March 2018

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Expert contact information

Susanna Tåg
Statistics Finland
Helsinki, Finland
Tel: +358 50 360 4414
Email: susanna.tag@stat.fi

Josipa Kalčić Ivanić
Croatian Bureau of Statistics
Zagreb, Croatia
Tel: +385 98 548 387
Email: kalcicj@dzs.hr

Table of contents

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
ISP	Index of Services Production
MS	EU Member State
RSIS	Institute for Statistics of Republika Srpska
RTA	Resident Twinning Adviser
SBR	Statistical Business Register
SPPI	Services Producer Price Index
ToR	Terms of Reference

1. General comments

This mission report was prepared within the EU Twinning Project "Support to the reform of the statistics system in Bosnia and Herzegovina". It was the first mission to be devoted to the Services Producer Price Index within Component 2 of the project.

The purposes of the mission were:
- Assessment on the current situation on development of SPPI in BiH
- Overview of activities carried out from the end of previous Twinning Project
- Presentation of EU Member States experiences in production of SPPI
- Defining priority service industries for production of appropriate SPPI and deflators
- Overview of new FRIBS regulation on SPPI and ISP
- First draft of questionnaires for pilot survey
- Draft activity plan for pilot survey

The consultants 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 Bosnia-Herzegovina and which highly facilitated the work of the consultants.

This views and observations stated in this report are those of the consultants 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. Assessment and results

Day 1

On the first day the overview of activities carried out from the end of previous Twinning Project and the assessment on the current situation on development of SPPI in BiH was discussed. There are three statistical institutions within Bosnia and Herzegovina that are responsible for producing statistics. All three institutions will be engaged in producing SPPIs. There are challenges to ensure adequate resources for starting on-going production of SPPI, because only one person works on development of SPPI in each statistical institutions. However, the motivation of local experts to develop new indicators is remarkable.

BC experts have developed the following experimental SPPIs within seven NACE activities during the previous Twinning Project: 49.41 Freight transport by road, 51.10 Passenger air transport, 52.10 Warehousing and storage, 52.24 Cargo handling, 53.10 Postal activities under universal service obligation, 53.20 Courier services and 61 Telecommunication. In addition, following activities have been introduced in the regular data collection in BiH: 80 Security and investigation activities and 81.2 Cleaning activities. Local experts started with previous mentioned activities because of the simplicity and availability of turnover data which made it possible to calculate also volumes. The development of the abovementioned industries will continue and this project will also provide support for the production of those industries.

Next, the BC experts would like to focus on section M which is one of the biggest service sections in BiH. Especially, there is need for the index of M71.1 Architectural and engineering activities and

related technical consultancy in BiH. Indices will be produced especially with the intention to be used as deflators in the National Accounts and ISP.

The development of an IT application is an essential prerequisite for developing SPPIs. The IT application will be developed within another activity of the Twinning Project, i.e. Activity 2.C.1: IT application development for producer prices I. Following a useful discussion with MS experts during this activity as well, the BC experts decided to use that valuable expertise, experience and recommendations in preparation of project requirements for the development of producer prices IT application.

The MS experts had presentations of EU Member States experiences in production of SPPI. Firstly, Croatian expert illustrated the current situation and importance of service sector. Croatian Bureau of Statistics has developed 20 indices since 2008 with the support from EU. MS expert from Croatia explained four phases of developing SPPI: preparatory phase, defining methodology, pilot survey and set-up of permanent survey. Also, challenges encountered, like difficulties in establishing contacts with companies, were discussed. There can also be challenges with sample frame when it comes to misclassifications: it may be difficult to identify correct enterprises.

Secondly, Finnish expert shared some experiences in production of SPPI. The organisation of price statistics was discussed. In Statistics Finland, the price statistics are mainly located in the same department as National Accounts which makes the co-operation more feasible. The scope of the SPPI will enlarge from BtoB to BtoAll this year and it will be an annual chain-linked index.

Day 2

The main topic of the second day was the defining priority service industries for production of appropriate SPPI and deflators. The BC experts decided to concentrate on developing an index for M71.1 Architectural and engineering activities and related technical consultancy. In terms of turnover the strongest division in sector M is M71 producing 52.08 % of the turnover. Also in terms of numbers of enterprises and number of persons employed the most important division in sector M is M 71. As a result, the MS experts presented industry characteristics, pricing methods and data collection of that industry from their experiences. The MS experts showed a (web-based) questionnaires concerning turnover, the division of turnover according to service groupings, and also prices.

