### TWINNING CONTRACT

### **BA 12 IB ST 01**

# Support to the State and Entity Statistical Institutions, phase VI



# **MISSION REPORT**

on

Activity 2.3.2.4 Preparation of regular surveys on producer (output) prices in services

Mission carried out by Rasmus Anker Kristiansen, Statistics Denmark

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# Expert contact information

Rasmus Anker Kristiansen Statistics Denmark Sejrøgade 11 DK-2100 Copenhagen Ø Denmark Tel: +45 39 17 35 32

Tel: +45 39 1/ 35 32 Email: rkr@dst.dk

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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
RS	Republika Srpska
RSIS	Institute for Statistics of Republika Srpska
DB	District of Brčko
RTA	Resident Twinning Adviser
ToR	Terms of Reference
SPPI	Producer Price Index for Services

### 1. General comments

This mission report was prepared within the Twinning Project "Support to the State and Entity Statistical Institutions, phase VI". It was the fourth mission to be devoted to introduce Producer Price Index for Services (SPPI) in BiH within Component 2.3.2 Short-Term Statistics 14-18 December 2015 of the project. The purposes of the mission were:

• Preparation of regular surveys on producer (output) prices in services

The consultants would like to express his/her thanks to all officials and individuals met for the kind support and valuable information which he/she received during the stay in Bosnia-Herzegovina and which highly facilitated the work of the consultant. 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 or Statistics Denmark.

### 2. Assessment and results

The list of activities defined in the ToR for the fourth mission includes:

- 1. Presentation of the results from test calculations of pilot indices based on agreed methods
- 2. Amended methods for the regular surveys on SPPI, based on the experiences from the pilot surveys
- 3. Proposals of imputation methods that will be used for regular compilation of price indices and agreement on revision policy
- 4. Agreement on final questionnaires for a regular production
- 5. Presentation of Danish output tables (publication forms, transmission formats, etc.)
- 6. Preparation of output tables (publication forms, transmission formats, etc.)
- 7. Plan for a regular surveys
- 8. Presentation of the first draft of methodological paper
- 9. Revision of the first draft of methodological paper and suggestions from MS and BC experts

During the fourth mission the following output have been achieved:

- Analysis of the results from test calculations of pilot indices were made
- Final methods for the regular surveys on SPPI were agreed
- Final questionnaires were agreed upon
- Plan for regular production of SPPIs was developed
- Imputation and revision methods were agreed
- Draft output tables was defined (publication forms, transmission formats, etc.)
- Input to a draft methodology was made

### 3. Conclusions and recommendations

#### 3.1 Status since mission three

Since the third mission, representatives from FIS have been working intensively with handling of misallocated enterprises in the statistical business register. This has been an issue particularly in industry 49.41 Freight Transport by Road and 52.10 Warehousing and Storage. There have been cases driven by legislative rules, meaning that enterprises have been allocated in 49.41 in order to do business abroad e.g. within retail and wholesale. The statistical business register have been made aware of this issue. Also, industry 61 Telecommunications and 53.20 Courier Services has been labour intensive with many refusals to deliver data and/or low data quality. The next step will be urgent letters to remind the enterprises of their legal obligations in a further attempt to get them to provide data.

Since the third mission, representatives from RSIS experienced similar issues. They have been visiting respondents, in an effort to increase response rates and improve data quality. This work will continue by following up and contacting respondents via email, telephone and paying further company visits. Many have promised to deliver prices for services without delivering any data. Response rates for FIS, RSIS and DB for 2015Q1, 2015Q2 and 2015Q3 can be found in Appendix 1.

## 3.2 Preliminary results from test calculations

During the fourth mission preliminary results from 2015Q1, 2015Q2 and 2015Q3 was presented by BC experts. The example below shows preliminary results from FIS for industry 49.41 Freight Transport by Road. The example is calculated using data from the pilot project and relies on 63 prices collected from 39 respondents. The prices are divided into eight separate service groups and weighed together using turnover values as weights both on product and company level.

