

TWINNING CONTRACT

BA 15 IPA SR 01 17

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



MISSION REPORT

Activity 2.B.8: Development of framework for STS based on administrative data in BiH

Component 2: Business Statistics

Mission carried out by
Jasna Pugar, Croatian Bureau of Statistics

28-31 January 2020

Version: Final



Institut national de la statistique
et des études économiques
Mesurer pour comprendre

Statistics Finland 

 CROATIAN BUREAU
OF STATISTICS

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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
ITA BiH	Indirect Taxation Authority 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

Executive Summary

The purpose of the third mission was to discuss main findings of performed analysis of individual administrative VAT data and STS survey data in Bosnia and Herzegovina. Analysis of monthly industrial turnover data for BiH was presented by BC counterpart and main findings were discussed. MS expert's recommendation is that further analysis of growth rates between administrative and survey data is needed to be made on aggregated levels (3-digit, 2-digit, section level, and Main Industrial Groups (MIGs) level of NACE Rev.2). In case of significant data discrepancies between these two sources, BC experts should contact reporting units (dominant) in order to check data quality. This should be done before the next mission.

Also, the aim of this mission was to introduce participants from all three statistical institutions in BiH with methodological approach used by Croatian Bureau of Statistics (CBS) in their work on using administrative data for production of STS indicators in Croatia, particularly on matching of administrative and survey data and detection and treatment of outliers. The specific objective of this mission was to discuss about new FRIBS requirements for STS package, particularly on proper implementation of Kind-of-activity (KAU) units for all STS domains. Main purpose of this activity is to establish a methodological basis for using administrative data (VAT database) for compilation of STS indicators according to the current EU STS Regulation and forthcoming FRIBS requirements.

Finally, practical aspects on data exchange of individual data between the state and the entity statistical institutes have been discussed. MS expert's recommendation is that this question should be solved urgently in order to enable regular monthly data exchange of VAT and survey data between BHAS and entity statistical institutions in BiH.

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*.

The specific objectives of the first mission were:

- Follow up from the previous activity
- Discussion on main results of performed analysis of individual/aggregated administrative VAT data and survey data;
- Impact analysis of entrepreneurs VAT data and their inclusion in calculation of STS turnover indicators in BiH;
- Further analysis the quality of existing VAT data – examination of differences in results;
- Discussion on future FRIBS requirements for STS;
- Preparation of draft guidelines for use of administrative VAT data in production of STS turnover indicators in BiH;
- Presentation of IT solutions for the purpose of use of administrative data sources for statistical production.

The consultant would like to express her thanks to all officials and individuals met for the kind support and valuable information provided during the stay in Bosnia and Herzegovina which highly facilitated the work of the consultant.

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

2. Main findings

The focus of this mission was to analyse available micro data on monthly industrial turnover from monthly survey on industrial production (survey data) and monthly VAT data (administrative data) in BiH. Also, data from annual Structural Business Survey, PRODCOM survey and financial statements are used. In first step, aggregated data from VAT data source, annual PRODCOM and monthly survey data are compared at 4-digit level of NACE Rev.2. Monthly growth rates have been calculated and compared. Substantial number of discrepancies between VAT and monthly survey data has been identified.

Furthermore, analysis of individual data for dominant enterprises has been made. There were cases where survey data are much higher than VAT data and vice versa. In some cases, reporting units delivered, by mistake, the cumulative data through statistical survey. In most cases, the survey data had lower turnover values comparing to VAT data. Possible reason for detected differences in data could be that survey turnover data are most likely related to turnover for specific industry activity (KAU) and not for the whole enterprise. MS expert's recommendation is that BC staff should contact influential companies and clarify these discrepancies. Due to fact that the data on entrepreneurs are not collected through STS surveys, these data should be analysed separately.

MS expert presented methodological approach used by CBS on production of STS turnover indicators by using administrative data sources. CBS uses combination of administrative and survey data in production of STS turnover indicators. Main phases of statistical production process are presented: data integration from different sources, detection of negative values, detection of outliers, imputation methods and calculation of indices. Complexity of BiH's statistical system will require modernisation of current statistical production process, primarily through use of harmonised approach supported by use of unique IT solution. By implementation of administrative (VAT) data for production of STS turnover indicators for BiH, response burden on reporting units and subject matter statisticians would be significantly reduced, coverage of units and an overall survey quality improved.

Regarding implementation of KAUs for all STS domains, MS expert presented FRIBS requirements and CBS experiences on this matter. Based on performed analysis of industrial turnover data, all three statistical institutions in BiH have already covered most important KAUs in their respective surveys. However, through current industrial turnover survey the data are collected for one specific industrial activity (related to the most important industrial product) without further delineation for the other industrial activities (based on industrial products). MS expert recommended that further analysis of this issue have to be done in order to identify additional KAUs for the most influential industrial enterprises in BiH. In addition, further delineation of KAUs is needed in order to implement new FRIBS requirements for STS and to avoid double counting of turnover in trade, other services and industry surveys.

3. Conclusions and recommendations

During the mission, a number of important topics were discussed. BC participants presented main findings of performed analysis of available industrial turnover data from administrative VAT database and surveys. Substantial number of discrepancies between VAT and monthly survey data has been identified. It was concluded that further analysis of growth rates should be made for longer period and representative companies should be contacted in order to clarify these discrepancies.

Data on entrepreneurs from VAT database should be analysed, joined to data for enterprises and their impact on survey results should be investigated.

Further analysis of KAUs should be performed. BC staff have to determine the list of KAUs that are currently used in STS surveys, as well as to identify important KAUs for each statistical domain in BiH.