In the connection with the data collection, also validation and editing was discussed. The BC experts focused on the reasons for price changes and how to deal with editing in different occasions. The MS experts illustrated some examples.

A question arose regarding whether it would be possible to (fully) automate quality adjustment procedures in the common IT-application. Whenever a product in the sample of a price index is replaced with another product, a quality adjustment has to be made between the price of the product leaving the sample and the price of the product entering the sample. The quality adjustment should ensure that price differences reflecting possible quality differences between the two products do not enter the price index calculations so that the indices only reflects "pure" price changes. However, it is impossible to provide with precise and comprehensive descriptions and instructions for all possible solutions of data editing. For that reason, it is also difficult to automate data editing completely. There would be a risk that fully automated quality adjustment procedures run of track and in effect creates less reliable price indices if not handled or checked by a statistician on a case by case basis. The MS experts shared their experiences on data editing which is implemented manually. It is one of the most essential parts of the work of statistician to implement data validation and editing, and it requires special expertise on prices and service industries.

One of the topics discussed was the first draft of questionnaires for pilot survey. The MS experts provided examples of questionnaires. It was agreed that the local experts will draft the questionnaire

before end of April 2018. The draft questionnaire will be prepared with help of examples from Croatia and Finland, and also the questionnaires from the previous project. The draft questionnaire will be presented to some big and few smaller companies during personal visits. It is important to establish contacts with companies and convince them on the confidentiality of data and the importance of their participation.

Day 3

The third day started with the discussion of pricing methods and practical examples. For industry 71.1 time-based methods is commonly used. It should be kept in mind that changes in productivity must be taken into account when using this method. In order to facilitate the identification of changes in productivity it is essential that time based method is based on detailed specifications of all or some of the following characteristics: the work, the type, skills level and experience of staff, the client as well as profit and overhead.

Furthermore, different sampling techniques were one of the topics. The local experts will make decisions on the samples after analysing industry data from SBR. The sample should be representative on BiH level and also on entity level. Also, calculation methods of index was discussed. The focus was on annual chain-linked index. The MS experts complied with the target methodology elaborated by the STS Task Force on chain-linking. The formula for the elementary aggregate index was an interest for the local experts. The MS experts demonstrated their way of compiling elementary indices which is geometric mean of price relatives (Jevons index).

The overview of new FRIBS regulation on SPPI, ISP and turnover was presented during the meeting. Information about the variable, producer price, price notion, statistical unit and data transmissions etc. were scrutinized.

A draft activity plan for pilot survey was prepared and preliminary dates and activities for the whole project were determined. The initial proposal for the whole project was discussed without any major changes. The second mission is planned to take place in the beginning of June 2018.

The MS experts will be at disposal for the BC experts also between the missions to offer support whenever needed.

3. Conclusions and recommendations

During the first mission the following output have been achieved:
- Current status of producer (output) prices in services assessed
- Agreement on service industries selected for pilot survey
- EU experiences on SPPI presented
- First draft of questionnaires for pilot survey developed
- Draft activity plan agreed
- Input provided to the ToR of next activity

All anticipated outputs were achieved during the mission. The MS experts recommended methods for pricing, sampling, editing, validation and index calculation etc. The BC experts were presented with FRIBS regulations regarding SPPI and ISP.

Following a useful discussion with MS experts, the BC experts decided to use that valuable expertise, experience and recommendations in preparation of project requirements for the development of producer prices IT application. In addition, a question arose regarding whether it would be possible to

(fully) automate quality adjustment procedures in the common IT application. Furthermore, the BC experts received support for drafting questionnaires.

The recommendations follow the regulations and recommendations of EU and/or Eurostat-OECD Methodological Guide for Developing Producer Price Indices for Services, and also Croatian and Finnish experiences.

