TWINNING CONTRACT

Support to the Statistics

Kosovo

MISSION REPORT

on

Continued implementation of Retail Trade Survey

Activity no 3.3.1.1

Mission carried out by
Karen Keller and Søren Kühl Andersen,
Statistics Denmark

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Author's name, address, e-mail (keep the relevant information)

Karen Keller
Statistics Denmark
Sejrøgade 11
DK-2100 Copenhagen Ø
Denmark
Tel: +45 3917 3353
Email: kke@dst.dk

Søren Kühl Andersen
Statistics Denmark
Sejrøgade 11
DK-2100 Copenhagen Ø
Denmark
Tel: +45 3917 3561
Email: ska@dst.dk

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List of Abbreviations

CPI	Consumer Price Index
KAS	Kosovo Agency for Statistics
NACE	Statistical Classification of Economic Activities
SBR	Statistical Business Register
SBS	Structural Business Statistics
STS	Short Term Statistics
TAX	Kosovo Tax Authorities
ToR	Terms of Reference
VAT	Value Added Tax

1. General comments

This mission report was prepared within the Twinning Project „Support to the Statistics". It was the second mission on sub component 3.3 regarding retail trade statistics. The first mission took place at the end of September 2014 and it contained an assessment of the situation at the time and discussions about error checking, editing and imputation as well as a time plan towards the first publication of retail trade statistics.

The concrete objectives of this second mission were:
- Assessment of the current situation regarding retail trade statistics in KAS and the first published results.
- Suggestions for improvements.
- Short and long term planning.

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 Kosovo, and which highly facilitated the work of the consultants. All local experts showed great interest in the topics covered and thereby contributed to the success of this mission. Also a special thanks to the highly qualified interpreter.

The views and observations stated in this report are those of the consultants and do not necessarily correspond to the views of EU, KAS or Statistics Denmark.

2. Assessment and results

The current situation regarding retail trade statistics in KAS is briefly described as follows:

- A sample was drawn from SBR by the end of 2012 and has been used for collection of survey data since then.
- Survey data has been collected on a quarterly basis from 1st quarter of 2013. Collection of data concerning 2nd quarter 2015 has just been finished.
- Data has been error checked and missing data has been imputed.
- At the end of June 2015 the first publication on retail trade in Kosovo was published. It contains data on turnover and number of employees for the time period 1st quarter of 2013 to 1st quarter of 2015.

Sample

The current sample was drawn in 2012 with aid from an IMF expert. The population came from SBR and the statistical unit is enterprise. During the first mission the sample design was described as follows:

- The population was stratified by 4-digit Nace rev. 1.1 activity codes.
- The largest enterprises in each stratum were chosen for the sample, and thereafter random enterprises were chosen until 80 pct. turnover coverage was obtained in each stratum.
- The sample size ended at about 580 enterprises.

During this second mission there was an assessment of the published results. This lead to a closer look at the sample, and it seems that either something was wrong with the population

(coming from SBR), e.g. misclassifications, or the sample design was in fact not as described above. Especially one three-digit nace group (47.6) is problematic, as there are very few enterprises from that group in the sample.

Steps towards a new sample as well as improving the results from the current sample were discussed during the mission. A basic introduction to stratified random sampling was also given during the mission.

Data collection
Data is primarily collected via face-to-face interviews. This is an expensive and time consuming data collection method and alternatives were discussed during the mission.

Error checking, editing and imputation
Some of the methods for error checking, editing and imputation are now in place and are being carried out in an Excel file. A closer look at the results reveals that there is still a need for further error checking of the data for the entire time period, starting from 1st quarter of 2013. The methods used were discussed during the mission.

Assessment of the published results
Statistics on retail trade in Kosovo was published for the first time by the end June 2015. The publication contains quarterly index figures on turnover and employment covering the period 1st quarter 2013 to 1st quarter 2015, and it is now in regular production as a quarterly statistics.

One year ago only raw survey data in a database was available, so it is a great improvement that data has now been compiled and published, and as such it is a remarkable achievement.

The results in some of the industry groups have a lack of seasonality that is surprising for the retail trade sector. Some of these results were looked into in detail and it was found that there is still a need for further error checking. The national experts are aware of this and seem to know what to do, but time and resources are short.