MS expert will provide methodological inputs for use of administrative data in production of STS indicators. Additional explanation of main phases will be included in final report.

Revised plan of activities for implementation of administrative VAT data sources for STS production in BiH have to be done on the next mission. Pending issue regarding getting access to VAT data by the entities have to be solved. MS expert's recommendation is that this issue have to be solved as precondition for replacement of survey data with VAT data. It was concluded that BC staff will consult with their respective management before taking any further action with Indirect Taxation Authority of BiH (ITA BiH).

What to do before the next mission for the BC Counterpart

Action	Deadline	Responsible person
Consulting management of statistical institutions regarding possible sharing VAT data between BHAS and entities for the purpose of production STS indicators in BiH	Up to IV mission	MS Expert
Calculation of Turnover indices from available admin VAT data following method applied for Turnover survey data (for 2018 and 2019) - exercise	Up to IV mission	BHAS, FIS, RSIS, MS Expert

Topics for the next mission

- Presentation of results from exercise work on calculation of Turnover indices from available admin VAT data including comparison with published Turnover indices coming from survey data
- Discussion on different growth rates found between Turnover indices calculated from two different sources (VAT and STS surveys) and on possible reasons behind such discrepancies /inconsistences and how to organise future work on combing two mention sources for production of STS data
- Discussion on development of common IT solution for use of administrative VAT data in production of STS turnover in BiH;

- Agreement on detailed plan of activities with timetable, resources needed, responsible persons, etc. for implementation of VAT turnover data in BiH;
- Preparation of Guidelines for use of administrative VAT data in production of STS turnover indicators in BiH;
- Clarification of outstanding issues
- Discussions and recommendations for future work

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: 31 of January 2020

Component leader, BHAS

Component leader, FIS

Component leader, RSIS

RTA

MS Expert

Annex 1. Terms of Reference

Terms of Reference**EU Twinning Project BA 15 IPA ST 01 17****Component 2: Business Statistics****28-31 January 2020****FIS – Zelenih beretki 26, Sarajevo****Activity 2.B.8: Development of framework for STS based on administrative data in BiH****1. Result for the activity**

- Analysis of administrative data on VAT and agreements between the three institutions on how to proceed using the administrative data sources for STS production

2. Purpose of the activity

- Follow up from the previous activity
- Discussion on main results of performed analysis of individual/aggregated administrative VAT data and survey data;
- Impact analysis of entrepreneurs VAT data and their inclusion in calculation of STS turnover indicators in BiH;
- Further analysis the quality of existing VAT data – examination of differences in results;
- Discussion on future FRIBS requirements for STS;
- Preparation of draft guidelines for use of administrative VAT data in production of STS turnover indicators in BiH;
- Presentation of IT solutions for the purpose of use of administrative data sources for statistical production.

3. Expected output of the activity

- Main results of performed analysis of individual/aggregated administrative VAT data and survey data presented and discussed;
- Data on entrepreneurs and its impact on STS turnover indicators examined;
- Quality of existing VAT data further analysed;
- FRIBS requirements for STS presented;
- Draft Guidelines for use of administrative VAT data in production of STS turnover indicators in BiH prepared;
- Input provided to the ToR of next activity.

4. Participants

Agency for Statistics of BiH (BHAS)

- Alen Bajramović, Head of Department for Services Statistics
- Fahir Kanlić, Head of Department for Industry and Construction Statistics
- Radomir Mutabdzija, Senior Official in Department for Industry and Construction Statistics

Institute for Statistics of Federation of BiH (FIS)

- Nusreta Imamovic, Head of Department for Industry, Construction and Energy Statistics
- Merima Beganović, Senior Advisor for Business Services
- Ademira Veličanin, Junior Officer for Trade Statistics
- Damir Omanović, Senior Associate for Industry Statistics
- Nasiha Imširović, Senior Advisor for Industry Statistics

Institute for Statistics of Republika Srpska (RSIS)

- Jelena Glamočika, Head of Services Statistics Department
- Biljana Đukić, Head of Production statistics department

MS Experts

- Jasna Pugar, Croatian Bureau of Statistics

Twinning Project Administration

- Katja Møller Hjelvang, RTA
- Đemka Šahinpašić, RTA Assistant

Agenda

Location: FIS, Zelenih beretki 26, Sarajevo

Time	Day	Place	Event	Purpose / Details
09:00-12:00	28 January Tuesday	Hotel	MS expert	Preparation for the activity
13:00-15:30	28 January Tuesday	FIS	Meeting with BC Experts	Follow up from the previous mission
9:00-12:00	29 January Wednesday	FIS	Meeting with BC Experts	Follow up from the previous mission
13:00-15:30	29 January Wednesday	FIS	Meeting with BC Experts	<ul style="list-style-type: none"> • Discussion on main results of performed analysis of individual/aggregated administrative VAT data and survey data; • Impact analysis of entrepreneurs VAT data and their inclusion in calculation of STS turnover indicators in BiH;
9:00-12:00	30 January Thursday	FIS	Meeting with BC Experts	<ul style="list-style-type: none"> • Further analysis the quality of existing VAT data – examination of differences in results; • Discussion on future FRIBS requirements for STS;
13:00-15:30	30 January Thursday	FIS	Meeting with BC Experts	<ul style="list-style-type: none"> • Preparation of draft guidelines for use of administrative VAT data in production of STS turnover indicators in BiH; • Presentation of IT solutions for the purpose of use of administrative data sources for statistical production
09:00-12:00	31 January Friday	FIS	Meeting with BC Experts	<p>Agreement on summary mission report</p> <p>Conclusions and next steps</p>