What to do before the next mission for the BC Counterpart

Action	Deadline	Responsible person
Analyse data from SBR, SBS and most recent STS data; checking the units of interest	End of April 2018	BHAS, FIS and RSIS
Make a decision about sampling method and draw a sample for activity M71.1	End of April 2018	BHAS, FIS and RSIS
Test draft questionnaires in the field by contacting and visiting relevant companies	End of April 2018	BHAS, FIS and RSIS
Optimize questionnaires before final pilot survey and prepare short report with feedback from the field	First half of May 2018	BHAS, FIS and RSIS
Study methodological documentation in detail to extend the knowledge and understanding of SPPIs	Ongoing process	BHAS, FIS and RSIS
Study methodological documentation on annual chain-linked index elaborated by the STS Task Force on chain-linking	Ongoing process	BHAS, FIS and RSIS
Final questionnaire for pilot survey regarding activity M71.1	20 of May 2018	BHAS, FIS and RSIS
Pilot survey for the first quarter of 2018 conducted	End of June 2018	BHAS, FIS and RSIS
Check the main activity of businesses and make feedback to SBR during the work in the field	End of December 2018	BHAS, FIS and RSIS

What to do before the next mission for the MS Counterpart

Action	Deadline	Responsible person
Prepare a presentation on validation and editing of SPPIs with practical examples	Before second mission	Josipa Kalčić Ivanić (HR), Susanna Tåg (FI)
Prepare calculation examples of SPPI	Before second mission	Josipa Kalčić Ivanić (HR), Susanna Tåg (FI)
Prepare a short presentation on IT-system used in SPPI	Before second mission	Josipa Kalčić Ivanić (HR), Susanna Tåg (FI)

Annex 1. Terms of Reference

Terms of Reference

EU Twinning Project BA 15 IPA ST 01 17

Component 2: Business Statistics
Sub-component 2.4: Services Producer Prices Index
12-15 March 2018

Hosting institution: RSIS - Veljka Mladjenovica 12d Banja Luka

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Activity 2.4.1: Assessment of current situation and plan for development of new SPPIs

1. **Mandatory result and benchmarks for the component**

Mandatory result:

- New indicators for producer prices in services produced by 8th project quarter

Benchmarks:

- Plan for development of producer prices in services produced by 1st project quarter
- Draft questionnaire and supporting documents for pilot survey prepared by 1st project quarter
- Pilot survey conducted by 2nd project quarter
- Criteria for an IT application defined by 2nd project quarter
- Results of pilot survey analyzed by 4th project quarter
- Plan for regular production of producer prices in services developed by 4th project quarter
- Indices on producer prices in services compiled by 6th project quarter
- Indices on producer prices in services made available to users by 8th project quarter
- Methodological document on producer prices in services developed by 8th project quarter
- Quality report for producer prices in services developed by 8th project quarter

2. **Purpose of the activity**

- Assessment on the current situation on development of SPPI in BiH
- Overview of activities carried out from the end of previous Twinning Project
- Presentation of EU Member States experiences in production of SPPI

- Defining priority service industries for production of appropriate SPPI and deflators
- Overview of new FRIBS regulation on SPPI and ISP
- First draft of questionnaires for pilot survey
- Draft activity plan for pilot survey

3. Expected output of the activity

- Current status of producer (output) prices in services assessed
- Agreement on service industries selected for pilot survey
- EU experiences on SPPI presented
- First draft of questionnaires for pilot survey developed
- Draft activity plan agreed
- Input provided to the ToR of next activity

Annex 2. Persons met

Agency for Statistics of BiH (BHAS)
Alen Bajramović, BHAS
Lejla Borovina, BHAS

Institute for Statistics of Federation of BiH (FIS)
Merima Hadžalić, FIS

Institute for Statistics of Republika Srpska (RSIS)
Jelena Glamočika, RSIS
Aleksandra Đonlaga, RSIS

MS Experts
Susanna Tåg, Statistics Finland
Josipa Kalčić Ivanić, Croatian Bureau of Statistics

Twinning Project Administration
Katja Møller Hjelvang, RTA
Đemka Šahinpašić, RTA Assistant
Haris Imamović, Interpreter

Signatures

For the approval of the contents of this report, representatives from BHAS, FIS and RSIS as well as MS experts and the RTA sign here:

Date: 15th of March 2018

_____   _____
Component leader, BHAS   Component leader, FIS

_____   _____
Component leader, RSIS   RTA

_____   _____
MS Expert   MS Expert