



ევროკავშირი
საქართველოსთვის
The European Union for Georgia



Twinning Project

Contract: GE 16 ENI ST 06 18

Strengthening the Capacity of the Georgian Statistical System

Component 3: “Development of Business Statistics”

Sub-component 3.1: “Short Term Business Statistics Indicators”

MISSION REPORT

Activity: 3.1.B “Preparation of indicators of turnover”

Mission carried out by
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1. General comments

This mission report was prepared within the EU Twinning Project "Strengthening the Capacity of Georgian Statistical System". This was the second mission within the sub-component 3.1: "Short Term Business Statistics Indicators" and was mainly devoted to preparation of indicators of turnover according to the requirements of Framework Regulation Integrating Business Statistics (FRIBS) which comes into force from the beginning of next year.

The purposes of the mission were:

- Discussion of current situation and outline of a work plan and thereby;
 - Review of data quality
 - Alignment between monthly and quarterly data
 - Data validation, data editing rules and thresholds and data analysis.
 - Sector coverage and shortcomings
 - Domestic non-domestic split
 - Index calculation
 - Indices on subdivisions and aggregates

The consultants would like to express their gratitude to all officials and individuals met for the kind support and valuable information which they received during the stay in Georgia and which highly facilitated the work of the consultants. The discussions were found productive which was thanks to the active co-operation and commitment of experts in business statistics department.

The views and observations stated in this report are those of the consultant and do not necessarily correspond to the views of the European Union, Geostat, Statistics Denmark, or other statistical institutions involved in the implementation of the project.

2. Assessment and results

In general, the mission met the objectives set to it: all the topics of term of reference were covered and follow-up of last mission's tasks was conducted. The latter included clarifying the guidance needed for these tasks and exploring the data on both micro and aggregated level.

The consultants started the mission by explaining in more detail, what the requirements for turnover will be under the FRIBS regulation. It was mutually determined that Geostat should follow the data requirements set for a small country (see Annex 3 for list of required NACE categories). This should be an achievable objective utilizing the VAT data, apart from the requirement of the time series length. In general Eurostat requires the time series to start from 2000 onwards, but not all the EU member states countries are able to fulfil this requirement either.

The monthly re-occurring statistical process starting from receiving the raw data and ending up on analysis phase of the results, was given the most emphasis during the mission. Also, the details and characteristics of the VAT data were studied in more detail as Geostat had acquired information on the different fields of the data (see Annex 4). The VAT data appears to be very typical data that gives the total income. That means that besides the under-coverage caused by the reporting threshold, also some under-coverage by product and/or activity can be found. This is caused by the exemptions in the VAT taxation rules. Besides the administrative data, Geostat has also a comprehensive set of surveys conducted on quarterly and annual basis. Thereby the details of quarterly and annual turnover and income data were reminded and briefly looked at before moving on to other agenda items. In addition, data also has the quality that it is also possible to aggregate data from company level to NACE 2.

The items covered during the mission included:

- ✓ Alignment between monthly and quarterly data examined (see Annex 5)
 - The difference between survey and VAT data were studied. At least three different reasons for discrepancies were found. These were the non-operational income, exempted products/activities from VAT and excise duties.
 - Excise duties and their impact on results were investigated on micro-level. Potential ways to eliminate the unwanted impact of changes in tax rates were also reviewed.
 - Non-operational income should be eliminated from the results especially when concentrated on particular month and therefore forming an outlier. Here the survey data could be used to correct the VAT data.
 - It was concluded, that the data on salary cannot by large extend be used for improving the coverage of VAT data, since it provides very little supplementary information of income. A lot of the income fields are empty on this data set, since income information is not of a particular interest to Tax authorities in this declaration.
- ✓ Sector coverage analyzed
 - Looked at sectors in order to identify sectors not adequately covered by the VAT data (e.g. sectors with many small business).
- ✓ Index calculation
 - Theory, practical aspects and Eurostat's recommendations to consider when calculating and using indices were covered.
 - Made a practical exercise calculating Laspeyres type turnover indices (elementary and aggregated indices for NACE section G).
 - Correspondingly the aggregation step to less detailed NACE activity level and the choice and use of weights were discussed.
 - This also included the possible ways to split the total turnover into domestic and non-domestic turnover. Here the comparison of information of field C2 on the VAT data and export values received from the Customs office should be done to evaluate the possible differences on NACE sections B and C.
 - It was noted that Geostat has recently gained access to a new annual data of financial statements. The obligation of the law on accounting, reporting and auditing, has proceeded stepwise according to the size of the entity. This year the first full set of data should be received. The potential uses should be studied (for instance as weighting data).
- ✓ Data processing and shortcomings
 - Data validation dimensions, models and examples were examined. Data validation in practice was also demonstrated by an actual validation software used in the production process of turnover statistics in Statistics Finland.
 - Because of the short-term statistics' focus on the change rather than level, the periods should be as comparable as possible (month-on-month and year-on-year). The treatment of changes in business population is crucial in this perspective. Different kind of changes were briefly described, and more emphasis was put on non-comparable changes with a few examples (apparent changes in classifications and business structure).
- ✓ Production process and shortcomings
 - Looked at the principals of data revision on published data following the Eurostat standards. It was concluded that short-term statistics are bound to revise because of their preliminary nature. Therefore, also the revisions in previous months results should be examined and if showing notable systematic error, corrections should be made.
 - In Geostat the same team is responsible for both SBS and STS. Although the main objective of EU short-term statistics is to measure the change in growth rates as accurately as possible, same experts also need to ensure that the level of turnover can be estimated as accurately as possible on longer time intervals. This challenges the measurement task even more. Need for benchmarking might be considered.

- The definitions and the guidance of filling the different metadata items were also reviewed in detail.

Data quality

Insuring the quality of the data is the most important and the most challenging part of the process. Index calculation for instance is very trivial compared to this. Therefore, it should be noted that designing and performing data validation, editing etc. should be given enough emphasis. Also, the development of other statistical domains will benefit the short-term statistics. This includes the Business Register, since now many legal units lack the NACE classification and therefore cannot be included in the calculations.

Co-operation

The discussions during the mission also touched the internal co-operation of Geostat. It was resolved that the most significant outliers in data and the possible corrections to them, should be jointly examined and decided on with the National Accounts. It was also noticed that regular monitoring of possible changes in taxation should be started. Perhaps establishing close relations with Tax authorities would be helpful in this perspective. It might provide prior notice of the changes affecting the VAT data, which would allow more time to consider and plan adjustments.

3. Conclusions and follow up

- It was concluded that Geostat has enough data for producing the first set of turnover indices according to the data requirements for small countries under the FRIBS regulation (apart from the length of time series).
- The VAT income data should be further explored to determine the need for using complementary data or adjustments. This is needed to increase the data quality. The examination was briefly started during the mission. This includes:
 - Comparison of values in different data sets
 - Comparison of yearly and quarterly growth rates of different data sets
 - Concentrating efforts on the activities which show relevant differences in the results and or values.
- Later, it can be decided which discrepancies should be systematically corrected and where to concentrate on continuous production process.
- The preliminary set on indices can be later enhanced by using the quarterly survey data and annual data to benchmark results, as well as further develop validation steps and adjustments. Possibly also the time series could be somewhat backwards extended.
- Metadata should be prepared for turnover following the guidelines presented during this mission. Not all the items of the metadata can be fully filled at this point, but for instance data description can to large extent already be completed.

Actions needed for moving forward:

Action	Deadline	Responsible person
Calculate the preliminary set of turnover indices for years 2015-2019 based on VAT income data. With base year 2015. This should be done for the lowest NACE level indices required by FRIBS (e.g. G4719). No aggregation needed at	10.2.2020	STS division A follow up Skype-meeting 2 or 3 days later will be organised by: Mr. Steen B. Pedersen



