



MINISTRY OF INTERNALLY DISPLACED PERSONS FROM THE OCCUPIED TERRITORIES, LABOUR, HEALTH AND SOCIAL AFFAIRS OF GEORGIA

Sectoral Analysis of Regional Markets in Georgia by Using the Components of Smart Specialization



Research

PMC Research Center



Research

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1. EXECUTIVE SUMMARY

Conducting analysis of labor market supply and demand is an essential step towards the reduction of unemployment. Having an informed understanding of what type of education, skills, and experience are demanded by the market can prepare job-seekers better to access employment, as well as entrepreneurial and educational opportunities.

The study aims to map and analyze the private sector in Tbilisi, Samegrelo-Zemo Svaneti region (Senaki, Zugdidi, Tsalenjikha, and Poti municipalities) and Kvemo Kartli region (Marneuli municipality).

The assessment methodology entailed a combination of desk research and qualitative study. During the desk research, the size of the market in each of the target regions was studied and, by using the economic potential component of the Smart Specialization methodology, a private sector assessment was conducted. Smart Specialization¹ is an approach that has been elaborated by the European Union (EU), and is widely used when analyzing national and regional competitiveness.

Under this approach, we have identified vital economic sectors (concentrated and competitive economic sectors) for the targeted regions, by using regional analysis methods such as location quotient (LQ) and shift-share analysis. With the help of shift-share analyses, competitive sectors for the targeted regions were identified, while concentrated sectors were identified by using LQ. After identifying concentrated and competitive sectors for targeted regions, the sectors which were both concentrated and competitive were chosen. If there was no such sector in a given location, then sectors were selected based on the shift-share analysis results. In addition, by applying enterprise birth and survival analysis, we identified economically active sub-sectors within each selected sector.

During qualitative study, we conducted in-depth interviews with representatives of the chosen sub-sectors in targeted regions and with representatives of business associations. The goals of these interviews were as follows:

- To assess businesses within the chosen sub-sectors;
- To evaluate the main constraints faced by businesses in the target regions; and
- To assess the main gaps in labor market demand and supply in terms of human resources, skills, knowledge and experience.

According to the research results, an increasing trend is visible in all economic indicators of the private sector in Tbilisi, Kvemo Kartli and Samegrelo-Zemo Svaneti. The number of employed persons, average monthly salary, production value, value added, turnover, and investments in fixed assets all increased through the period of 2010-2017.

According to our findings based on the Smart Specialization methodology, the key economic sectors for the selected municipalities are broken down as follows:

Table 1: Selected sectors and sub-sectors for targeted regions

Region	Sector	Sub-Sector
Tbilisi	Construction	The building of complete constructions or parts thereof; civil engineering
Tbilisi	Manufacturing	Manufacture of food products and beverages
Samegrelo-Zemo Svaneti (Senaki, Zugdidi, Tsalenjikha)	Manufacturing	Manufacture of food products and beverages
Samegrelo-Zemo Svaneti (Senaki, Zugdidi, Tsalenjikha)	Agriculture	Agriculture, hunting and related services

¹ http://publications.jrc.ec.europa.eu/repository/bitstream/JRC111430/2018-04-24_western-balkans-report_online.pdf

Samegrelo-Zemo Svaneti (Poti)	Transport and Communication	Supporting and auxiliary transport activities; activities of travel agencies
Kvemo Kartli (Marneuli)	Agriculture	Agriculture, hunting and related services
Kvemo Kartli	Mining	Other mining and quarrying activities

In each selected sector and sub-sector, business sector mapping was carried out, and data regarding the active enterprises operating in these sectors were gleaned from the National Statistics Office of Georgia. The database of the National Statistics Office of Georgia includes the following information: identification number; legal status; name of the enterprise; region; municipality; economic activity; address; contact information; contact person(s); ownership type; and size.

Based on the labor market assessment of the above-listed sub-sectors in the targeted regions, the most in-demand workers/specialists for the interviewed companies are the following: agronomists; tractor drivers; mechanical engineers; loader workers; electricians; hazelnut selectors; food technologists; social media managers; and construction managers. A major challenge businesses face regarding the labor market is the availability of qualified staff. The interviewed businesses hire staff mostly based on the recommendations of acquaintances.

Based on the assessment, the following common challenges businesses face in the target regions were identified:

- Unpredictable economic environment (unstable trade environment, volatile exchange rate, unpredictable regulations);
- Low consumer solvency;
- Small domestic market;
- Limited access to finance due to high interest rates and high collateral requirements of commercial banks;
- Outdated equipment and no availability of machines/devices locally; and
- Bureaucratic barriers at borders.

2. RESEARCH DESIGN AND METHODOLOGY

The aim of the study is to make a Regional Market Assessment in Tbilisi, Kvemo Kartli and Samegrelo-Zemo Svaneti. The aim of the assessment is to map and analyse the private business sector in the six target municipalities of Tbilisi, Senaki, Zugdidi, Tsalenjikha, Poti and Marneuli.

The market assessment should provide updated information on business trends, gaps in the employment market and key private sector actors and opportunities for synergies and linkages. Specifically, the Market Assessment should give comprehensive answers to the following key research questions:

- The current size of the market in the target regions;
- The current key business sectors in the target regions;
- The main constraints faced by businesses in the target regions
- The main gaps in the labour market demand and supply in terms of human resources, skills, knowledge and experience

The assessment methodology utilizes the combination of desk research and qualitative studies. Under the desk research the size of the market in each target regions is studied and key business sectors in the target regions are identified. Under the qualitative study, the main constraints faced by businesses in the target regions, the main gaps in the labour market demand and supply in terms of human resources, skills, knowledge and experience are identified.

2.1 DESK RESEARCH

2.1.1 The Current Size of the Market in the Target Regions

To study the market (private sector) in the targeted regions economic indicators for business sector are analyzed. Employment, average monthly salary, value added, production value, turnover, investments in fixed assets and their dynamics are investigated².

2.1.2 Selection of the Sectors for Target Regions

To map and analyse the private business sector in the six target municipalities of Tbilisi, Senaki, Zugdidi, Tsalenjikha, Poti and Marneuli, the assessment is done based on the components of the Smart Specialization methodology.

Smart Specialization³ is an approach elaborated by European Union, widely used when analyzing national and regional competitiveness. The ability to analyze combinations of potentials and strengths is one of crucial elements of the smart specialization approach. Identifying regional priorities is based on key indicators of smart specialization approach:

- Economic potential
- Innovative potential
- Scientific potential

For the reason that data does not exist for innovative and scientific potential, the analysis will be done based on economic potential. Which on its side consists of:

- Specialization, growth dynamics and relative importance of industrial subsectors based on:
 - Employment
 - Value added/Turnover
 - Number of companies

² http://geostat.ge/index.php?action=page&p_id=212&lang=eng

³ http://publications.jrc.ec.europa.eu/repository/bitstream/JRC111430/2018-04-24_western-balkans-report_online.pdf

- International competitiveness
 - Main product groups in exports
 - Revealed comparative advantage in export

As for Georgia there is no data analyzing export of product groups by regions, the analysis will be done based on first component of economic potential: specialization.

To identify current key economic sectors (the concentrated and the competitive economic sectors⁴) for Tbilisi, Kvemo Kartli and Samegrelo-Zemo Svaneti regions, regional analysis methods, such as location quotient (LQ)⁵ and shift-share analysis⁶, are used (See Annex 1). LQ analysis reveals the basic economic sectors of each target region and indicates how concentrated an economic sector is in a region compared to the whole country. Shift-share analysis enables the identification of the competitive sectors for each target region by identifying the factors affecting the changes in the number of people employed and value added by certain economic sectors.

In LQ and shift-share analysis, the dynamics of employment and value added in the private sector of Georgia according to economic activities⁷ are analyzed. For this analysis, statistical data was gleaned from the National Statistics Office of Georgia; for LQ analysis, data from 2017 was provided; and for shift-share analysis 2010-2017 data was provided.

2.1.2.1 Sector Selection Criteria

After identifying concentrated and competitive sectors for targeted regions, according to each economic indicator (employment and value added), the sectors were chosen based on the following principle: while choosing sectors based on employment, the first option was that the sector to be identified in both LQ and shift-share. If there was not such sector, then selection of sector was done based on shift-share results. The same was according to value added.

2.1.3 Sub-Sector Selection Criteria

After selecting the sectors, the sub-sectors for each sector were analyzed and the major sub-sectors concentrated in the targeted municipalities were identified.

For this active enterprises in economic sectors in Tbilisi, Kvemo Kartli and Samegrelo-Zemo Svaneti (in each region and in each targeted municipality) were identified and data about the quantity of active enterprises⁸ in each sub-sector were analyzed.

The quantity of enterprises in each sector and in each sub-sector reveals where economic activity is high in each region (and in each targeted municipality). Within each chosen sector (Section X – according to NACE rev.1) the sub-sector (Division XX – According to Nace rev.1) in which the number of enterprises was highest were chosen. If a sector – Section (according to NACE rev.1) does not have divisions (according to Nace rev.1), then group (according to NACE rev.1) in which the number of enterprises was highest was chosen.

2.1.4 Data Collection

To identify the basic sectors for each region business sector employment and value added statistics for 2010-2017 were used, the source was the National Statistics Office of Georgia.⁹

To identify basic sub-sectors within each sector, the statistics about the number of enterprises according to sub-sectors in each sector was gleaned from National Statistics Office of Georgia.

⁴ Section- according to classification of economic activities NACE rev 1.1

⁵ Kirankabes, Cem; Arik, Murat. *The Journal of Applied Business and Economics*; Vol. 16, Iss. 3, (Jun 2014): 135-151.

⁶ Curtis, W. (1972). Shift-Share Analysis as a Technique in Rural Development Research. *American Journal of Agricultural Economics*, 54(2), 267-270. Retrieved from <http://www.jstor.org/stable/1238712>; Green, R., & Allaway, A. (1985). Identification of Export Opportunities: A Shift-Share Approach. *Journal of Marketing*, 49 (1), 83-88. doi:10.2307/1251178.

⁷ Section- according to classification of economic activities NACE rev 1.1

⁸ http://geostat.ge/index.php?action=page&p_id=2657&lang=eng

⁹ http://geostat.ge/?action=page&p_id=211&lang=geo

2.2 QUALITATIVE RESEARCH: IN-DEPTH INTERVIEWS

After identifying the sectors and sub-sectors for each region, qualitative research was conducted. In each of the target regions, in-depth interviews were conducted with representatives of concentrated and competitive sectors identified by desk research and with representatives of business associations. The in-depth interview, as a qualitative data collection method, was chosen because of its ability to provide descriptive data about people's behaviors, attitudes and perceptions.

To conduct in-depth interviews for each relevant sector in each region, questionnaires were prepared taking into account sector-specific factors. For sample selection, the target regions were divided into six strata: Tbilisi; four municipalities of Samegrelo-Zemo Svaneti; and one municipality of Kvemo Kartli. In each stratum, the sample was selected randomly. In total, 51 in-depth interviews were conducted with representatives of concentrated sectors in targeted regions (in total, 48 in-depth interviews), and with representatives of business associations (in total, 3 in-depth interviews). The respondents were informed in advance about the main aim of the study, and agreed to take part in the research. The data collection period spanned 5-16 November 2018 with representatives of businesses and 3-11 January of 2019 with representatives of business associations. Detailed notes of each in-depth interview were taken and analyzed to answer the main research questions.

Table 2: Distribution of interviews in each target region

Region	Number of Interviews Conducted
Tbilisi	19
Kvemo Kartli (Marneuli)	8
Samegrelo (Senaki, Zugdidi, Tsalenjikha, Poti)	21

In Samegrelo-Zemo Svaneti the distribution of interviews was the following:

Table 3: Distribution of interviews in Samegrelo-Zemo Svaneti region

Region	Zugdidi	Senaki	Tsalenjikha	Poti	Total
Samegrelo-Zemo Svaneti	11	5	2	3	21

3. THE CURRENT SIZE OF THE MARKET IN THE TARGET REGIONS

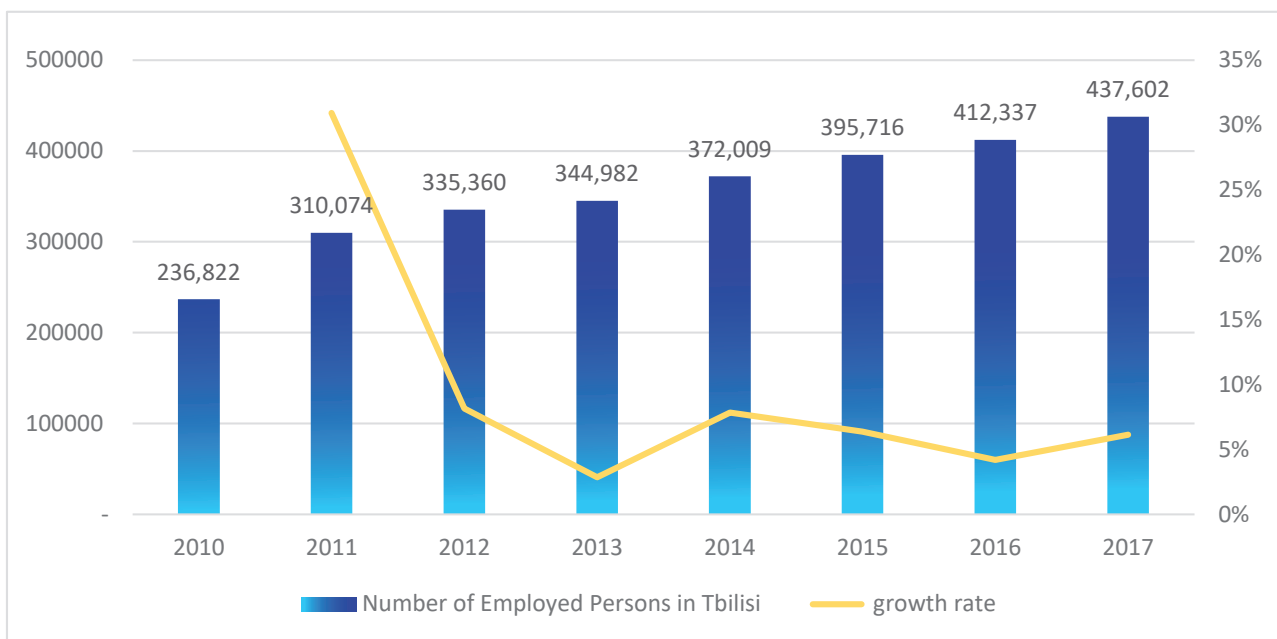
In this chapter, we discuss the dynamics of the business (private) sectors of Tbilisi, Kvemo Kartli and Samegrelo-Zemo Svaneti according to the following macroeconomic indicators: employment, average monthly salary, value added, production value, turnover, investments in fixed assets.

3.1 TBILISI – BUSINESS SECTOR OVERVIEW

Employment

In 2017, according to data, 437,602 people were employed in Tbilisi, representing 62% of all people employed in the private sector in the country. The average annual growth rate for people employed in the private sector in Tbilisi for the 2010-2017 period was 9%. 42% of employed persons of private sector of Tbilisi are women and 58% are men¹⁰. Most employed people in the private sector in Tbilisi in 2017 were employed in wholesale and retail trade (28%) and real estate (12%) sectors.

Most stable sectors in terms of employment (estimated by coefficient of variation) are manufacturing, electricity, gas and water supply and transport and communication, with average annual growth rate of 5%, 2% and 3% respectively during the period of 2010-2017.



Graph 1. Number of Employed Persons in Tbilisi

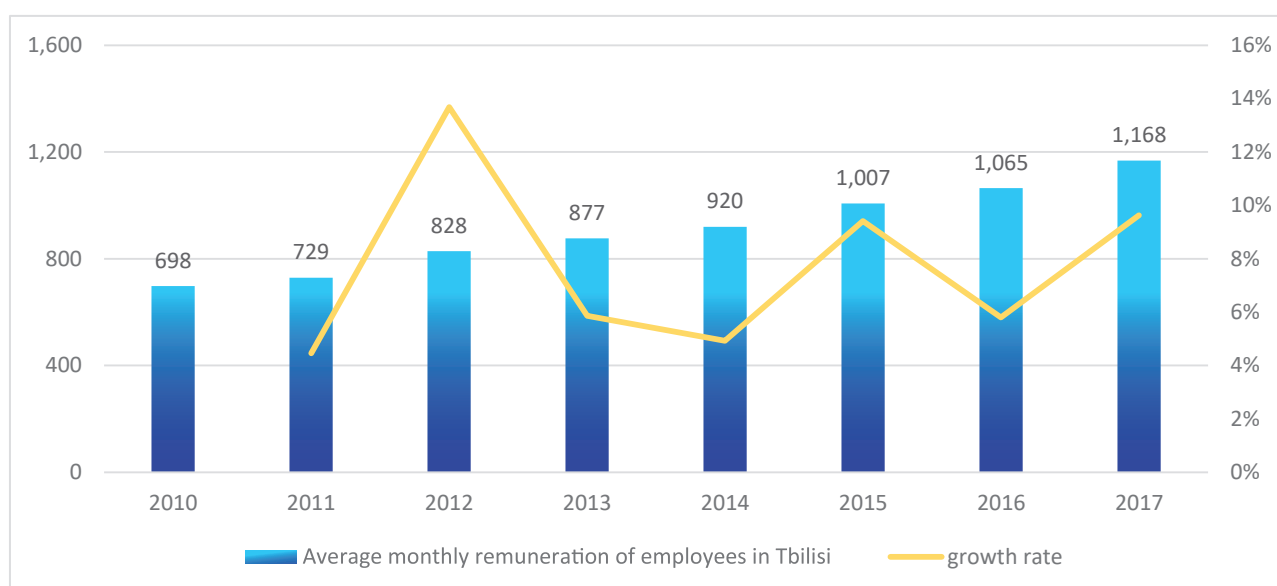
Source: National Statistics Office of Georgia

Average Monthly Salary

The average monthly salary for hired employees in the private sector in Tbilisi amounted to GEL 1167.6 in 2017, which is 15% higher than the national average for the country¹¹. The average monthly salary in the private sector in Tbilisi has grown by an average of 8% annually between 2010 and 2017. In 2017, the highest salaries were provided in the following sectors: construction (1,751); mining and quarrying (1,620); and real estate, renting and business activities (1,431).

¹⁰ Data of 2016, Geostat.

¹¹ Source: Geostat



Graph 2. Average Monthly Remuneration of Employees in Tbilisi (GEL)

Source: National Statistics Office of Georgia

In 2017, average monthly salary in Georgia by positions were the following¹²:

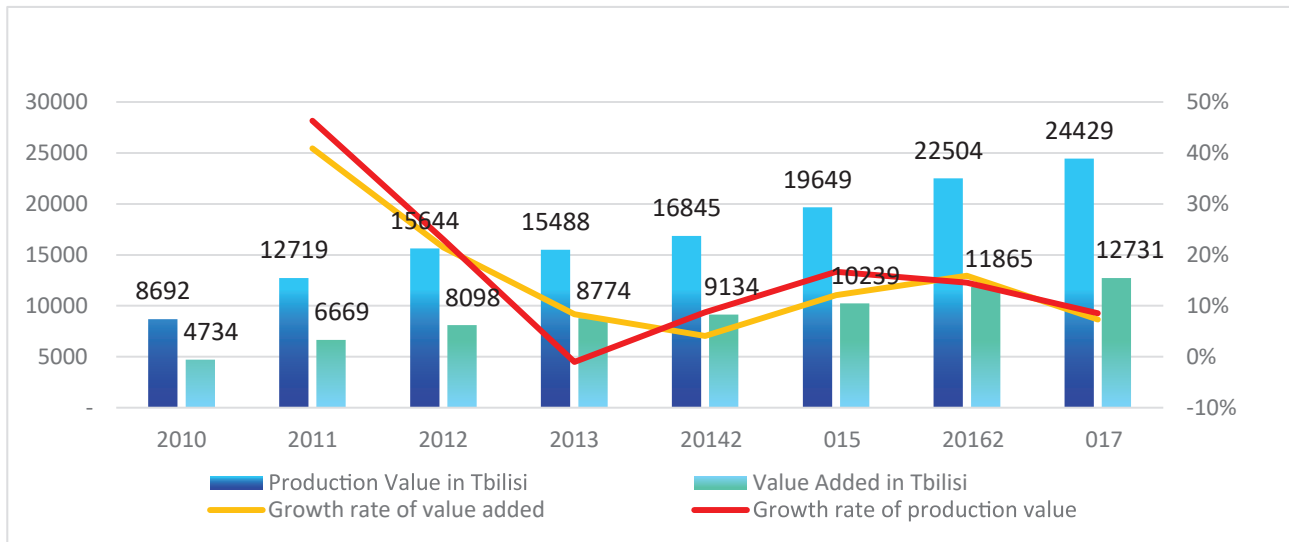
- Legislators, senior officials and managers get 2,177.4 GEL (1,651.1 for women and 2,432.7 GEL for men);
- Professionals get 960.4 GEL (807.3 for women and 1,242.0 GEL for men);
- Technicians and associate professionals get 897.5 GEL (636.2 for women and 1,148.0 GEL for men);
- Clerks get 957.6 GEL (840.1 for women and 1,131.9 GEL for men);
- Service workers and shop and market sales workers get 683.1 GEL (522.5 for women and 810.4 GEL for men);
- Skilled agricultural and fishery workers get 525.1 GEL (479.2 for women and 538.0 GEL for men);
- Craft and related trades workers get 1,073.0 GEL (572.3 for women and 1,170.5 GEL for men);
- Plant and machine operators and assemblers get 934.7 GEL (761.9 for women and 945.8 GEL for men);
- Elementary occupations get 581.2 GEL (388.6 for women and 700.8 GEL for men);

Production Value and Value Added

Parallel to the growth in employment and salaries in the private sector in Tbilisi, we also observe growth in production value. In 2017, production value was worth GEL 24,429 million, which accounted for 63.9% of total production value created in Georgia's private sector. The average annual growth rate was 17% from 2010 to 2017. In 2017, in Tbilisi, most production value was created in the following sectors: construction (GEL 5,133 mln) and wholesale and retail trade (GEL 5,096 mln).

The value added created in the private sector in Tbilisi was GEL 12,731 million in 2017, representing 67% of the total value added created in the country. The average annual growth rate for added value created during the 2010-2017 period was 16%. In 2017, in Tbilisi, most value added was created in the following sectors: wholesale and retail trade (GEL 3,258 mln) and construction (GEL 2,139 mln).

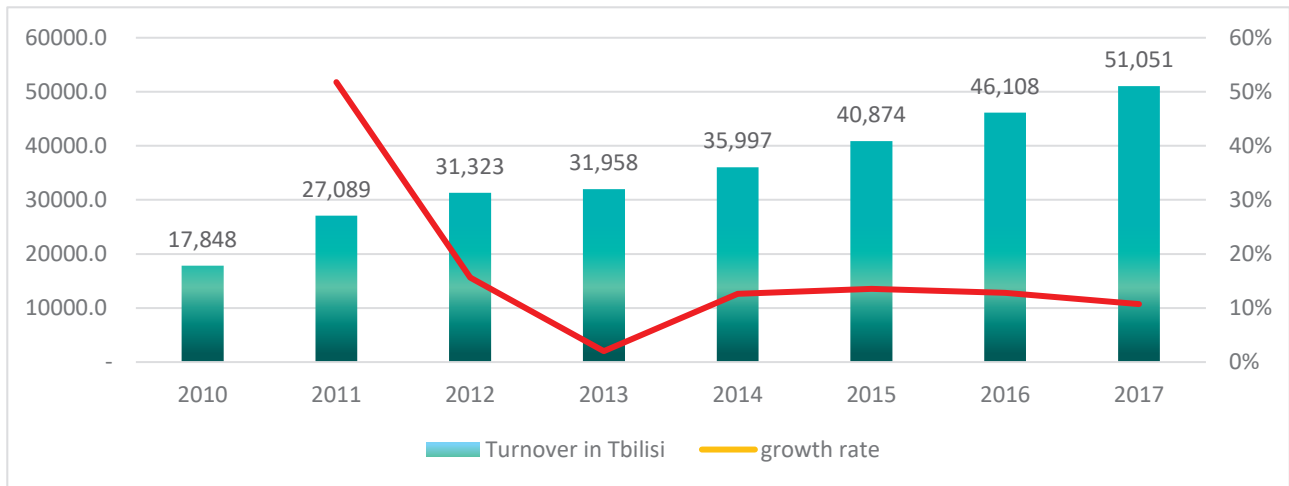
¹² http://geostat.ge/cms/site_images/_files/english/health/W&M%20ENG-2018.pdf



Graph 3. Value Added and Production Value in Tbilisi (mln GEL)
 Source: National Statistics Office of Georgia

Turnover

Turnover in the private sector in Tbilisi has also been characterized by growth this decade. In 2017, turnover amounted to GEL 51,051 million and representing 71% of the total turnover in the country's private sector. The average annual growth rate for turnover was 17% during the 2010-2017 period. In 2017, in Tbilisi the sectors with highest turnover were the following: wholesale and retail trade (GEL 25,202 mln) and Community, social and personal service activities (GEL 5,349 mln).