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Tabla I	Draliminary r	equilte tor AU A	l Freight Transpor	t hw Road in FIS
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Group	Turnover	Weight	2014Q4	2015Q1	2015Q2	2015Q3
1	29,759	0.10	100.0	100.4	99.7	100.0
2	23,591	0.08	100.0	98.0	101.0	98.7
3	2,700	0.01	100.0	100.0	100.0	100.0
4	20,640	0.07	100.0	99.2	100.0	98.9
6	162,075	0.56	100.0	100.1	101.4	99.6
8	3,104	0.01	100.0	97.4	102.6	100.0
9	34,047	0.12	100.0	99.7	100.0	100.0
12	14,168	0.05	100.0	100.0	100.0	100.0
Total	290,084	1.00	100.0	99.8	100.9	99.6
Relative			-	-0.157 %	0.860 %	-0.394 %
Chain index	X .		100.0	99.8	100.7	100.3

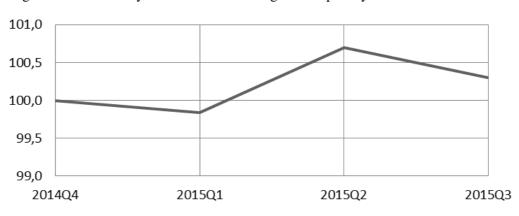


Figure 1 – Preliminary results for 49.41 Freight Transport by Road in FIS

### 3.3 Methods for regular surveys

In general, future regular surveys on SPPI will build on the experiences gained from the pilot surveys performed during the current project. Regular survey for 49.41 Freight Transport by Road will be based on prices and turnover values collected via questionnaires. Regular survey for 51.10 Passenger Air Transport is halted by the fact that the only company within this industry is currently in the process of transformation. There is no plan to collect data from this industry in 2016 however, if the company reinitiate its business activities and become active, service price collection will be reestablished. Regular survey for 52.10 Warehousing and Storage will be based on collection via questionnaires from enterprises and KAUs. There are few misclassified units in the statistical business register which makes it difficult to select potential reporting units. Regular survey for 52.24 Cargo Handling suffers from similar problems as the industry for warehousing and storage. The intention is to obtain full coverage based on collection via questionnaires from enterprises and KAUs. Regular survey for 53.10 Postal Activities under Universal Service Obligation will continue directly from the pilot survey using the same methodology and obtaining full coverage. Regular survey for 53.20 Courier Services will be subject to continuous cooperation with reporting units to improve quality using questionnaires. Finally, regular survey for 61 Telecommunications will so far continue to be based on unit value prices collected via questionnaires from enterprises.

Since the third mission, representatives from BHAS have held two meetings with the Regulatory Agency of Communication (RAK) regarding delivery of prices of telecommunications services. During those meetings, the RAK has been introduced with the questionnaire used in the pilot project for telecommunication services and made aware which data is required to produce quarterly SPPIs for this industry. Optimally, the Agency for Statistics in BiH would be granted access to RAK data, including turnover and volume for different telecommunications services. So far, there is a verbal agreement in place on provision of data from the RAK, in order to produce exploratory SPPIs for this industry.

For future use and regular production, this agreement will be formalized in the form of a protocol on data transmission to BHAS. However, this effort is ongoing, and intensive communication with RAK will continue. Until this agreement is established, entities will continue to collect prices directly from respondents for telecommunication services. Once relevant data is provided by the RAK, the agency will have the opportunity to make an analysis of SPPIs based on data from the two sources and compare RAK data with own calculations.

### 3.4 Agreement on final questionnaires for regular production

Questionnaire for regular production for 49.41 Freight Transport by Road in 2016 and onwards will be the same as those used in the pilot project. BC representatives have agreed to keep table 2 in the questionnaire, concerning annual turnover figures for weights. Questionnaire for 51.10 Passenger Air Transport will not be needed at this point since there are no active respondent candidates available. Questionnaire for 52.10 Warehousing and Storage will be the same as those used in the pilot project, and collection will be from both enterprises and KAUs. Questionnaire for 52.24 Cargo Handling and 53.10 Postal Activities under Universal Service Obligation will be the same as those used in the pilot project. Questionnaire for 53.20 Courier Services will be subject to continuous cooperation with, and feedback from, reporting units to improve quality. A new version of the questionnaire for a better survey will therefore be made by February 2016. Finally, questionnaire for 61 Telecommunications will be adjusted to be more similar to the groupings used by the RAK for data collection. There was a general consensus to simplify the questionnaire for 61 to reduce response burden. Furthermore, it is recommended that data collection will initially focus on telecommunications services. The services that enterprises provide in this industry is getting more and more integrated with services from other industries such as; radio and television, and information services (streaming). This issue must be addressed in the future.

### 3.5 Imputation methods

During the fourth mission, imputation methods were agreed upon. Methods for imputation in case of non-response are described in detail in chapter 7 in the provisional methodological document. The main conclusions are that 'carry forward' will be used in case of contract pricing. In other cases, use of average movements of the respective service group will be applied. In other cases when item non-response appears because services are no longer offered, new or substitute services should be reported using overlap approach. The content of the provisional methodological is subject to future revisions.