<p>this point. (For the breakdown look at annex 3 and annex 3a and for calculation look at the example for calculating the index for Section G)</p> <p>Please put the result in Excel sheets and send it by email to the participants in Activity 3.1.B.</p>		
<p>1) Calculate year-on-year growth rates for monthly index figures for years 2016-2019. (Comparison to the same month of previous year.)</p> <p>2) Compare these results on quarterly and annual level to survey results.</p>	19.2.2020	<p>STS division</p> <p>A follow up Skype-meeting 2 or 3 days later will be organised by: Mr. Steen B. Pedersen</p>
<p>Find reliable annual data for weighting purposes:</p> <ul style="list-style-type: none"> - Turnover values for different NACE categories - Export values 	28.2.2020	<p>STS division</p> <p>A follow up Skype-meeting 2 or 3 days later will be organised by: Mr. Steen B. Pedersen</p>
<p>Complement the metadata as far as possible.</p>	28.2.2020	<p>STS division</p> <p>A follow up Skype-meeting 2 or 3 days later will be organised by: Mr. Steen B. Pedersen</p>

Annex 1. Terms of Reference

Terms of Reference

EU Twinning Project GE 16 ENI ST 06 18

January 14th – January 17th 2020

Component 3: Development of Business Statistics

Sub-component 3.1: Short Term Business Statistics Indicators

Mandatory results and benchmarks for sub-component 3.1

- Short-term business statistics indicators developed

Indicators of Achievement (baseline and targets):

- Availability of STS – indices as test calculations
 - **Baseline:** 2019 – 8 STS indices are available
 - **Target:** January 2021 – Indices on turnover, volume and hours worked calculated
- Number of staff trained in STS indices on turnover, volume and hours worked
 - **Baseline:** 2019 – 0
 - **Target:** January 2021 – At least 3 staff members trained

Activity 3.1.B: Preparation of indicators of turnover

1. Purpose of the activity

To present, discuss and work on the below mentioned subjects:

- Review of data quality
- Alignment between monthly and quarterly data
- Data validation, data editing rules and thresholds and data analysis.
- Sector coverage and shortcomings
- Domestic non-domestic split
- Index calculation
- Indices on subdivisions and aggregates

2. Expected output of the activity

- Data processing and shortcomings discussed
- Production process and shortcomings discussed
- Sector coverage analysed
- Index calculation discussed
- Alignment between monthly and quarterly data examined
- Mission report written
- Input on ToR for mission 3.1.D
- Work plan for sub-component 3.1 is discussed and updated



Annex 2. Persons met

Geostat

Mr. Gogita Todradze, Executive Director,
Ms. Mariam Kavelashvili, Deputy head of Strategic planning,
Mr. Giorgi Sanadze, Head of Business Statistics Department,
Ms. Tinatin Ksovreli, Head of Short Term Statistics Division of Business Statistics Department,
Mr. Mamuka Benashvili, Chief Specialist of Short Term Statistics Division of Business Statistics Department,
Ms. Liana Zaridze, Chief Specialist of Short Term Statistics Division of Business Statistics Department,
Ms. Mariam Gogenia, Senior Specialist of Short Term Statistics Division of Business Statistics Department.

RTA Twinning Team

Mr. Steen Bielefeldt Pedersen, Resident Twinning Advisor
Ms. Eka Lobzanidze, Resident Twinning Adviser Assistant
Ms. Nino Grdzlishvili, Resident Twinning Advisor Translator



Annex 3. Full list of FRIBS data requirements of turnover by breakdown of NACE activities (set for a small country)

NACE breakdown	Net turnover	Domestic net turnover	Non-domestic net turnover
B+C	X	x	x
B	X	x	x
C	X	x	x
MIG intermediate good (Annex 3a.)s	X	x	x
MIG capital goods (Annex 3a.)	X	x	x
MIG consumer durables (Annex 3a.)	X	x	x
MIG consumer non-durables (Annex 3a.)	X	x	x
MIG energy (excluding NACE E and D)) (Annex 3a.)	X	x	x
G	X		
G45	X		
G46	X		
G47	X		
G47_FOOD (G4711, G472)	X		
G47_NFOODX_G473 (G4719, G474, G475, G476, G477, G478, G478, G479)	X		
G473	X		
G471	X		
H+I+J+L+M+N (excluding M701, M72, M75)	X		
H49	X		
H50	X		
H51	X		
H52	X		
H53	X		
I55	X		
I56	X		
J58	X		
J59	X		
J60	X		
J61	X		
J62	X		
J63	X		
L68	X		
M69	X		
M70 (excluding M701)	X		
M71	X		
M73	X		
M74	X		
N77	X		
N78	X		
N79	X		
N80	X		
N81	X		
N82	X		