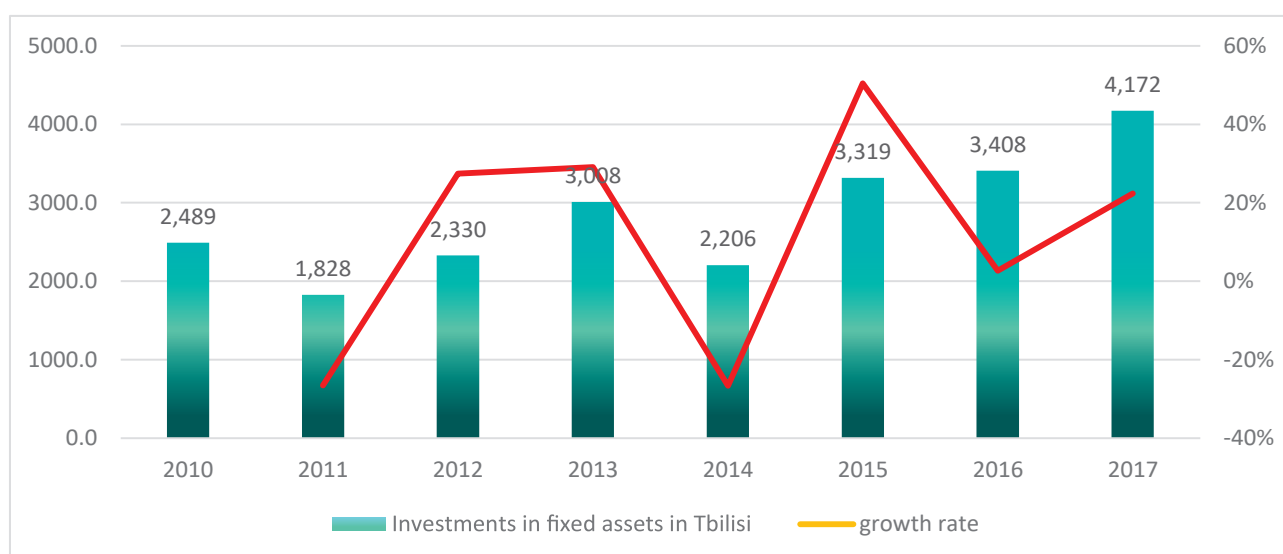


Graph 4. Turnover in Tbilisi (mln GEL)
 Source: National Statistics Office of Georgia

Investments in Fixed Assets

Investments in Tbilisi's private sector amounted to GEL 4,172 million in 2017, representing 75% of the total investment made in Georgia's private sector. The average annual growth rate of investments in fixed assets in the private sector in Tbilisi for the 2010-2017 period was 11%.

In 2017, almost half of the investments (48%) were allocated to the transport and communications sector, totaling GEL 1,989 million. However, investments in every sector is volatile year-by-year and it's hard to say what type of investments tend to grow.



Graph 5. Investments in Fixed Assets in Tbilisi (mIn GEL)

Source: National Statistics Office of Georgia

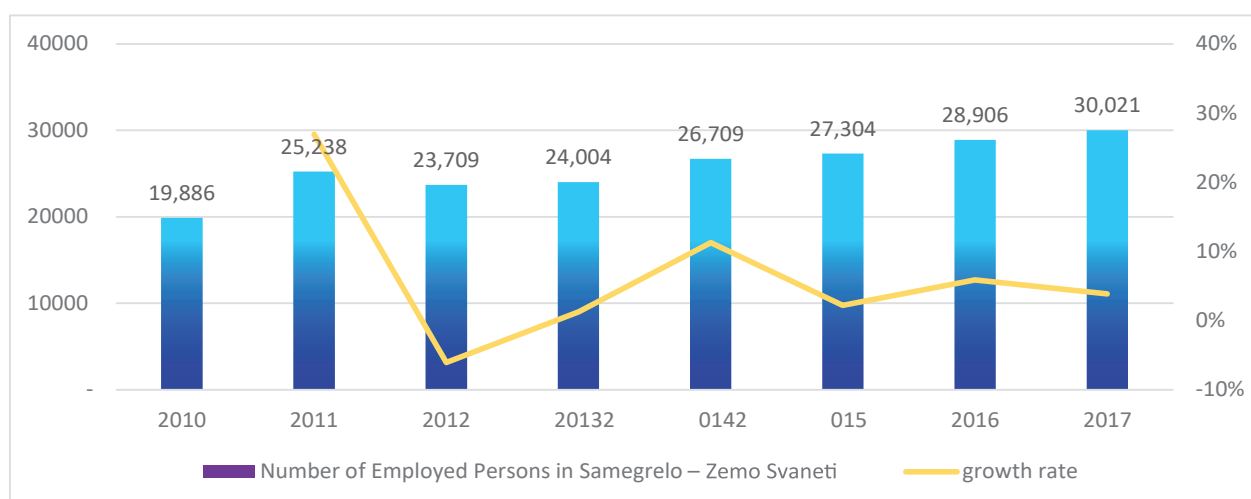
To summarize, increasing trend can be seen in all economic indicators of private sector in Tbilisi. Number of employed persons was growing at average by 9% annually; average monthly salary was growing by 8% annually; average annual growth rate of production value was 17% and for value added - 16%; turnover was growing at average by 17% and investments in fixed assets was increasing by 11% annually for the period of 2010-2017.

3.2 SAMEGRELO-ZEMO SVANETI – BUSINESS SECTOR OVERVIEW

Employment

In 2017, according to data, 30,021 people were employed in Samegrelo–Zemo Svaneti, accounting for 4.2% of private sector employment in Georgia. The annual average growth rate of employment in this region was 6% for the 2010-2017 period. 37% of employed persons of private sector of Tbilisi are women and 63% are men¹³. In 2017, most employed people in the private sector in Samegrelo–Zemo Svaneti were employed in the following sectors: transport and communications (17%); and wholesale and retail trade (16%).

Most stable sectors in terms of employment (estimated by coefficient of variation) are manufacturing, construction and transport and communication, with average annual growth rate of 14%, 12% and 12% respectively during the period of 2010-2017.



Graph 6. Number of Employed Persons in Samegrelo-Zemo Svaneti

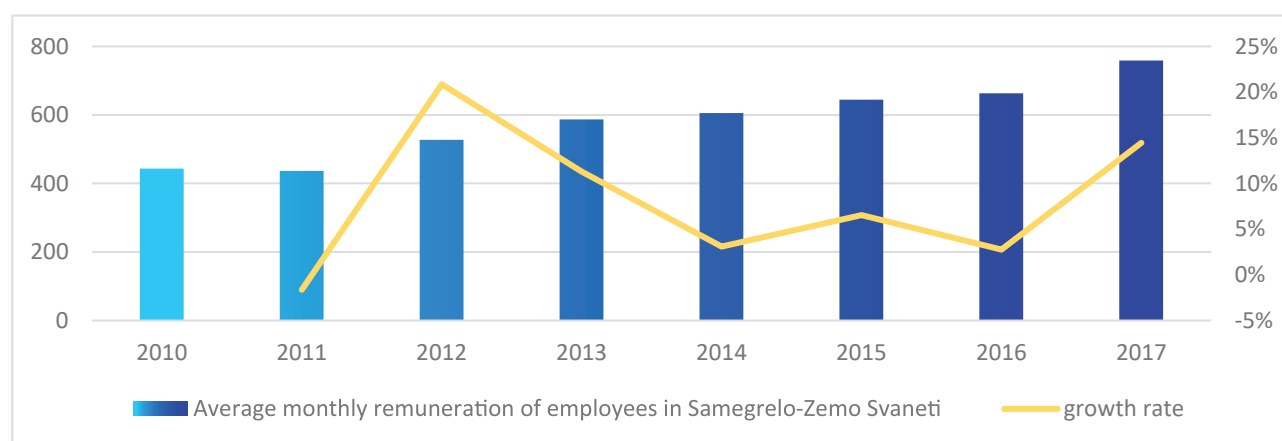
Source: National Statistics Office of Georgia

¹³ Data of 2016, Geostat.

As regards to target municipalities, in 2017, 11,757 persons were employed in Poti municipality, 7,973 persons were employed in Zugdidi municipality, 3,195 persons were employed in Senaki municipality and 1,083 persons were employed at Tsalenjikha municipality. The number of employed persons was growing at average annual rate of 9%, and 13% in Poti and Tsalenjikha municipalities respectively and declining by 1% and 2% in Zugdidi and Senaki municipalities respectively for the 2014-2017 period¹⁴.

Average Monthly Salary

The average monthly salary for hired employees in the private sector in Samegrelo–Zemo Svaneti amounted to GEL 758.2 in 2017, which was 26% lower than the national average. The average monthly salary in the private sector in Samegrelo–Zemo Svaneti has grown by an average of 8% annually between 2010 and 2017. The highest salaries in 2017 were provided in the following sectors: electricity, gas and water supply (3,667); and transport and communications (1,272).



Graph 7. Average Monthly Remuneration of Employees in Samegrelo-Zemo Svaneti (GEL)

Source: National Statistics Office of Georgia

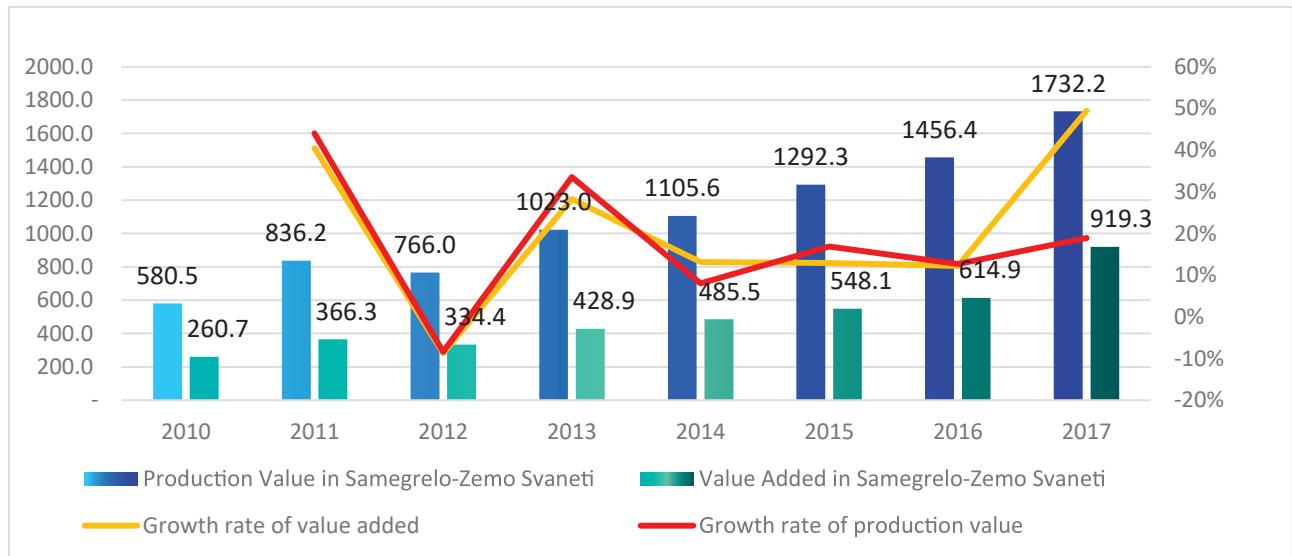
As regards to target municipalities, in 2017, average monthly salary for hired employees was 1,023 in Poti municipality, 496 GEL in Zugdidi municipality, 427 GEL in Senaki municipality and 655 GEL in Tsalenjikha municipality. The average monthly salary was growing at average annual rate of 6%, 9% and 27% in Poti, Zugdidi and Tsalenjikha municipalities respectively and declining by 1% in Senaki municipality for the 2014-2017 period.

Production Value and Value Added

In 2017, production value created in Samegrelo-Zemo Svaneti was worth GEL 1,732 million, representing 4.5% of total production value in Georgia's private sector. The average annual growth rate for production value in this region was 18% during the 2010-2017 period. In 2017, in Samegrelo-Zemo Svaneti, most production value was created in the following sectors: Transport and communication (GEL 682 mln) and Manufacturing (GEL 528 mln).

The added value created in the private sector in Samegrelo-Zemo Svaneti was GEL 919 million in 2017, accounting for 4.8% of total value added created in Georgia's private sector. The annual average growth rate for value added created in this region during the 2010-2017 period was 21%. In Samegrelo-Zemo Svaneti, most of the value added in 2017 was created in the following sectors: transport and communications sector (GEL 514 mln); and manufacturing (GEL 122 mln).

¹⁴ Data is available only for period of 2014-2017. Source: Geostat.



Graph 8. Value Added and Production Value in Samegrelo-Zemo Svaneti (mln GEL)

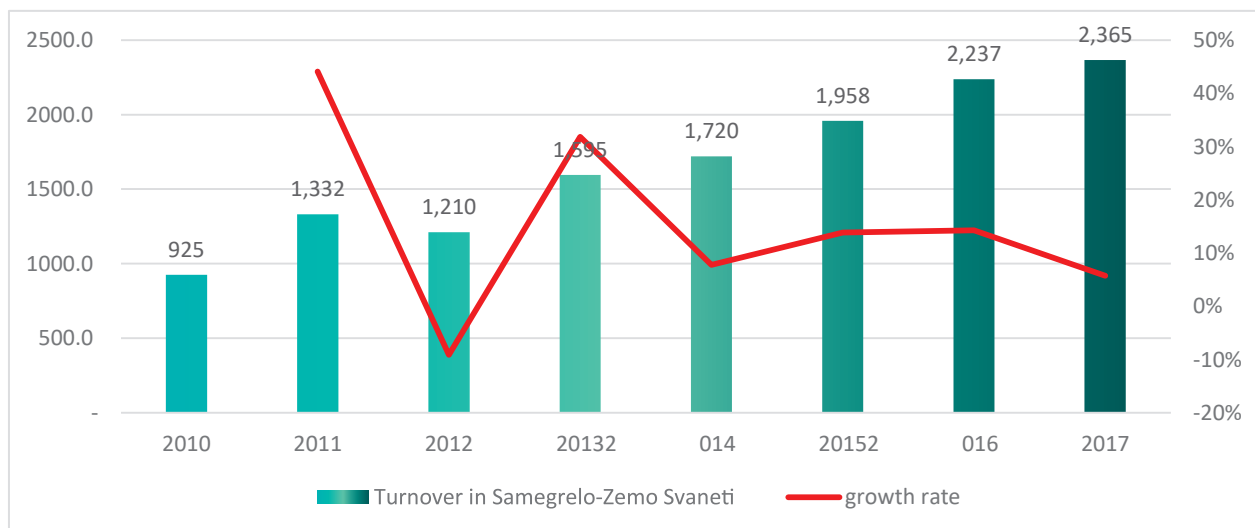
Source: National Statistics Office of Georgia

As regards to target municipalities, in 2017, production value created in Poti municipality was worth GEL 986 mln, in Zugdidi municipality was worth GEL 365 mln, in Senaki municipality was worth GEL 117 mln and in Tsalenjikha municipality was worth GEL 31 mln. The average annual growth rate for production value in Poti, Zugdidi, Senaki and Tsalenjikha municipalities were 33%, 0%, 7% and 21% respectively during the 2014-2017 period.

The value added created in the private sector was GEL 632 million in Poti municipality, GEL 94 mln in Zugdidi municipality, GEL 37 mln in Senaki municipality and GEL 12 mln in Tsalenjikha municipality. The average annual growth rate for production value in Poti, Zugdidi, Senaki and Tsalenjikha municipalities were 39%, 7%, 5% and 12% respectively during the 2014-2017 period.

Turnover

In 2017, turnover in the private sector in Samegrelo-Zemo Svaneti amounted to GEL 2,365 million. In 2017, turnover in Samegrelo-Zemo Svaneti's private sector accounted for 3.3% of turnover in Georgia's private sector in total. In 2017, in Samegrelo-Zemo Svaneti, the sectors with highest turnover were the following: Hotels and restaurants (GEL 767 mln) and Real estate, renting and business activities (GEL 719 mln).



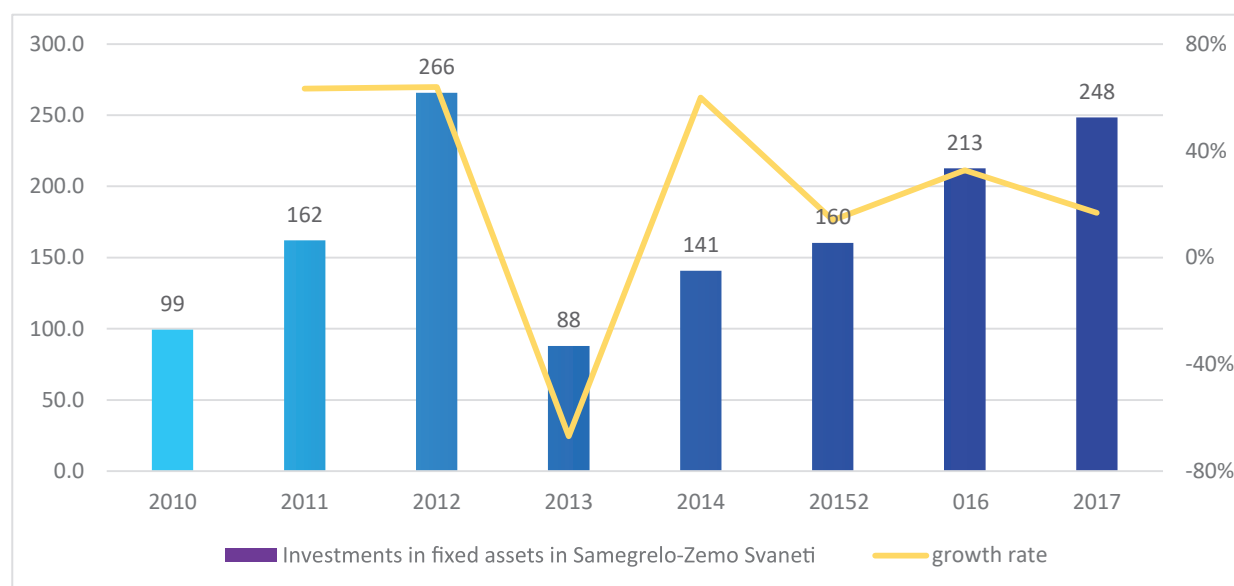
Graph 9. Turnover in Samegrelo-Zemo Svaneti (mln GEL)

Source: National Statistics Office of Georgia

As regards to target municipalities, in 2017, turnover in Poti municipality amounted GEL 1,276 mln, in Zugdidi municipality amounted GEL 550 mln, in Senaki municipality amounted GEL 207 mln and in Tsalenjikha municipality amounted GEL 34 mln. The average annual growth rate for turnover in Poti, Zugdidi, Senaki and Tsalenjikha municipalities were 19%, 2%, 8% and 14% respectively during the 2014-2017 period.

Investments in Fixed Assets

Investments made in Samegrelo-Zemo Svaneti's private sector amounted to GEL 248 million in 2017, accounting for 4.4% of total investments made in Georgia's private sector. The average annual growth rate of investments in fixed assets in the private sector in Samegrelo-Zemo Svaneti for the 2010-2017 period was 26%. Most investments made in 2017 were allocated to the following sectors: transport and communications (30%); agriculture, hunting and forestry (25%); and electricity, gas and water supply (21%). Investments in most sectors are volatile year-by-year. However, investments in mining and quarrying tend to grow for last 5 years.



Graph 10. Investments in Fixed Assets in Samegrelo-Zemo Svaneti (mln GEL)

Source: National Statistics Office of Georgia

To summarize, increasing trend can be seen in all economic indicators of private sector in Samegrelo-Zemo Svaneti. Number of employed persons was growing at average by 6% annually; average monthly salary was growing by 8% annually; average annual growth rate of production value was 18% and for value added 21%; turnover was growing at average by 17% and investments in fixed assets was increasing by 26% annually for the period of 2010-2017.

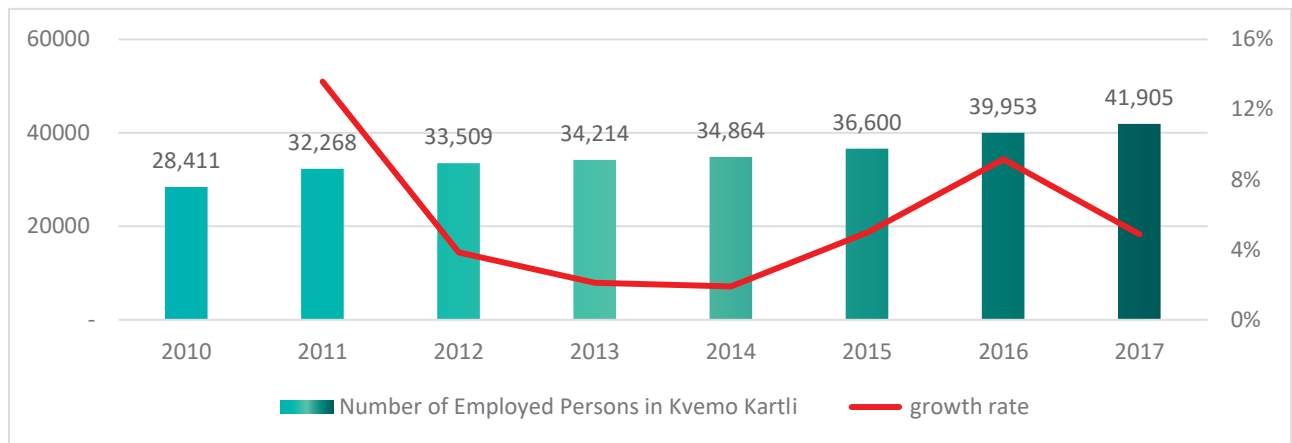
3.3 KVEMO KARTLI – BUSINESS SECTOR OVERVIEW

Employment

In 2017, according to data, 41,905 people were employed in Kvemo Kartli, representing 6% of all people employed in the private sector in the country. The average annual growth rate for people employed in the private sector in Kvemo Kartli for the 2010-2017 period was 6%. In 2016, 36% of employed persons of private sector of Kvemo Kartli were women and 64% men¹⁵. In 2017, most employed people in the private sector in Kvemo Kartli were employed in the following sectors: manufacturing (24%); and wholesale and retail trade (22%).

Most stable sectors in terms of employment (estimated by coefficient of variation) are manufacturing, electricity, gas and water supply and community, social and personal service activities, with average annual growth rate of 5%, 12% and 14% respectively during the period of 2010-2017.

¹⁵ Data of 2016, Geostat.



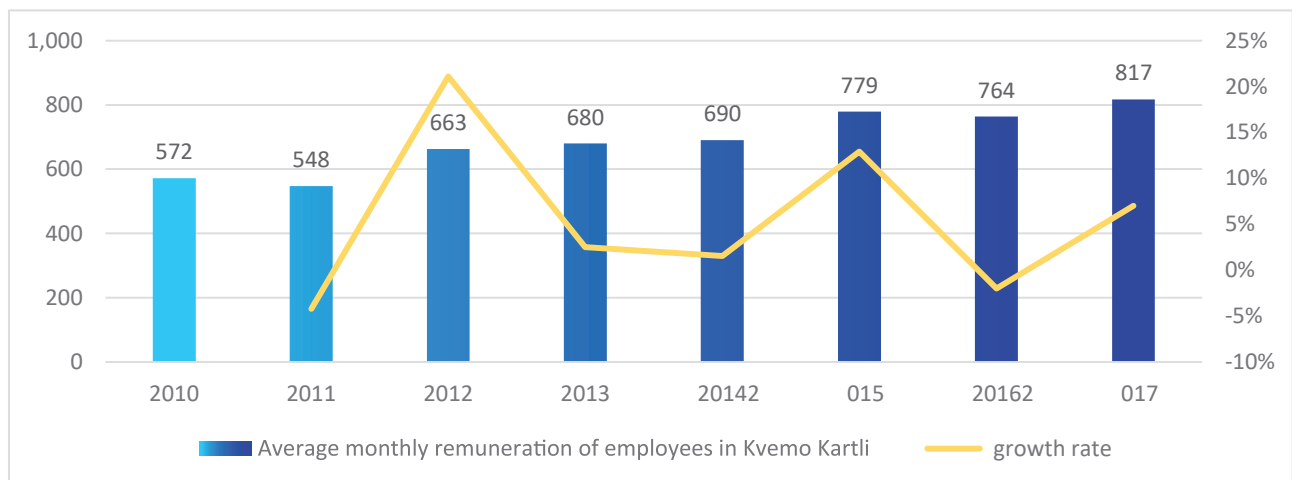
Graph 11. Number of People Employed in Kvemo Kartli

Source: National Statistics Office of Georgia

As regards to Marneuli municipality, in 2017, 5,106 persons were employed in private sector. The annual average growth rate of employment in this municipality was 14% for the 2014-2017 period.

Average Monthly Salary

The average monthly salary for hired employees in the private sector in Kvemo Kartli amounted to GEL 817.3 in 2017, which is 20% lower than the national average for the country. The average monthly salary in the private sector in Kvemo Kartli has grown by an average of 6% annually between 2010 and 2017. In 2017, the highest salaries were provided in the following sectors: mining and quarrying (1,562) and fishing (1,318) sectors.