### 3.6 Output tables, publication forms, transmission formats, etc.

During the fourth mission, Danish experiences with output tables, publication forms and transmission formats between Statistics Denmark and Eurostat was presented. Regarding output tables, these are produced in two steps. First, six-digit elementary indices are calculated based on collected prices. This is the most detailed index level and the level which the Danish NA uses the SPPIs for deflation. Second, the elementary indices are weighed together using NA turnover values, to match the aggregations specified in the EC regulation for variable D310. These aggregated indices are transmitted to Eurostat as GESMES formatted files via EDAMIS. Regarding transmission of metadata, methodological statistical documentation is produced in Colectica©. XML output from Colectica, in line with the setup in Eurostat, can then be transmitted directly in the Eurostat metadata handler on CIRCABC. Based on Danish experience, output tables will be prepared for industries included in the pilot survey. Output tables are adjusted to the local situation with a total of six indices for the following service industries;

- 49.41 Freight Transport by Road
- 52.10 Warehousing and Storage
- 52.24 Cargo Handling
- 53.10 Postal Activities under Universal Service Obligation
- 53.20 Courier Services
- 61 Telecommunications

The above division will be basis for future publication, subject to confidentiality and data transmission to Eurostat.

### 3.7 Plan for regular surveys

Regular surveys for SPPIs in BiH will begin in 2016 in continuation of the pilot project. This means that results for 2015 from the pilot project will be used as base year. Regular surveys will be performed during 2016 and results will be closely monitored with the intention to start publishing SPPI indices in 2017. Any final decision on publication will be subject to an evaluation on results, capacity in the entities and recommendations made in the fifth and final mission. A detailed plan for regular surveys can be found in appendix 2.

### 3.8 Expert recommendations for methodological paper

During the fourth mission, a 21 page draft methodological paper was presented by BC experts. The provisional draft contains a collection of agreed methodologies from the previous missions and experiences gained during the pilot project. The document is a comprehensive first draft which will be an excellent platform for further adjustments to great satisfaction of the MS expert.

The provisional draft methodological paper was reviewed by both BC and MS experts. The MS expert has the following minor suggestions for what should be changed/added to the document;

- Consider how experiences from the pilot project fits in to a general methodological paper
- Add elaborations on pricing mechanisms, e.g. who are the providers and purchasers of services, in the individual industry descriptions.
- Mention the most prevalent pricing methods in the industry descriptions.
- Consider adjusting the structure to be in line with the structural setup in Eurostat metadata.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup> Structure and inspiration from other countires metadata descriptions can be found here: http://ec.europa.eu/eurostat/cache/metadata/Annexes/sts\_esms\_an2.htm

# What to do before the next mission for the BC Counterpart

Action	Deadline	Responsible person
Written agreement between RAK and BHAS of a protocol on data transmission for telecommunication services.	By fifth mission	BHAS
Exchange of views on draft methodological document.	End of January 2016	BHAS, FIS and RSIS
Final draft version of methodological document (with Eurostat structure as point of reference) sent to MS experts.	Two weeks before fifth mission (September 2016)	BHAS, FIS and RSIS
Deliver index results for 2015Q1 to 2016Q1 with updated weights and base year 2015 to MS experts.	End of June 2016	BHAS
Calculation of index results for 2016Q2, based on regular surveys in 2016 including output tables.	Before fifth mission (September 2016)	BHAS, FIS and RSIS

# What to do before the next mission for the IPA experts

Action	Deadline	Responsible person
Review of exchange of views on draft methodological document.	End of February 2016	MS experts
Review of final draft version of methodological document (with Eurostat structure as point of reference).	Before fifth mission (September 2016)	MS experts
Analysis of index results from 2015Q1 to 2016Q1 with updated weights and base year 2015.	Before fifth mission (September 2016)	MS Experts

# Appendix 1 – Response rates for 2015Q1, 2015Q2 and 2015Q3

The following table in appendix 1 illustrates the responses rates from the data collection, from the pilot project for periods 2015Q1, 2015Q2 and 2015Q3.