3. Conclusions and recommendations
A number of conclusions and recommendations came out of this mission.

Sample and estimation
The current sample design is not fit for estimation and the sample does not seem representative of the population. Because of the current sample design, no estimation/weighting is applied in the calculations and the consequences are that the development of smaller enterprises is underestimated and the extend of imputation is quite high. It is recommended that a new sample including a new sample design is introduced as soon as possible. A simple stratified random sample design is recommended, making the introduction of simple estimation methods possible. The sample should include a take-all limit and a cut-off based on VAT turnover and should be based on a population taken from SBR.

The stratification of the sample depends on the population and on the level of detail wanted for publication. This was discussed during the mission, in particular that stratification (and publication) on 4-digit nace level for all nace classes is too detailed with the current sample size. It is recommended that the national experts decide on the desired level of detail, which could be a combination of single 4-digit classes and sums of similar 4-digit classes, resulting

in about 20 industry classes. The level of detail should also take into account the demands from EU, but it is worth noticing that in the future this will only include 3-digit level figures and three 4-digit classes, namely 4711, 4719 and 4791.

It is recommended that a yearly update of the sample is performed in the future. Depending on the work associated with such an update it could be a solution to do it every second year to begin with. An automated and simple method to apply panel rotation in a sample such as this was introduced and recommended.

The possibility to include the sample in a future methodology mission in this project was also discussed. This will be taken up with the methodology experts.

Data collection

Sometime in the future the use of face-to-face interviews should probably be diminished. Although it probably increases the response it seems to be a time consuming and expensive collection method. The EU regulation demands monthly figure on retail trade turnover, so at some point a monthly data collection must be introduced to be in compliance with this regulation. The use of posted questionnaires, e-mails, web forms etc. was discussed, but this topic seems to be a long term improvement rather than a short term one.

Error checking, editing and imputation

The methods introduced during the first mission seem to be used in the production of the statistics. This includes extensive use of administrative data from tax authorities, which appears to be a very good data source.

A look at the detailed data behind the published figures revealed that there is still a need for further error checking. It is recommended to find time to do a thorough error check of all data from 2013 till now as soon as possible and publish revised data when this is done.

Results and dissemination

In addition to a need for further error checking of existing micro data it is recommended to drop one particular figure in the quarterly publication showing the level of the retail trade sector in total and the size of the 3-digit nace groups. With the current method and sample these levels cannot be accurate to an extend suited for publication. When a new sample and estimating measures ensuring a more accurate level of the turnover and employment figures behind the indices have been introduced, the level and group sizes can be a part of the published figures.

A change in the sample and especially the introduction of estimation using weights will result in a different (higher) level of turnover and number of employees than with the current method. This was discussed and demonstrated during the mission, and it is recommended to apply a link calculation to link the old data series with the new one in order to get an unbroken series. This can be done either by an overlapping period, where the old and the new sample and method are used, or it can be done by using administrative data to calculate the growth rates in the period of linking.

It is also recommended to use administrative data to improve the existing data, where the sample is very thin.

The matter of introducing deflators to calculate volume indices for retail trade was also discussed. Since there are CPIs available it is possible to start up the implementation of these calculations. The implementation will include compiling certain weighted industry aggregates on the basis of the CPIs, which are based on the COICOP classification.

Short and long term planning

In addition to the recommended improvements and general development of the retail trade statistics mentioned above, a few other tasks ahead were discussed during the mission:

- Improved IT system. Currently the complete production of the retail trade statistics is handled in *one* Excel file (with many sheets). This includes error checking, editing, index calculations etc. There is a need for introducing a system where data is contained in a data base, and the methods used for error checking, estimation etc. are implemented in a separate program. This is a general issue not limited to retail trade statistics and it will be taken up in other missions in the project. There is talk of the free program R as a possible solution.

- Seasonal adjustment. The current data series is too short for seasonal adjustment, but in the future there will be a need for it.

- Monthly data. There is no doubt that moving from quarterly to monthly figures is an overwhelming challenge at this stage. It is to be seen as something to aim for in the future, as the regulation demands monthly figures on most short term indicators, including retail trade turnover and volume of sales indices.