Graph 12. Average Monthly Remuneration of Employees in Kvemo Kartli (GEL)

Source: National Statistics Office of Georgia

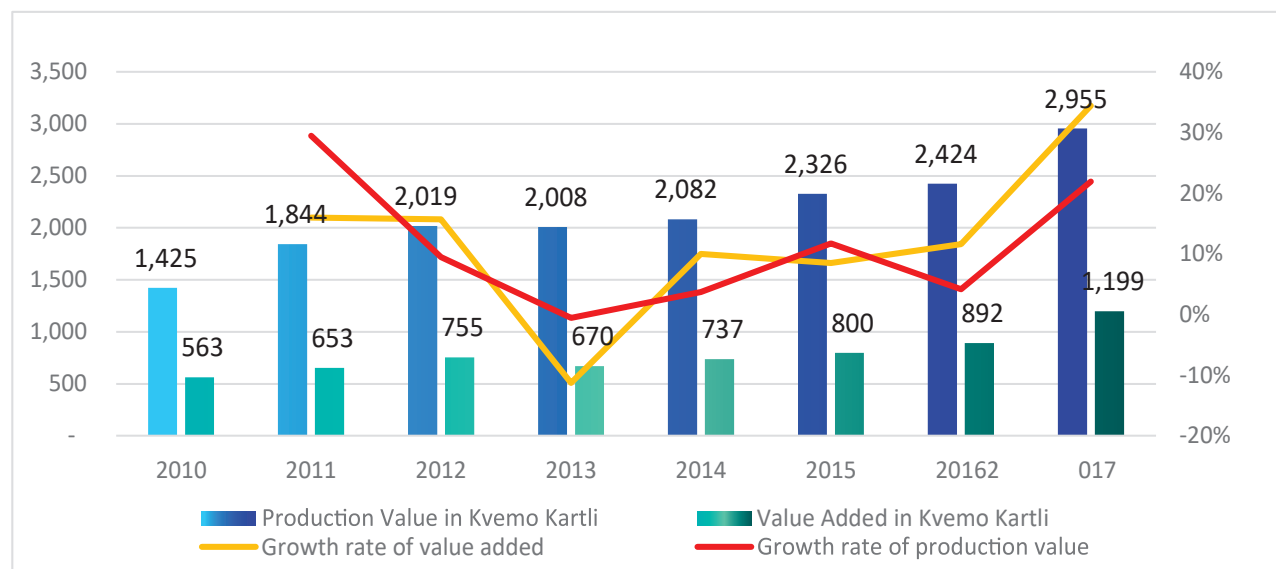
As regards to Marneuli municipality, in 2017, average monthly salary for hired employees was 484 GEL, decreasing by 1% annually for the 2014-2017 period.

Production Value and Value Added

In 2017, production value created in Kvemo Kartli was worth GEL 2,955 million, which accounted for 7.7% of total production value created in Georgia's private sector. The average annual growth rate of production value was 11% during the 2010-2017 period. In 2017, in Kvemo Kartli, most production value was created in the following sectors: Manufacturing (GEL 1,304 mln) and Electricity, gas and water supply (GEL 459 mln).

The value added created in the private sector in Kvemo Kartli was GEL 1,199 million in 2017, which accounted for 6.3% of total value added created in Georgia's private sector. The average rate of growth for value

added created in Kvemo Kartli during the 2010-2017 period was 12%. In 2017, in Kvemo Kartli, most value added was created in the following sectors: manufacturing (GEL 407 mln); and electricity, gas and water supply (GEL 216 mln).



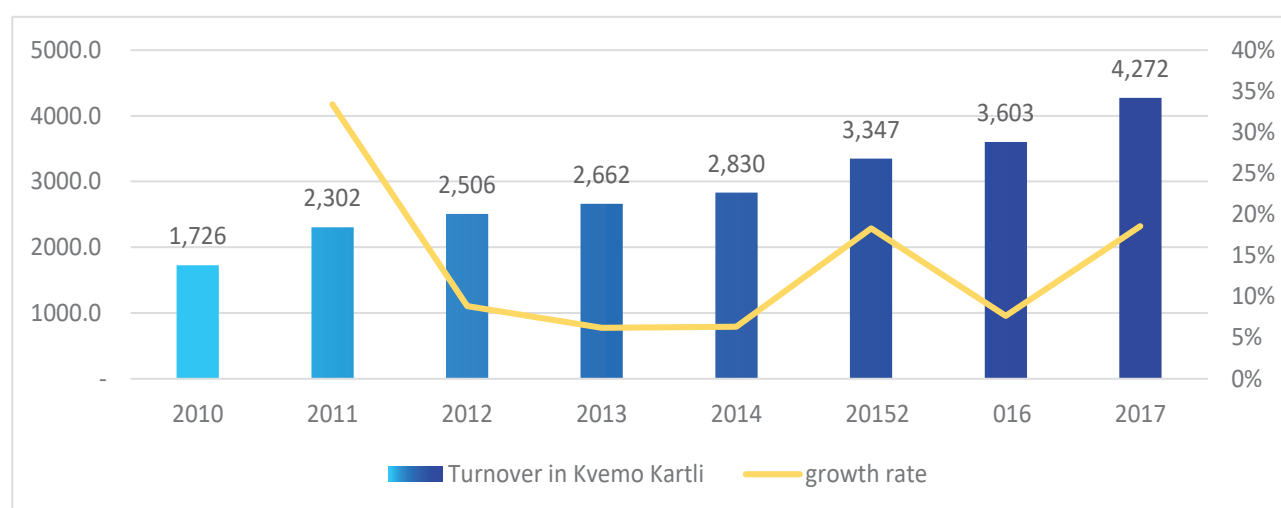
Graph 13. Value Added and Production in Kvemo Kartli (mln GEL)

Source: National Statistics Office of Georgia

As regards to Marneuli municipality, in 2017, production value created in the municipality was worth GEL 169 mln without any increase during the period of 2014-2017 period. While the value added created in the private sector of Marneuli municipality amounted GEL 95 million in 2017, increasing on average by 11% annually.

Turnover

Turnover in the private sector in Kvemo Kartli has been characterized by growth this decade. In 2017, turnover amounted to GEL 4,272 million, representing 6% of the total turnover in the country's private sector. The average annual growth rate for turnover in Kvemo Kartli during the 2010-2017 was 15.9%. In 2017, in Kvemo Kartli, the sectors with highest turnover were the following: Hotels and restaurants (GEL 1410 mln) and Electricity, gas and water supply (GEL 1295 mln).



Graph 14. Turnover in Kvemo Kartli (mln GEL)

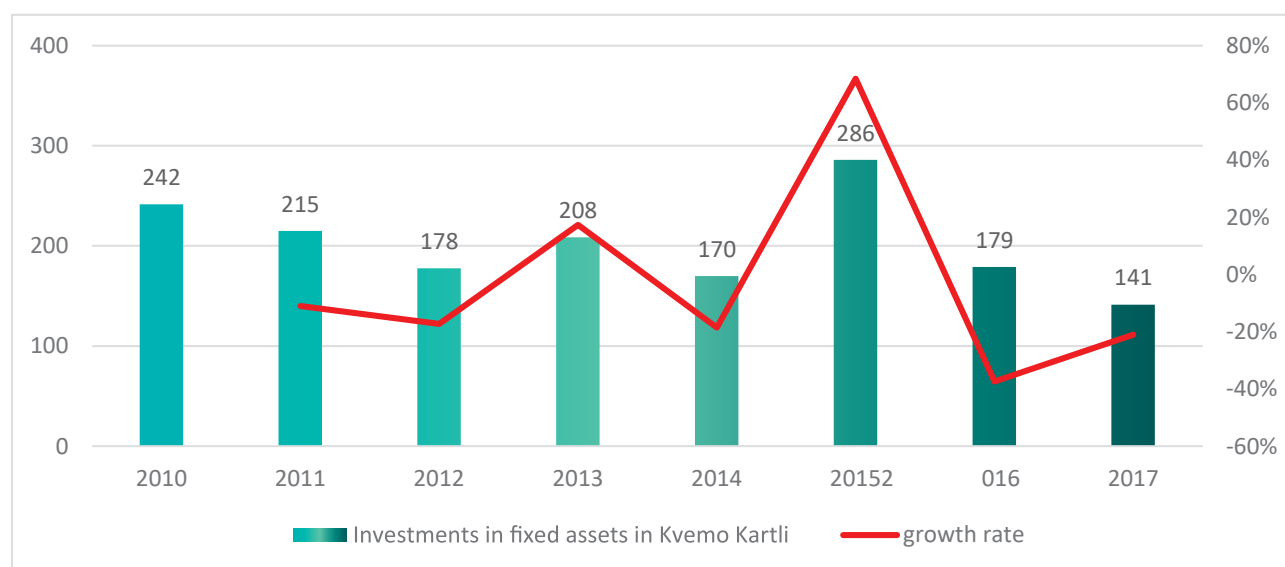
Source: National Statistics Office of Georgia

As regards to Marneuli municipality, in 2017, turnover in the municipality amounted GEL 499 mln with average annual increase of 14% during the period of 2014-2017 period.

Investments in Fixed Assets

Investments in Kvemo Kartli's private sector amounted to GEL 141 million in 2017, representing only 2.5% of the investments made in Georgia's private sector. The average annual growth rate of investments in fixed assets in the private sector in Kvemo Kartli for the 2010-2017 period was -2%.

In 2017, significant proportions of investments made were allocated to the following sectors: mining and quarrying (25%); and manufacturing (22%). However, investments in every sector is volatile year-by-year and it's hard to say what type of investments tend to grow.



Graph 15. Investments in Fixed Assets in Kvemo Kartli (mln GEL)

Source: National Statistics Office of Georgia

To summarize, increasing trend can be seen in all economic indicators of private sector in Kvemo Kartli. Number of employed persons was growing at average by 6% annually; average monthly salary was growing by 6% annually; average annual growth rate of production value was 11% and for value added 12%; turnover was growing at average by 16% and investments in fixed assets was decreasing by 2% annually for the period of 2010-2017.

3.4 ECONOMIC INDICATORS IN PRIVATE SECTORS OF TARGET REGIONS

In this chapter the summary of economic indicators in the target regions are given:

Table 4: Economic indicators in private sectors of target regions

Indicator	Tbilisi	Samegrelo-Zemo Svaneti	Kvemo Kartli
Employment	437602	30021	41905
Average monthly salary	1167	758	817
Production value (mln)	24429	1732	2955
Value added (mln)	12731	919	1199
Turnover (mln)	51050	2365	4272
Investments in fixed assets (mln)	4171	248	141

Source: National Statistics Office of Georgia

4. THE KEY BUSINESS SECTORS IN THE TARGET REGIONS

To identify current key economic sectors (the concentrated and the competitive economic sectors) for Tbilisi, Kvemo Kartli and Samegrelo-Zemo Svaneti regions, regional analysis methods, such as location quotient (LQ) and shift-share analysis, were used. LQ analysis revealed the basic economic sectors of each target region and with the help of Shift-share analysis the competitive sectors for each target region were identified (For detailed information see Annex 2).

4.1 COMPETITIVE AND CONCENTRATED SECTORS FOR TBILISI

While choosing sectors based on employment, the first option was that the sector to be identified in both LQ and shift-share. If there was not such sector, then selection of sector was done based on shift-share results. The same was according to value added.

By Employment

According to employment, in LQ as well as in Shift-Share the sectors identified are:

1. Health and social work
2. Education
3. Electricity, gas and water supply

However the sectors like health and social work and education were excluded, as to employ in those sectors people need special skills. Moreover electricity, gas and water supply was excluded, because of number of enterprises in those sector was very low.

Therefore the sector was chosen based on shift-share results: Manufacturing

By value Added

According to value added in LQ as well as in Shift-share the sectors identified are:

1. Construction
2. Health and Social work
3. Education

Health and social work and Education was excluded, and Construction sector was chosen.

Finally, the following sectors were chosen for Tbilisi:

1. Manufacturing
2. Construction

4.2 COMPETITIVE AND CONCENTRATED SECTORS FOR SAMEGRELO-ZEMO SVANETI

By Employment

According to employment in LQ as well as in Shift-Share the sectors identified are:

1. Manufacturing
2. Agriculture, hunting and forestry

By value Added

According to value added in LQ as well as in Shift-Share the sectors identified are:

1. Transport and Communication
2. Manufacturing
3. Agriculture, hunting and forestry
4. Fishing

Sector "Fishing" was excluded because it's only developed in Poti, and the quantity of enterprises is low. Transport Sector was chosen for Poti only, as the highest number of enterprises in this sector is operating in Poti.

Finally, the following sectors were chosen for Samegrelo-Zemo Svaneti:

1. Manufacturing
2. Agriculture, hunting and forestry
3. Transport and communication

4.3 COMPETITIVE AND CONCENTRATED SECTORS FOR KVEMO KARTLI

By Employment

According to employment in LQ as well as in Shift-Share the sectors identified are:

1. Mining and Quarrying

By Value Added

According to value added in LQ as well as in Shift-Share the sectors identified are:

1. Electricity, gas and water supply
2. Agriculture, hunting and forestry

Electricity, gas and water supply was excluded because the number of enterprises in this sector in Marneuli was low.

Finally, the following sectors were chosen for Kvemo Kartli:

1. Mining and Quarrying
2. Agriculture, hunting and forestry

5. THE KEY BUSINESS SUB-SECTORS IN THE TARGET REGIONS

In each region, within each economic sector, the sub-sectors in which the highest number of enterprises were operating and the highest number of enterprises were born, were selected (See appendix 3).

5.1 TBILISI

For the selected sectors of Tbilisi, we analyzed the number of enterprises, and the number of births and survivals of enterprises. In the manufacturing sector, the majority of enterprises are operating in the manufacture of food products and beverages sub-sector. During 2012-2015, most new enterprises were established in that sub-sector as well as in the manufacture of furniture sub-sector. However, the sub-sector of manufacture of food products and beverages was considerably more active in the reporting period. Indeed, approximately three times more enterprises were established in the period of 2012-2015 in that sub-sector compared to the sub-sector of manufacture of furniture. Of the enterprises established in the sub-sector of manufacture of food products and beverages, 45% had survived by the end of 2017 and of the enterprises established in the sub-sector of manufacture of furniture, 61% had survived.

In the construction sector, the majority of enterprises are operating in the building of complete constructions or parts thereof; civil engineering sub-sector. During 2012-2015, most new enterprises in construction sector, were established in sub-sector of building of complete constructions or parts thereof; civil engineering, and the sub-sector of building installation. However, in the sub-sector of building of complete constructions or parts thereof; civil engineering, there were approximately six times more enterprises established in the period of 2012-2015 than in the sub-sector of building installation. Of the enterprises established in the sub-sector of building of complete constructions or parts thereof; civil engineering, 58% had survived by the end of 2017, and of the enterprises established in the sub-sector of building installation, 62% had survived.

5.2 SAMEGRELO-ZEMO SVANETI

For the selected sectors of Samegrelo-Zemo Svaneti, we analyzed the number of enterprises, and the number of births and survivals. In the manufacturing sector, the majority of enterprises are operating in the manufacture of food products and beverages sub-sector. During 2012-2015, most new enterprises in manufacturing sector were established in that sub-sector, while in other sub-sectors the number of enterprises established was insignificant. Of the enterprises established in the manufacture of food products and beverages sub-sector during 2012-2015, 53% had survived by the end of 2017.

In Samegrelo-Zemo Svaneti, the majority of enterprises in the transport and communication sector are operating in Poti. Accordingly, this sector was chosen to study in Poti municipality. In Samegrelo-Zemo Svaneti's transport and communication sector, the majority of enterprises are operating in the land transport sub-sector and, during 2012-2015, most new enterprises in this sector were established in the sub-sector of Land transport, and also in Supporting and auxiliary transport activities; activities of travel agencies sub-sector. However, in the sub-sector of land transport, approximately six times more enterprises were established in the period of 2012-2015 than in the sub-sector of supporting and auxiliary transport activities; activities of travel agencies. Of the enterprises established in the sub-sector of land transport, 64% had survived by the end of 2017 and of the enterprises established in the sub-sector of supporting and auxiliary transport activities; activities of travel agencies, 66% had survived by the end of 2017.

From the transport and communication sector in Poti, the sub-sector of supporting and auxiliary transport activities; activities of travel agencies was chosen as the number of enterprises operating in this sub-sector was the highest among the sub-sectors in Poti.

In the agricultural sector, the majority of enterprises are operating in the agriculture, hunting and related services sub-sector. Moreover, most new enterprises in agricultural sector were established in this sub-sector. During 2012-2015, of the enterprises established in this sub-sector, 44% had survived by the end of 2017.

5.3 KVEMO KARTLI

For the selected sectors of Kvemo Kartli, we analyzed the number of enterprises, and the number of births and survivals. In the mining and quarrying sector, the majority of enterprises are operating in the other mining and quarrying activities sub-sector. Moreover, during 2012-2015, in the mining and quarrying sector in Kvemo Kartli, most of the new enterprises were established in that sub-sector, and of the enterprises established therein, 45% had survived by the end of 2017.

In the agricultural sector, the majority of enterprises are operating in the agriculture, hunting and related services sub-sector. During 2012-2015, in Kvemo Kartli's agricultural sector, most of the new enterprises were established in that sub-sector, and of the enterprises established therein, 35% had survived by the end of 2017.

The chosen sub-sectors for each region are the following:

Table 5: Selected sub-sectors for each region

Region	Sector	Sub-Sector
Tbilisi	Construction	Building of complete constructions or parts thereof; civil engineering
Tbilisi	Manufacturing	Manufacture of food products and beverages
Samegrelo-Zemo Svaneti (Senaki, Zugdidi, Tsalenjikha)	Manufacturing	Manufacture of food products and beverages
Samegrelo-Zemo Svaneti (Senaki, Zugdidi, Tsalenjikha)	Agriculture	Agriculture, hunting and related service
Samegrelo-Zemo Svaneti (Poti)	Transport and Communication	Supporting and auxiliary transport activities; activities of travel agencies
Kvemo Kartli (Marneuli)	Agriculture	Agriculture, hunting and related service
Kvemo Kartli (Marneuli)	Mining	Other mining and quarrying

6. ECONOMIC ACTIVITY IN THE KEY BUSINESS SECTORS AND SUB-SECTORS IN THE TARGET REGIONS

In this chapter, we discuss the dynamics of the selected economic sectors and sub-sectors of Tbilisi, Kvemo Kartli and Samegrelo-Zemo Svaneti. The selected sectors will be reviewed according to the following macroeconomic indicators: value added, production value, turnover, employment, average monthly salary, and investments in fixed assets.

And based on field research results, the following topics will be analyzed for each selected economic sub-sector:

- Challenges within the sub-sector
- Opportunities within the sub-sector
- Workforce within the sub-sector
- Training courses for employees
- Finances
- Business associations
- Social responsibility

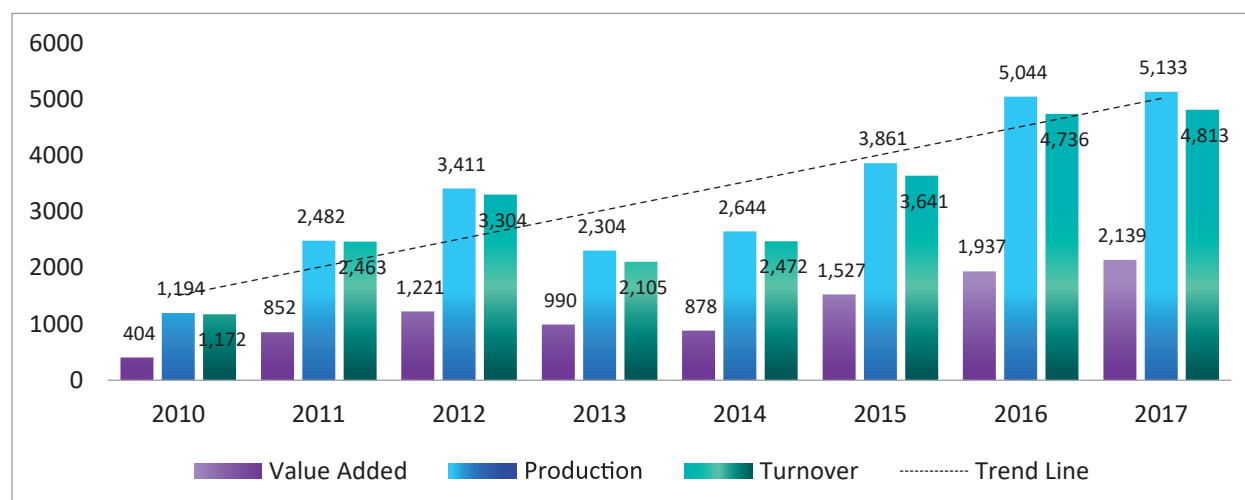
6.1 TBILISI

6.1.1 Construction

According to Geostat, in 2017 the turnover of the construction sector amounted to GEL 4,813 million. The sector's average annual growth rate was 29% during the period of 2010-2017. The share of the construction sector's turnover in total turnover of Tbilisi was 9% in 2017.

The production value of the construction sector in 2017 was worth GEL 5,133 million, representing 21% of the total production value of Tbilisi. The average annual growth rate of the production value of the construction sector was 29% during the 2010-2017 period.

Value added created in the construction sector was GEL 2,139 million in 2017, accounting for 17% of total value added created in Tbilisi. The average annual growth rate for value added created in Tbilisi during the 2010-2017 period was 34%.

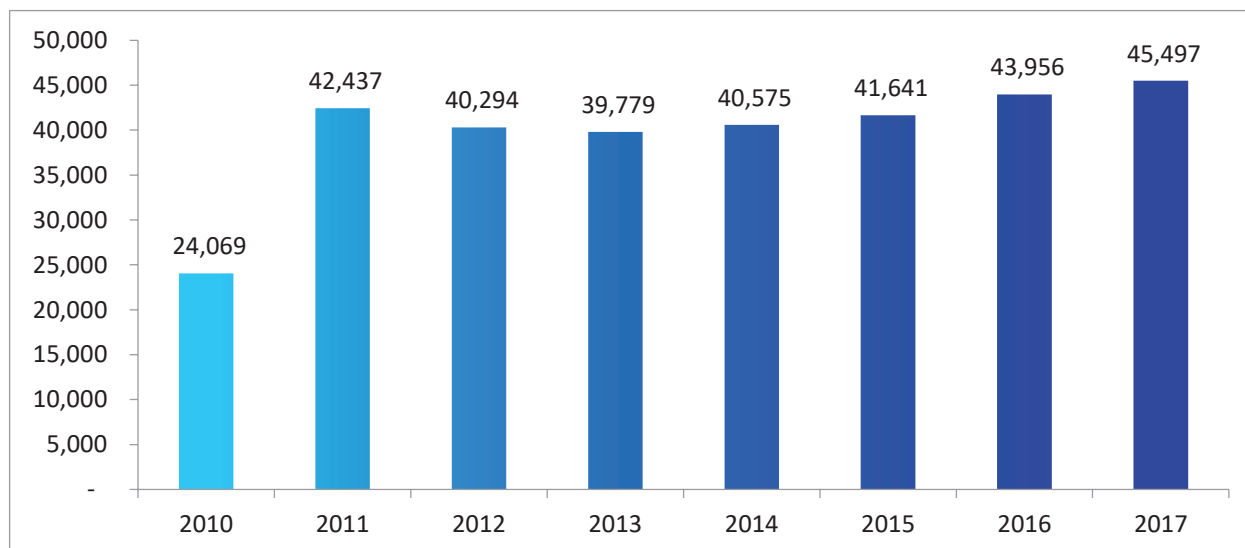


Graph 16. Value Added, Production Value and Turnover in Construction Sector in Tbilisi (mln GEL)

Source: National Statistics Office of Georgia

In 2017, according to data, 45,497 people were employed in the construction sector in Tbilisi, accounting for 10% of the capital city's total employment. Employment in the construction sector grew at an average annual rate of 10% during the period of 2010-2017, and growth was extremely high in 2011 (76%).

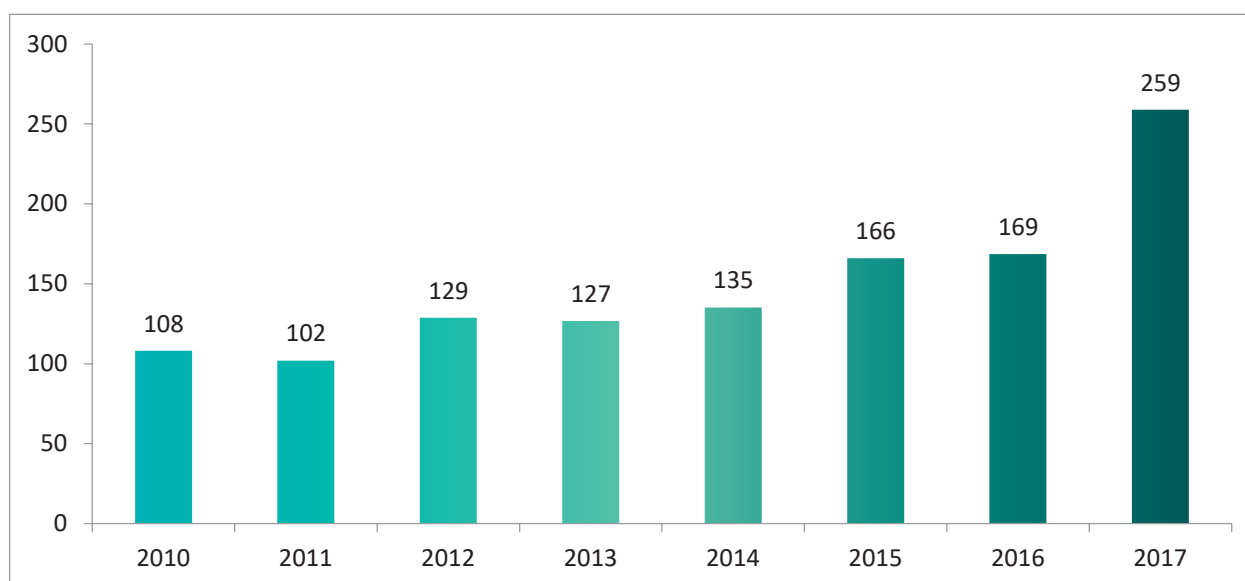
The average monthly salary for hired employees in the construction sector in Tbilisi amounted to GEL 1,751 in 2017. The average monthly salary in the construction sector in Tbilisi has grown by an average of 5% annually between 2010 and 2017.



Graph 17. Number of Employees in the Construction Sector in Tbilisi

Source: National Statistics Office of Georgia

Investments in fixed assets in the construction sector amounted to GEL 325 million in 2017, accounting for 7.8% of total investments made in Tbilisi's private sector. Growth in the volume of investments in the construction sector in Tbilisi was highest in 2012 (26%) in the period of 2010-2017.



