

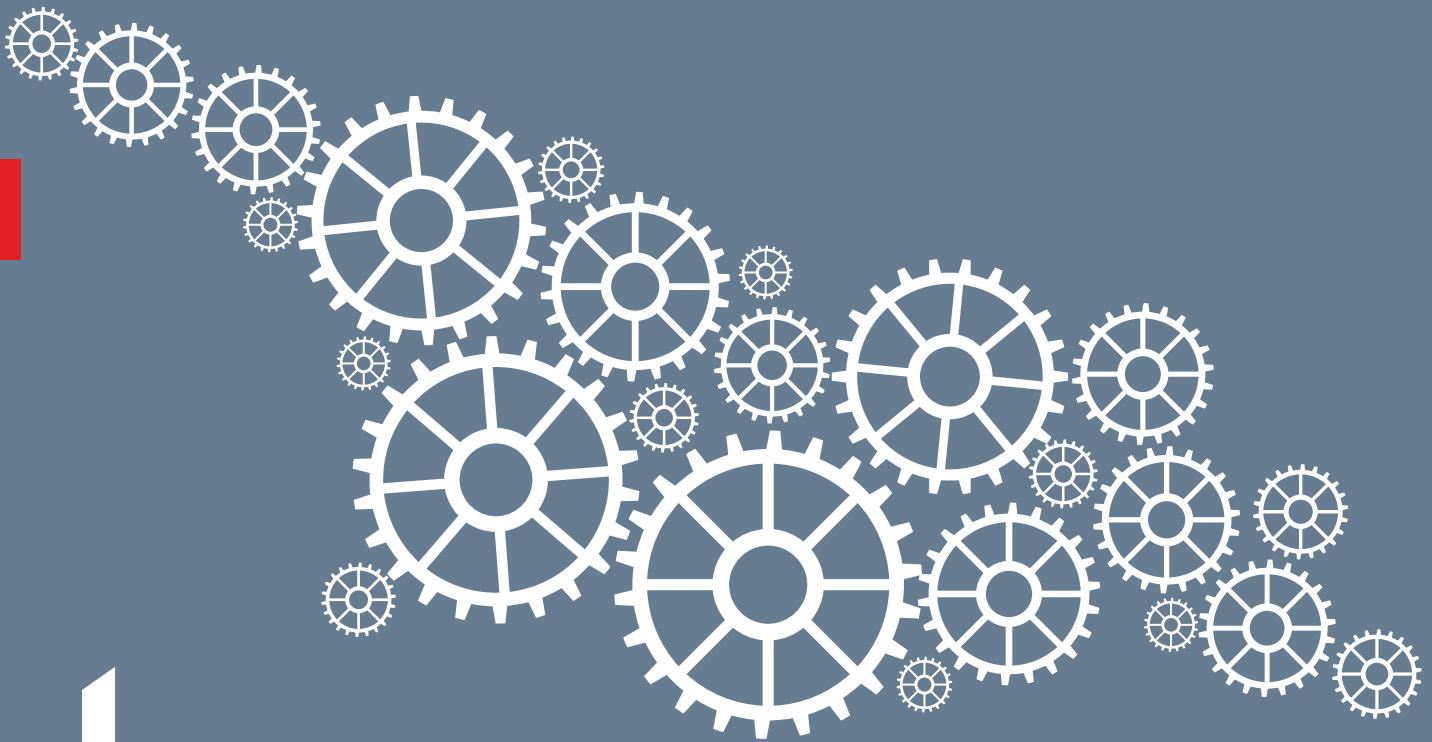


# IMPACT ASSESSMENT

of industrial, technical support and  
access to finance components  
for the 'Produce in Georgia' Program

# PREPARED FOR **ENTERPRISE GEORGIA**

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Impact assessment of industrial, technical support and access to finance components for the 'Produce in Georgia' Program

**2018**

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# COVER LETTER

This Assessment Report (hereinafter, 'the Report', 'the Assessment') is prepared by BDO LLC for the period started from 30<sup>th</sup> May of 2014 to 30<sup>th</sup> September of 2018 and in accordance with the engagement letter signed with Enterprise Georgia (hereinafter 'the Agency'). The purpose of the Assessment is to evaluate the efficiency of the industrial part, technical assistance and access to finance component of the 'Produce in Georgia' Program (hereinafter 'the Program'), assess the results achieved by the Program Beneficiaries (hereinafter 'the Beneficiaries') after engaging in the Program and to reveal the direct and indirect economic effect on the Beneficiaries participating in the research as well as on different industries and on the whole Georgian economy, considering assumptions and disclaimers disclosed in the appendix 5.

The Program includes 338 beneficiaries and their respective 340 projects started from 30<sup>th</sup> May of 2014 to 30<sup>th</sup> September of 2018. However, this Report focuses only on 100 Beneficiaries for whom at least 2 years have passed since their first involvement in the Program. Hence, it is possible to evaluate and observe the effectiveness of the Program based on performance of their businesses and their contribution to the Georgian economy.

85 Beneficiaries out of the aforementioned 100 Beneficiaries collaborated with the research; 30 of this Beneficiaries constituted start-ups and the rest 55 were expansions.

The study is based on the questionnaires distributed among the Beneficiaries, our analysis of the information obtained through those questionnaires and general research of the market conducted for the purpose of the study. The Report includes micro and macro analysis of the Beneficiaries results and represents both quantitative and qualitative techniques. Performance indicators, such as, value added, investments in business, jobs created, taxes paid in state budget, financial ratios achieved, etc., were analyzed within the study based on the Beneficiaries' data obtained through the questionnaires and BDO analysis. Furthermore, the Reports also presents attitude of all involved parties towards the Program. The results of the Assessment are presented below in the Report.

Sincerely,

BDO LLC

15 December 2018

# EXECUTIVE SUMMARY

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# EXECUTIVE SUMMARY

This Executive Summary of key issues is provided for convenience only in summarizing certain highlights of our Assessment and should not be relied upon for any purpose without reference to the full body of this Report.

## INVOLVED PARTIES' ATTITUDE TOWARDS THE PROGRAM

In order to assess attitude towards the Program the Beneficiaries and the financial institutes, such as, commercial banks and leasing companies, who are the providers of financial resources (loans) and tangible assets (machinery, equipment, etc.) for the Beneficiaries within the Program, have been interviewed.

The majority of the Beneficiaries surveyed think that the Program has helped them a lot and that it would not have been possible for them to either expand or start a new business. On the other hand there were Beneficiaries who could expend their business without help of the Program, but they still decided to use the benefits of the Program to their advantage.

“

Our attitude towards the Program is very positive - it has given us an incentive and largely conditioned our decision to expand our business and get a loan from a bank.

*Expansion*

”

“

We would not be able to start the business up without the help of the Program.

*Start-up*

”

Along with the above mentioned assessed also were simplicity of the access to finances and the changes implemented within the Program. Taking into consideration that before engaging in the Program, financial analysis of the current businesses or business plans of the beneficiaries and their compliance with the lending criteria were conducted by banks and leasing companies, majority of the surveyed beneficiaries underline the simplicity of the process of receiving the financial resources and only few of the Beneficiaries mention that they would rather have larger share of state collateral involved in the process. However, the interviews with the financial institutions revealed that within the Program, the offered state collateral is not liquid and is hard to achieve. Thus, the financial institutions request the full collateral from the Beneficiaries and the state collateral carries the secondary value which underlines that this component does not weigh much for the Program purposes and this unfortunately causes beneficiaries not having full collateral to miss out on the Program even though they may easily qualify for it.

Due to the fact that the decision regarding financing potential beneficiaries are made by the commercial banks and leasing companies, potential beneficiaries are chosen by the financial institutions according to their commercial interests. As a result of surveying the relevant financial institutions, it was established that for minimizing the risks, in case of start-ups, the loan is only given to the companies that already have another source of income generating business, which will be analyzed financially and only after that will the decision be made about the lending process. Hence the high chance that financial institutions might not evaluate the new business plan presented by the Beneficiary of the Program properly.

There have been significant amendments to the Program resolution in terms of the financed sectors, business status and volume of collateral. The changes aimed at improving terms of the Program and have had a positive impact to raise involvement. However, this has left some Beneficiaries with the sense of unfairness considering not everyone involved in the Program is on the same terms as the rest.

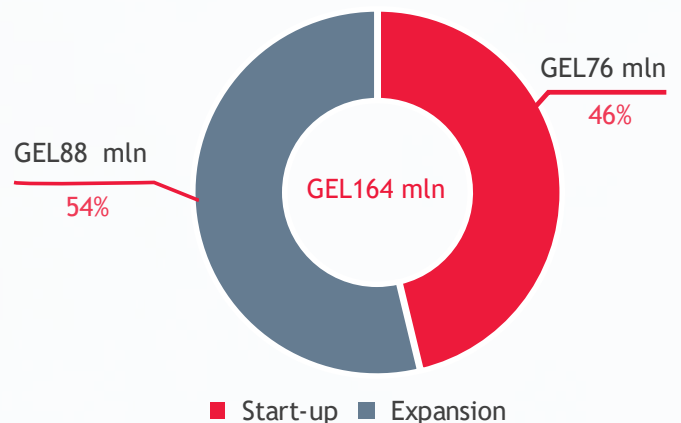
# EXECUTIVE SUMMARY (Cont.)

## GDP CREATED BY THE BENEFICIARIES

One of the most important economic indicators of National Accounts is Gross Domestic Product, which represents total market value of all final goods and services produced in an economic territory of a country in a specific time period.