Annex 3a. MIG breakdown (set for a small country)

Aggregate classification	NACE section	NACE description
MIG intermediate goods	B	07 Mining of metal ores
MIG intermediate goods	B	08 Other mining and quarrying
MIG intermediate goods	B	09 Mining support service activities
MIG intermediate goods	C	10.6 Manufacture of grain mill products, starches and starch products
MIG intermediate goods	C	10.9 Manufacture of prepared animal feeds
MIG intermediate goods	C	13.1 Preparation and spinning of textile fibres
MIG intermediate goods	C	13.2 Weaving of textiles
MIG intermediate goods	C	13.3 Finishing of textiles
MIG intermediate goods	C	16 Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials
MIG intermediate goods	C	17 Manufacture of paper and paper products
MIG intermediate goods	C	20.1 Manufacture of basic chemicals, fertilisers and nitrogen compounds, plastics and synthetic rubber in primary forms
MIG intermediate goods	C	20.2 Manufacture of pesticides and other agrochemical products
MIG intermediate goods	C	20.3 Manufacture of paints, varnishes and similar coatings, printing ink and mastics
MIG intermediate goods	C	20.5 Manufacture of other chemical products
MIG intermediate goods	C	20.6 Manufacture of man-made fibres
MIG intermediate goods	C	22 Manufacture of rubber and plastics products
MIG intermediate goods	C	23 Manufacture of other non-metallic mineral products
MIG intermediate goods	C	24 Manufacture of basic metals
MIG intermediate goods	C	25.5 Forging, pressing, stamping and roll-forming of metal; powder metallurgy
MIG intermediate goods	C	25.6 Treatment and coating of metals; machining
MIG intermediate goods	C	25.7 Manufacture of cutlery, tools and general hardware
MIG intermediate goods	C	25.9 Manufacture of other fabricated metal products
MIG intermediate goods	C	26.1 Manufacture of electronic components and boards
MIG intermediate goods	C	26.8 Manufacture of magnetic and optical media
MIG intermediate goods	C	27.1 Manufacture of electric motors, generators, Transformers and electricity distribution and control apparatus



MIG intermediate goods	C	27.2 Manufacture of batteries and accumulators
MIG intermediate goods	C	27.3 Manufacture of wiring and wiring devices
MIG intermediate goods	C	27.4 Manufacture of electric lighting equipment
MIG intermediate goods	C	27.9 Manufacture of other electrical equipment
MIG capital goods	C	25.1 Manufacture of structural metal products
MIG capital goods	C	25.2 Manufacture of tanks, reservoirs and containers of metal
MIG capital goods	C	25.3 Manufacture of steam generators, except central heating hot water boilers
MIG capital goods	C	25.4 Manufacture of weapons and ammunition
MIG capital goods	C	26.2 Manufacture of computers and peripheral equipment
MIG capital goods	C	26.3 Manufacture of communication equipment
MIG capital goods	C	26.5 Manufacture of instruments and appliances for measuring, testing, and navigation; watches and clocks
MIG capital goods	C	26.6 Manufacture of irradiation, electro medical and electrotherapeutic equipment
MIG capital goods	C	28 Manufacture of machinery and equipment n.e.c.
MIG capital goods	C	29 Manufacture of motor vehicles, trailers and semi-trailers
MIG capital goods	C	30.1 Building of ships and boats
MIG capital goods	C	30.2 Manufacture of railway locomotives and rolling stock
MIG capital goods	C	30.3 Manufacture of air and spacecraft and related machinery
MIG capital goods	C	30.4 Manufacture of military fighting vehicles
MIG capital goods	C	32.5 Manufacture of medical and dental instruments and supplies
MIG capital goods	C	33 Repair and installation of machinery and equipment
MIG consumer durables	C	26.4 Manufacture of Consumer electronics
MIG consumer durables	C	26.7 Manufacture of optical instruments and photographic equipment
MIG consumer durables	C	27.5 Manufacture of domestic appliances
MIG consumer durables	C	30.9 Manufacture of transport equipment n.e.c.
MIG consumer durables	C	31 Manufacture of furniture
MIG consumer durables	C	32.1 Manufacture of jewellery, bijouterie and related articles
MIG consumer durables	C	32.2 Manufacture of musical instruments
MIG consumer non-durables	C	10.1 Processing and preserving of meat and meat products
MIG consumer non-durables	C	10.2 Processing and preserving of fish, crustaceans and molluscs
MIG consumer non-durables	C	10.3 Processing and preserving of fruit and