Graph 18. Investments in Fixed Assets in the Construction Sector in Tbilisi (mln GEL)

Source: National Statistics Office of Georgia

In 2017, a total of 4,007 active enterprises were operating in the construction sector in Tbilisi.

To summarize, increasing trend can be seen in all economic indicators of construction sector in Tbilisi. Number of employed persons was growing at average by 10% annually; average monthly salary was growing by 5% annually; average annual growth rate of production value was 29% and for value added 34%; turnover was growing at average by 29% and investments in fixed assets was increasing by 35% annually for the period of 2010-2017.

The construction sector is divided into the following sub-sectors:

- Site preparation;
- Building of complete constructions or parts thereof;
- Civil engineering;
- Building installation;
- Building completion; and
- Renting of construction or demolition equipment with operat

6.1.1.1 Sub-sector - Building of Complete Constructions or Parts Thereof; Civil Engineering

During the field research, the following groups of sub-sector entitled building of complete constructions or parts thereof; civil engineering were covered:

- Construction of all types of buildings
- Construction of civil engineering constructions

Challenges within the sub-sector

The main challenges faced by the interviewed companies identified by our study are the following:

Table 6: Main challenges in building of complete constructions or parts thereof and civil engineering sub-sector

	Main Challenges	Ways of dealing with challenges by companies
1	Outdated equipment	Works are delayed and cannot be completed
2	Unhealthy competition (there are pyramid-type companies who offer unsuitably low prices for tenders)	Big companies get big projects, and smaller companies cannot compete
3	Requirement of specific experience to work on governmental projects	Companies work as subcontractors for firms who consistently win governmental tenders and try to gain relevant experience in the process, to boost their chances of participating in governmental projects in the future
4	Entrance of inexperienced companies in the market causing market price reduction	The lack of a sufficient control mechanism renders companies incapable of overcoming this challenge
5	Outdated construction norms and regulations. Tender price set by state structures is determined according to old construction norms and rules. Thus, in many cases the cost of the project now exceeds the price of the tender. Hence, it is impossible for most companies to win state tenders	Without changes being made to the norms and regulations, companies are helpless to address this challenge
6	Volatile exchange rate, which makes imported inputs more expensive. As the customer fixes the project price at the initial stage, when the Lari depreciates, the company has to buy the needed inputs at a more expensive price, which reduces their eventual profit	To address this challenge, companies try to acquire all necessary funds in the appropriate currency at the outset
7	Non-existence of a general plan for Tbilisi development	Companies try to be flexible to changes, and mobilize additional financial resources accordingly
8	Unpredictable political environment (unstable exchange rate, unexpected regulations)	Companies try to minimize their financial risks. They do not accept the loan obligations in USD and retain additional financial resources to handle any unexpected changes. Companies also do their best to forecast upcoming regulation changes
9	Delays in remuneration	Companies try to take money up front and will consider the reputation of customer before dealing with him/her/it

10	Availability of finances (high interest rates and banks demanding collateral to insure payment)	Companies try to access money from other sources, like relatives or friends, or they put private property up as collateral, or they simply refuse to conduct big projects
11	Lack of qualified staff	Some companies conduct constant trainings for their staff, while others employ the staff of other companies on temporary contracts
12	Incompetence of customers	Companies try to communicate clearly and explain new technologies to their customers
13	Non-existence of high-quality local inputs	Companies import high-quality inputs
14	Business activity expected to reduce due to new regulations in the banking sector	Beyond the control of companies
15	Reduced orders/demand	Beyond the control of companies
16	Unqualified staff in the Revenue Service that complicate the companies' tax administration. Instructions for companies are not sufficiently simplified	Beyond the control of companies
17	High taxes (income and value added taxes)	Beyond the control of companies

Source: Field Research

It was frequently mentioned by the interviewed companies that their main challenges were volatile exchange rates, limited access to finance, and reduced orders/demand. One of the respondents stated: "The construction sector in Georgia depends on imported inputs because of the nonexistence of local production, therefore a volatile exchange rate is the major concern for us, and depreciation of the Georgian lari makes inputs more expensive and increases instability in our business." Another respondent added: "High interest rates on loans and high collateral requirements are the major challenge for my business; I try not to apply to banks and borrow money from my friends and relatives instead."

Opportunities within the Sub-sector

Due to the current economic situation (unstable exchange rate, non-existence of a general plan for city development, etc.), some respondents are unable to make predictions. They do not plan to expend their businesses, but rather seek to maintain their market shares. They expect competition to increase, which should increase quality (e.g. by using energy-efficient material) as well, but would also probably diminish their profits.

Some respondents have positive expectations about sector development and plan to build residential complexes and mobilize financial resources. They hope that construction standards established in the Soviet Union will be replaced by European standards and that the Georgian government's proper and modern regulation of the sector will ensure its development. The Government should introduce special licenses for construction companies so that companies that artificially lower their prices are barred from participating in tenders.

Workforce within the Sub-sector

The interviewed companies hire staff according to each project's scale. The number of permanent staff varies between 4 and 18 and the number of temporary staff varies between 20 and 500 depending on the project.

The interviewed companies search for workers recommended by acquaintances or use contractor companies who send workers to them, or cooperate with HR companies. Construction companies hire workers based on interviews.

The demanded skills are the following: past experience, education and/or physical strength. Workers are initially given probation periods.

The management structure of construction companies mainly consists of a manager/director, an accountant, sales and marketing managers, a lawyer and an economist.

The interviewed construction companies mentioned that they need the following specialists:

- Floor correctors (hard to find);
- Floor paving specialists;
- Building engineers;
- Geodesists;
- Construction managers (Mostly required);
- Welders;
- Engineers;
- Electrical engineers;
- Project managers;
- Laborers;
- Architects;
- Locksmiths; and
- Drywall workers.

All of these positions require relevant professional skills and it can be difficult to find suitably qualified and/or experienced staff. Finding workers, architects, welders, locksmiths and project managers is relatively easier, however finding floor paving specialists, geodesists, electrical engineers and building engineers is relatively harder.

The main difficulties that companies face when searching for new employees are the absence of qualified staff, low levels of interest among young people in the construction sector, lack of practical knowledge, lack of experience, and a lack of management skills among specialists.

Interviews construction companies may need the following professionals in the future: engineers, builders, and construction managers. There have however been several examples of workers being replaced by technology such as lasers.

When asked about the main skills required by interviewed companies from their employees, most of the business representatives did not specifically mention skills, but rather practical experience and professional knowledge. However, some respondents did mention the following skills: responsibility, physical strength, and punctuality.

Training Courses for Employees

Most companies do not have special training courses for their workers, who instead essentially learn on the job. According to some company managers, workers generally need to be trained on the following: usage of modern technologies; best practices of leading countries; safety norms; and new regulations. The type and extent of training will depend on the project, but only one interviewed company cooperates with vocational education institutions. One of the interviewed company mentioned: "The Company requires employees mainly in managerial positions, we think vocational education institutions are not able to provide such staff".

Finances

The financial conditions of some interviewed construction companies became better in the last five years while others have seen their finances decline due to the depreciation of the GEL against the USD. The main sources of financial resources for companies are commercial banks and insurance companies. Companies also apply to insurance companies for a guarantee of performance, as the requirements are relatively low. However, clients often ask companies for a bank guarantee rather than a guarantee of an insurance company.

The barriers obstructing many construction companies from accessing finance include the following:

- High interest rates on loans,
- Prolonged procedures in financial institutions;
- High demand for collateral (which in most cases involves the founder putting up his/her private property);
- Low interest of investors in small companies; and
- Clients demanding that the guarantor be a commercial bank rather than an insurance company.

Some companies have heard about the governmental program “Enterprise in Georgia” which finances small businesses, but only one respondent is a beneficiary of this program.

Business Associations

Some of the interviewed companies are not members of a relevant business association, but think that joining one would be beneficial. However, for small companies the membership of such associations is often viewed purely as an expense, while some consider such associations to be inefficient. Only one of the interviewed company is a member of a business association and this company considers its membership to be beneficial.

Social Responsibility

None of the interviewed small companies have a social responsibility strategy, however some of them give free consultations. The interviewed large companies do have social responsibility strategies, which are focused on safety, environmental protection, and charity. One of the interviewed large company representative mentioned: “Yes, we have a social responsibility strategy in direction to protect environment and safety standards. We do charity work”.

None of the interviewed companies currently employ disabled persons, and only one interviewed company had experience of employing a disabled person. None of the interviewed companies had ever cooperated with civil society organizations.

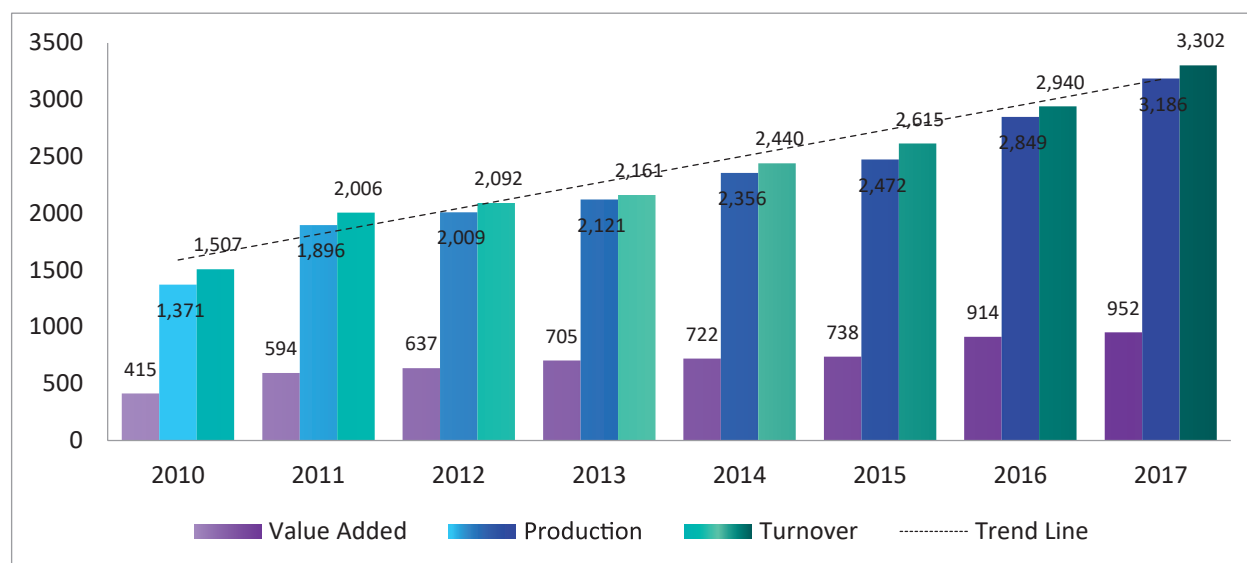
Interviewed construction companies think that their sector does not require to pursue gender equality because much of the work requires physical strength and endurance which, in their view, is best carried out by men.

6.1.2 Manufacturing

The manufacturing sector is one of the leading economic sectors in Tbilisi. According to Geostat, in 2017, the turnover of the manufacturing sector in Tbilisi amounted to GEL 3,301 million, accounting for 6% of the turnover of the private sector in Tbilisi. The average annual growth rate of the turnover in the manufacturing sector was 12% during the period of 2010-2017.

The production value of the manufacturing sector was worth GEL 3,186 million, representing 13% of the total production value of Tbilisi. The average annual growth rate of the production value of the manufacturing sector was 13% during the 2010-2017 period.

A similar trend can be observed in the value added created in the manufacturing sector. Value added created in the manufacturing sector was worth GEL 952 million in 2017, accounting for 7% of total value added created in Tbilisi. The average annual growth rate in value added created in the manufacturing sector in Tbilisi during the 2010-2017 period was 13%.

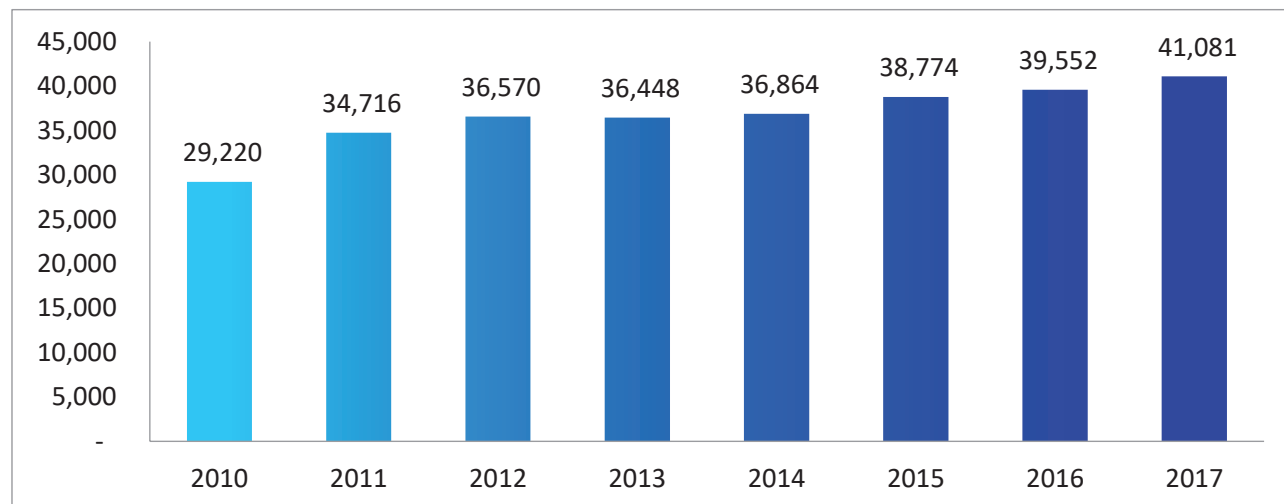


Graph 19. Value Added, Production Value and Turnover of Manufacturing Sector in Tbilisi (mIn GEL)

Source: National Statistics Office of Georgia

In 2017, according to data, 41,081 people were employed in the manufacturing sector, accounting for 9% of total employment in Tbilisi. Employment in the manufacturing sector grew at an average annual rate of 5% during the period of 2010-2017.

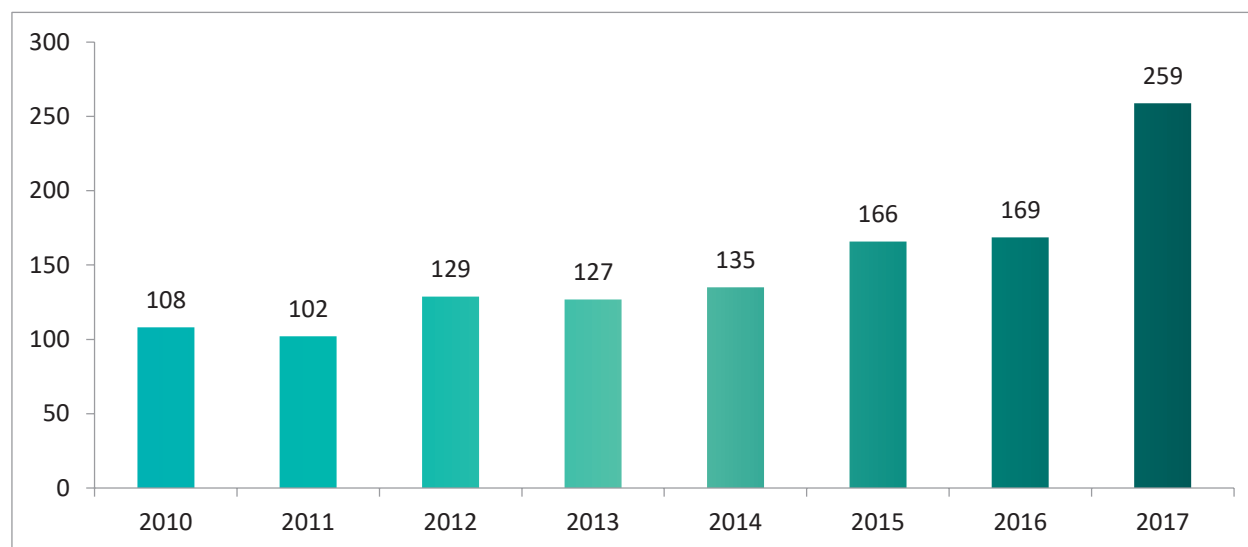
The average monthly salary for hired employees in the manufacturing sector in Tbilisi amounted to GEL 966 in 2017. The average monthly salary in the manufacturing sector in Tbilisi has grown by an average of 8% annually between 2010 and 2017.



Graph 20. Number of Employees in the Manufacturing Sector in Tbilisi

Source: National Statistics Office of Georgia

Investments in fixed assets¹⁶ in the manufacturing sector amounted to GEL 259 million in 2017, accounting for 6.2% of total investments in fixed assets in Tbilisi's private sector. Growth in the volume of investments in the manufacturing sector in Tbilisi was highest in 2017 (54%) during the period of 2010-2017.



Graph 21. Investments in Fixed Assets in Manufacturing Sector in Tbilisi (mln GEL)

Source: National Statistics Office of Georgia

Overall, 5,863 active enterprises were operating in the manufacturing sector in Tbilisi in 2017.

To summarize, increasing trend can be seen in all economic indicators of manufacturing sector in Tbilisi. Number of employed persons was growing at average by 5% annually; average monthly salary was growing by 8% annually; average annual growth rate of production value was 13% and for value added 13%; turnover was growing at average by 12% and investments in fixed assets was increasing by 15% annually for the period of 2010-2017.

¹⁶ Investment in fixed assets – investment in productive assets, which repeatedly or durably (over one year) are used in production.

The manufacturing sector is divided into the following main sub-sectors:

- Manufacture of food products and beverages;
- Publishing, printing and reproduction of recorded media;
- Manufacture of rubber and plastic products;
- Manufacture of other non-metallic mineral products; and
- Manufacture of furniture; manufacturing n.e.c.;

6.1.2.1 Sub-Sector- Manufacture of food products and beverages

During field research, the following areas of the sub-sector manufacture of food products and beverages were covered:

- Production of chacha, wine and brandy
- Production of churchkhela
- Production of meat products
- Production of lemonade
- Production of food and bakery
- Production of tea

Challenges within the sub-sector

The main challenges faced by the interviewed companies identified by our study are the following:

Table 7: Main challenges in Manufacture of food products and beverages sub-sector

	Main Challenges	Ways of dealing with challenges by companies
1	The difficulty of obtaining legal information, the lack of information related to the VAT received from the House of Justice	Beyond the control of companies
2	High competition in the local wine market	Company mainly exports its product
3	Availability of inputs (Bottle, Etiquette, etc.), inputs are not produced locally, or if produced quality is low. Also, the import procedure requires a lot of time, which often hinders the process of production	Companies rise prices
4	Unstable political and trade environment	Beyond the control of companies
5	Insufficient control. The company tries to maintain sanitary standards and high quality, which increases the value of the product and makes competition harder with those, who does the opposite	Beyond the control of companies
6	Volatile exchange rate, which makes imported materials more expensive and reduces their profit	Companies rise prices
7	Low quality of education with direction of production and marketing	Companies try to train and give recommendations
8	Lack of qualified institutions which would give education in this direction	Companies send their staff on trainings
9	Big companies block place on counter for small companies	Companies try to cooperate with distribution companies
10	Lack of qualified staff	Beyond the control of companies

11	Saturated market and barriers of entry for small companies, who have high costs	Beyond the control of companies
12	Low interest of young people in direction of food sector	Beyond the control of companies
13	Behavior of supermarkets: lack of refrigerators, violation of storage conditions, replacement of products	Companies try to communicate with supermarkets or cooperate with big supermarkets, who have refrigerators and don't violate storage conditions
14	Bad quality of inputs	Only work with those farmers, those products they trust
15	Lack of qualified service centers	Beyond the control of companies
16	Lack of craftsmen of vacuum packages	Beyond the control of companies
17	Accessibility of finances	Beyond the control of companies

Source: Field research

It was frequently mentioned by interviewed companies that their main challenge was the limited availability and/or quality of local inputs. Moreover, the import procedure requires significant time, which often hinders the process of production. However, the main challenge for companies remains the volatile exchange rate, which makes imported materials and loans more expensive and reduces their profits. One of the interviewed respondents stated: "As we depend on imported production of inputs, the instability of the Georgian lari makes our business unpredictable, as the GEL depreciates we have to increase the prices of our production, and it's difficult to explain to consumers why prices increase."

Opportunities within the Sub-sector

The interviewed companies plan to increase, develop their product, use better technologies, export their goods and have their own refrigerators (for storing their goods). They also hope, that investors will become more interested in agriculture and share of Georgian products will replace imported goods. Part of the interviewed companies are unable to make predictions, especially for long-run periods.

Work Force within the Sub-sector

Companies search for workers by replacing advertisements, based on recommendations of acquaintances or placing online vacancies.

Interviewed companies hire workers based on interviews, recommendations, personal skills, tests and past experience.

Management structure of interviewed companies mainly consists of manager/director, accountant, technologist, HR manager, production manager, marketing manager, financial manager and economist.

Interviewed companies mention, that they need following specialists:

- Agro-technologist (Mostly required);
- A vacuum package specialist;
- Tea technologist;
- Agronomist;
- Collector;
- Mechanical engineer;
- Electrician
- Food technologist (Mostly required);
- Baker;
- Accountant;

- Laborers;
- A marketing specialist;
- Manufacturing Process Manager;
- Wine technologist;
- Social media manager (Mostly required);
- Alcohol making technologist;
- Business administration specialist (Mostly required).

All of the mentioned positions need relevant professional skills and it's hard to find experienced staff. Finding tea technologist, agronomist, collector, mechanical engineer, electrician, accountant,, , business administration specialist are easier, however, finding agro-technologist, vacuum package specialist, food technologist, baker, marketing specialist, wine technologist, Social media manager, alcohol making technologist and workers are harder.

Main difficulties that companies face during searching new employees, are inexistence of qualified staff, laziness of workers and low level of responsibility, lack of experience, low interest to young people and lack of knowledge.

Some of the interviewed companies may need the following professionals in the future: baker, food technologist, marketing specialist, social media manager, business administration specialist.

When asked about the main skills required by interviewed companies from their employees, most of the interviewed representatives named responsibility, punctuality, diligence, honesty, and communication skills. Some of the interviewed companies also stated that they did not pay much attention to particular skills, and that practical experience and professional knowledge were the more important factors.

Training Courses for Employees

Most companies do not run special training courses for workers, they think their employees do not need any special training. Workers acquire necessary knowledge directly on the job. Training is carried out by the companies themselves. Some of the interviewed companies conduct special training courses for their employees.

According to some interviewed respondents, they cooperate with professional educational institutions and universities, like Agrarian University and Caucasus University. Some of the interviewed companies give work experience to students, some of whom become employees once they graduate.

Finances

The main source of financial resources for the interviewed companies are commercial banks and governmental programs, like "Enterprise Georgia", Startup Georgia. Moreover, programs of international organizations like EBRD also serve as a source of financial resources.

The main constraints that companies face in terms of finances are high interest rate, the depreciation of the GEL making their loans more expensive.

Business Associations

Most of the interviewed companies are not members of associations, but some of them think that becoming a member of such an association would be beneficial. Some companies think that business associations are not active enough and don't have modern management system. Moreover one small company thinks that business associations can do nothing for such small businesses.

Social Responsibility

None of the interviewed companies do not have a social responsibility strategy. One of the interviewed company mentioned: "We do not have enough revenue to have such strategy". However, some of them make donations to charity. Only two of the interviewed companies have ever employed a disabled person and none of the interviewed companies are cooperating with civil society organizations.

Most of the interviewed companies does not take gender issue into account. However, some of the interviewed companies stated that gender issue is balanced naturally, without taking it into consideration.

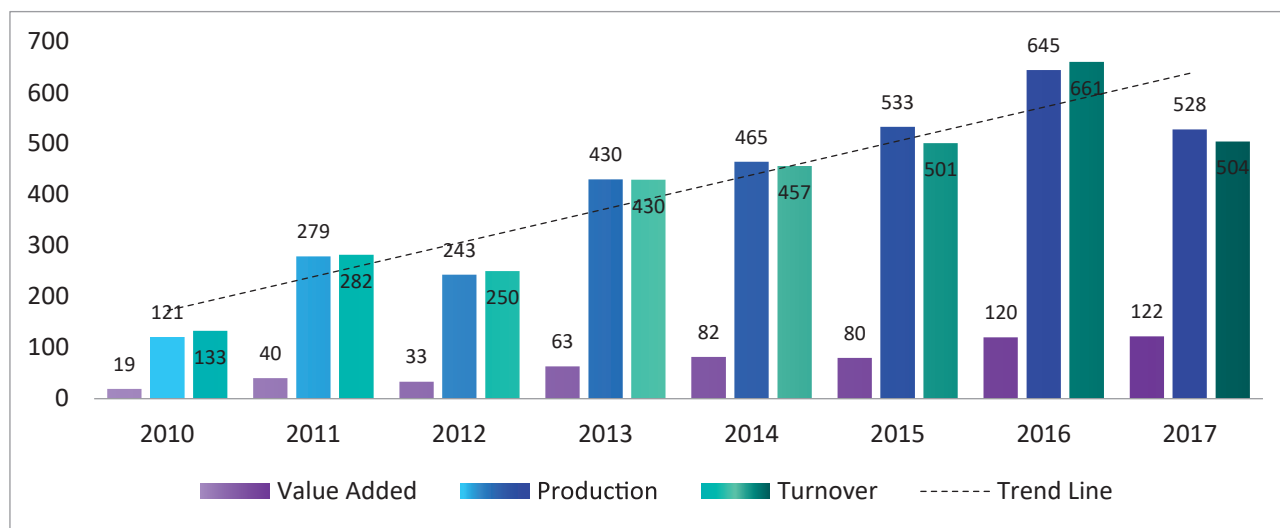
6.2 SAMEGRELO-ZEMO SVANETI

6.2.1 Manufacturing

According to Geostat, in 2017 the turnover of the manufacturing sector amounted to GEL 504 million, growing at an average of 28% per year during the period of 2010-2017. The share of the manufacturing sector's turnover in the total turnover of Samegrelo-Zemo Svaneti was 21% in 2017.