Due to importance, GDP created has been assessed for the beneficiaries. The initial process for this purpose consisted of calculating of GDP created for each surveyed Beneficiary. However, since the results achieved by start-ups can be considered as the net impact created by the Program, adjustment has been applied to the Beneficiaries within the expansion status in order to show the GDP created only in terms of the Program. The adjusted results show over GEL164 million GDP created, where 54% belongs to expansions and 46% to start-ups.

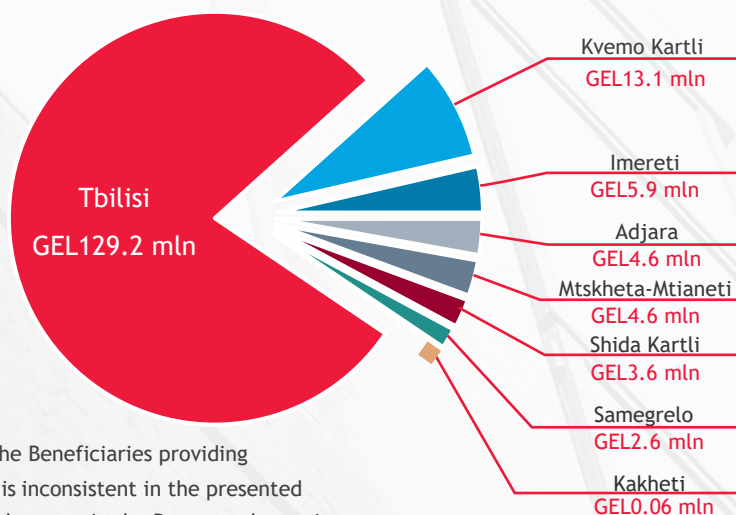
### GDP created by the Beneficiaries within the Program 2014-2018\* (Mln GEL)



Number of the Beneficiaries providing information is inconsistent in the presented years as involvement in the Program also varies. Moreover, 4 companies assessed are no longer functional.

\*Incomplete year  
Source: Beneficiaries' data and BDO analysis

### GDP created by the Beneficiaries within the Program by regions 2014-2018\* (Mln GEL)



Number of the Beneficiaries providing information is inconsistent in the presented years as involvement in the Program also varies. Moreover, 4 companies assessed are no longer functional.

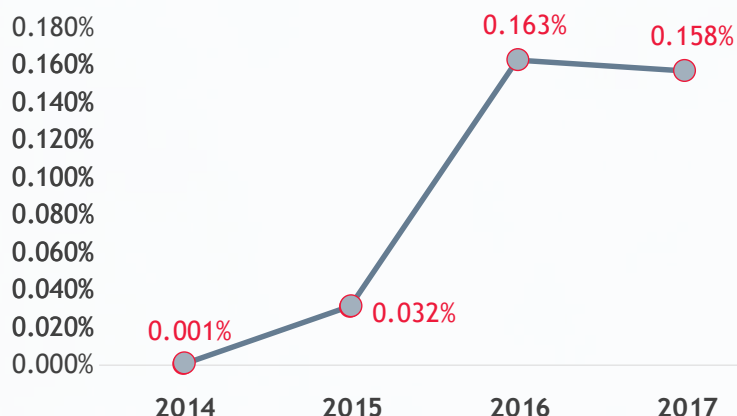
\*Incomplete year  
Source: Beneficiaries' data and BDO analysis

Regional analysis of the GDP created shows that around 79% of the GDP is generated by the Beneficiaries located in Tbilisi. The result seems adequate as 60% of the Beneficiaries surveyed within the research are also located in Tbilisi, however, such difference can also be a result of different productivity levels between the regions, caused by more skilled personnel, better equipment, etc.

# EXECUTIVE SUMMARY (Cont.)

While the overall share of the Program in GDP may remain low, it is overall increasing. However, this increase is not to be considered as the result only achieved with the help of the subsidies provided. As the regression analysis suggests, GDP is dependent of various factors and the subsidy alone cannot create material impact on economy if other economic indicators are not also working in a way that facilitates there to be an increase in social welfare.

Share of GDP created within the Program, in the country's GDP, 2014-2017



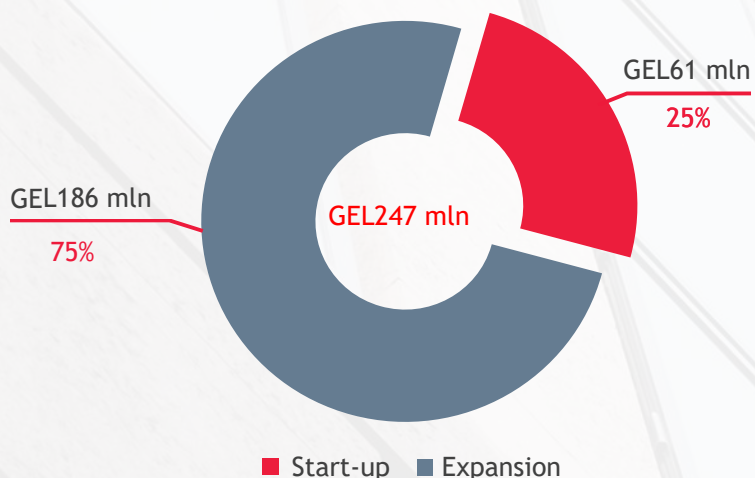
Source: Beneficiaries' data and BDO analysis

## INVESTMENTS

Investment is one of the most important components for the economic growth of the country and it correlates with different economic variables. In case of the Beneficiaries, investments include both, loans received within the Program and capital funding made by the owners of the Beneficiary companies.

More Program resources were directed to the business expansions than start-ups. Analysis of loans within the Program revealed that 63% (approximately GEL78.8 mln) is issued to 50 beneficiaries operating in Tbilisi. Remain 37% (GEL46.5 mln) is distributed between 33 beneficiaries operating in other regions of Georgia. The results seem reasonable since most of the surveyed Beneficiaries are located in Tbilisi.

Investment distribution by business status in 2014-2018\* (Mln GEL)



The share of loans received within the Program and other loans and investments made by the Beneficiaries from 2014 to 2018, in total domestic investments, for the relevant period, equals approximately 0.38% and amounts to over GEL247 million.

Data for 4 Beneficiaries that have stopped functioning and 2 Beneficiaries with a risk of liquidation.

\*Incomplete year  
Source: Beneficiaries' data and BDO analysis



# EXECUTIVE SUMMARY (Cont.)

## RESEARCH AND DEVELOPMENT ACTIVITIES OF THE BENEFICIARIES

Only 7% of the Beneficiaries (out of 83 Beneficiaries who provided information regarding this issue) have conducted market researches after being involved in the Program in order to measure customer attitudes, expectations and level of satisfaction. Generally, Beneficiaries neglect the need for market research due to high costs and prefer to conduct secondary researches with lower costs.

## INTANGIBLE ASSETS CREATED WITHIN THE PROGRAM

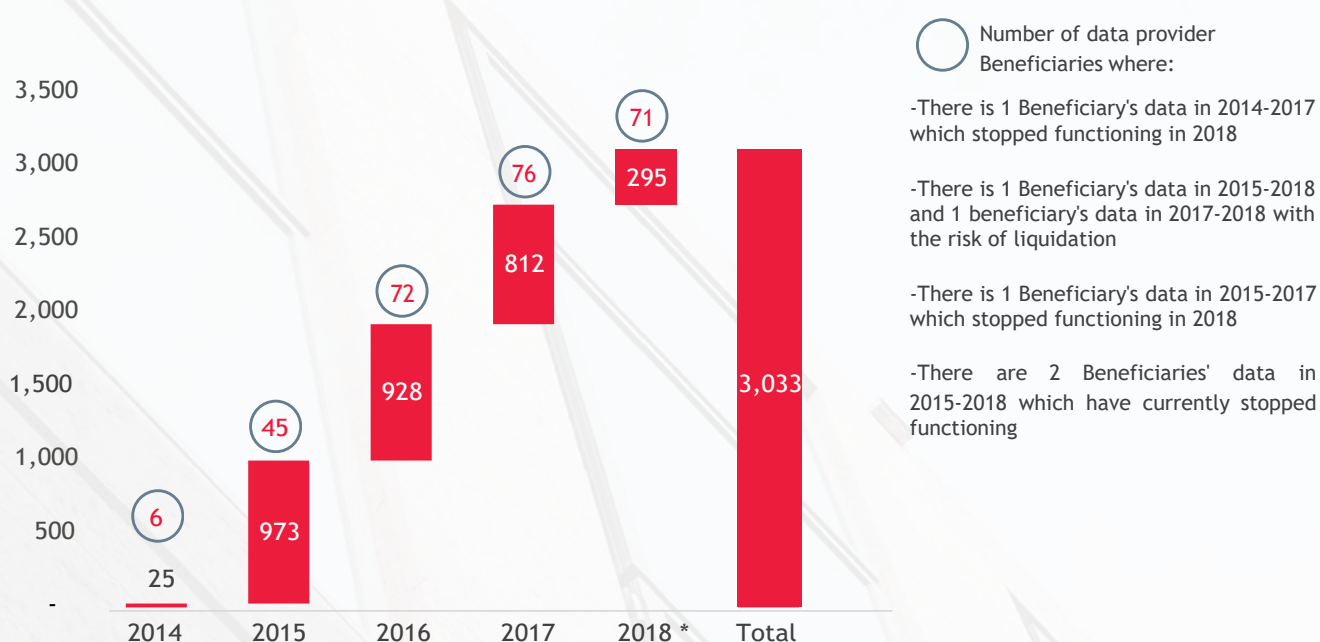
Beneficiaries seem to invest in tangible assets more often than in intangible assets, as only 13% (out of 85 Beneficiaries who provided information regarding this issue) have acquired intangible assets, which mostly includes creation of trademarks and company logos.

