TWINNING CONTRACT

BA 17 IPA ST 01 20



Further Support to the Reform of Statistics System in Bosnia and Herzegovina





MISSION REPORT

Activity 1.3.1 H - Index of Production in Construction VIII Component 1.3.1 - Index of Production in Construction

Mission carried out by Roberto Iannaccone, ISTAT Fabio Bacchini, ISTAT

08-10 May 2023

Version: Final





Expert contact information

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List of Abbreviations

DIIIAC	A .	C C1 1. 1.	CD .	1 T T '
BHAS	A gency i	tor Statistics	OT BOSHIA AI	nd Herzegovina
פותום	1 igone y	TOI Dianishes	or Dosina a	na ricizego vina

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 mission report was prepared within the EU Twinning Project "Further Support to the Reform of the Statistics System in Bosnia and Herzegovina". It was the eight mission devoted to the Index of Production in Construction Subcomponent of the Project.

The purposes of the mission were:

- Finalization of micro data analysis for FBiH, RS and Brcko District BiH based on updated STS and SBS data provided for the period from 2015 onwards
- Updating calculation of IPC for FBiH, RS, BD BiH and BiH levels in R software
- Use of deflators for calculation of deflated IPC for FBiH, RS, BD BiH and BiH levels in R software
- Calculation of back-casted quarterly IPC for FBiH, RS, BD BiH and BiH levels for the period O1 2006 - O4 2022
- Analysis of national calendar of holidays for the purpose of calendar and seasonal adjustment of IPC time series
- Calculation of calendar and seasonally adjusted IPC indices for FBiH, RS, BD BiH and BiH levels
- Work on development of new methodological document for calculation of IPC
- Discussion on revision policy for IPC and dynamic of updating weights for calculation of IPC:
- Preparation of ToR for next activity

The consultants would like to express their thanks to all officials and individuals from Bosnia and Herzegovina met for the kind support and valuable information, and which highly facilitated the work of the consultant.

These 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, Statistics Finland, Statistics Sweden and The Italian National Institute of Statistics.

2. Assessment and results

The first part of the mission has been devoted to the organisation of microdata to be used as input in the R code for IPC calculation. The dimensions are:

- 1. Domain: SBS and STS:
- 2. Entity: Federation of Bosnia and Herzegovina (entity 1), Institute for Statistics of Republika Srpska (entity 2) and Brcko district;
- 3. Time













Data to be used for the deflation have been discussed as well. The R code has been finalised for the calculation of IPC using nominal value of production stressing the key point: comparing between SBS and STS data, rules for the selection of firm to be included in the IPC calculation (missing values, ratio between STS values of work done and SBS value of production and more than 9 employees). These rules should be updated and validated by the beneficiary on the basis of their experience on microdata.

3. Conclusions and recommendations

List of activities to be carried out by the end of the project:

- 1. Deflator: searching total deflator of construction from National Accounts. This source could be important also for back casting deflator F41 and F42. According to the availability of the deflator providing the preliminary release of the new IPC base year 2021 = 100;
- 2. Build up a time series for the deflator F41 and F42 using temporal disaggregation.
- 3. Weights: value added from SBS 2021 (for all the quarters up to 2021); for 2022 onwards use the rule as Italian IPI.
- 4. Providing new indices for F41 and F42 using the selection criteria discussed in this mission, total value of production and deflation.
- 5. Back casting of all the new indices using the previous time series.
- Seasonal Adjustment of the new indices 6.
- 7. Methodological Manual
- All the steps are produced according to the development of an R program that will be 8. illustrated in detail along a mission devoted to the topic.

4. What to do before the next mission for the BC Counterpart

Action	Deadline	Responsible person
Deflator	Before the next mission	MS Experts, BC
Weights	Before the next mission	BC
New Indices	Before the next mission	MS Experts
Back casting	Before the next mission	MS Experts
Seasonal adjustment	End of August 2023	MS Experts
Methodological Manual	Before the end of the project	Ms Experts, BC













Annex 1. Terms of Reference for the current mission

Terms of Reference

EU Twinning Project BA 17 IPA ST 01 20

Component 1.3.1. H - Index of Production in Construction (IPC)

Monday 8th May 2023: 10:00-16:00hrs, Tuesday 9th May 2023: 09:00-16:00 hrs, Wednesday 10th May 2023: 09:00-12:00 hrs.

On-site meeting

Venue: Federal Institute for Statistics of Federation of Bosnia and Herzegovina, Zelenih

beretki 26 Room: 1st Floor

Activity 1.3.1.H: Index for Production in Construction VIII

1. Mandatory results

IPC produced according to the FRIBS (current EU regulation STS No 1165/98)

New methodology for calculation of Index of Production in Construction / IPC developed (by using value data and CPPI as deflator)

IPC produced and delivered to Eurostat (Non-Adjusted (NSA), Working-Day Adjusted (WDA) and Working-Day and Seasonally Adjusted (SA))

Indicator / Relevant Milestones / Internal deadlines:

Indicators for IPC published and delivered to Eurostat

2. Purpose of the activity

- Finalization of micro data analysis for FBiH, RS and Brcko District BiH based on updated STS and SBS data provided for the period from 2015 onwards
- Updating calculation of IPC for FBiH, RS, BD BiH and BiH levels in R software













- Use of deflators for calculation of deflated IPC for FBiH, RS, BD BiH and BiH levels in R software
- Calculation of back-casted quarterly IPC for FBiH, RS, BD BiH and BiH levels for the period Q1 2006 – Q4 2022
- Analysis of national calendar of holidays for the purpose of calendar and seasonal adjustment of IPC time series
- Calculation of calendar and seasonally adjusted IPC indices for FBiH, RS, BD BiH and BiH levels
- Work on development of new methodological document for calculation of IPC
- Discussion on revision policy for IPC and dynamic of updating weights for calculation of **IPC**
- Preparation of ToR for next activity

3. Expected output of the activity

- Micro data analysis updated from Q1 2015 based on data prepared from STS and SBS surveys
- Calculation of IPC for FBiH, RS, BD BiH and BiH levels by using new calculation method and updated data done in R software
- Deflated IPC for FBiH, RS, BD BiH and BiH levels calculated in R software
- Back-casted quarterly IPC for FBiH, RS, BD BiH and BiH levels for the period Q1 2006 - Q4 2022 calculated in R software
- National calendar of holidays for FBiH, RS, BD BiH prepared and analysed for the purpose of calendar and seasonal adjustment of quarterly IPC time series
- Gross IPC indices for FBiH, RS, BD BiH and BiH levels calendar and seasonally adjusted by using RJDemetra package in R software
- Development of methodological document for IPC started
- Revision policy for IPC and updating weights for calculation of IPC discussed
- Mission report prepared
- ToR and the list of activities for the next mission defined













Annex 2. Persons met

BHAS:

Fahir Kanlić, Head of Department for Industry and Construction Statistics Anita Brković, Senior Advisor for Construction Statistics

FIS:

Nusreta Imamović, Head of Department for Industry, Construction and Energy Statistics Edina Dulić, Senior Advisor for Construction Statistics

RSIS:

Želimir Radišić, Senior Officer for Construction Statistics Danica Babić, Senior Officer for Structural Business Statistics

RTA Team: Niels Madsen, RTA Larisa Muslimovic, RTAA Haris Imamovic, 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:

Component leader, BHAS

MS Expert

MS Expert