The production value of the manufacturing sector was worth GEL 528 million, which is 30% of the total production value of Samegrelo-Zemo Svaneti. The average annual growth rate of the production value of the manufacturing sector amounted to 31% during the 2010-2017 period.

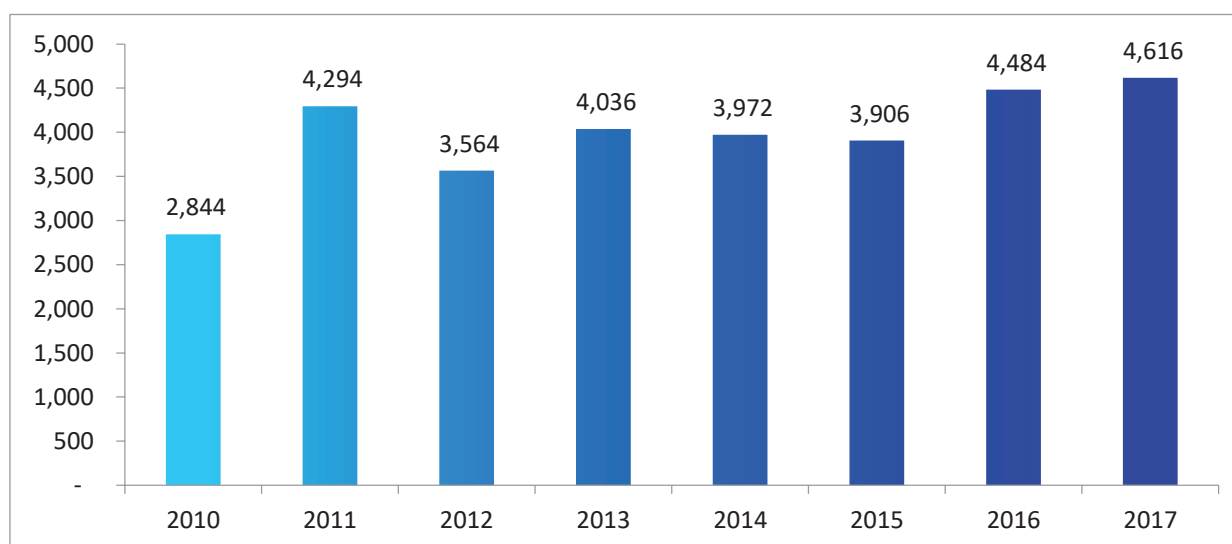
Value added created in the manufacturing sector was GEL 122 million in 2017, representing 37% of total value added created in Samegrelo-Zemo Svaneti. The average annual growth rate in value added created in this sector during the 2010-2017 period was 37%.



Graph 22. Value Added, Production Value and Turnover of Manufacturing Sector in Samegrelo-Zemo Svaneti (mln GEL)
Source: National Statistics Office of Georgia

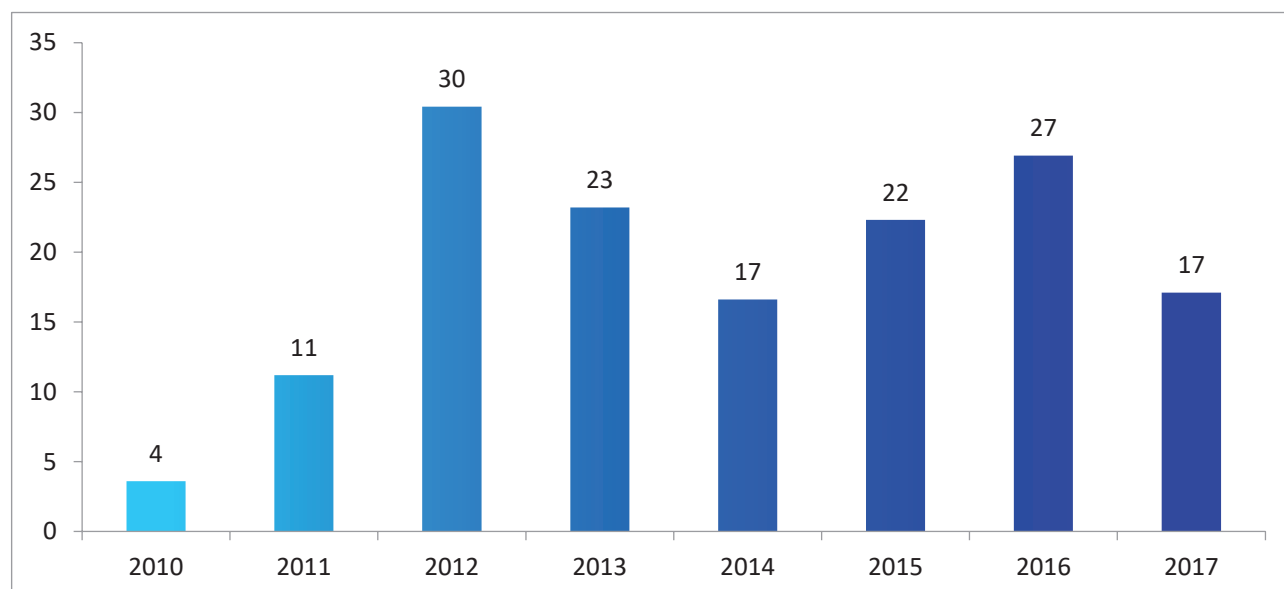
In 2017, according to data, 4,616 people were employed in the manufacturing sector, accounting for 15% of total employment in Samegrelo-Zemo Svaneti. Employment in the manufacturing sector in this region grew at an average annual rate of 1% during the period of 2010-2017.

The average monthly salary for hired employees in the manufacturing sector in Samegrelo-Zemo Svaneti amounted to GEL 556 in 2017. The average monthly salary in the manufacturing sector in Samegrelo-Zemo Svaneti has grown by an average of 23% annually between 2010 and 2017.



Graph 23. Number of Employees in the Manufacturing Sector in Samegrelo-Zemo Svaneti
Source: National Statistics Office of Georgia

Investments in fixed assets in the manufacturing sector in Samegrelo-Zemo Svaneti amounted to GEL 17 million in 2017, accounting for 6.9% of total investments made in Samegrelo-Zemo Svaneti's private sector. The annual average growth rate in the volume of investments in fixed assets in the manufacturing sector in Samegrelo-Zemo Svaneti was 57% during the period of 2010-2017.



Graph 24. Investments in Fixed Assets in the Manufacturing Sector in Samegrelo-Zemo Svaneti (mln GEL)
Source: National Statistics Office of Georgia

Overall, 566 active enterprises were operating in the manufacturing sector in Samegrelo-Zemo Svaneti in 2017. To summarize, increasing trend can be seen in all economic indicators of manufacturing sector in Samegrelo-Zemo Svaneti, except the year of 2017, when absolute value of production and turnover fell by 18% and 24% respectively, related to the previous year. Number of employed persons was growing at average by 1% annually; average monthly salary was growing by 23% annually; average annual growth rate of production value was 31% and for value added 37%; turnover was growing at average by 28% and investments in fixed assets was increasing by 50% annually for the period of 2010-2017.

The manufacturing sector in this region is divided into the following main sub-sectors:

- Manufacture of food products and beverages;
- Manufacture of wood and products of wood and cork, except furniture;
- Manufacture of articles of straw and plaiting materials;
- Manufacture of rubber and plastic products;
- Manufacture of other non-metallic mineral products;
- Manufacture of furniture; manufacturing n.e.c.

6.2.1.1 Sub-Sector - Manufacture of Food Products and Beverages

During field research, the following areas of the sub-sector manufacture of food products and beverages were covered:

- Manufacture of bread;
- Manufacture of tea;
- Manufacture of laurel; and
- Manufacture of nuts.

Challenges within the Sub-sector

The main challenges faced by the interviewed companies identified by our study are the following:

Table 8: Main challenges in manufacture of food products and beverages sub-sector

	Main Challenges	Ways of dealing with challenges by companies
1	Input price increases	Beyond the control of companies
2	Asian bug (Parosana) – this is reduced major constraint affecting quality and quantity of nuts	Farmers spray nuts with pesticides but there is a lack of knowledge of how to overcome infestations. Meanwhile, large manufacturing companies conduct quality checks of their nuts
3	Fungal diseases	Companies try to spraying with needed medicaments
4	Drought – reduces the quantity and quality of nuts	Beyond the control of companies
5	Outdated equipment	Limited access to finance makes this difficult to resolve
6	GEL exchange rate depreciation rendering bank credit more expensive	Beyond the control of companies
7	Implementing necessary standards to export their products to the European Union	Companies try to access finance to meet such standards, however access to finance remains a problem for them
8	Access to finance – high interest rates and high collateral requirements of commercial banks are major problems for companies. The property of the companies is often not sufficient to satisfy these requirements, so representatives of companies have to put up their own property/properties	Beyond the control of companies
9	Unqualified specialists and lack of management staff - one of the large companies interviewed (manufacturer of nuts) stated that it was difficult for them to recruit a financial manager due to the limited local labor market and the unwillingness of qualified staff to leave Tbilisi	Companies try to train specialists on their own
10	Bureaucratic barriers when exporting products (export procedures and documentation) - companies state that exporting their products entails various time-consuming procedures	Beyond the control of companies
11	Lack of knowledge among farmers to assess the quality of their products – they pay farmers differently according to the quality of their products and, due to communication problems, farmers do not understand why they receive less money than expected	Companies try to communicate with farmers and explain the rules of payment to them

Source: Field research It was frequently mentioned by interviewed companies that among their main challenges were the Asian bug (*pharosana*) and fungal disease, both of which reduce the quality and quantity of nuts. One of the respondents noted: “Our main problem is unseen rot, which hazelnuts can develop but is not visible.” Companies also frequently mentioned access to finance as a main challenge: “Banks require high collateral and the company’s property is not enough, so I have to put my own property down as collateral to get a loan.”

Opportunities within the Sub-sector

The interviewed companies have positive expectations that their opportunities will increase, as government programs (e.g. Plant the Future) will assist with primary production development. The interviewed companies are thinking about increasing the variety of their production. The interviewed companies are planning to implement the necessary standards to export their products to the EU, however such plans are restricted by their limited access to finance.

Some of the interviewed companies are expecting the productivity of their nuts to increase, however the Asian bug (Parosana) and fungal diseases still represent major threats in this regard. Some interviewed companies think that the government involvement in this process is essential, as there is limited expertise in the country to overcome this problem.

Workforce within the Sub-sector

The interviewed companies search for workers with recommendations of acquaintances, most of interviewed large enterprises also use HR companies.

Enterprises hire workers based on interviews and those accepted are given probation periods. Companies demand the following of their applicants: experience, knowledge, responsibility, diligence, and tidiness. Some companies require a certificate of health as well.

The management structure of some interviewed manufacturing companies mainly consists of a manager/director, an accountant, sales and marketing managers, a lawyer, and an economist.

The interviewed manufacturing companies mentioned that they need the following specialists:

- Bakers;
- Mill operators;
- Tea pickers;
- Tea specialists and technicians;
- Laurel driers;
- Selectors and sorters (people who sort the nuts or laurels based on quality);
- Laboratorians;
- Laboratorian assistants;
- Agronomists;
- Electricians (Mostly required);
- Welders;
- Factory operators - working with machines during production process;
- Mechanics (Mostly required);
- Hazelnut selector (Mostly demanded);
- Production managers (persons who manage the factory production processes, and conduct reporting).

The positions of tea specialist, laboratorian, agronomist, electrician, welder, and mechanics all need relevant professional skills and experience (e.g. agronomists must have experience of working with the soil; hazelnut selectors must know how to distinguish hazelnut quality; mechanical engineers must know how to monitor and repair technics). Finding laurel driers, bakers, tea pickers, sorters, operators, and mechanics is relatively easier, however finding electricians, agronomists and welders is harder.

Sorters and driers are mainly women, they do not need specific qualifications and when hiring them a sorter company trains them and teaches them on location. For all companies it is very easy to find such personnel.

Large enterprises that have implemented quality standards need laboratorians and laboratorian assistants to control the quality of their products. Laboratorians need to have special professional knowledge, while for their assistants logical thinking and simple mathematical knowledge is sufficient.

Finding electricians and welders was referred to as problematic for enterprises, as locally there are very few people who have the required professional knowledge. Moreover, some interviewed companies state that there is a lack of agronomists in Samegrelo-Zemo Svaneti region.

Finding financial managers was also noted as being bothersome in the region; large companies require financial managers to have special skills (ACCA accreditation), and in the region there are no such candidates and it is difficult for enterprises to attract staff from Tbilisi.

The main difficulties that some of the interviewed companies face when searching for new employees are the non-existence of qualified and/or sufficiently experienced staff.

Some of the interviewed companies may need the following professionals in the future: factory operators, sorters, sales managers, and accountants. There have been several examples of instances when workers have been replaced by technologies. One large company declared that according to enterprise rules, they are trying to avoid such situations, as they prefer to employ as much people as possible.

When asked about what particular skills interviewed companies required from their employees, most of interviewed business representatives stated that practical experience and professional knowledge were more important to them. Some of the interviewed companies mentioned the ability to learn, persistence, diligence, neatness and healthiness as being important for them.

Training Courses for Employees

Most interviewed companies do not run special training courses for workers. Workers acquire necessary knowledge directly on the job. Training is carried out by the companies themselves. This is common for all municipalities of Samegrelo-Zemo Svaneti region covered by the research. In pursuit of the necessary standards, some interviewed companies have contracted special consulting companies to train their staff. According to some of the interviewed company managers, workers need trainings in quality standards. As one of the respondents mentioned: "There is no need for cooperation, I can find employees by myself. However, I would cooperate if they'll bring me mechanical engineers and electricians".

The majority of the interviewed companies do not cooperate with vocational educational institutions. Only one company stated that it sometimes take on some students from Zugdidi's vocational educational institutions for training. Some companies are willing to cooperate with vocational education institutions for the purpose of recruiting electricians or mechanics.

Finances

The financial conditions of some manufacturing companies have worsened in the last five years because of Asian bug (Parosana) and fungal diseases, which has reduced the quantity and quality of their production. However, some of the interviewed companies expect their financial situation to improve in the coming years.

The main sources of financial resources for the interviewed companies are commercial banks and government programs, including Enterprise Georgia, the Georgian Tea Plantation Rehabilitation Program, the Co-financing of Agro Processing and Storage Enterprises, and the Preferential agro-credit program.

The interviewed companies' access to finance is hindered by the following:

- High interest rates on loans;
- Instability of the GEL which makes their USD-denominated loan obligations more expensive; and
- High collateral requirements.

Some of the interviewed companies have heard about governmental programs which could finance their businesses (mentioned above), however only some enterprises had partaken in them.

Business Associations

Some of the interviewed companies, especially medium- and large-sized companies, are members of relevant business associations; they benefit from their services and think that their membership is beneficial. Business associations helped to have VAT lifted on nuts. However, on the other hand, according to the interviewed companies, business associations have so far been unable to successfully overcome the Asian bug and fungal diseases problems or to persuade the Georgian government to intervene.

Some small companies do not think business associations are helpful and consider them purely as an extra expense.

Social Responsibility

None of the interviewed manufacturing enterprises have social responsibility strategies. However, some of them make donations to charity. None of them have hired disabled persons or cooperate with civil society organizations.

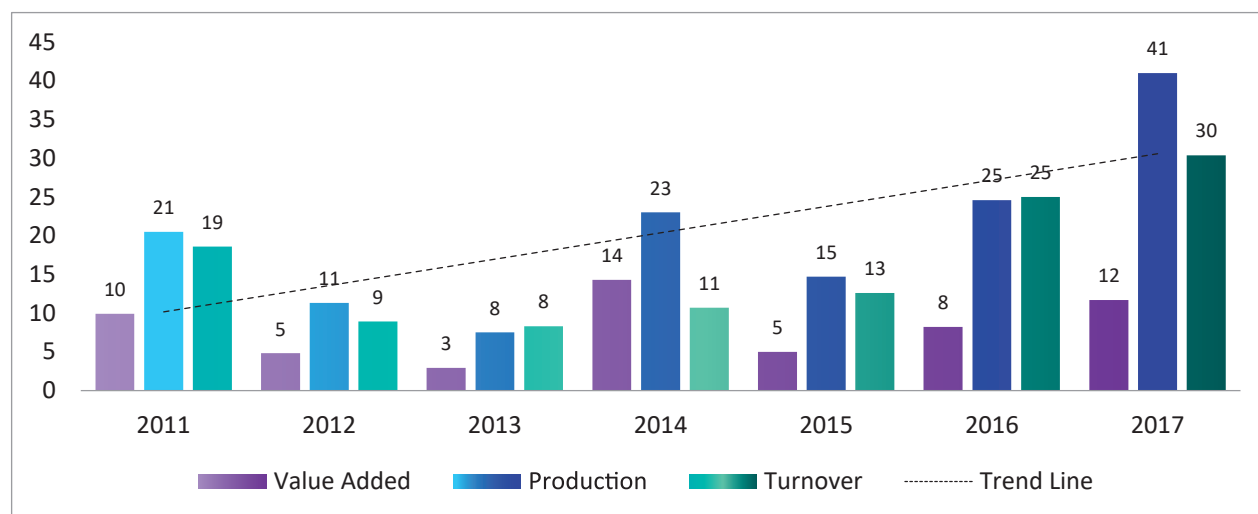
In terms of gender equality, some of the work is considered only for men due to its physical nature. However, for some positions such as sorters, women make up the majority of staff.

6.2.2 Agriculture, hunting and forestry

According to Geostat, in 2017 the turnover of the agriculture, hunting and forestry sector amounted to GEL 30 million, with an average annual growth rate of 132% over the 2010-2017 period. The share of the agriculture, hunting and forestry sector's turnover in the total turnover of Samegrelo-Zemo Svaneti was 1%.

The production value of the agriculture, hunting and forestry sector was worth GEL 41 million, representing 2% of the total production value of Samegrelo-Zemo Svaneti. The average annual growth rate of the production value of the agriculture, hunting and forestry sector was 146% during the 2010-2017 period.

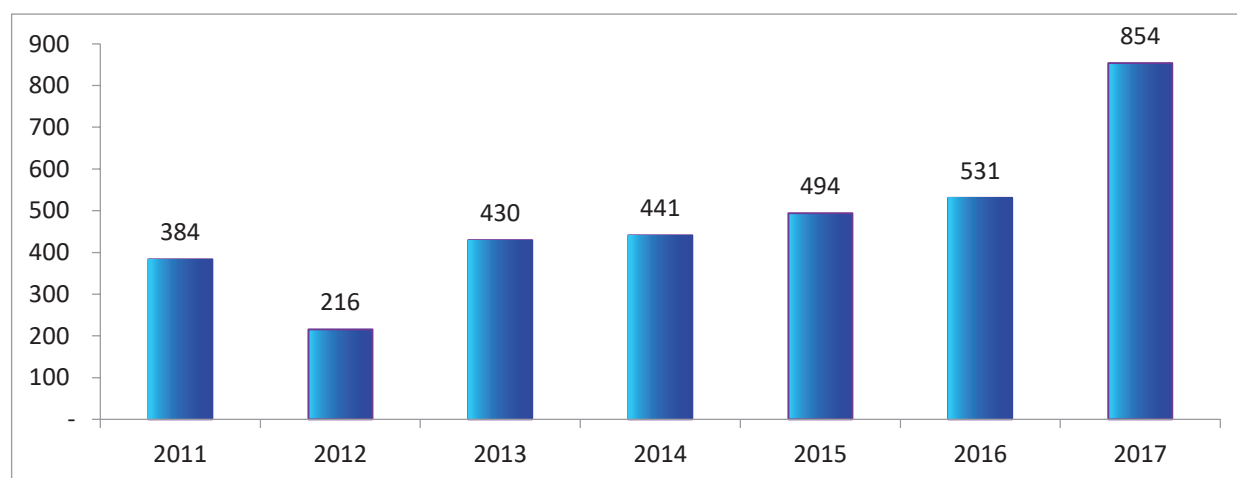
Value added created in the agriculture, hunting and forestry sector was GEL 12 million in 2017, representing 1% of the total value added created in Samegrelo-Zemo Svaneti. The average annual growth rate for this sector in this region during the 2010-2017 period was 229%.



Graph 25. Value Added, Production Value and Turnover of Agriculture, Hunting and Forestry Sector in Samegrelo-Zemo Svaneti (mln GEL). Source: National Statistics Office of Georgia

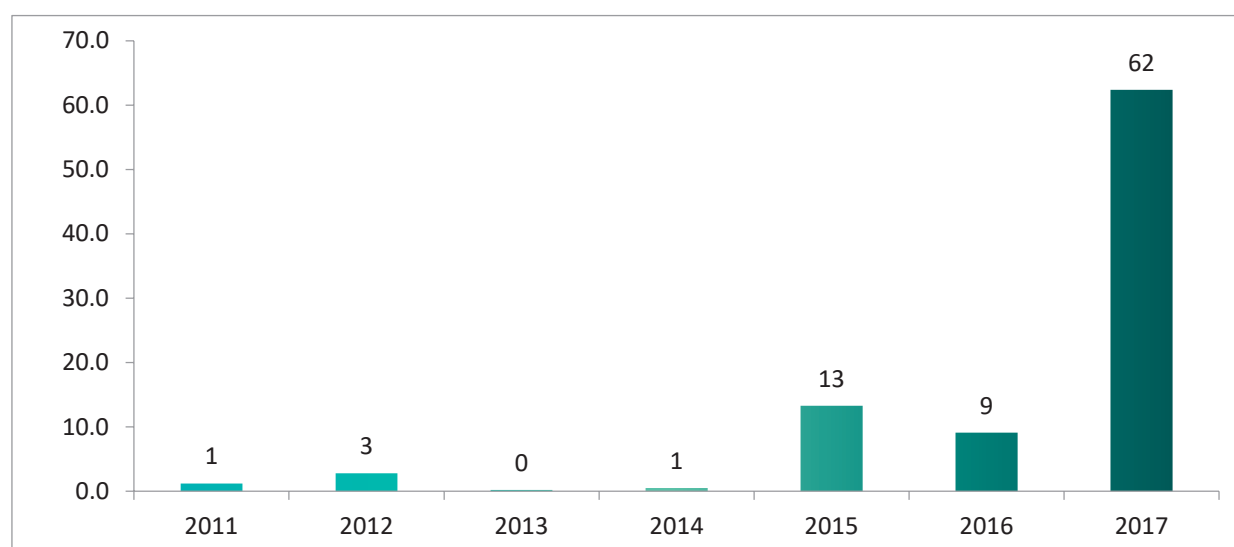
In 2017, according to data, 1,515 people were employed in the agriculture, hunting and forestry sector in this region, accounting for 5% of total employment in Samegrelo-Zemo Svaneti. Employment in this sector grew at an annual average rate of 30% during the period of 2010-2017.

The average monthly salary for hired employees in the agriculture, hunting and forestry sector in Samegrelo-Zemo Svaneti amounted to GEL 854 in 2017. The average monthly salary in the agriculture, hunting and forestry sector in Samegrelo-Zemo Svaneti has grown by an average of 54% annually between 2010 and 2017.



Graph 26. Number of Employees in Agriculture, Hunting and Forestry Sector in Samegrelo-Zemo Svaneti (GEL) Source: National Statistics Office of Georgia

Investment in fixed assets in the agriculture, hunting and forestry sector amounted to GEL 62 million in 2017, the highest amount during the period of 2011-2017.



Graph 27. Investments in Fixed Assets in Agriculture, Hunting and Forestry Sector in Samegrelo-Zemo Svaneti (mIn GEL)
Source: National Statistics Office of Georgia

To summarize, increasing trend can be seen in all economic indicators of agriculture, hunting and forestry sector in Samegrelo-Zemo Svaneti. Number of employed persons was growing at average by 1% annually; average monthly salary was growing by 23% annually; average annual growth rate of production value was 31% and for value added 37%; turnover was growing at average by 28% and investments in fixed assets was increasing by 50% annually for the period of 2010-2017.

Overall, 59 active enterprises were operating in the agriculture, hunting and forestry sector in Samegrelo-Zemo Svaneti. This sector is divided into the following sub-sectors:

- Agriculture, hunting and related services; and
- Forestry, logging and related service activities.

6.2.2.1 Sub-Sector - Agriculture, Hunting and Related Services

During field research, the following areas of the sub-sector agriculture, hunting and related services were covered:

- Growing of vegetables, horticultural specialties and nursery products; and
- Growing of fruit, nuts, beverages and spice crops¹⁷.