## PROGRAM EFFECT ON EMPLOYMENT

After the Beneficiaries engagement in the 'Produce in Georgia' Program, the net growth of employees has reached 3,033. The total salary fund paid to the new employees by the Beneficiaries within the Program amounted to GEL25.6 mln excluding personal income tax.

### Net increase of the employees after the 'Produce in Georgia' Program commencement, 2014-2018\*

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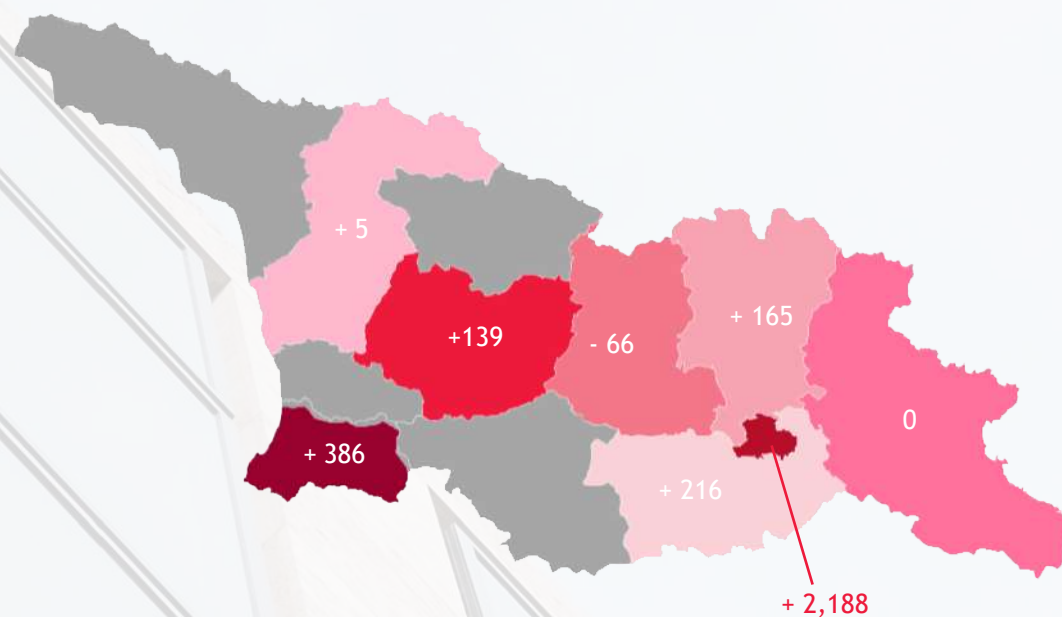


\*Incomplete year  
Source: Beneficiaries' data and BDO analysis

# EXECUTIVE SUMMARY (Cont.)

Shares of net increase of the employees after the 'Produce in Georgia' Program commencement by regions is represented on the map below. 72% of the mentioned net increase have been observed in Tbilisi. The negative net number of the employees in Shida Kartli region which is represented by two Beneficiaries, is caused by one of the Beneficiary's periodically decreasing data of the average number of employees.

Net increase of the employees after the 'Produce in Georgia' Program commencement by regions, 2014-2018\*



\*Incomplete year  
Source: Beneficiaries' data and BDO analysis

# EXECUTIVE SUMMARY (Cont.)

## PROFESSIONAL DEVELOPMENT

The major issue about professional development, which has been outlined by the 83 interviewed Beneficiaries is that 48% use internal trainings for their employees and 36% no trainings at all. This indicates that the Beneficiaries are less likely to spend resources on professional development and it might affect their long-term performance.

## DEVELOPMENT PROSPECTS

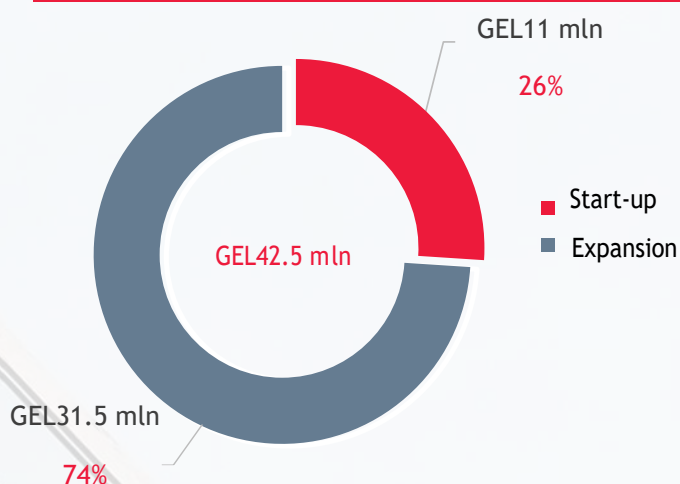
When presenting plans for future development, interviewed beneficiaries were mostly emphasizing expansion through the increase of volume of manufacturing. Their share in total selected beneficiaries equals to 67% (out of 82 Beneficiaries, who provided information regarding this issue). In most cases, the lack of sales market has been outlined as the problematic issue, hence the Beneficiaries plan to increase the scale of production only if the market has the relevant demand.

## TAXES PAID BY THE BENEFICIARIES

In order to assess the direct effect of the Program in terms of collected taxes and to identify the amount generated within the Program, total collected taxes from start-up companies are considered as the Program merit, as for expansions, portion of the paid taxes related to the Program have been indicated by applying the ratio - received loan within the Program divided by total asset in the end of each year since 2014 for each company. This ratio shows the significance of investments within the Program compared to the assets Beneficiaries have been holding before.

Total collected taxes from the Beneficiaries as the Program merit, exceeds GEL42.5 million in 2014-2017 period and constitutes 0.13% of total taxes paid to the state budget.

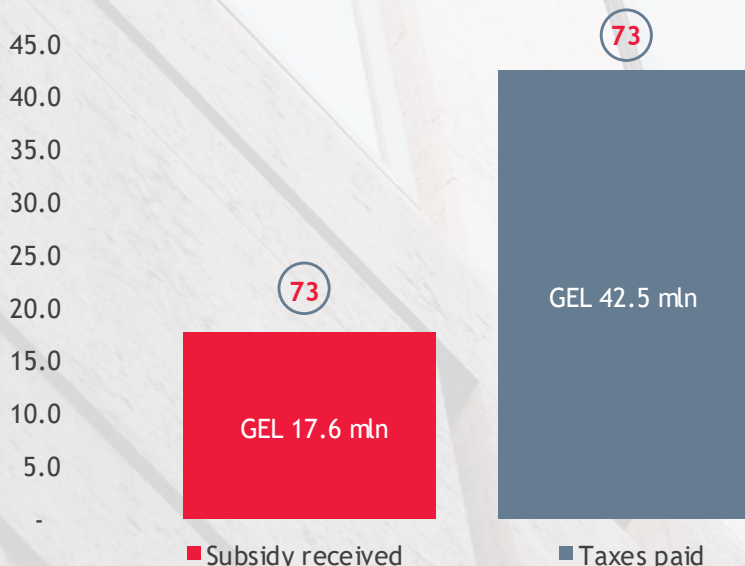
**Total taxes generated within the Program\*  
2014-2017 (Mln GEL)**



\*The chart reflects the data for those Beneficiaries who have provided complete information regarding taxes paid from the year of their engagement in the Program till the end of 2017.


Source: Beneficiaries' data and BDO analysis

**Subsidies received and taxes paid within the Program  
by the Beneficiaries in 2014-2017 (Mln GEL)**



Since the data provided by the Beneficiaries for 2018 is incomplete due to the unfinished accounting period, in order to avoid misstatement comparing the subsidies received and the taxes paid by the Beneficiaries, complete years data (2014-2017) has been analyzed only.

Source: Enterprise Georgia, Beneficiaries' data and BDO analysis

 Number of beneficiaries related to the data presented



# EXECUTIVE SUMMARY (Cont.)

## COMPETITIVENESS

With the help of the Program, beneficiaries have improved their production scale, quality and the variety of products and are trying to compete with importers, however imported products still remain one of the main challenges for local producers.

## EXPORT

Beneficiaries export in a wide range of countries all over the world, however, most exports come from only a few sectors, such as, pharmaceutical and chemical production, pet products, metal works and clothing and textiles, while others are still in the process of development.

## BENEFICIARIES' KEY PERFORMANCE INDICATORS

Analysis of financial indicators have been used to evaluate various aspects of the Beneficiaries' financial performance such as efficiency, liquidity, financial leverage, profitability and cash conversion cycle.

### Liquidity

Analysis of the indicators has revealed that the beneficiaries operating in sectors such as plastic, food and beverages, construction materials, paper and packaging and metal work have had stable positive liquidity ratios and have been improving their overall tendencies from year to year. The amount of current assets of the beneficiaries in mentioned sectors have been increasing compared to current liabilities through the analyzed years.

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### Financial leverage

Significant improvements have been observed through the analyzed years in terms of financial leverage in electronics, pharmaceutical and chemical, plastic, food and beverages, clothing and textiles and metal work sectors. The beneficiaries have been reducing the total liabilities compared to equity and total assets from year to year that implies the increase of their financial stability. On the contrary, debt to equity and debt ratios have been increasing in construction materials and paper and packaging sectors, that implies the beneficiaries have been considerably increasing long-term liabilities due to the purpose of their business development. However, liquidity and profitability ratios have been improving in the mentioned sectors, that implies the beneficiaries invest the loans properly.