  Below a table of the tasks mentioned in this report, ordered by the time of recommended implementation.

Task	Time of implementation	Comment
Error checking of old data	4th quarter of 2015	It is a time consuming task but it should be prioritized in order to get better results published
Remove figure with information of level and size from future publications	As soon as possible	The figure can be introduced again, when a new sample and estimation has been introduced
New sample and estimation methods, including decision on level of detail	End of 2015	The new sample and estimation methods in use during 1st half of 2016
Results with new methods linked with existing series	1st half of 2016	When publishing data on the basis of new sample and estimation, this linking should be in place
Publication of volume of sales	2016	On the basis of special deflators constructed as special weighted aggregates of detailed CPIs
Introduction of new	2016?	It depends on a general

software (R?)		strategy in ASK
Rotation scheme for yearly (or biennially) sample update	End of 2016	
Introduction of new data collection methods	2017 or later	New data collection methods could be introduced gradually to avoid a sudden (big) drop in response rates
Seasonal adjustment of data	2017 or later	At least four years of data is needed. It might be possible to extract seasonality from VAT data before that.
Monthly turnover data	2017 or later	2017 might be unrealistic

Annex 1. Terms of Reference

EU Twinning Project
KS12 IB ST 01
Support to Statistics

Terms of Reference:

Component 3:   Business Statistics
Activity 3.3.1.1:   Continued implementation of Retail Trade Survey

Scheduling:
ToR –ready date: **24 August 2015**
Start / end of activity: **7-10 September 2015**
Reporting time: **17 September 2015**

Mandatory result of the component:

Mandatory Result	Intervention logic	Benchmarks	Sources of information	Assumptions
Mandatory Result 3.3	Preparing short-term statistic according to NACE Rev. 2	• A number of STS time series revised according to NACE Rev. 2 by 8th project quarter	• Twinning Quarterly reports • Mission reports	• Sufficient absorption capacity • Access to administrative and survey data • Low turn-over of staff involved in implementation • Staff works on project related tasks in between missions

Subject / purpose of activity 3.3.1.1:

Introduction of retail trade statistics survey. – Support to dissemination

Expected output of activity 3.3.1.1:
Mission report including adjusted road map and time schedule for surveys on retail trade statistics in Kosovo. Discussions on the methodology and dissemination. Suggestions for Terms of reference for other activities in Component 3.3.

KAS resources:
Mr. Ismajl Sahiti, Head of Division, ismail.sahiti@rks-gov.net
Mr. Hysni Elshani, Head of sector, hysni.elshani@rks-gov.net
Ms. Valdete Navakazi, senior officer for STS, valdete.navakazi@rks-gov.net
Ms. Luljeta Krasniqi, senior officer for SBS, luljeta.krasniqi@rks-gov.net

Ms. Nazmije Belegu, senior officer for transport statistics, naska1@hotmail.com
Mr. Bekim Bojku, senior officer for energy statistics, bekim.bojku@rks-gov.net
Ms. Sulltane Gashi, senior officer for tourism statistics, sulltanegashi@hotmail.com
Ms. Violeta Syla, intern, violeta.syla@rks-gov.net

KAS Twinning team:
Project Leader Mr. Ilir T. Berisha, Director of Economic Statistics and National Accounts,
Ilir.T.Berisha@rks-gov.net
RTA Counterpart Ms.Teuta Zyberi, International Relations Officer, teuta.zyberi@rks-gov.net

Member state resources:
Mr. Søren Kühl Andersen, Senior Adviser, Statistics Denmark, ska@dst.dk
Ms. Karen Keller, Head of Section, Statistics Denmark, kke@dst.dk

Twinning ressources:
Mr Per Knudsen, RTA, pkn@dst.dk
Ms Nora Zogaj, RTA Assistent, zogaj.nora@gmail.com

Description of the background for the activity

This mission is a continuation of the first activity on Retail Trade Statistics (3.3.1) which took place in September 2014.