Challenges within the Sub-sector

The main challenges faced by the interviewed companies identified by our study are the following:

Table 9: Main challenges in Agriculture, Hunting and related services sub-sector

	Main Challenges	Ways of dealing with challenges by companies
1	Low agricultural education	Beyond the control of companies
2	Limited development of nursery farming – farmers complain that due to the absence of a developed local nursery they have to import inputs for their production	Beyond the control of companies
3	Asian bug (Parosana) and fungal disease – reduces the quantity and quality of production	Spraying with pesticides, however the scale is insufficient and farmers desire government support

¹⁷ More details: producing persimmon and feijoa, nursery, producing lemon, hazelnut, walnut and tea, producing lettuce, cauliflower and herbs

4	High price of, and limited access to, equipment	Beyond the control of companies
5	Non-existence of a heating system in greenhouses	Beyond the control of companies
6	Lack of information about export procedures and standards	Beyond the control of companies
7	Bureaucratic barriers at borders when exporting their products	Beyond the control of companies
8	Problems regarding access to finance – high interest rates of banks, GEL depreciation which increases their loan obligations, and bureaucratic procedures in commercial banks	Beyond the control of companies

Source: Field research

The interviewed companies frequently mentioned that their main challenges were the Asian bug and the high price of, and limited access to, equipment. One of the representatives of the interviewed companies stated: "Access to equipment is limited, prices are high, and this makes it difficult for us to operate as a business."

Opportunities within the sub-sector

The interviewed companies cited climatic conditions and seasonality as constraints hindering their business development. All of the interviewed companies expect their businesses to develop. Some of the interviewed companies plan to meet GLOBAL GAP standards to switch to bio production and develop agro tourism. The interviewed companies all seek government intervention to combat fungal diseases and Asian bug (Parosana), which they cannot do with only their own resources.

Workforce within the sub-sector

The interviewed companies hire staff seasonally and search for workers from within their contacts and hire local people based on interviews, recommendations and experience.

The skills demanded by the companies are the following: professional knowledge, experience, responsibility, diligence, and physical strength.

The management structure of the interviewed agricultural companies mainly consists of a manager/director, an accountant and a lawyer.

The interviewed companies mentioned that they need the following specialists:

- Nursery specialists;
- Mechanics (Mostly required);
- Agronomists (Mostly required);
- Soil specialists;
- Tea leave pickers;
- Laboratory specialists;
- Land reclamation specialists; and
- Laborers.

All of these mentioned positions need relevant professional skills. The interviewed companies claimed it was difficult to find some employees. Nursery specialists, soil specialists, laboratory specialists was relatively easier, however finding mechanists and agronomists had been relatively harder.

The main difficulties that the interviewed companies faced when searching for new employees are a low level of interest among young people in the agricultural sector and lack of knowledge among applicants.

The interviewed companies may need the following professionals in the future: enterprise managers, sales managers, and specialists.

According to the some interviewed companies, technologies like frez, poisoning and cultivators have replaced workers.

When asked about the main skills required by businesses, most of the interviewed business representatives stated that practical experience and knowledge of working with the land were the main attributes they sought. Moreover, some of the interviewed companies mentioned the following attributes as being important: loyalty, responsibility, and diligence.

Training courses for employees

Most of the interviewed companies do not run special training courses for their workers and do not consider trainings necessary. One of the respondents mentioned: "When we'll achieve needed level of development, we will cooperate with the training centers and would like to give their graduates practical work experience."

Finances

The financial conditions of some agricultural companies have improved in the last five years but others have seen their conditions worsen due to a reduced harvest, mainly because of Asian bug (Parosana) and fungal diseases, high costs, and the non-existence of heating systems in greenhouses.

The main sources of financial resources for companies are commercial banks, government programs and international organizations' programs. The main constraints that companies face when seeking commercial bank loans are bureaucratic procedures which are highly time-consuming, high interest rates, exchange rate fluctuations, and depreciation of the GEL making their loans more expensive.

Many respondents had heard about governmental programs, like "Enterprise Georgia," "Plant the Future," "Georgian tea plantation rehabilitation program" and "Preferential agro-credit program". Moreover, the programs of IFAD and ZRDA (USAID) are also known among respondents. Most of the interviewed companies are beneficiaries of either governmental programs, like Plant the Future and Enterprise in Georgia, or international organizations' programs, like IFAD or ZRDA.

Business Associations

Most of the interviewed companies are not members of associations and do not consider such membership to be beneficial. However, a minority of the interviewed companies are members of business associations and consider their membership to be beneficial.

Social Responsibility

None of the interviewed companies have a social responsibility strategy. None of the respondents had ever employed a disabled person, and none of them cooperated with any civil society organizations either.

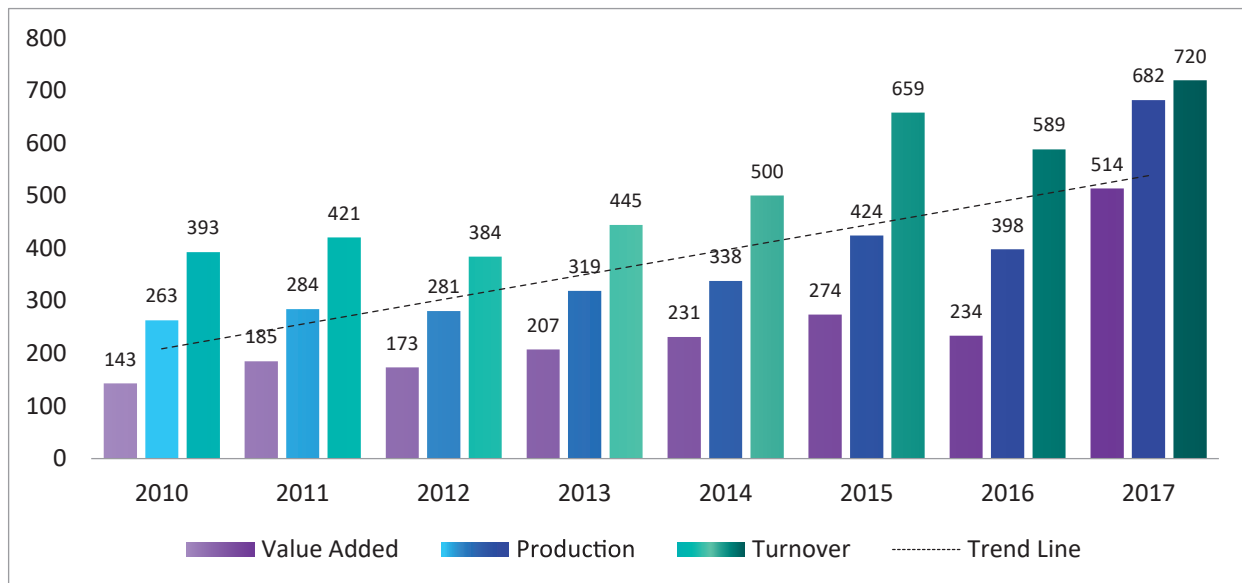
The interviewed companies claimed they only employed female workers for jobs that were not physically demanding.

6.2.3 Transport and Communications

In 2017, turnover in the transport and communications sector of Samegrelo-Zemo Svaneti amounted to GEL 720 million. Turnover in the transport and communications sector of Samegrelo-Zemo Svaneti grew at average of 28% during the 2010-2017 period. The Share of this sector's turnover in the total turnover of Samegrelo-Zemo Svaneti was 1% in 2017.

In 2017, the production value in the transport and communications sector of Samegrelo-Zemo Svaneti was worth GEL 682 million, representing 39% of the total production value of Samegrelo-Zemo Svaneti. Average annual growth was 17% for this sector in this region during the 2010-2017 period.

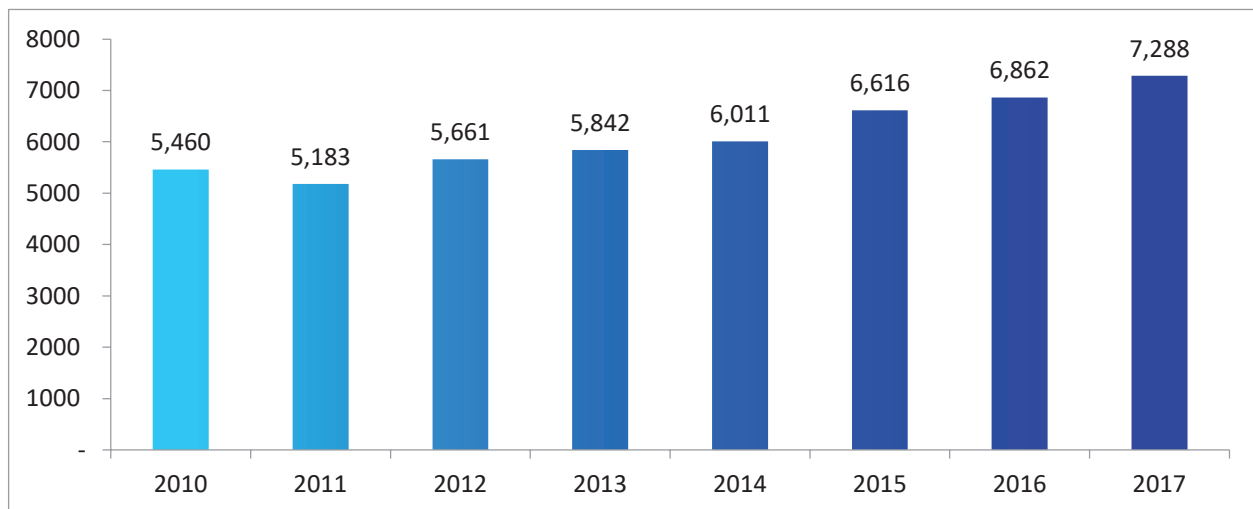
The added value created in the transport and communications sector of Samegrelo-Zemo Svaneti was GEL 514 million in 2017, representing 56% of the total value added created in Samegrelo-Zemo Svaneti. The annual average growth rate for added value created in this sector in this region during the 2010-2017 period was 24%.



Graph 28. Value Added, Production Value and Turnover of Transport and Communications Sector in Samegrelo-Zemo Svaneti (mln GEL). Source: National Statistics Office of Georgia

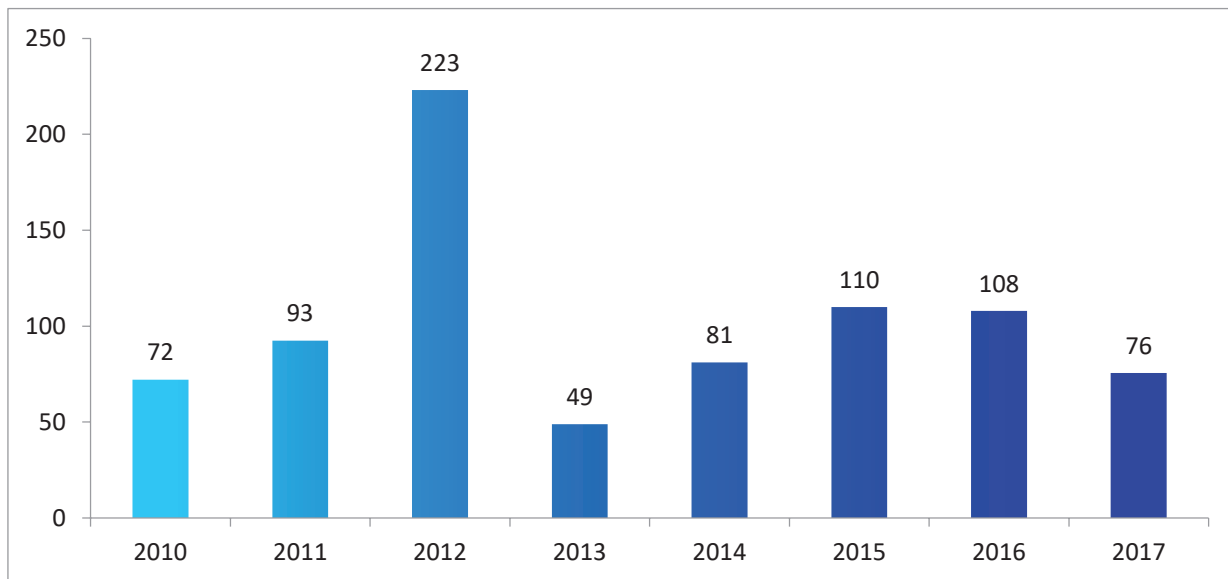
In 2017, according to data, 7,288 people were employed in transport and communications sector, representing 24% of total employment in Samegrelo-Zemo Svaneti. Employment in the transport and communications sector grew at an average annual rate of 4% during the period of 2010-2017.

The average monthly salary for hired employees in the transport and communications sector of Samegrelo-Zemo Svaneti amounted to GEL 1,272 in 2017. The average monthly salary in the transport and communications sector of Samegrelo-Zemo Svaneti has grown at an average rate of 10% annually between 2010 and 2017.



Graph 29. Number of Employees in Transport and Communications Sector in Samegrelo-Zemo Svaneti (mln GEL) Source: National Statistics Office of Georgia

Investments in fixed assets in the transport and communications sector of Samegrelo-Zemo Svaneti amounted to GEL 76 million in 2017, representing 30% of the total investment made in Samegrelo-Zemo Svaneti's private sector. Growth in the volume of investments in the transport and communications sector was particularly strong in 2012 (141%).



Graph 30. Investments in Fixed Assets in Transport and Communications Sector in Samegrelo-Zemo Svaneti (mln GEL)
Source: National Statistics Office of Georgia

To summarize, increasing trend can be seen in all economic indicators of transport and communications sector in Samegrelo-Zemo Svaneti, except of investments in fixed assets, which was declining in the past two years. Number of employed persons was growing at average by 4% annually; average monthly salary was growing by 10% annually; average annual growth rate of production value was 39% and for value added 24%; turnover was growing at average by 28% and investments in fixed assets was increasing by 23% annually for the period of 2010-2017.

Overall, 780 active enterprises were operating in the transport and communications sector in Samegrelo-Zemo Svaneti. This sector is divided into the following sub-sectors:

- Land transport;
- Water transport;
- Supporting and auxiliary transport activities;
- Activities of travel agencies; and
- Post and telecommunications.

6.2.3.1 Sub-Sector - Supporting and Auxiliary Transport Activities, and Activities of Travel Agencies

During field research, the following areas of the sub-sector supporting and auxiliary transport activities, and activities of travel agencies were covered:

- Forwarding of freight;
- Arranging or carrying-out of transport operations by road, sea or air;
- Receipt of group and individual consignments (including pick-up of goods and grouping of consignments);
- Issuance and procurement of transport documents and way-bills;
- Organization of group consignments by road, rail, air or sea (including collection and distribution of goods);
- Activities of customs agents;
- Activities of sea-freight forwarders and air-cargo agents;
- Goods-handling operations e.g., temporary crating for the sole purpose of protecting the goods during transit, uncrating, sampling, and weighing of goods; and
- Cargo handling.

Challenges within the Sub-sector

The only challenge that the interviewed companies mentioned which they cannot handle themselves was the instability of cargo entry.

Opportunities within the Sub-sector

Interviewed transport companies depend on cargo turnover, and they have some concerns about this and are unsure about how the dynamics of cargo turnover will develop in the future. However, some interviewed companies think that Anaklia Port could present them with opportunities as it will create employment thereby allowing their businesses to develop.

Workforce within the Sub-sector

Companies search for new workers from their acquaintances and according to their recommendations. Moreover, some large companies publish vacancies online as well.

The interviewed companies hire workers based on interviews, test results, past experience, physical strength and observation of their work during a probation period. The main requirements for applicants are knowledge, experience and physical strength.

The management structure of the interviewed construction companies mainly consists of a manager/director, an accountant, a referent, an IT manager, a lawyer, a financial manager and sales managers.

The interviewed companies mentioned that they need the following specialists:

- Agents;
- Crane operators;
- Mechanics;
- The telman (person who counts cargo during loading and unloading);
- Engineers;
- Loader workers (Mostly required);
- Auto loader operators;
- Electricians; and
- Welders.

All of the mentioned positions need relevant professional skills. For example, agents must have marine navigation knowledge and experience, and loaders must have physical strength, as well as knowledge of loading and mopping;

The interviewed companies claimed that finding agents, loaders, mechanics, the telman, loader workers, and auto loader operators was relatively easier, however finding cranes operators, electricians, engineers, and welders was relatively harder.

The main difficulties that the interviewed companies claimed to face when searching for new employees were a lack of skills and education, and a low level of interest among young people in this sector. The demand for new workers, for all companies, will depend on cargo turnover. When asked about the main skills businesses required from their staff, most of the interviewed business representatives mentioned that they require practical experience, knowledge, the ability to learn, diligence and physical strength.

Training Courses for Employees

Most of the interviewed companies do not run special training courses for workers. Workers acquire the required knowledge directly on the job. According to some interviewed respondents, they cooperate with professional educational institutions and give work experience to students, some of whom become employees once they graduate.

Finances

The interviewed companies have experienced mixed fortunes in terms of their financial conditions over the last five years. The main source of financial resources for the interviewed companies is commercial banks (some respondents claimed that they do not need additional resources, as ships transfer money in advance). High interest rates on loans and conditions that are not conducive for business are their main constraints.

None of the interviewed companies had ever heard about any governmental programs, which would support their business.

Business Associations

Only one of the interviewed companies is a member of an association and it considers its membership to be beneficial.

Social Responsibility

None of the interviewed companies have a social responsibility strategy, however they do charity work, such as providing people with assistance during flooding.

Only one of the interviewed companies employs a disabled person. None of the interviewed companies cooperate with civil society organizations.

None of the interviewed companies consider gender equality to be relevant to their sector because of the physical nature of the work that, in their view, can only be performed by men.

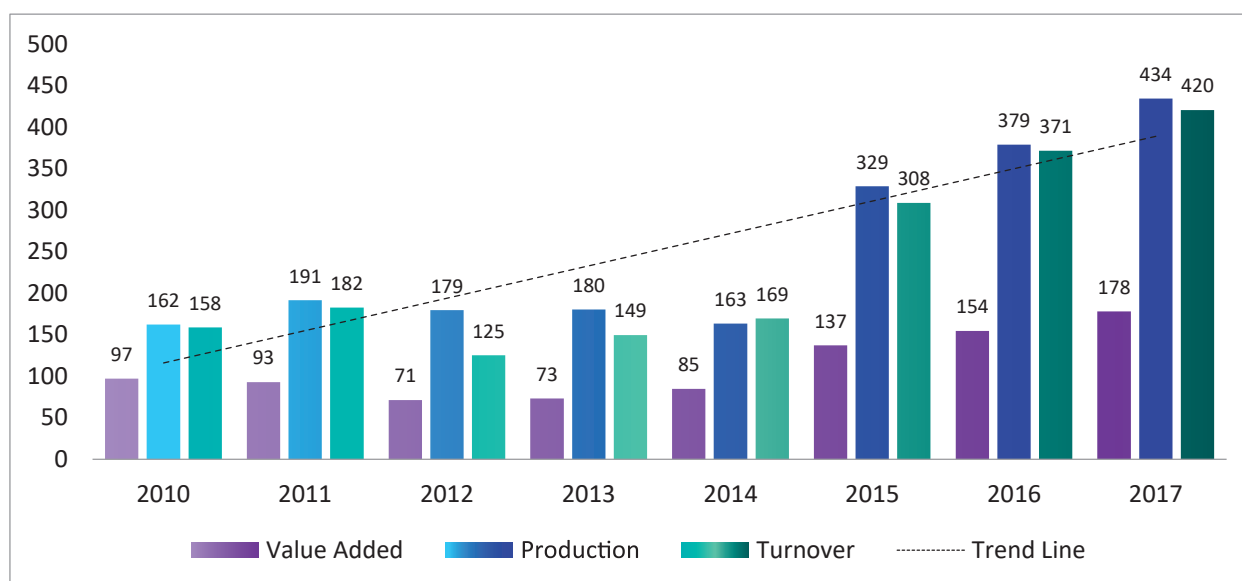
6.3 KVEMO KARTLI

6.3.1 Mining and Quarrying

In 2017, turnover in the mining and quarrying sector of Kvemo Kartli amounted to GEL 420 million. Turnover in the mining and quarrying sector of Kvemo Kartli grew at an average of 19% during the 2010-2017 period. The share of the mining and quarrying sector's turnover in the total turnover of Kvemo Kartli was 10% in 2017.

In 2017, the production value in the mining and quarrying sector of Kvemo Kartli was worth GEL 434 million, representing 15% of the total production value of Kvemo Kartli. The average annual growth rate for this sector was 19% during the 2010-2017 period.

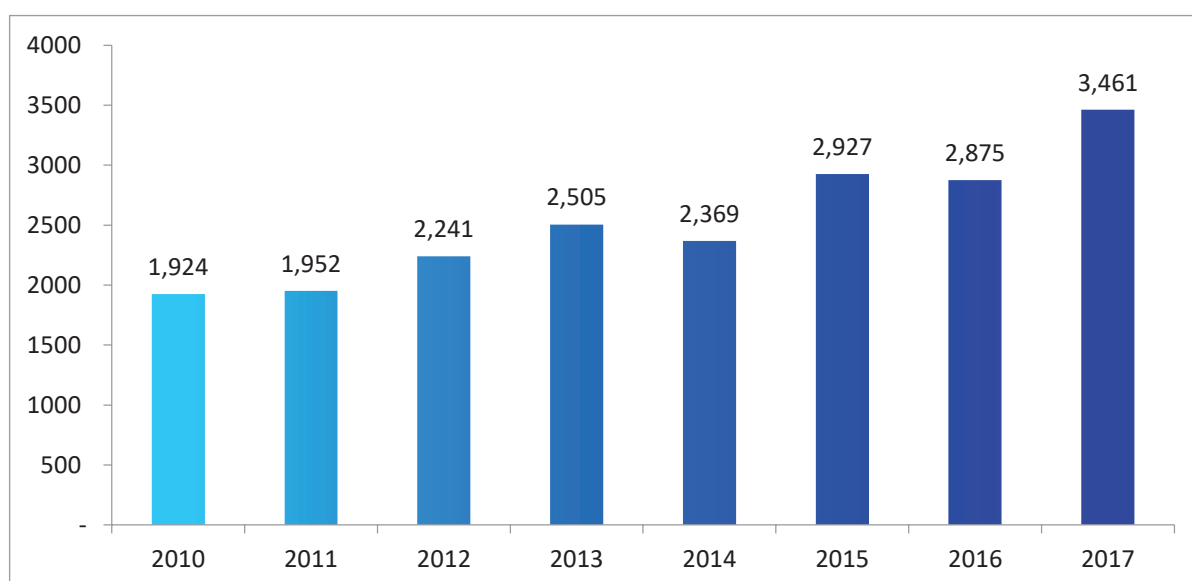
The value added created in the mining and quarrying sector of Kvemo Kartli was GEL 178 million in 2017, representing 15% of the total value added created in Kvemo Kartli. The average annual growth rate in value added created in this sector during the 2010-2017 period was 12%.



Graph 31. Value Added, Production Value and Turnover of Mining and Quarrying Sector in Kvemo Kartli (mIn GEL)
Source: National Statistics Office of Georgia

In 2017, according to data, 3,461 people were employed in the mining and quarrying sector of Kvemo Kartli, accounting for 8% of all people employed in the private sector in Kvemo Kartli. Employment in the mining and quarrying sector grew at an average annual rate of 9% during the period of 2010-2017.

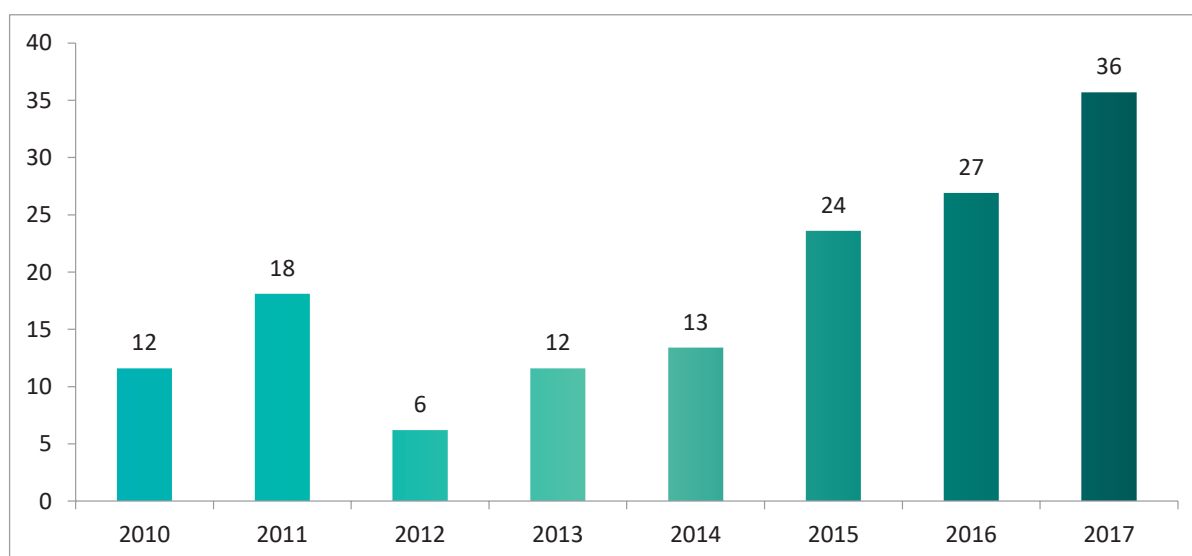
The average monthly salary for hired employees in the mining and quarrying sector in Kvemo Kartli amounted to GEL 1,562 GEL in 2017. The average monthly salary in the mining and quarrying sector of Kvemo Kartli has grown at an average of 7% annually between 2010 and 2017.



Graph 32. Number of Employees in Mining and Quarrying Sector in Kvemo Kartli

Source: National Statistics Office of Georgia

Investments in fixed assets in the mining and quarrying sector of Kvemo Kartli amounted to GEL 36 million in 2017, representing 25% of the total investment made in Kvemo Kartli's private sector. Growth in the volume of investments in fixed assets in the mining and quarrying sector of Kvemo Kartli was particularly strong in 2013 (87%).