### Profitability

According to the analysis, the profitability ratios of the beneficiaries operating in electronics, pharmaceutical and chemical, plastic and paper and packaging sectors have been negative at the initial stage of their activities. This has been predictable, since the analysis of the mentioned sectors has been mainly based on the financial data provided by start-ups. Despite this, net profitability margin has been improving through the analyzed years and reaching a positive value almost in all analyzed sectors except for the plastic and construction materials.

### Cash conversion cycle

Cash conversion cycle has mainly been unstable through the analyzed years showing significant changes in both, positive and negative aspects almost in all sectors. Compared to other sectors, significantly shorter cash conversion cycle (less than 90 days) have been observed in food and beverages, construction materials and clothing and textiles sectors.



# GEORGIAN ECONOMY OVERVIEW

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# GEORGIAN ECONOMY OVERVIEW

## GEORGIA - GENERAL OVERVIEW



Georgia is bordered by the Russian Federation to the north, Azerbaijan to the east, Armenia and Turkey to the south and the Black Sea to the west. Georgia covers a territory of 69,700 square kilometers with a 315-kilometer long coastline along the Black Sea. The country contains two occupied regions, Abkhazia and South Ossetia.

The population of Georgia is about 3,729.6 thousand (Population for the beginning of the year 2018) of which approximately 58.31% (2,174.8 thousand persons) of the population lives

in urban areas and 41.69% (1,554.8 thousand persons) in rural areas. According to the Demographic Situation in Georgia published in 2018 by the National Statistics Office of Georgia, 65.4% of total population in Georgia falls in between 15-64 years. According to the same source, at the beginning of 2018 about 31% of the total population lives in Tbilisi, 13.6% in Imereti, 11.6% in Kvemo Kartli, 9.3% in Adjara, 8.4% in Kakheti and remaining 26.1% in other regions of Georgia.

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Tbilisi is the capital city of Georgia, located in the Eastern part of the country lying on the banks of the Mtkvari River with a population of 1,158.7 thousand inhabitants. It is the administrative and economic centre of the country. It is one of the major road, rail and air transportation hubs of the Caucasus right in the junction of Eastern-Europe, Russia, Middle-East and Central Asia. The layout of the capital has been basically shaped by the Mtkvari River and the hilly landscape of the area.

Source: National Statistics Office of Georgia

Real GDP has seen dynamic increase especially until 2011 mainly because of the effects of the country's business friendly policies. Last few years Georgian economy saw a declining trend in growth, the real GDP growth has been declining since 2011 when it reached the highest growth rate in years at 7.2%. In 2012 the growth declined to 6.4%, where the country experienced even smaller economic growth in 2013 at 3.4%. In 2014 year the real GDP increased to 4.6%, 2015 - 2.9% and 2016-2.8%. In 2017 the real growth of Gross Domestic Product (GDP) amounted to 4.8% year on-year, while the GDP deflator increased by 6.1 percent. The nominal GDP totalled GEL 37,846.6 million.

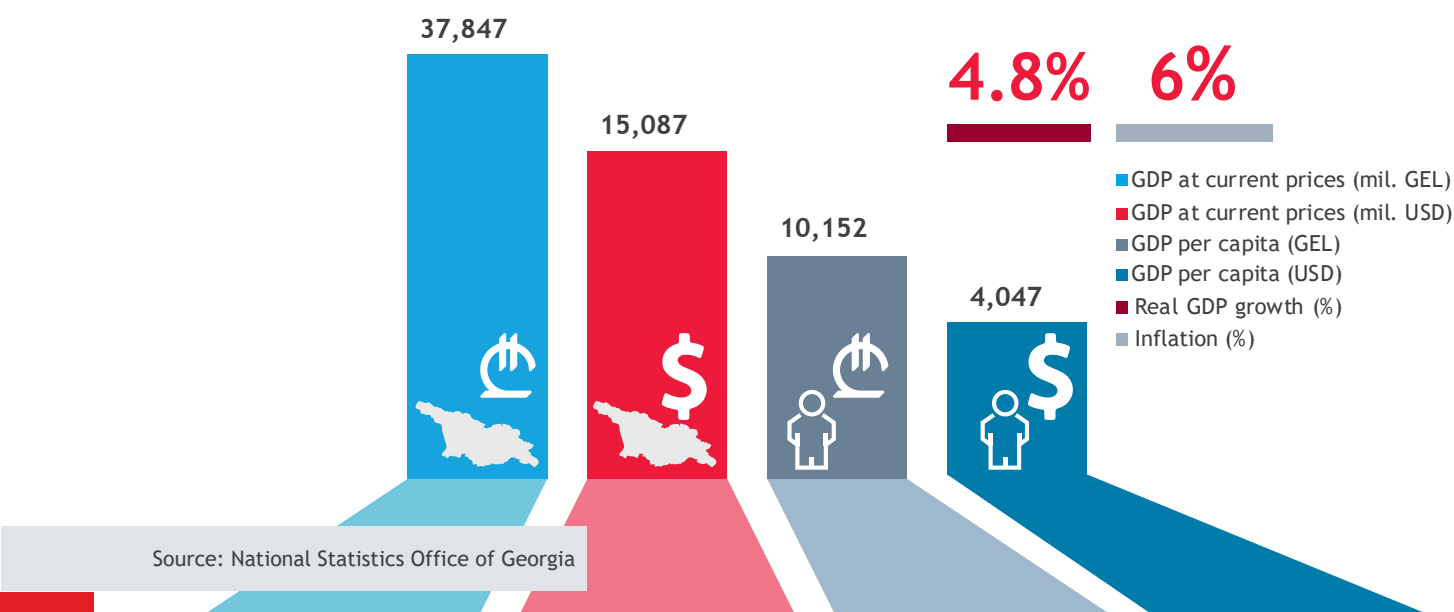
For the international comparison of the living standard, frequently a value of GDP per capita is used. To make a comparison between the countries, a GDP value per capita is measured in the so-called international dollars. Georgian GDP per capita by years is much lower than average world GDP per capita. In other words, a living standard in Georgia is lower than the average world standard.

# GEORGIAN ECONOMY OVERVIEW

## GROSS DOMESTIC PRODUCT

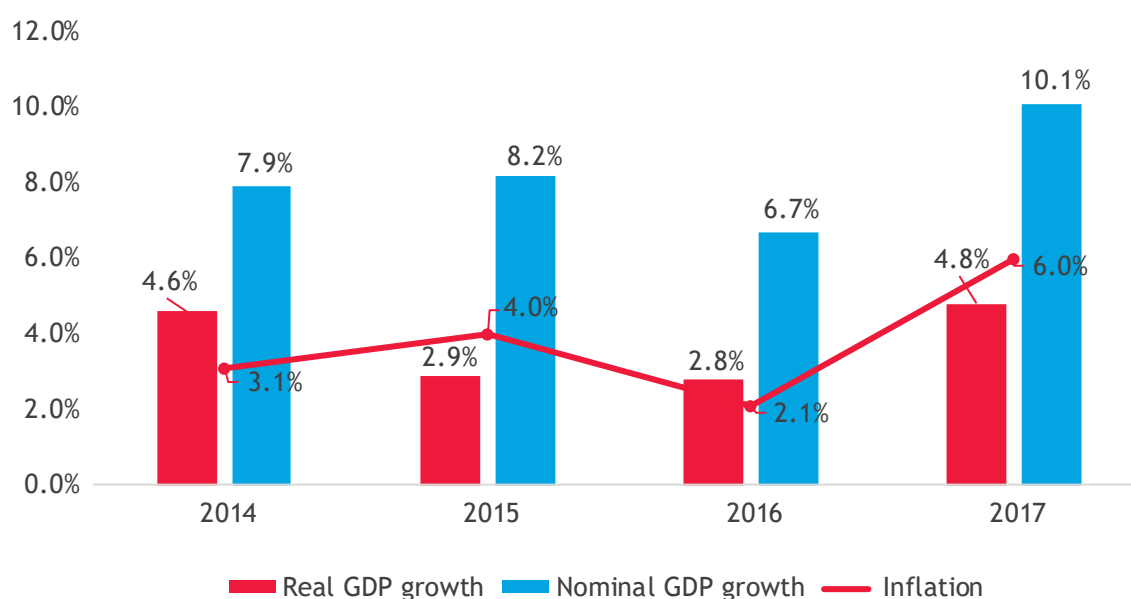
Georgian GDP indicators for year 2017 are as follows:

### 2017 GDP overview



Real growth of GDP and inflation in 2014-2017 are represented in the diagram below:

### GDP growth and inflation

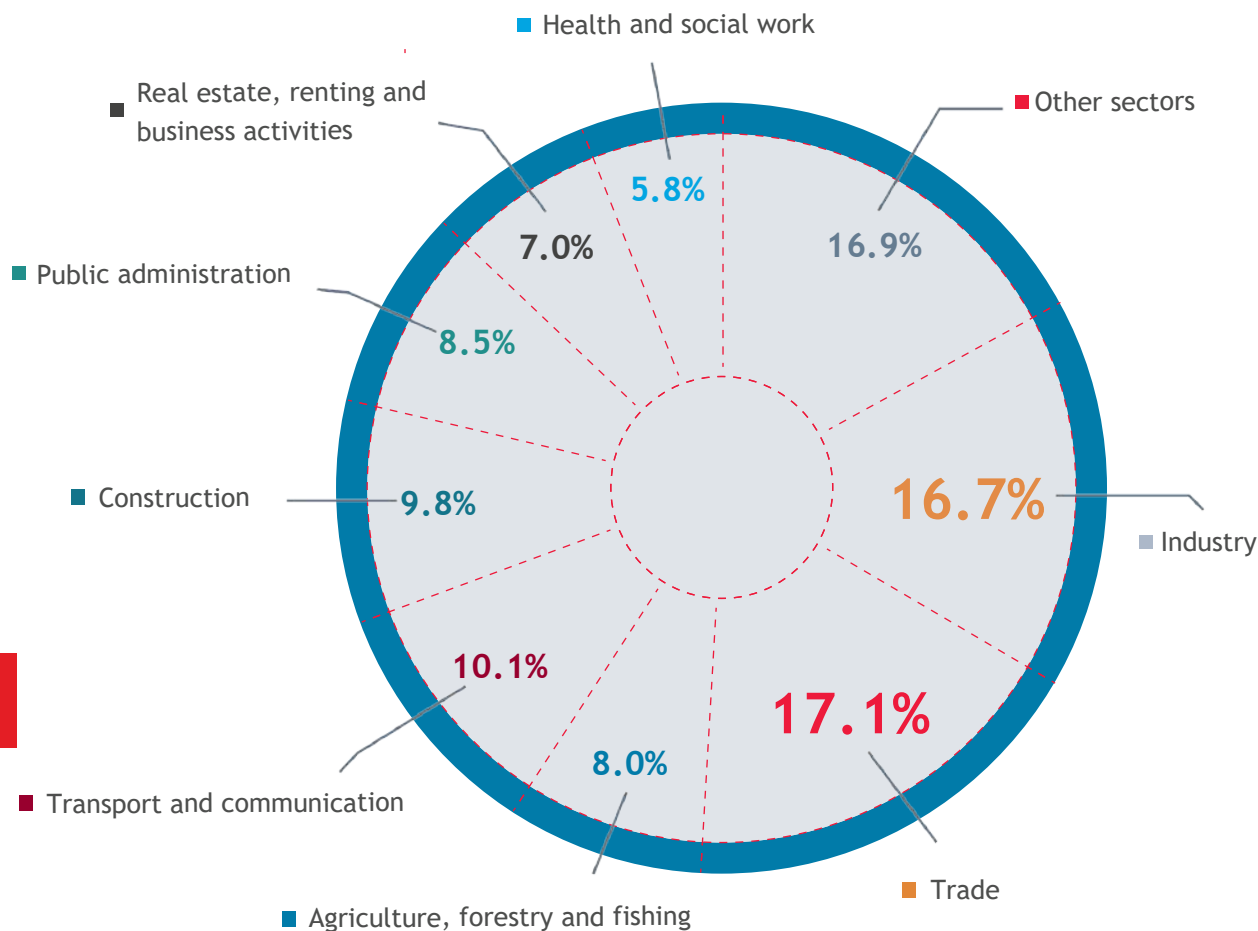


Source: National Statistics Office of Georgia

# GEORGIAN ECONOMY OVERVIEW

## GROSS DOMESTIC PRODUCT

### GDP structure in 2017



Source: National Statistics Office of Georgia

When observing those sectors, the largest shares of GDP by activity are held by Trade services (17.1 percent) and Industry (16.7 percent), followed by Transport and communication services (10.1 percent), Construction (9.8 percent), Public administration (8.5 percent), Agriculture, hunting and forestry, fishing (8.0 percent), Real estate, renting and business activities (7.0 percent), Health and social work (5.8 percent). Other sectors (16.9 percent) include: education, social and personal service activities, financial intermediation, electricity, gas and water supply, Imputed rent of own occupied dwellings and Hotels and restaurants.

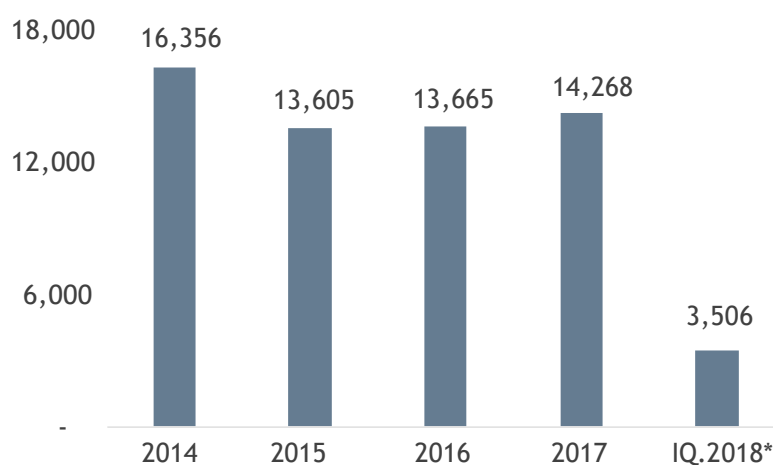


# GEORGIAN ECONOMY OVERVIEW

## GROSS NATIONAL INCOME

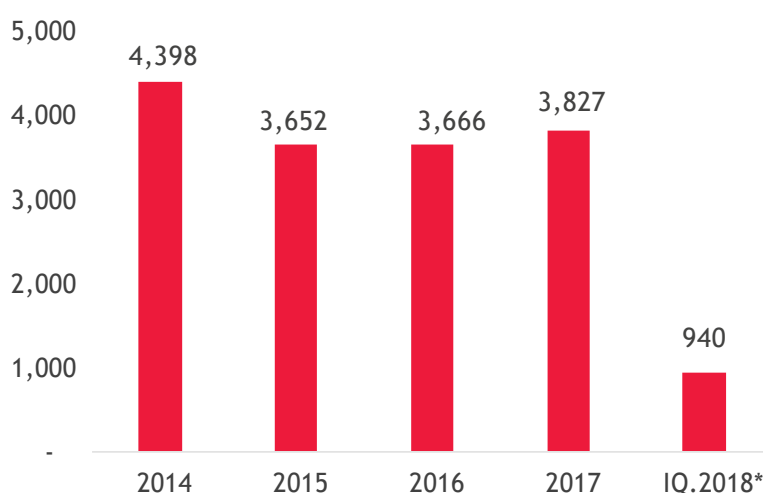
Similar to GDP, Gross National Income is a measure of a country's income. However, if GDP only measures the income received from domestic resources, GNI also includes net income received from abroad. In order to calculate GNI, compensation paid to resident employees by foreign firms and income from overseas property owned by residents are added to GDP, while compensation paid by resident firms to overseas employees and income generated by foreign owners of domestic property are subtracted. GNI also accounts for product and import taxes while subsidies are subtracted.

### Gross national income



\*Preliminary data: IQ.2018  
Source: National Statistics Office of Georgia

### GNI per capita



\*Preliminary data: IQ.2018  
Source: National Statistics Office of Georgia

As shown on the chart above, the highest rate of Gross National Income was recorded in 2014 at 16,356 mln USD and GNI per capita at 4,398 mln USD. GNI at the lowest was in 2015 with 13,605 mln. USD and GNI per capita with 3,652 mln. USD. It is yet to be confirmed the rate of GNI in year 2018 as the data is not fully recorded and is only given for the first quarter.

# GEORGIAN ECONOMY OVERVIEW

## EMPLOYMENT AND UNEMPLOYMENT

Unemployment rate can be calculated against total population or against economically active population. The chart below indicates unemployment rate in Georgia within economically active population according to the past years. In 2017 the unemployment rate in Georgia decreased by 0.1 percentage points compared to 2016 and equalled 13.9 percent. It should be noted that the downtrend in the unemployment rate is maintained during the last eight years.

Labor market (%)

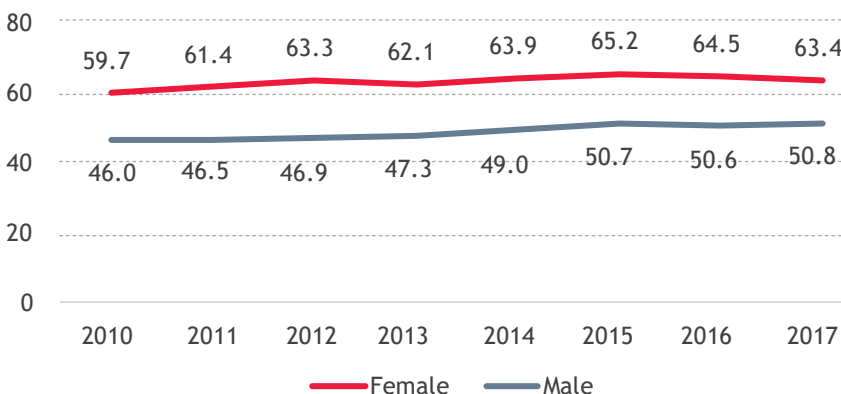


Source: National Statistics Office of Georgia

In 2017 the economically active population constituted 65.8 percent of the working population (population of 15 years and older). As shown on the chart, from 2010 to 2015 the economic activity trend was mainly increasing, however compared to the economic activity in 2016 rate and employment rate decreased by 0.5 and 0.4 percentage points, respectively. The decrease in the economic activity rate might be the result of several structural changes in the labor market, including the aging of the workforce.

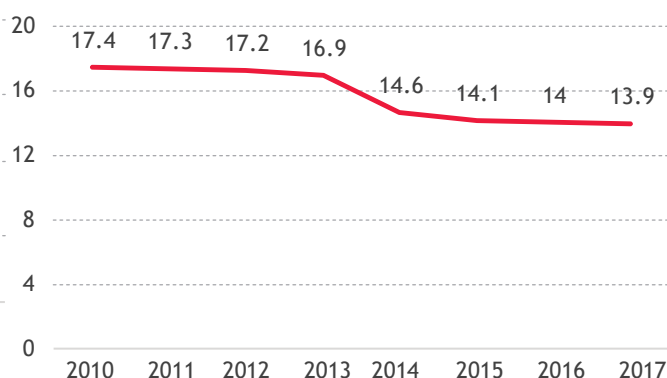
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Employment rate by gender (%)



To analyze the economic activity by gender, the rate is higher for men. In 2017 this indicator stood at 58.2 percent for women (1.5 percentage point increase year-on-year) and at 74.6 percent for men (2.8 percentage point decrease year-on-year).