Table 1 – Response rates by industries 2015Q1 and 2015Q2, number of units

NACE	Industry	Entity	Total	Responses	Responses	Responses
NACE			units	Q1	Q2	Q3
49.41	Road freight transport	Total	71	59	60	58
		RS	26	16	17	15
		FBiH	39	37	37	37
		DB	6	6	6	6
51.10	Air passenger transport	Total	(1)	-	-	-
		RS	-	-	-	-
		FBiH	(1)	-	-	-
		DB	-	-	-	-
52.10	Warehousing and storage	Total	9	5	4	4
		RS	2	2	1	1
		FBiH	6	2	2	2
		DB (KAU)	1	1	1	1
52.24	Cargo handling	Total	3	1	1	1
		RS	2	-	-	-
		FBiH	-	-	-	-
		DB	1	1	1	1
53.10	Universal postal services	Total	3	3	3	3
		RS	1	1	1	1
		FBiH	2	2	2	2
		DB	-	-	-	-
53.20	Courier services	Total	9	6	6	6
		RS	3	1	1	1
		FBiH	6	5	5	5
		DB	-	-	-	-
61	Telecommunication	Total	19	11	11	11
		RS	7	5	5	5
		FBiH	11	6	6	6
		DB	1	-	-	-
	Total	Total	114	85	83	83

# **Appendix 2 – Plan for regular SPPI surveys in 2016**

The timetable in this appendix lists the deadlines for conducting regular quarterly surveys on selected SPPI's in 2016

Table 2 – Timetable for regular SPPI surveys in 2016

MAIN ACTIVITIES	COMPONENTS OF MAIN ACTIVITY	DATE OF REALIZATION	RESPONSIBLE INSTITUTION	NOTE
DATA COLLECTION	Sending	end of	BD - BHAS	
COLLECTION	questionnaires	february 2016	FIS RSIS	
	Response from reporting	t+30	KSIS	
	units			
	Data entry	t+45		
DATA EDITING	Data editing	t +50	BD - BHAS	20.05.2016;
AND PROCESSING			FIS	20.08.2016;
THOOLOGING	Non response		RSIS	20.11.2016;
	treatment			20.02.2017.
	(Imputations)			
DATA	Data delivery	t+55	FIS	25.05.2016
DELIVERY	to BHAS		RSIS	(first delivery
	(excel tables)			for Q1 2016
	,			including data
				for 2015);
				25.08.2016;
				25.11.2016;
				25.02.2017.
OF INDICIES	Calculation	t+60	BHAS	31.05.2016;
OF INDICIES	and analysis of		FIS	30.08.2016;
	results		RSIS	30.11.2016;
				28.02.2017.

# **Appendix 3 - Terms of Reference**

### **EU Twinning Project BA-12-IB-ST-01**

#### **Terms of Reference**

Component: 2.3.2 Producer (output) prices in services SPPI 14-18 December 2015 Zelenih beretki 26, Srajevo

### **Activity**

2.3.2.4 Preparation of regular surveys on producer (output) prices in services

#### **Benchmarks**

- Plan for development of SPPI for selected services done by 2nd project guarter
- Draft questionnaires and supporting documentation prepared by 2nd project quarter
- Pilot surveys for SPPI conducted by 3rd project quarter
- First results analyzed and questionnaires redesigned by 6th project quarter
- Methodological document developed by 8th project quarter

#### **Purpose of activity**

#### The expected activities are:

- Presentation of the results from test calculations of pilot indices based on agreed methods
- Amended methods for the regular surveys on SPPI, based on the experiences from the pilot surveys
- Proposals of imputation methods that will be used for regular compilation of price indices and agreement on revision policy
- Agreement on final questionnaires for a regular production
- Presentation of Danish output tables (publication forms, transmission formats, etc.)
- Preparation of output tables (publication forms, transmission formats, etc.)
- Plan for a regular surveys
- Presentation of the first draft of methodological paper
- Revision of the first draft of methodological paper and suggestions from MS and BC experts

### **Expected output**

- Analysis of the results from test calculations of pilot indices made
- Agreement on final methods for the regular surveys on SPPI
- Final questionnaires agreed
- Plan for regular production of SPPI developed
- Imputation and revision methods agreed
- Output tables defined (publication forms, transmission formats, etc.)
- Input to a draft methodology made

# Appendix 4 - Persons met

### **Agency for Statistics of BiH**

Alen Bajramović, Head of Department for Services Statistics Lejla Krehić, Junior officer in Prices Department Lejla Borovina, Junior officer in Department for Service Statistics

#### **Institute for Statistics of Federation of BiH (FIS)**

Sanja Ambrožić, Head of Department for Services Statistics and External Trade Elvir Juljević, Senior officer for Information and Communication services

#### **Institute for Statistics of Republika Srpska (RSIS)**

Jelena Glamočika, Head of Department for Services Statistics Aleksandra Donlaga, Junior officer for Service Statistics

#### **Twinning Project Administration**

Søren Leth-Sørensen, RTA Djemka Sahinpašic, RTA Assistant