Graph 33. Investments in Fixed Assets in Mining and Quarrying Sector in Kvemo Kartli (Million GEL)

Source: National Statistics Office of Georgia

To summarize, increasing trend can be seen in all economic indicators of mining and quarrying sector in Kvemo-Kartli. Number of employed persons was growing at average by 9% annually; average monthly salary was growing by 7% annually; average annual growth rate of production value was 19% and for value added 12%; turnover was growing at average by 19% and investments in fixed assets was increasing by 31% annually for the period of 2010-2017.

6.3.1.1 Sub-Sector - Mining and Quarrying

The sub-sector of mining and quarrying consists of the following activities:

- Extraction and dredging of industrial sand, sand for construction and gravel; and
- Breaking and crushing of gravel, stone and sand.¹⁸

¹⁸ More details: production sand and gravel; production of building materials and crushed stone; production of graveyard stones; extract and manufacturing of inert materials.

Challenges within the Sub-sector

The main challenges faced by the interviewed companies identified by our study are the following:

Table 10: Main challenges in Mining and Quarrying sub-sector

	Main Challenges	Ways of dealing with challenges by companies
1	Getting licenses to work on quarries is time-consuming and expensive	Beyond the control of companies
2	No availability of machines/devices locally so these machines, or parts of them, have to be imported from abroad	Beyond the control of companies
3	High cost of transporting products from factory	Beyond the control of companies
4	Volatile exchange rate, which makes imported inputs more expensive	Beyond the control of companies
5	Delays in payments	Beyond the control of companies

Source: Field research

The interviewed companies frequently mentioned that one of their main challenges was the expensive and time-consuming process of obtaining licenses to work on quarries. According to one of the respondents: "It lowers our profit and we have no solution; getting licenses became very expensive and procedures also became complicated."

Opportunities

Some respondents think that that because licenses have become more expensive each year, business development is not to be expected. Others believe that this sector will develop as the construction of numerous buildings is planned and their products are inputs for the construction sector.

Workforce

Companies searching for workers within the local population tend to rely on recommendations of acquaintances. The main requirements for prospective employees are experience and knowledge of safety norms. The management structure of mining and quarrying companies mainly consists of a director and a supervisory board.

Mining and quarrying companies mentioned that they need the following specialists:

- Excavator specialists;
- Stone specialists;
- Welders;
- Factory operators;
- Mechanical engineers (Mostly required);
- Electricians;
- Loaders; and
- Workers on equipment (Mostly demanded).

All of the mentioned positions need relevant professional skills (e.g. workers on equipment must operate and know technics), but the companies mentioned that they had been able to find relevant staff without any problems.

Companies may need specialists in the future, but not now. None of the company managers interviewed could remember any case where workers were replaced by technology.

The main skills that the interviewed companies stated they required from their staff were experience and knowledge of safety norms.

Training Courses for Employees

Interviewed companies do not cooperate with training centers and vocational educational institutions, as they try to train their workers themselves. According to all respondents, their workers do not need any

training. One of the respondent mentions: “We have enough workers in the region, in our neighborhood”. According to another respondent: “It would be good to have this type of training centers in Marneuli, we have few young people”.

Finances

The financial conditions of some mining and quarrying companies have improved over the last five years, while others have seen their conditions worsened due to the GEL depreciating against the USD and decreased demand. The main source of financial resources for the interviewed companies are commercial banks. The respondents generally had no difficulty in accessing bank loans, with only one being refused because of seizure (sequestration).

In terms of programs supporting the sector, only one interviewed company had heard about the “Gazelle Fund” which gives cheap loans for relevant businesses, but had never applied for it.

Business Associations

Only one of the interviewed companies is a member of a business association, however the others consider such membership of such associations as beneficial.

Social Responsibility

None of the interviewed companies have a social responsibility strategy, however they all mentioned that they do not harm the environment. As one of the respondent mentions: “We don’t have any residuals, hence, we don’t harm environment”.

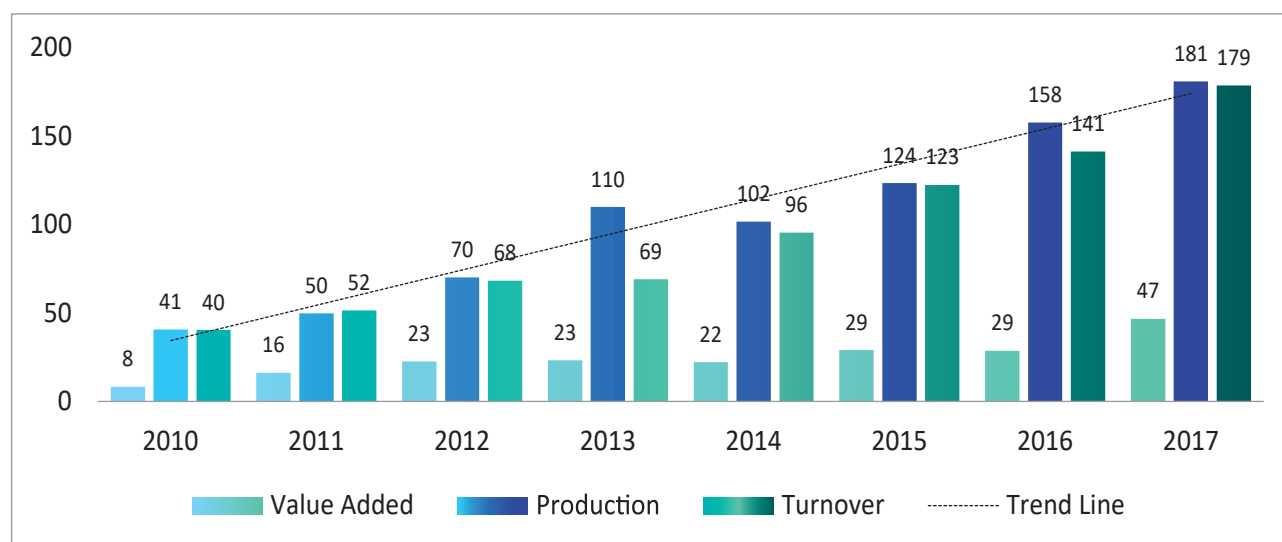
The interviewed companies had never employed disabled persons, and none of them had cooperated with civil society organizations. Due to the physically demanding nature of the work, mining and quarrying companies tend to ignore gender equality and feel it necessary to employ men.

6.3.2 Agriculture, Hunting and Forestry

In 2017, turnover in the agriculture, hunting and forestry sector of Kvemo Kartli amounted to GEL 179 million. Turnover in the agriculture, hunting and forestry sector of Kvemo Kartli grew at an average of 24% during the 2010-2017 period. The share of the agriculture, hunting and forestry sector’s turnover in the total turnover of Kvemo Kartli was 4% in 2017.

In 2017, the production value in the agriculture, hunting and forestry sector of Kvemo Kartli was worth GEL 181 million, representing 6% of the total production value of Kvemo Kartli. The average annual growth rate for this sector was 25% during the 2010-2017 period.

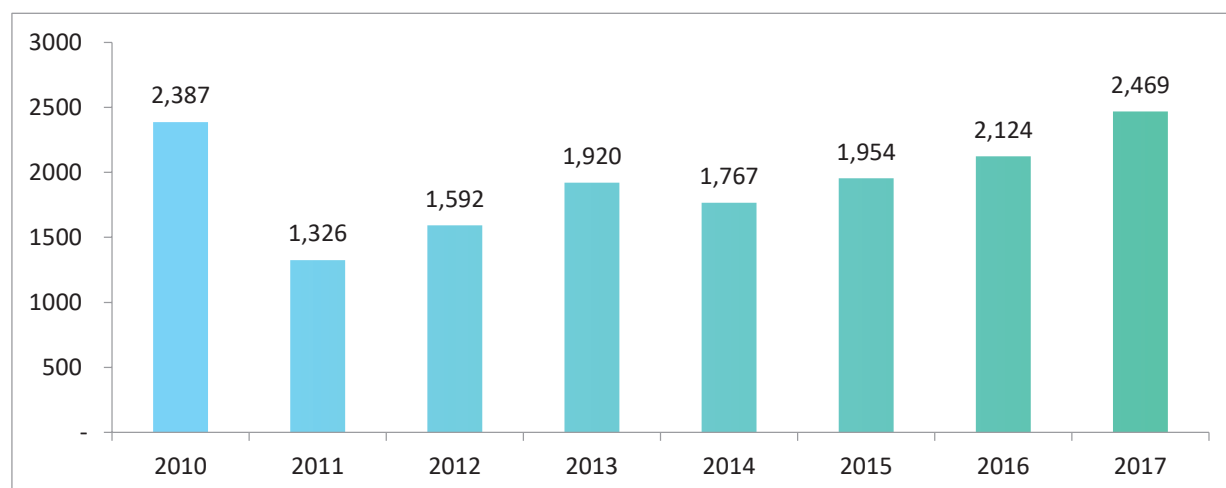
The added value created in the agriculture, hunting and forestry sector of Kvemo Kartli was GEL 47 million in 2017, representing 4% of total value added created in Kvemo Kartli. The annual average growth rate in value added created in this sector during the 2010-2017 period was 32%.



Graph 34. Value Added, Production Value and Turnover of Agriculture, Hunting and Forestry Sector in Kvemo Kartli (mln GEL). Source: National Statistics Office of Georgia

In 2017, according to data, 2,496 people were employed in the agriculture, hunting and forestry sector, representing 6% of total employment in Kvemo Kartli. Employment in the agriculture, hunting and forestry sector grew at an average annual rate of 3% during the period of 2010-2017.

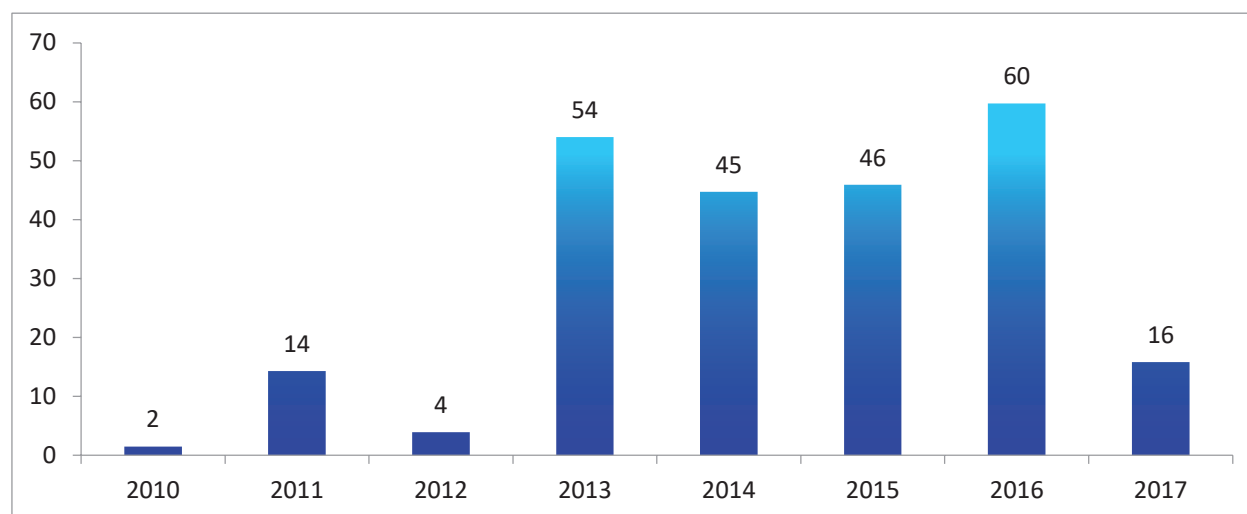
The average monthly salary for hired employees in the agriculture, hunting and forestry sector in Kvemo Kartli amounted to GEL 877 in 2017. The average monthly salary in the agriculture, hunting and forestry sector of Kvemo Kartli has grown by an average of 22% annually between 2010 and 2017.



Graph 35. Number of employees in Agriculture, Hunting and Forestry Sector in Kvemo Kartli

Source: National Statistics Office of Georgia

Investments in fixed assets in the agriculture, hunting and forestry sector of Kvemo Kartli amounted to GEL 16 million in 2017, accounting for 11% of the total investment in fixed assets made in Kvemo Kartli's private sector.



Graph 36. Investments in Fixed Assets in Agriculture, Hunting and Forestry Sector in Kvemo Kartli (mln GEL)

Source: National Statistics Office of Georgia

To summarize, increasing trend can be seen in all economic indicators of agriculture, hunting and forestry sector in Kvemo Kartli. Number of employed persons was growing at average by 3% annually; average monthly salary was growing by 22% annually; average annual growth rate of production value was 25% and for value added 32%; turnover was growing at average by 24% annually for the period of 2010-2017. As regards to investments in fixed assets, the trend is volatile and drastically falls in 2017 within last five years.

In total, 45 active enterprises were operating in the agriculture, hunting and forestry sector in Marneuli. The agriculture, hunting and forestry sector in this region is divided into the following sub-sectors:

- Agriculture, hunting and related services;
- Forestry, logging and related service activities.

6.3.2.1 Sub-Sector - Agriculture, Hunting and Related Services

Under field research, the following areas of the subsector agriculture, hunting and related services were covered:

- Producing potatoes in greenhouses;
- Production of Georgian wheat and maize; and
- Cattle slaughtering services.

Challenges within the Sub-sector

The main challenges faced by the interviewed companies identified by our study are the following:

Table 11: Main challenges in Agriculture, Hunting and related services sub-sector

	Main Challenges	Ways of dealing with challenges by companies
1	Low market price, which causes a decrease in profits	Mainly temporary effects causing a decline in companies' profits
2	Weak control mechanism (new law stipulating that all beef cows should be slaughtered in slaughterhouses is not properly enforced by the National Food Agency and there is no demand for slaughterhouses)	Government intervention required
3	Low level of knowledge and experience in agricultural sector	Beyond the control of companies
4	Competition with imported goods of low price and low quality	Beyond the control of companies
5	Non-existence of irrigation systems	Companies depend on nature (rain)
6	Finding markets for product realization	Problem is not severe
7	GEL depreciation that increases their loan obligations in commercial banks	Beyond the control of companies

Source: Field research

The interviewed companies frequently mentioned their main challenges being low market price and depreciation of the Georgian lari. The former reduces their profits, while the second increases their loan obligations with commercial banks. One of the respondents stated: "We are price takers, we depend on the market price. As the price is low we do not have a profit and it's very difficult for us to cover our loan obligations when the GEL depreciates as well."

Opportunities

The interviewed companies expect their businesses to develop. Part of them covered their financial obligations, one of the interviewed companies had built a farm and had started to import good cattle breeds, which ought to enhance its profits. Others have future plans and hope for government support (e.g. strengthening the control mechanism, or building irrigation systems).

Workforce

The interviewed companies have permanent staff and also hire additional staff seasonally.

Companies search for workers relying on recommendations from their acquaintances and hire local people based on recommendations and experience.

The management structure of agricultural companies mainly consists of a manager/director and an accountant.

Interviewed companies mentioned that they need the following specialists:

- Agronomists (Mostly required);
- Tractor drivers (Mostly required);
- Soil specialists;
- Phytosanitary specialists;
- Butchers;
- Veterinary specialists; and
- Laborers (Mostly required).

All of the mentioned positions need relevant professional skills (e.g. tractor driver must know how to drive and repair tractor; butcher must know how to slaughter animals; veterinary specialist must have skill to identify whether animal is sick or healthy; laborers should know digging, harvesting and irrigating the soil) and the interviewed companies find it difficult to source experienced staff. Finding workers, butchers, veterinary specialists and tractor drivers are relatively easier, however finding soil specialists, phytosanitary specialists and agronomists is relatively harder.

The interviewed companies may need the following professionals in the future: workers, agronomists, tractor drivers, and butchers.

The main difficulties that companies face when searching new employees are a low level of interest among young people in the agricultural sector, lack of knowledge, and lack of experience.

When asked to name the main qualities required by interviewed companies from their staff, most of the business representatives mentioned: persistence, honesty, tidiness, and physical strength. Moreover, some of them mentioned that they valued experience above specific skills or qualities.

Training courses for employees

Most companies do not run special training courses for workers, they think their employees do not need any special training.

According to the some interviewed companies, technology in this sector is constantly developing and replacing workers.

Finances

The financial conditions of some agricultural companies improved in the last five years but worsened for others due to a decline in demand. The main source of financial resources for the interviewed companies are commercial banks and governmental programs, like "Enterprise in Georgia" and preferential agro-credit. Moreover, programs of international organizations like Mercy Corps also serve as a source of financial resources. Most of the interviewed companies are beneficiaries of either governmental programs or international organizations.

The main constraints that companies face in terms of finances are exchange rate fluctuations and the depreciation of the GEL making their loans more expensive.

Business Associations

Most of the interviewed companies are not members of associations, but some of them think that becoming a member of such an association would be beneficial. Only one interviewed company is the member of a business association and considers its membership to be beneficial.

Social Responsibility

None of the interviewed companies do not have a social responsibility strategy, however all claim not to harm the environment. As one of the respondent mentioned: „As we use modern technologies, we protect environment and not harm it”.

None of the interviewed companies have ever employed a disabled person and none of them are cooperating with civil society organizations.

Some companies try to employ female workers as well and do take gender equality into consideration, while others think that female workers would be unable to perform the required work and employ only men instead.

6.4 THE MAJOR CHALLENGES FOR ALL SUB-SECTORS

Based on the interviews with representatives of businesses in the chosen sub-sectors in the targeted regions and with representatives of business associations (the Georgian Small & Medium Enterprises Association; Tax Payers Union; and the Georgian Producers Federation) the following common challenges were identified:

- Unpredictable economic environment: the volatility of the Georgian Lari against the US Dollar creates an unpredictable environment for businesses, as the majority of businesses in Georgia depend on imported raw materials. Moreover, the Lari's depreciation makes their credit more expensive. Moreover, unexpected regulations and an uncertain trade environment are major challenges faced by businesses.
- Low consumer solvency - this makes it difficult for businesses to sell their products and services in the local market.
- Small domestic market – the Georgian market is small, and competition from imports is high. Moreover, Georgian firms have limited potential to export their products.
- Limited access to finance – The interest rates of loans and high collateral demands remain major challenges for businesses in terms of access to finance. The financial sector of Georgia is dominated by commercial banks. The capital market is not developed, so commercial banks are the main source of finance for businesses.
- New regulations in the financial sector – according to new regulations aiming to decrease indebtedness in Georgia, the consumer loan portfolio will decrease. This is expected to harm businesses as the purchasing power of the Georgian population will decrease.
- Lack of qualified staff.
- Outdated equipment and no availability of machines/devices locally.
- Bureaucratic barriers at borders.

SHIFT-SHARE ANALYSIS

Shift-share represents one of the methods for regional analysis. This method enables the identification of the competitive sectors for each region of Georgia by identifying the factors affecting the changes in the number of people employed and value added by certain economic sectors.

Shift-Share by employment:

Shift-share analysis explains the changes in employment through three effects: national growth rate (NGE); industry mix effect (IME); and competitiveness effect (CE).

$$\sum_t^{t+n} (e_i^{t+n} - e_i^t) = \sum_t^{t+n} e_i^t \left[\frac{E^{t+n}}{E^t} - 1 \right] + \sum_t^{t+n} e_i^t \left[\frac{E_i^{t+n}}{E_i^t} - \frac{E^{t+n}}{E^t} \right] + \sum_t^{t+n} e_i^t \left[\frac{e_i^{t+n}}{e_i^t} - \frac{E_i^{t+n}}{E_i^t} \right]$$

$$e_i^t \left[\frac{E^{t+n}}{E^t} - 1 \right] - \text{NGE}$$

$$e_i^t \left[\frac{E_i^{t+n}}{E_i^t} - \frac{E^{t+n}}{E^t} \right] - \text{IME}$$

$$e_i^t \left[\frac{e_i^{t+n}}{e_i^t} - \frac{E_i^{t+n}}{E_i^t} \right] - \text{CE}$$

e_i^{t+n} - number of people employed in a region's i sector in the year of t+n

e_i^t - number of people employed in a region's i sector in the year of t

E_i^{t+n} - number of people employed in a country's i sector in the year of t+n

E_i^t - number of people employed in a country's i sector in the year of t

E^{t+n} - number of people employed in a country's all sector in the year of t+n

E^t - number of people employed in a country's all sector in the year of t

The NGE indicates how many jobs have been created in a region's i sector because of the overall growth of the country's economy.

The IME indicates how many jobs have been created in a region's i sector because of the growth of the i industry at the national level.

The CE indicates how many jobs have been created in a region's i sector because the region is competitive in that sector.

The NGE+IME indicates the expected change of employment in a region's i sector, whereas the CE indicates the change of employment in a region's i sector due to the competitiveness of this sector in that region. Therefore, the CE is the main indicator, in which sector the region is competitive.

Shift-Share by value added:

The same is for Shift-share analysis done by analyzing value added created in economic sectors:

$$v_i^{t+n} - v_i^t = v_i^t \left[\frac{V^{t+n}}{E^t} - 1 \right] + v_i^t \left[\frac{V_i^{t+n}}{V_i^t} - \frac{V^{t+n}}{V^t} \right] + v_i^t \left[\frac{v_i^{t+n}}{v_i^t} - \frac{V_i^{t+n}}{V_i^t} \right]$$

$$v_i^t \left[\frac{V^{t+n}}{V^t} - 1 \right] - \text{NGE}$$

$$v_i^t \left[\frac{V_i^{t+n}}{V_i^t} - \frac{V^{t+n}}{V^t} \right] - \text{IME}$$

$$v_i^t \left[\frac{v_i^{t+n}}{v_i^t} - \frac{V_i^{t+n}}{V_i^t} \right] - \text{CE}$$

v_i^{t+n} - value added in region's i sector in the year of t+n

v_i^t - value added in region's i sector in the year of t

V_i^{t+n} - value added in the country's i sector in the year of t+n

V_i^t - value added in the country's i sector in the year of t

V^{t+n} - value added in the country's all sector in the year of t+n

V^t - value added in the country's all sector in the year of t

Shift-share analysis was conducted for every economic sector in each targeted region and the sectors in which these regions are competitive were identified.

LOCATION QUOTIENT (LQ) ANALYSIS

To identify the basic economic sectors for targeted regions, LQ analysis was used. LQ analysis reveals the basic economic sectors of a region, and indicates how concentrated an economic sector is in a region compared to the whole country. Using this method, the basic and non-basic economic sectors for each region were identified. A basic economic sector of a region is a sector which is more concentrated in that particular region compared to the country as a whole. If $LQ_i > 1$, i a sector is the basic economic sector of a region. If $LQ_i < 1$, i a sector is not a basic economic sector of a region.

LQ is calculated by dividing the share of the region's economic activity in a sector, by the share of a country's economic activity in that same sector.

$$LQ = \frac{e_i}{e} / \frac{E_i}{E}$$

where,

e_i – employment in sector i in the regional economy; e -total employment in the local region

E_i – employment in a sector i in the national economy; E - total employment in the national economy

LQ analysis will be also conducted by value added.

LQ by value added:
$$LQ = \frac{v_i}{v} / \frac{V_i}{V}$$

where,

v_i – value added in sector i in the regional economy; v -total value added in the local region

V_i – value added in a sector i in the national economy; V - total value added in the national economy

LQ was calculated for every economic sector in each targeted regions and the basic economic sectors will identified.

1. COMPETITIVE AND CONCENTRATED SECTORS FOR TBILISI

To identify current key economic sectors (the concentrated and the competitive economic sectors) for Tbilisi, Kvemo Kartli and Samegrelo-Zemo Svaneti regions, regional analysis methods, such as location quotient (LQ) and shift-share analysis, were used. LQ analysis revealed the basic economic sectors of each target region and with the help of Shift-share analysis the competitive sectors for each target region were identified.

1.1 Results of Shift-Share Analysis

Shift-Share analysis was conducted for Tbilisi based on employment and value added.

Employment

Based on employment the following economic sectors were identified for Tbilisi:

1. Healthcare and social work;
2. Education;
3. Agriculture, hunting and forestry;
4. Manufacturing;
5. Electricity, gas and water supply;
6. Construction;
7. Mining and quarrying.

Table: Results of Shift-Share Analysis by employment in Tbilisi

	Economic Activity (Sector)	National Growth Effect (NGE)	Industrial Mix Effect (IME)	Competitive-ness Effect (CE) ¹	Quantitative Change in Employment (2017, Compared to 2010)
1	Agriculture, Hunting and Forestry	1498	287	1453	3238
2	Fishing				
3	Mining and quarrying	258	-112	74	221
4	Manufacturing	20838	-10390	1413	11861
5	Electricity, Gas and Water Supply	9081	-8146	1236	2171
6	Construction	20988	124	316	21428
7	Wholesale and retail trade; repair of motor vehicles and personal and household goods	45141	34893	-4855	75179
8	Hotels and Restaurants	9053	6748	-3369	12432
9	Transport and Communications	25141	-11233	-5789	8119
10	Real estate, renting and business activities	21865	8138	-238	29765
11	Education	6963	-2022	1948	6890
12	Health and social work	20508	-10780	7735	17463
13	Community, social and personal service activities	9410	3068	-458	12021

Source: National Statistics Office of Georgia

Value Added

Based on value added the following economic sectors were identified for Tbilisi:

1. Construction
2. Health and social work
3. Education
4. Mining and quarrying

Table: Results of Shift-Share Analysis by value added in Tbilisi

Economic Activity (Sector)		National Growth Effect (NGE)	Industrial Mix Effect (IME)	Competitiveness Effect (CE)	Quantitative Change in Value Added (mln. GEL) (2017, Compared to 2010)
1	Agriculture, Hunting and Forestry	33	-2	-22	9
2	Fishing	-	-	-	
3	Mining and quarrying	10	-1	0.005	9
4	Manufacturing	718	-121	-60	537
5	Electricity, Gas and Water Supply	549	-321	-145	83
6	Construction	1084	515	136	1736
7	Wholesale and retail trade; repair of motor vehicles and personal and household goods	2247	50	-285	2013
8	Hotels and Restaurants	217	136	-56	297
9	Transport and Communications	1647	-635	-347	665
10	Real estate, renting and business activities	1067	371	-29	1409
11	Education	138	12	7	157
12	Health and social work	479	49	63	591
13	Community, social and personal service activities	562	35	-105	492

Source: National Statistics Office of Georgia

1.2 Results of Location Quotient

Location Quotient (LQ) analysis was conducted for Tbilisi based on employment and value added.