Unemployment rate (%)



# 58.2 %

The economic activity rate for women

# 74.6 %

The economic activity rate for men

Source: National Statistics Office of Georgia

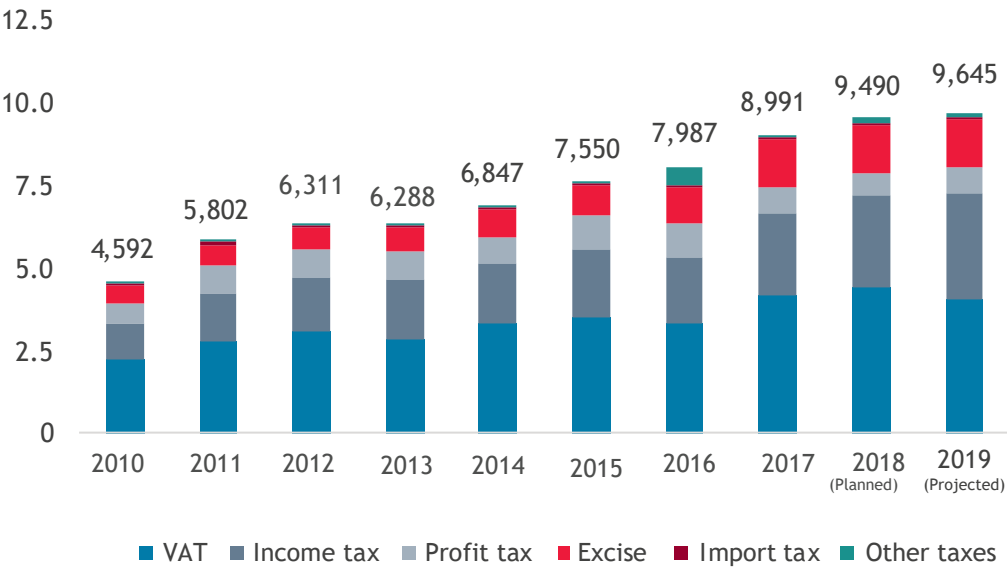
# GEORGIAN ECONOMY OVERVIEW

## TAXES

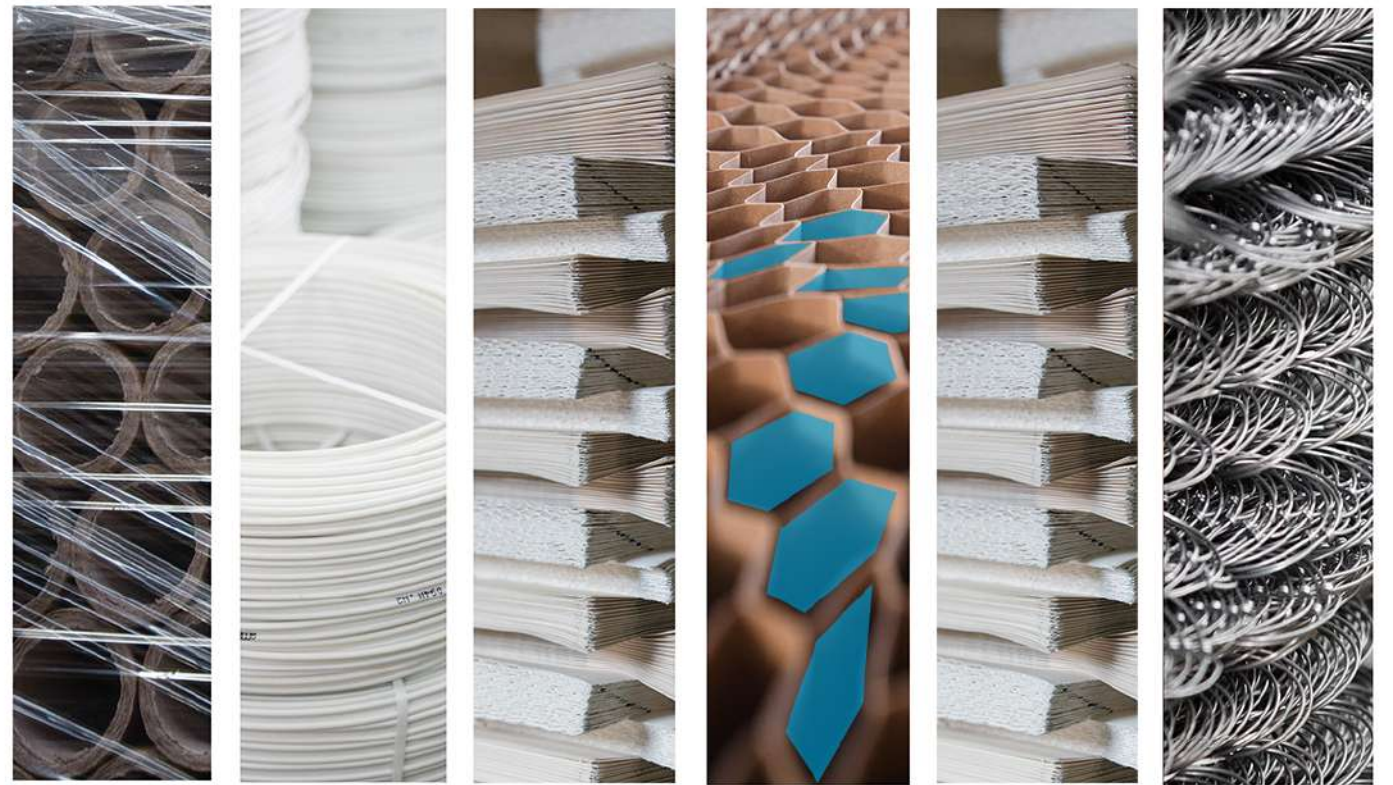
Tax and customs legislation in Georgia is unified under one tax code and the collection of taxes and supervision of the tax environment is provided by Georgia Revenue Service. There are only 6 flat taxes in Georgia: Value Added Tax (VAT), Corporate Profit Tax, Personal Income Tax, Import Tax, Excise Tax and Property Tax.

Taxes collected by the Government (Mln GEL)

The chart shows that tax collection is gradually increasing. The only downfall was recorded in 2013, when tax collection fell from GEL6,311,078 to GEL6,287,685. The biggest increase can be seen in Excise, this shows 159% growth from 2010 to 2017. Biggest raise is planned for Other taxes in 2018 - which will be 169% from 2010 to 2018.



Source: Ministry of Finance of Georgia

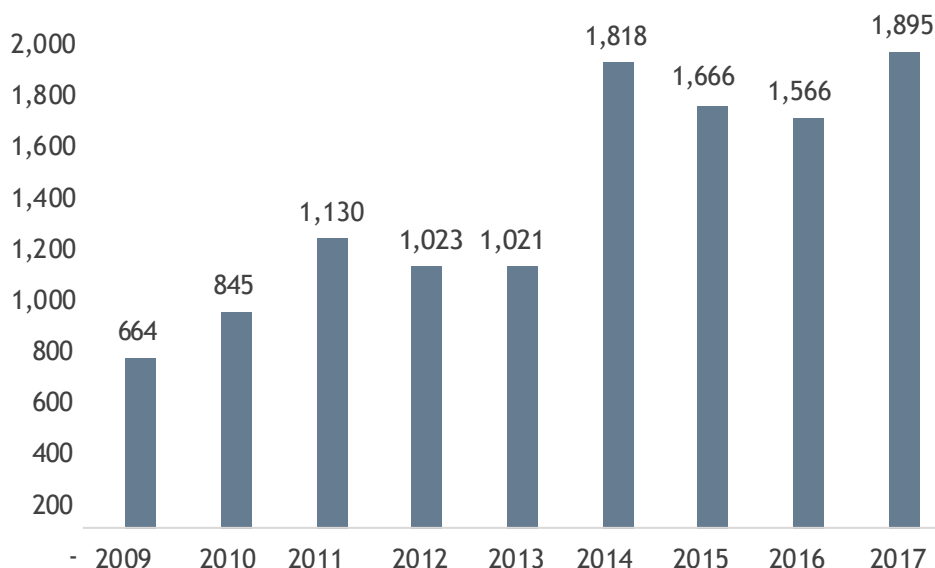


# GEORGIAN ECONOMY OVERVIEW

## FOREIGN INVESTMENTS

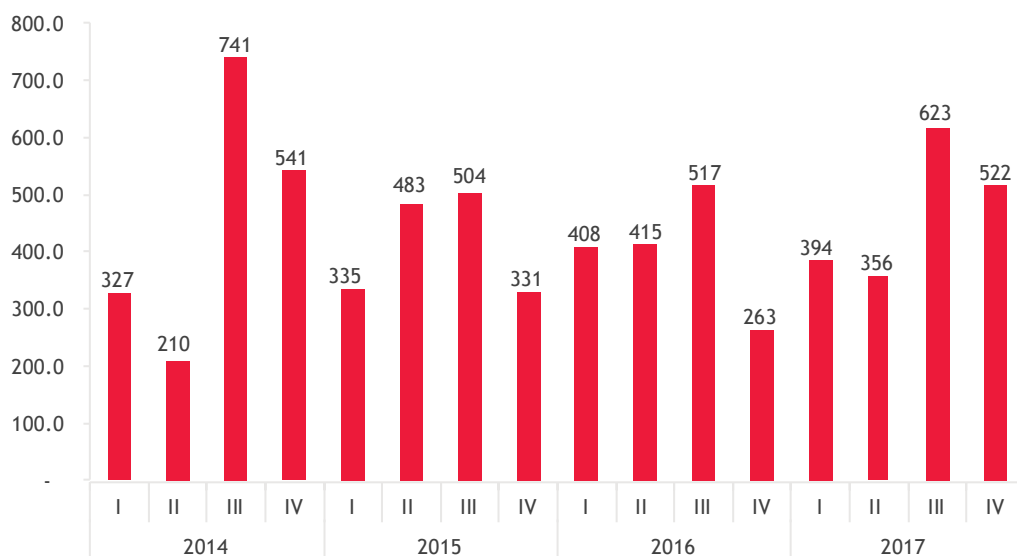
The major part of the foreign direct investment was implemented in the transports and communications, real estate and construction sectors in 2014. In 2015 flow of direct investments in real estate falls behind, while major flows remain in transports and communications sectors. In 2017, the largest share of FDI was allocated in transports and communications sector. Below are the main sectors, where most of the foreign investments are implemented: transport and communication, construction, other sectors - hotels and restaurants, real estate, trade, education, utility, social and personal services, manufacturing, mining, agriculture and fishing.