		vegetables
MIG consumer non-durables	C	10.4 Manufacture of vegetable and animal oils and fats
MIG consumer non-durables	C	10.5 Manufacture of dairy products
MIG consumer non-durables	C	10.7 Manufacture of bakery and farinaceous products
MIG consumer non-durables	C	10.8 Manufacture of other food products
MIG consumer non-durables	C	11 Manufacture of beverages
MIG consumer non-durables	C	12 Manufacture of tobacco products
MIG consumer non-durables	C	13.9 Manufacture of other textiles
MIG consumer non-durables	C	14 Manufacture of wearing apparel
MIG consumer non-durables	C	15 Manufacture of leather and related products
MIG consumer non-durables	C	18 Printing and reproduction of recorded media
MIG consumer non-durables	C	20.4 Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations
MIG consumer non-durables	C	21 Manufacture of basic pharmaceutical products and pharmaceutical preparations
MIG consumer non-durables	C	32.3 Manufacture of sports goods
MIG consumer non-durables	C	32.4 Manufacture of games and toys
MIG consumer non-durables	C	32.9 Manufacturing n.e.c.
MIG energy (excluding NACE E and D))	B	05 Mining of coal and lignite
MIG energy (excluding NACE E and D))	B	06 Extraction of crude petroleum and natural gas
MIG energy (excluding NACE E and D))	C	19 Manufacture of coke and refined petroleum products



Annex 4. Definitions of the fields in the VAT declaration used as estimates of turnover

The VAT dataset provided by Georgian Revenue services includes fields which contain information about the income of the legal units. The definitions of these are listed below.

VAT data	Definition
<p>Field C1- 18% taxable turnover</p>	<p>Supply of goods and / or services (including barter operation);</p> <p>Note: If the compensation is paid prior to delivery of the goods / services, and the payment is known to be related to the specific name and number of goods / services supplied by VAT, the transaction will be subject to VAT taxation at the time of receipt.</p> <p>Use of goods / services for non-economic activities if VAT incurred;</p> <p>In case of VAT cancellation of the registration of goods with VAT deduction;</p> <p>The use of one's own production facilities as a principal;</p> <p>An exchange of goods by the enterprise and / or partnership transfer of ownership or provision of services;</p> <p>Return of the fixed assets to the lessor by the lessee upon expiry or early termination of the lease;</p> <p>Termination or expiry of the status of a tourism enterprise;</p> <p>Loss of the commodity material revealed by the tax authority over inventory.</p>
<p>Field C2 - Zero rate taxable turnover, VAT-exempt turnover</p>	<p>The supply of goods and / or services intended for the official use of foreign diplomatic missions and their equivalent, for the personal use of members of these missions and diplomatic missions (including family members living with them)</p> <p>Pharmaceutical preparations;</p> <p>Re-export or export of goods;</p> <p>Supply of natural gas to thermal power plants;</p> <p>International shipping / transportation</p> <p>Goods and / or services provided under the Project under separate international agreements</p> <p>Other transactions exempt from VAT</p> <p>VAT-exempt transactions where compensation has been paid prior to the supply of goods / services</p>