Employment

Based on employment the following economic sectors were identified for Tbilisi:

1. Electricity, gas and water supply
2. Real estate, renting and business activities
3. Education
4. Health and social work
5. Transport and communication
6. Wholesale and retail trade; repair of motor vehicles and personal and household goods
7. Community, social and personal service activities

Table: Primary and secondary sectors for Tbilisi based on LQ Analysis

	Economic Activity (Sector)	Number of People Employed in Georgia (2017)	Number of People Employed in Tbilisi (2017)	LQ	Primary/ Secondary
1	Agriculture, Hunting and Forestry	12401	4214	0.55	Secondary
2	Fishing	574	-	0.00	Secondary
3	Mining and quarrying	8565	472	0.09	Secondary
4	Manufacturing	95133	41081	0.70	Secondary
5	Electricity, Gas and Water Supply	21612	16500	1.24	Primary
6	Construction	75072	45497	0.98	Secondary
7	Wholesale and retail trade; repair of motor vehicles and personal and household goods	184925	122626	1.07	Primary
8	Hotels and Restaurants	42154	23100	0.89	Secondary
9	Transport and Communications	69368	46104	1.08	Primary
10	Real estate, renting and business activities	70217	52743	1.22	Primary
11	Education	22321	15537	1.13	Primary
12	Healthcare and Social Work	69468	46175	1.08	Primary
13	Community, Social and Personal Services	36355	23554	1.05	Primary

Source: National Statistics Office of Georgia

Value Added

Based on Value Added the following economic sectors were identified for Tbilisi:

1. Education
2. Real estate, renting and business activities
3. Health and social work
4. Wholesale and retail trade; repair of motor vehicles and personal and household goods
5. Community, social and personal service activities
6. Construction
7. Transport and Communication

Table : Primary and secondary sectors for Tbilisi based on LQ Analysis

	Economic Activity (Sector)	Value Added created in Georgia (2017) (mln. GEL)	Value Added created in Tbilisi (2017) (mln. GEL)	LQ	Primary/ Secondary
1	Agriculture, Hunting and Forestry	126.6	21.4	0.25	Secondary
2	Fishing	22.2		0.00	Secondary
3	Mining and quarrying	309.7	11.5	0.06	Secondary
4	Manufacturing	2625.8	952.3	0.54	Secondary
5	Electricity, Gas and Water Supply	967.3	557.8	0.86	Secondary
6	Construction	3014.5	2139.3	1.06	Primary
7	Wholesale and retail trade; repair of motor vehicles and personal and household goods	4196.4	3257.8	1.16	Primary
8	Hotels and Restaurants	700.1	410.7	0.88	Secondary

9	Transport and Communications	2656.8	1817.5	1.02	Primary
10	Real estate, renting and business activities	2199.7	1847.3	1.26	Primary
11	Education	267.4	229.1	1.28	Primary
12	Healthcare and Social Work	1051.0	819.0	1.17	Primary
13	Community, Social and Personal Services	898.9	667.6	1.11	Primary

Source: National Statistics Office of Georgia

2. COMPETITIVE AND CONCENTRATED SECTORS FOR SAMEGRELO-ZEMO SVANETI

2.1 Results of Shift-Share Analysis

Shift-Share analysis was conducted for Samegrelo-Zemo Svaneti based on employment and value added.

Employment

Based on employment the following economic sectors were identified for Samegrelo-Zemo Svaneti:

1. Manufacturing
2. Hotels and restaurants
3. Agriculture, hunting and forestry
4. Electricity, gas and water supply

Table: Results of Shift-Share Analysis by employment in Samegrelo-Zemo Svaneti

Economic Activity (Sector)		National Growth Effect (NGE)	Industrial Mix Effect (IME)	Competitiveness Effect (CE)	Quantitative Change in Employment (2017, Compared to 2010)
1	Agriculture, Hunting and Forestry	662	313	296	1270
2	Fishing	116	-75	-26	15
3	Mining and quarrying	131	-19	-37	74
4	Manufacturing	2192	-1082	663	1772
5	Electricity, Gas and Water Supply	80	-92	79	67
6	Construction	1621	358	-2311	-332
7	Wholesale and retail trade; repair of motor vehicles and personal and household goods	2328	1776	-105	3999
8	Hotels and Restaurants	413	289	431	1134
9	Transport and Communications	3580	-1603	-149	1828
10	Real estate, renting and business activities	673	279	-124	827
11	Education	465	-135	-79	250
12	Health and social work	1771	-1368	-1398	-996
13	Community, social and personal service activities	430	158	-363	225

Source: National Statistics Office of Georgia

Value Added

Based on value added the following economic sectors were identified for Samegrelo-Zemo Svaneti:

1. Transport and communication
2. Manufacturing
3. Real estate, renting and business activities
4. Community, social and personal service activities
5. Fishing
6. Electricity, gas and water supply
7. Agriculture, hunting and forestry
8. Wholesale and retail trade; repair of motor vehicles and personal and household goods
9. Hotels and restaurants

Table: Results of Shift-Share Analysis by value added in Samegrelo-Zemo Svaneti

Economic Activity (Sector)		National Growth Effect (NGE)	Industrial Mix Effect (IME)	Competitiveness Effect (CE)	Quantitative Change in Value Added (mln. GEL) (2017, Compared to 2010)
1	Agriculture, Hunting and Forestry	7	-1	5	11
2	Fishing	5	1	9	14
3	Mining and quarrying	5	-1	0	3
4	Manufacturing	61	-6	47	103
5	Electricity, Gas and Water Supply	1	-1	6	6
6	Construction	38	23	-41	20
7	Wholesale and retail trade; repair of motor vehicles and personal and household goods	72	2	5	79
8	Hotels and Restaurants	5	4	0.1	9
9	Transport and Communications	223	-88	235	371
10	Real estate, renting and business activities	13	4	9	25
11	Education	3	0	-3	0
12	Health and social work	21	2	-20	3
13	Community, social and personal service activities	6	1	6	13

Source: National Statistics Office of Georgia

2.2 Results of Location Quotient

Location Quotient (LQ) analysis was conducted for Samegrelo-Zemo Svaneti based on employment and value added.

Employment

Based on employment the following economic sectors were identified for Samegrelo-Zemo Svaneti:

1. Fishing
2. Agriculture, hunting and forestry
3. Transport and communication
4. Manufacturing

Table: Primary and secondary sectors for Samegrelo-Zemo Svaneti based on LQ Analysis

	Economic Activity (Sector)	Number of People Employed in Georgia (2017)	Number of People Employed in Samegrelo-Zemo Svaneti (2017)	LQ	Primary/Secondary
1	Agriculture, Hunting and Forestry	12401	1515	2.9	Primary
2	Fishing	574	223	9.2	Primary
3	Mining and quarrying	8565	255	0.7	Secondary
4	Manufacturing	95133	4616	1.1	Primary
5	Electricity, Gas and Water Supply	21612	109	0.1	Secondary
6	Construction	75072	2286	0.7	Secondary
7	Wholesale and retail trade; repair of motor vehicles and personal and household goods	184925	6546	0.8	Secondary
8	Hotels and Restaurants	42154	1452	0.8	Secondary
9	Transport and Communications	69368	7288	2.5	Primary
10	Real estate, renting and business activities	70217	1690	0.6	Secondary
11	Education	22321	845	0.9	Secondary
12	Healthcare and Social Work	69468	2365	0.8	Secondary
13	Community, Social and Personal Services	36355	830	0.5	Secondary

Source: National Statistics Office of Georgia

Value Added

Based on Value Added the following economic sectors were identified for Samegrelo-Zemo Svaneti:

1. Fishing
2. Transport and communication
3. Agriculture, hunting and forestry
4. Manufacturing

Table: Primary and secondary sectors for Samegrelo-Zemo Svaneti based on LQ Analysis

	Economic Activity (Sector)	Value Added created in Georgia (2017) (mln. GEL)	Value Added created in Samegrelo-Zemo Svaneti (2017) (mln. GEL)	LQ	Primary/Secondary
1	Agriculture, Hunting and Forestry	127	12	1.9	Primary
2	Fishing	22	18	17.0	Primary
3	Mining and quarrying	310	7	0.4	Secondary
4	Manufacturing	2626	122	1.0	Primary
5	Electricity, Gas and Water Supply	967	7	0.1	Secondary
6	Construction	3015	45	0.3	Secondary
7	Wholesale and retail trade; repair of motor vehicles and personal and household goods	4196	114	0.6	Secondary
8	Hotels and Restaurants	700	11	0.3	Secondary
9	Transport and Communications	2657	514	4.0	Primary
10	Real estate, renting and business activities	2200	32	0.3	Secondary
11	Education	267	3	0.2	Secondary
12	Healthcare and Social Work	1051	19	0.4	Secondary
13	Community, Social and Personal Services	899	15	0.4	Secondary

Source: National Statistics Office of Georgia

3. COMPETITIVE AND CONCENTRATED SECTORS FOR KVEMO KARTLI

3.1 Results of Shift-Share Analysis

Shift-Share analysis was conducted for Kvemo Kartli based on employment and value added.

Employment

Based on employment the following economic sectors were identified for Kvemo Kartli:

1. Wholesale and retail trade; repair of motor vehicles and personal and household goods
2. Transport and communication
3. Construction
4. Mining and quarrying
5. Real estate, renting and business activities
6. Hotels and restaurants

Table: Results of Shift-Share Analysis by employment in Kvemo Kartli

	Economic Activity (Sector)	National Growth Effect (NGE)	Industrial Mix Effect (IME)	Competitiveness Effect (CE)	Quantitative Change in Employment (2017, Compared to 2010)
1	Agriculture, Hunting and Forestry	1268	-402	-783	82
2	Fishing	18	19	-16	21
3	Mining and quarrying	1391	-128	273	1537
4	Manufacturing	6461	-3169	-3328	-36
5	Electricity, Gas and Water Supply	1088	-959	-266	-136
6	Construction	1467	-140	631	1958
7	Wholesale and retail trade; repair of motor vehicles and personal and household goods	3007	2269	976	6253
8	Hotels and Restaurants	483	334	25	842
9	Transport and Communications	690	-290	789	1189
10	Real estate, renting and business activities	981	455	193	1628
11	Education	588	-162	-151	275
12	Health and social work	1622	-1253	-542	-173
13	Community, social and personal service activities	914	304	-1166	53

Source: National Statistics Office of Georgia

Value Added

Based on value added the following economic sectors were identified for Kvemo Kartli:

1. Electricity, gas and water supply
2. Wholesale and retail trade; repair of motor vehicles and personal and household goods
3. Agriculture, hunting and forestry
4. Transport and communication
5. Hotels and restaurants
6. Health and social work
7. Real estate, renting and business activities

Table: Results of Shift-Share Analysis by value added in Kvemo Kartli

Economic Activity (Sector)		National Growth Effect (NGE)	Industrial Mix Effect (IME)	Competitiveness Effect (CE)	Quantitative Change in Value Added (mln. GEL) (2017, Compared to 2010)
1	Agriculture, Hunting and Forestry	21	4	14	38
2	Fishing	0	2	-2	0
3	Mining and quarrying	119	-23	-15	81
4	Manufacturing	349	-92	-173	83
5	Electricity, Gas and Water Supply	107	-50	111	167
6	Construction	49	33	-38	44
7	Wholesale and retail trade; repair of motor vehicles and personal and household goods	62	0	49	111
8	Hotels and Restaurants	4	3	4	11
9	Transport and Communications	15	-5	11	21
10	Real estate, renting and business activities	26	9	1	37
11	Education	4	0	-1	4
12	Health and social work	16	-1	2	17
13	Community, social and personal service activities	21	7	-6	22

Source: National Statistics Office of Georgia

3.2 Results of Location Quotient

Location Quotient (LQ) analysis was conducted for Kvemo Kartli based on employment and value added.

Employment

Based on employment the following economic sectors were identified for Kvemo Kartli:

1. Mining and Quarrying
2. Agriculture, hunting and forestry
3. Manufacturing
4. Fishing
5. Electricity, gas and water supply

Table: Primary and secondary sectors for Kvemo Kartli based on LQ Analysis

	Economic Activity (Sector)	Number of People Employed in Georgia (2017)	Number of People Employed in Kvemo Kartli (2017)	LQ	Primary/Secondary
1	Agriculture, Hunting and Forestry	12401	2469	3.4	Primary
2	Fishing	574	48	1.4	Primary
3	Mining and quarrying	8565	3461	6.8	Primary
4	Manufacturing	95133	9866	1.8	Primary
5	Electricity, Gas and Water Supply	21612	1732	1.4	Primary
6	Construction	75072	3455	0.8	Secondary
7	Wholesale and retail trade; repair of motor vehicles and personal and household goods	184925	9212	0.8	Secondary
8	Hotels and Restaurants	42154	1267	0.5	Secondary
9	Transport and Communications	69368	2198	0.5	Primary

10	Real estate, renting and business activities	70217	2785	0.7	Secondary
11	Education	22321	1105	0.8	Secondary
12	Healthcare and Social Work	69468	2822	0.7	Secondary
13	Community, Social and Personal Services	36355	1485	0.7	Secondary

Source: National Statistics Office of Georgia

Value Added

Based on Value Added the following economic sectors were identified for Kvemo Kartli:

1. Mining and Quarrying
2. Agriculture, hunting and forestry
3. Electricity, gas and water supply

4. MANUFACTURING

Table: Primary and secondary sectors for Kvemo Kartli based on LQ Analysis

	Economic Activity (Sector)	Value Added created in Georgia (2017) (mln. GEL)	Value Added created in Kvemo Kartli (2017) (mln GEL)	LQ	Primary/ Secondary
1	Agriculture, Hunting and Forestry	126.6	46.7	5.9	Primary
2	Fishing	22.2	0.1	0.1	Secondary
3	Mining and quarrying	309.7	177.8	9.1	Primary
4	Manufacturing	2625.8	407.0	2.5	Primary
5	Electricity, Gas and Water Supply	967.3	215.5	3.5	Primary
6	Construction	3014.5	64.9	0.3	Secondary
7	Wholesale and retail trade; repair of motor vehicles and personal and household goods	4196.4	130.8	0.5	Secondary
8	Hotels and Restaurants	700.1	11.7	0.3	Secondary
9	Transport and Communications	2656.8	30.8	0.2	Secondary
10	Real estate, renting and business activities	2199.7	45.1	0.3	Secondary
11	Education	267.4	6.0	0.4	Secondary
12	Healthcare and Social Work	1051.0	28.0	0.4	Secondary
13	Community, Social and Personal Services	898.9	34.9	0.6	Secondary

Source: National Statistics Office of Georgia

ANNEX 3

TBILISI

Birth and survival rate of enterprises in Tbilisi

Sector	Activity	Births					Survived by the end of 2017
		2012	2013	2014	2015	Total	
D	Manufacturing	992	998	791	1383	4164	2274
D15	Manufacture of food products and beverages	373	418	312	398	1501	678
D16	Manufacture of tobacco products	0	3	1	4	8	1
D17	Manufacture of textiles	11	11	7	39	68	43
D18	Manufacture of wearing apparel; dressing and dyeing of fur	44	51	41	123	259	164
D19	Manufacture of footwear	7	14	10	57	88	53
D20	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	24	23	21	48	116	68
D21	Manufacture of pulp, paper and paper products	10	15	7	17	49	25
D22	Publishing, printing and reproduction of recorded media	100	71	61	114	346	198
D23	Manufacturing oil products and nuclear materials	1	2	1	2	6	2
D24	Manufacture of chemicals and chemical products	27	27	16	22	92	52
D25	Manufacture of rubber and plastic products	69	62	57	57	245	162
D26	Manufacture of other non-metallic mineral products	68	60	69	106	303	181
D27	Manufacture of basic metals	9	9	4	31	53	26
D28	Manufacture of fabricated metal products, except machinery and equipment	57	52	46	88	243	150
D29	Manufacture of machinery and equipment n.e.c	25	27	22	34	108	64
D30	Manufacturing office equipment and calculating techniques	4	1	1	4	10	5
D31	Manufacture of electrical machinery and apparatus n.e.c.	19	21	10	42	92	56
D32	Manufacture of radio, television and communication equipment and apparatus	3	4	1	3	11	6
D33	Manufacture of medical, precision and optical instruments, watches and clocks	2	6	3	6	17	9
D34	Manufacture of motor vehicles, trailers and semi-trailers	2	1	2	4	9	5
D35	Manufacture of other transport equipment	1	2	0	5	8	4

D36	Manufacture of furniture; manufacturing n.e.c.	133	113	99	179	524	321
D37	Recycling	3	5	0		8	1
F	Construction	992	1541	1420	1318	5271	3166
F45	Construction	660	824	728	665	2877	1603
F45.1	Site preparation	15	17	11	10	53	27
F45.2	Building of complete constructions or parts thereof; civil engineering	446	569	579	535	2129	1239
F45.3	Building installation	92	84	81	81	338	211
F45.4	Building completion	19	28	14	12	73	30
F45.5	Renting of construction or demolition equipment with operator	38	19	7	15	79	56

Source: National Statistics Office of Georgia

Code	Activity	Quantity of Enterprises	Large	Medium	Small	Not identified
F	Construction	4007	22	181	3560	244
45	construction	4007	22	181	3560	244
45.1	Site preparation	69			69	
45.2	Building of complete constructions or parts thereof; civil engineering	2866	22	162	2682	
45.3	Building installation	534		14	520	
45.4	Building completion	63			63	
45.5	Renting of construction or demolition equipment with operator	146		5	141	

Source: National Statistics Office of Georgia

Code	Activity	Quantity of Enterprises	Large	Medium	Small	Not identified
D	Manufacturing	5863	32	131	5262	438
15	Manufacture of food products and beverages	1700	19	52	1503	126
16	Manufacture of tobacco products	4		2	1	1
17	Manufacture of textiles	89		1	82	6
18	Manufacture of wearing apparel; dressing and dyeing of fur	379	2	5	338	34
19	Manufacture of footwear	117		2	104	11
20	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	172	0	1	156	15
21	Manufacture of pulp, paper and paper products	92		8	82	2
22	Publishing, printing and reproduction of recorded media	648	1	13	571	63
24	Manufacture of chemicals and chemical products	169	2	10	145	12
25	Manufacture of rubber and plastic products	449		7	417	25

26	Manufacture of other non-metallic mineral products	433		15	386	32
27	Manufacture of basic metals	37		3	30	4
28	Manufacture of fabricated metal products, except machinery and equipment	382	2	1	356	23
29	Manufacture of machinery and equipment n.e.c.	152	2	1	139	10
31	Manufacture of electrical machinery and apparatus n.e.c.	132			122	10
32	Manufacture of radio, television and communication equipment and apparatus	16			15	1
33	Manufacture of medical, precision and optical instruments, watches and clocks	33	1	1	29	2
34	Manufacture of motor vehicles, trailers and semi-trailers	11			10	1
35	Manufacture of other transport equipment	17	1	4	12	
36	Manufacture of furniture; manufacturing n.e.c.	810	2	5	745	58
37	Recycling	21			19	2

Source: National Statistics Office of Georgia

SAMEGRELO-ZEMO SVANETI

Birth and survival rate of enterprises in Samegrelo-Zemo Svaneti region

Sector	Activity	Births					Survived by the end of 2017
		2012	2013	2014	2015	Total	
A	Agriculture, hunting and forestry	253	335	209	602	1399	757
A01	Agriculture, hunting and related services	19	25	21	29	94	41
A02	Forestry, logging and related service activities	5	6	7	7	25	7
D	Manufacturing	122	156	93	295	666	369
D15	Manufacture of food products and beverages	56	93	52	118	319	168
D16	Manufacture of tobacco products	0	0	0	0	0	0
D17	Manufacture of textiles	2	1	1	1	5	3
D18	Manufacture of wearing apparel; dressing and dyeing of fur	2	1	0	31	34	25
D19	Manufacture of footwear	0	0	1	2	3	3
D20	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	13	16	6	25	60	25
D21	Manufacture of pulp, paper and paper products	2	1	0	3	6	4
D22	Publishing, printing and reproduction of recorded media	2	2	1	6	11	8
D23	Manufacturing oil products and nuclear materials	0	2	0	0	2	0
D24	Manufacture of chemicals and chemical products	0	1	2	4	7	2

D25	Manufacture of rubber and plastic products	10	9	15	25	59	37
D26	Manufacture of other non-metallic mineral products	12	11	2	26	51	29
D27	Manufacture of basic metals	1	0	2	1	4	2
D28	Manufacture of fabricated metal products, except machinery and equipment	3	4	4	14	25	17
D29	Manufacture of machinery and equipment n.e.c	1	3	1	2	7	4
D30	Manufacturing office equipment and calculating techniques	0	0	0	0	0	0
D31	Manufacture of electrical machinery and apparatus n.e.c.	2	4	0	8	14	7
D32	Manufacture of radio, television and communication equipment and apparatus	0	0	1	2	3	2
D33	Manufacture of medical, precision and optical instruments, watches and clocks	0	0	0	1	1	1
D34	Manufacture of motor vehicles, trailers and semi-trailers	1	0	0	2	3	3
D35	Manufacture of other transport equipment	2	0	0	3	5	4
D36	Manufacture of furniture; manufacturing n.e.c.	11	5	5	19	40	22
D37	Recycling	2	3	0	2	7	3
I	Transport and communications	207	162	77	693	1139	733
I60	Land transport	157	109	42	615	923	593
I61	Water transport	4	6	4	24	38	20
I62	Supporting and auxiliary transport activities; activities of travel agencies	0	1	0	0	1	0
I63	Post and telecommunications	40	40	26	51	157	103
I64	Telecommunications	6	6	5	3	20	17

Source: National Statistics Office of Georgia

Code	Activity	Quantity of Enterprises	Large	Medium	Small	Not identified
D	Manufacturing	566	3	15	513	35
15	Manufacture of food products and beverages	276	2	11	251	12
16	Manufacture of tobacco products	2			1	1
17	Manufacture of textiles	5		1	4	
18	Manufacture of wearing apparel; dressing and dyeing of fur	27		1	25	1
19	Manufacture of footwear	4			4	
20	Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials	36			32	4
21	Manufacture of pulp, paper and paper products	3			3	
22	Publishing, printing and reproduction of recorded media	14			10	4

24	Manufacture of chemicals and chemical products	7			7	
25	Manufacture of rubber and plastic products	56			54	2
26	Manufacture of other non-metallic mineral products	44		2	38	4
27	Manufacture of basic metals	2	1		1	
28	Manufacture of fabricated metal products, except machinery and equipment	28			27	1
29	Manufacture of machinery and equipment n.e.c	9			8	1
31	Manufacture of electrical machinery and apparatus n.e.c.	8			8	
32	Manufacture of radio, television and communication equipment and apparatus	2			1	1
33	Manufacture of medical, precision and optical instruments, watches and clocks	1			1	
34	Manufacture of motor vehicles, trailers and semi-trailers	1			1	
35	Manufacture of other transport equipment	2			2	
36	Manufacture of furniture; manufacturing n.e.c.	32			30	2
37	Recycling	7			5	2

Source: National Statistics Office of Georgia

Code	Activity	Quantity of Enterprises	Large	Medium	Small	Not identified
A	Agriculture, hunting and related service activities	59	1	3	46	9
1	Agriculture, hunting and related service	51	1	3	40	7
2	Forestry, logging and related service activities	8			6	2

Source: National Statistics Office of Georgia

Code	Activity	Quantity of Enterprises	Large	Medium	Small	Not identified
I	Transport and communication	780	4	19	703	54
60	Land transport	574		1	534	39
61	Water transport	8			8	
63	Supporting and auxiliary transport activities; activities of travel agencies	178	4	18	142	14
64	Post and telecommunications	20			19	1

Source: National Statistics Office of Georgia

KVEMO KARTLI

Table 18: Birth and survival rate of enterprises in Kvemo Kartli

Sector	Activity	Births					Survived by the end of 2017
		2012	2013	2014	2015	Total	
A	Agriculture, hunting and forestry	33	34	24	40	131	44
A01	Agriculture, hunting and related services	29	33	23	38	123	43

A02	Forestry, logging and related service activities	4	1	1	2	8	1
C	Mining and quarrying	13	9	9	9	40	17
C10	Mining coal, lignite and peat	0	0	0	0	0	0
C11	Extraction of crude oil and natural gas and related services	1	1	0	0	2	0
C12	Mining uranium and thorium ores	0	0	0	0	0	0
C13	Mining metallic ores	0	0	0	0	0	0
C14	Other mining and quarrying	12	8	9	9	38	17

Source: National Statistics Office of Georgia

Code	Activity	Quantity of Enterprises	Large	Medium	Small	Not identified
A	Agriculture, hunting and related service activities	23	0	0	20	3
1	Agriculture, hunting and related service	22	0	0	19	3
2	Forestry, logging and related service activities	1	0	0	1	0

Source: National Statistics Office of Georgia

Code	Activity	Quantity of Enterprises	Large	Medium	Small	Not identified
C	Mining and Quarrying	30	0	1	26	3
14	Other mining and quarrying	30	0	1	26	3

Source: National Statistics Office of Georgia



Research