FDI by years (Mln USD)



Source: National Statistics Office of Georgia

Dynamics of FDI in Georgia in 2014-2017 (Mln USD)



Direct investments through the 2014-2017 were divergent (increase and decrease). The largest flows of direct investments were in III quarter of 2014. Foreign direct investments (FDI) in Georgia amounted to USD522.2 million in 2017 (IV quarter) up with 98% from the adjusted data of the same period of the previous year.

Source: National Statistics Office of Georgia

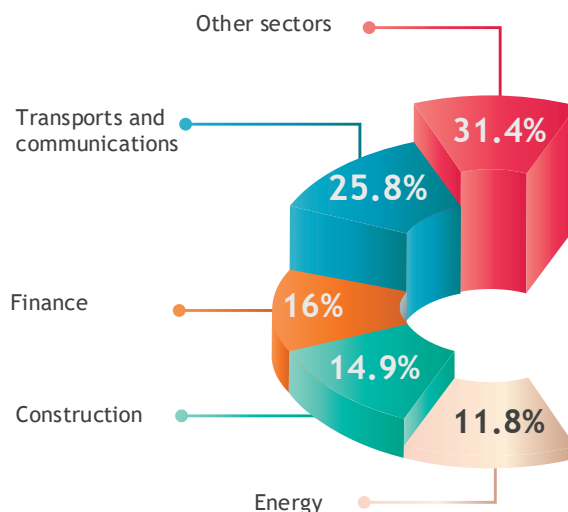


# GEORGIAN ECONOMY OVERVIEW

## FOREIGN INVESTMENTS

The largest share of foreign direct investments falls to the transport and Communications sector (25.8%). It is followed by finance sector (16%), construction sector (14.9%) and energy sector (11.8%). Other sectors (31.4%) include real estate (9.4%), manufacturing (5.2%), hotels and restaurants (4%), mining (2.7%) etc.

FDI by sectors in 2017



Source: National Statistics Office of Georgia

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## DEVELOPMENT OPPORTUNITIES

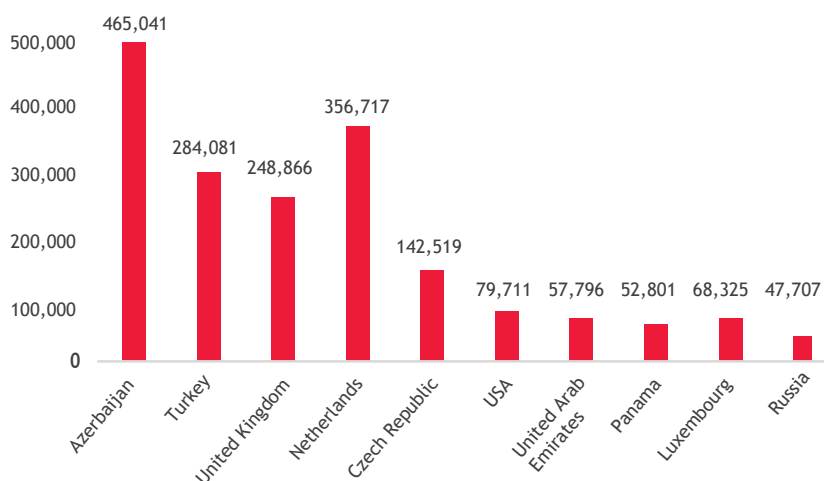
**Regional logistics hub** - Georgian transport economy is transit oriented, up to 60% of cargo flow in Georgia is transit, transport corridors are breathing new life into the ancient trade route between east and west and could reinvigorate Georgian transportation.

**Agriculture and food processing** - Georgia is traditionally an agriculture country, which has over 22 micro-climates varying from cool and dry to warm and humid. These diversified micro-climates allow for a longer than normal harvesting season and a wide range of growing conditions.

**Business process outsourcing** - There is a clear opportunity to position Georgia as a business center covering the Caucasus, Western Asia and Eastern Europe for regional headquarters, business process outsourcing hub, regional healthcare center, as well as other labor-intensive industries reliant on low-cost qualified workforce.

Source: [www.investinggeorgia.org](http://www.investinggeorgia.org)

The biggest foreign investor countries in Georgia in 2017 (Thousands USD)



Source: National Statistics Office of Georgia

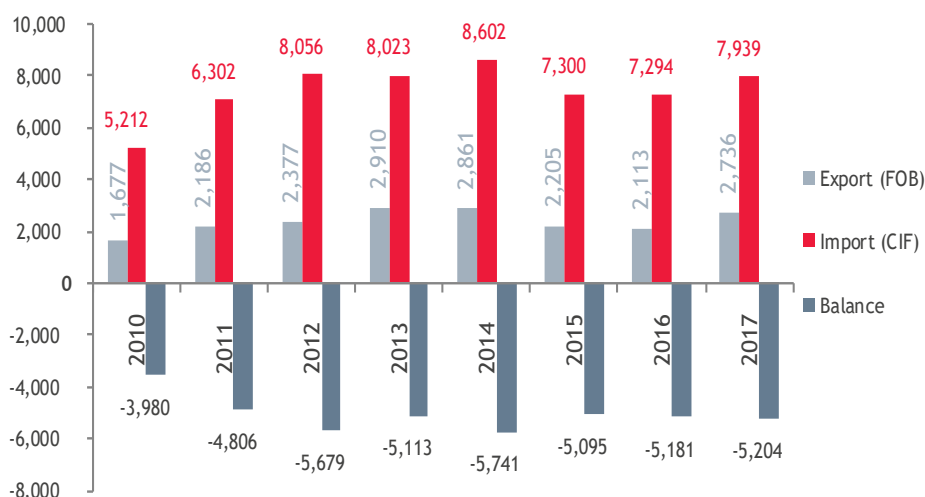
# GEORGIAN ECONOMY OVERVIEW

## FOREIGN TRADE TENDENCIES

In 2017 external merchandise trade in Georgia amounted to USD 10,675 million. The exports equaled to USD 2,736 million, while the imports stood at USD 7,939 million.

Foreign trade balance through the years 2010-2017:

### Export-Import (Mln USD)



In 2017 Georgia's foreign trade turnover increased by 13.5%, compared to the previous year.

The negative trade balance was USD 5,181 million in 2016. In 2015, import-export levels decreased compared to the previous year, due to GEL depreciation against US dollars.

Source: National Statistics Office of Georgia

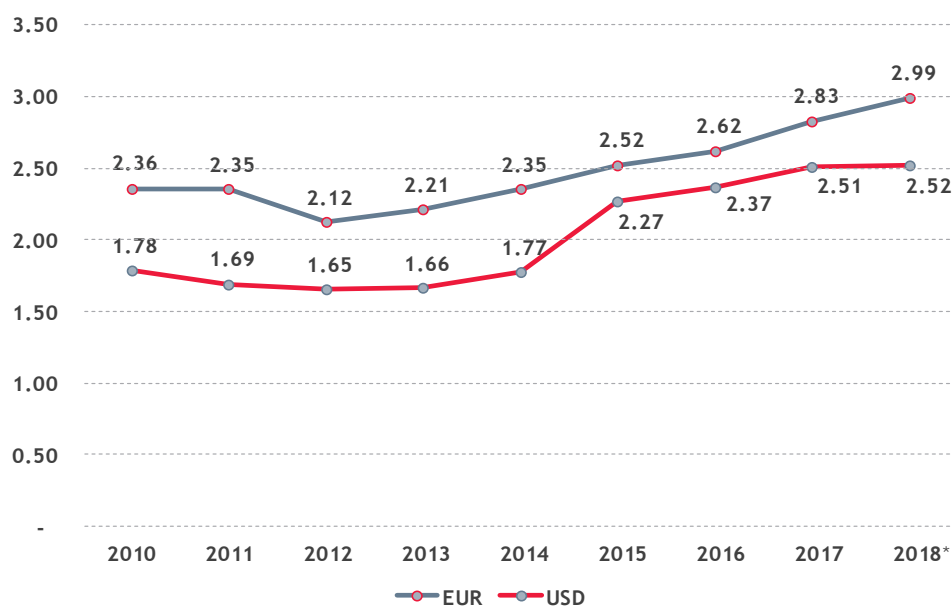
22

## EXCHANGE RATE

Georgia maintains a multiple currency practice. The official rate may differ by more than two percent from freely determined market rates, which gives rise to a multiple currency practice.