In the report from the privous mission a **short term plan** was agreed upon:

Output:
Value indices of retail trade turnover and employment only
Base year: 2013
Level of detail. To be decided.
Nace rev. 2
Time span. 1st qt 2013 – 4th qt 2014

Time plan:

Task	Start	Deadline
Error detection and editing of data for 2013Q1 to 2014Q2. Imputation of missing data for 2013Q1 to 2014Q2.	October 2014	End of 2014
Entering and error detection and editing of data for 2014Q3. Imputation of missing data for 2014Q3.	December 2014	End of 2014
Error detection and editing of data for 2014Q4. Imputation of missing data for 2014Q4.	March 2015	End of March 2015
Preliminary publication levels		End of 2014
Test calculations of indices on publication levels for 2013Q1 to 2014Q3	January 2015	End of January 2015
Quality checks of index results. Compare growth rates to growth in VAT turnover/administrative employment data (full population) on level of publication. Re-examine micro data in case of big discrepancies.	January 2015	Mid February 2015
Final decision on publication levels. Taking into account data quality and confidentiality issues.		Mid February 2015

Decide on dissemination media and channels. Prepare for dissemination.		End of February 2015
Test calculations of indices on publication levels for 2014Q4. Quality check results.	End of March 2015	Beginning of April 2015
Final calculation of entire time series. Quality check results.	Mid April 2015	
Publish data via the decided dissemination channels.		April 2015

This second mission on retail trade statistics survey in Kosovo should focus on reviewing current status on Retail Trade, the methodology used, and the dissemination of results.

The objective for the Twinning project is to publish Retail Trade, Industrial Production and Construction indices before the end of December 2015.

Activities to be undertaken in preparation for the mission:
List of documents

- Report, activity 3.1.1: Overall Assessment of Business Statistics and Prioritization of Actions (Ottosen & Netterstrøm)
- Report, activity 3.3.1: Timetable for retail trade survey as a means for improving STS (Kühl & Keller)
- All reports from the Twinning project can be found at www.dst.dk/kosovo
- Disseminated data and publications sent to experts prior to the mission

The expected activities are:
- Discussions on current status of Retail Trade Statistics in Kosovo
- Development of detailed planed for actions by the twinning program
- Adjusted road map and time schedule
- Discussions on methodology
    - Sampling and estimation
    - Error detection and editing
    - Imputation
    - Index calculations

Expected output:

- Mission report – according to template
- Follow up on plan for KAS to follow to achieve the goal: A number of STS time series revised according to NACE Rev. 2 by 8th project quarter

Annex 1. Program, Retail Trade Statistics. September 2015

Day	Place	Time	Event
1	KAS		
		10:00	KAS: Introduction to retail trade survey in Kosovo -What has been done since previous mission? -Which methods were used?
		11:00	Coffee break
		11:30	Discussing needs for activities during the mission
		12:00	Lunch break
		13:00	Working out a time plan for this week
		14:30	Coffee break
		15:00	Experts preparing for next days
2	KAS	09:00-16:00	Program to be completed
3	KAS	09:00-16:00	Program to be completed Report writing
4	KAS	09:00-10.45	Agreement on recommendations and time plan Debriefing with BC Project Leader, Experts, Component Leader and RTA
		10:45	Experts leaving for the airport

Annex 2. Persons met

KAS:
Mr. Ilir T. Berisha, Director of Economic Statistics and National Accounts, Project Leader
Mr. Ismajl Sahiti, Head of Division, ismail.sahiti@rks-gov.net
Mr. Hysni Elshani, Head of sector, hysni.elshani@rks-gov.net
Ms. Valdete Navakazi, senior officer for STS, valdete.navakazi@rks-gov.net
Ms. Luljeta Krasniqi, senior officer for SBS, luljeta.krasniqi@rks-gov.net
Ms. Nazmije Belegu, senior officer for transport statistics, naska1@hotmail.com
Mr. Bekim Bojku, senior officer for energy statistics, bekim.bojku@rks-gov.net
Ms. Sulltane Gashi, senior officer for tourism statistics, sulltanegashi@hotmail.com
Ms. Violeta Syla, intern, violeta.syla@rks-gov.net

RTA Team:
Per Knudsen, RTA
Nora Zogaj, RTA Assistant
Agim Aliu, Interpreter