<p>Field C3 - Turnover not taken into account by VAT in the amount of the taxable transaction and at VAT included will not be subject to cancellation</p>	
<p>Field C4 - Turnover not taxable or not considered a VAT taxable transaction or supply of goods / services, VAT included will not be subject to cancellation</p>	<p>Supply and / or import of national and / or foreign currency (except for numismatic or collecting purposes); Import of gold and gold bars to the National Bank of Georgia; Supply of magazines, newspapers, notes and Realization services; Supply of goods between enterprises in the free industrial zone; Provision and / or import of excise; Providing services to FIZ enterprises; Medical service, Providing lotteries, gambling and winning games;</p>
<p>Field C31 - The cost of products released for the period</p>	<p>Value of goods / services rendered in the reporting month excluding VAT (Informative)</p>



Annex 5. Comparison of turnover and income values (year 2018)

The coverage of the VAT data and differences in the annual income and turnover values from different data sets can be assessed with the help of the table below provided by Geostat. The values acquired by survey have been weighted in order to represent the whole population of businesses. Most of the highlighted activities were identified as partly exempt from VAT. These NACE activities should be investigated in more detailed NACE level and also the impact of under-coverage on results on growth rates should be further examined.

NACE_2_2	VAT data	Turnover from annual survey	Total income from annual survey	Total income from annual profit declaration	Total income from annual income declaration individual enterprises
05	26 730	19 668	19 755	232	41
06	16 667	25 144	28 115	564	0
07	612 240	528 193	828 908	0	0
08	222 528	174 934	179 053	1 504	9 940
09	275	0	0	0	120
10	2 134 704	2 049 306	2 094 041	5 087	48 264
11	1 950 327	1 843 627	1 950 287	132	5 530
12	145 230	51 475	56 459	0	22
13	34 045	28 781	31 263	0	540
14	203 183	197 014	204 079	0	2 337
15	10 185	9 875	9 875	0	209
16	108 869	103 866	104 593	0	3 108
17	107 840	98 859	100 519	1 771	632
18	145 931	122 351	125 535	726	1 773
19	33 941	29 836	30 108	0	0
20	444 755	426 608	450 325	18	58
21	188 339	192 075	200 827	0	312
22	372 664	371 314	374 231	822	19 635
23	1 111 361	1 075 909	1 132 764	4 441	9 621
24	1 594 627	1 596 765	1 778 970	0	26
25	359 036	350 029	356 263	339	5 538
26	3 706	3 233	3 277	39	0
27	72 366	61 322	61 387	92	611
28	22 756	27 989	28 200	154	995
29	1 077	615	619	0	71
30	22 143	10 917	37 734	0	0
31	205 732	192 185	196 556	1 546	16 775
32	18 009	21 850	22 136	0	147
33	152 953	137 732	151 496	427	876
45	2 250 062	2 258 329	2 314 334	2 802	89 810
46	20 374 693	20 045 733	20 910 532	58 407	561 650



47	13 629 088	13 484 520	13 847 721	39 386	1 415 040
49	1 501 097	1 635 722	2 414 304	3 282	55 518
50	20 579	22 866	23 397	0	0
51	289 444	314 290	321 613	0	0
52	2 949 760	2 718 010	2 866 868	13 288	1 811
53	119 023	131 378	134 695	0	154
55	1 079 576	892 205	1 045 991	6 768	22 030
56	912 761	796 816	828 963	6 783	28 398
58	49 249	53 563	57 606	11 191	0
59	64 764	58 709	70 809	15	521
60	97 112	95 556	98 433	6 520	0
61	1 225 198	1 216 851	1 486 337	1 291	988
62	194 050	200 131	274 498	6 410	191
63	52 233	53 620	57 053	0	161
68	1 381 763	1 182 563	1 483 930	79 048	82 161
69	239 839	195 548	211 503	21 076	12 826
70	120 992	101 266	188 352	4 034	32
71	408 446	406 790	473 414	25 346	1 208
73	595 602	605 774	633 349	56 853	2 146
74	37 582	29 235	29 345	12 031	194
77	293 219	244 137	334 527	64 013	4 388
78	45 711	45 710	45 725	0	0
79	441 672	612 902	629 017	10 972	1 580
80	197 637	102 284	102 667	103 463	0
81	71 380	103 599	105 979	237	910
82	124 963	27 495	27 598	15 039	1 902