According to the data provided by the National Bank of Georgia, the annual average figures and overall trends of the recent years can be seen in table and chart below subsequently:

### Annual average exchange rate



\* Incomplete year

Source: National Bank of Georgia

# GEORGIAN ECONOMY OVERVIEW

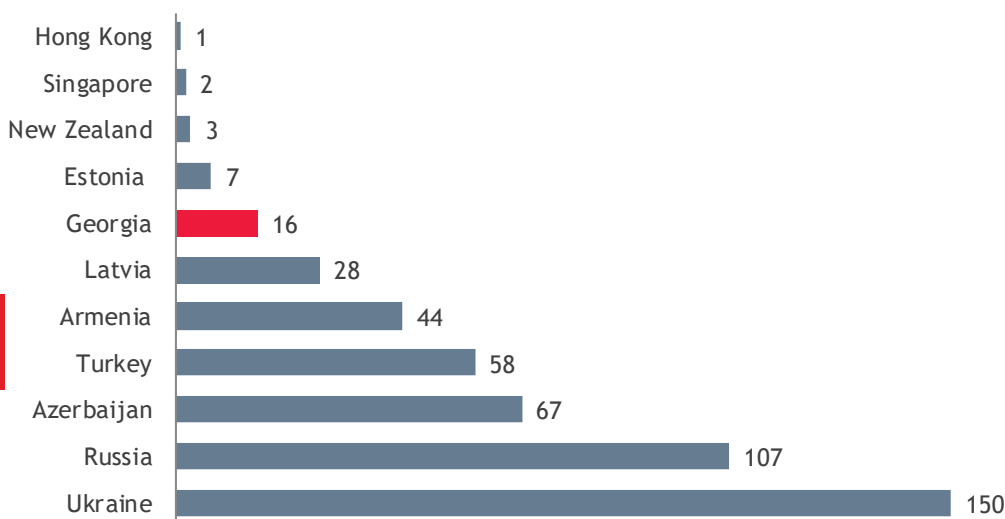
## INDEX OF ECONOMIC FREEDOM

Georgia's economic freedom score is 76, making its economy the 16th most free in the 2018 Index of Economic Freedom. Its overall score is 0.2 point higher than last year.

Georgia has registered improvements in five of the economic freedoms, including freedom from corruption, the control of government spending, business freedom, monetary freedom, and investment freedom. Highest score, before year 2017, was in the 2015 Index, Georgia has advanced further into the category of 'mostly free'. Georgia is ranked 9th in the Europe region, and its score is well above the regional average.

The Index of Economic Freedom is published annually and is determined by four basic criteria. Those are: state intervention in the economic life, the effectiveness of government agencies, execution of the laws and market openness. From a 'repressed' economy almost two decades ago, Georgia has gradually advanced to the ranks of the economically 'mostly free', achieving highest score ever was in the 2017 Index.

### Index of economic freedom, 2018

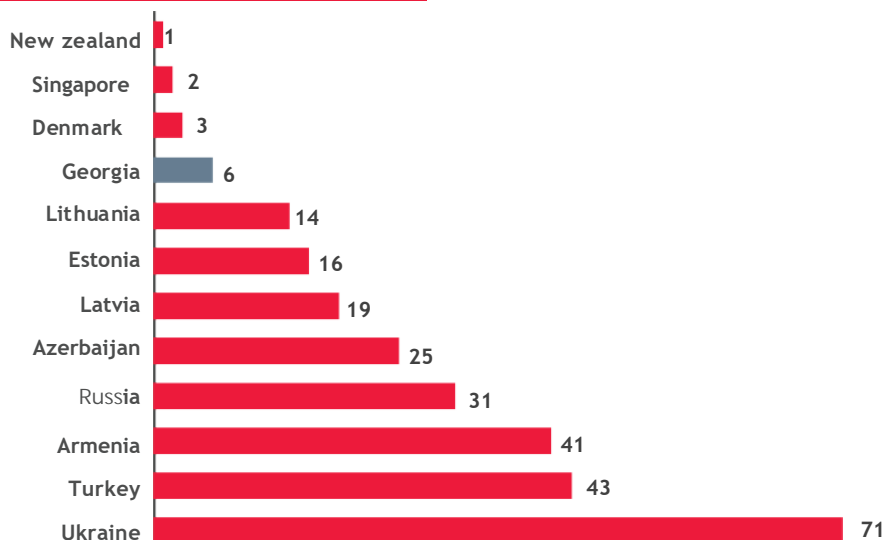


Source: [www.heritage.org](http://www.heritage.org)

Georgian economy has quite good indexes in all basic fields. Despite of the Russian occupation and the global recession, Georgian economy still maintains high level of economic growth according to the research conducted by the World Bank and International Finance Organization, in 'Doing Business 2019' report, Georgia is ranked the 6th among 190 countries in terms of ease of doing business.

The diagram below shows the ranking of Doing Business by countries:

### Ease of doing bussiness, 2019



Source: [www.doingbusiness.org](http://www.doingbusiness.org)

# PROGRAM OVERVIEW



# PROGRAM OVERVIEW

In June of 2014, the Ministry of Economy and Sustainable Development of Georgia, together with the Ministry of Environmental Protection and Agriculture, launched a new government Program 'Produce in Georgia'. The objective of the Program is to promote entrepreneurial culture throughout the country by stimulating the establishment of new enterprises and supporting the expansion of existing operations.

Three agencies established by the Ministry of Economy and Sustainable Development of Georgia - The National Agency of State Property, Agricultural Projects' Management Agency and Georgia's Innovation and Technology Agency are also involved in the "Produce in Georgia" Program and they provide financial support to the eligible businesses. Out of these companies, GITA has not given any financial aid to the beneficiaries analyzed in the report and the other two (NASP and APMA), are providing the valuation of their activities themselves.

Enterprise Georgia (further, 'the Agency') is the government institution which is the key implementing partner of the Program and is responsible for business support, export promotion and foreign direct investment promotion:

The **Business division** of the Agency promotes entrepreneurial activity in Georgia by supporting entrepreneurs - assisting with opening new enterprises as well as the expansion and refurbishment of the existing ones.

Primary objective of the **Export division** is to promote the export potential of Georgian enterprise. This is achieved by helping the operators improve their overall competitiveness and increase the volume of goods directed towards international markets.

The **Invest division** is the moderator between foreign investors and the Government of Georgia, ensuring access to updated information, efficient means of communication with Government bodies and is also functioning as a 'one-stopshop' that supports foreign investors throughout the investment process.

'Produce in Georgia' Program includes three components:

**1. Access to Finance** - support with financial resources includes the use of credit, leasing and international brand. It is allowed to use either credit and leasing, leasing and international brand or credit and international brand together, hence no limitation to only one of the components. After the adjustments were made, the finance component now consists of 3 sectors: 1. Hotel 2. Agriculture 3. Manufacturing.

Under the terms defined by the Program credit component includes the Agency co-financing annual interest rate accrued on the loan given to the beneficiary as well as assistance with loan payment of the credit requested by the commercial bank within the state budget allocations.

## A.

The Program guarantees the 50% collateral support of the total loan in the first 48 months when the amount does not exceed GEL2,500,000

## B.

The Program has the 10% interest rate on co-financing of bank loan interest rate for the first 24 months

## C.

Minimum loan amount is GEL150,000 and the maximum GEL5,000,000

In case of credit aid, the entity must start production within 24 months after receiving the first tranche if it is a star-up and within 12 months in case of expansion.

For hotels, if international brand is used, the loan range is between GEL200,000 and GEL5,000,000 and GEL200,000 - GEL2,000,000 in case of local brand hotels. The use of the international brand component includes the remuneration of payments made for using international brand for 24 months by the Agency based on the contract between the Agency and the Program beneficiary, annually no more than GEL300,000, within the state budget allocated to Ministry under the terms defined by this Program.

# PROGRAM OVERVIEW

Leasing component originally included financing low interest rates and consequently was rarely ever used. The Agency will co-finance the yearly 12% of the issued leasing component for no more than 24 months after signing the agreement. This resulted in a change in the leasing component terms and currently it is defined as described below:

## A.

If the amount is between GEL100,000 - GEL500,000, the interest rate is no more than the refinancing rate determined by the National Bank of Georgia plus additional 11%

## B.

If the amount is between GEL500,000 - GEL1,000,000, the interest rate is no more than the refinancing rate determined by the National Bank of Georgia plus additional 10%

## C.

If the amount is between GEL1,000,000 - GEL5,000,000, the interest rate is no more than the refinancing rate determined by the National Bank of Georgia plus additional 9%

Access to finance is the component that the Report is focusing on.

**2. Access to Real Estate** - if a company agrees on certain investment obligation and invests in a new Program (new factory or enlargement of existing one), it can obtain a state owned immovable property for a symbolic price of GEL1. Investment obligation states that the enterprise should invest at least 6 times more than the market price of the property in Tbilisi and 4 times more than the market price of the property in regions. In order to get a status of a beneficiary and get access to the real estate component, entrepreneurs must address NASP to receive unconditional and irrevocable bank guarantee for financing the 10% of the investment to be issued.

**3. Technical Assistance** includes availability of technical assistance for all the above mentioned components. Agency, under the technical assistance terms defined by the Program, provides a refund for the following costs spent on the country's territory: consulting services, trainings, implementing quality management and standards, providing technical guidelines and implementing environmental norms and standards.

The initial terms of the Program only included the following sectors: electronics, pharmaceutical and chemical production, paper and packaging such as cardboard or corrugated material, construction materials, plastic, metal production, clothing and textiles, food and beverages, wood processing and other. After various changes the Program finally approves sectors in the following three categories: 1. Industries 2. Film industry\* 3. Hotel industry. It should be noted that all the Beneficiaries in the list provided fall into the industry direction. Hence this is the category that the report is focusing on.

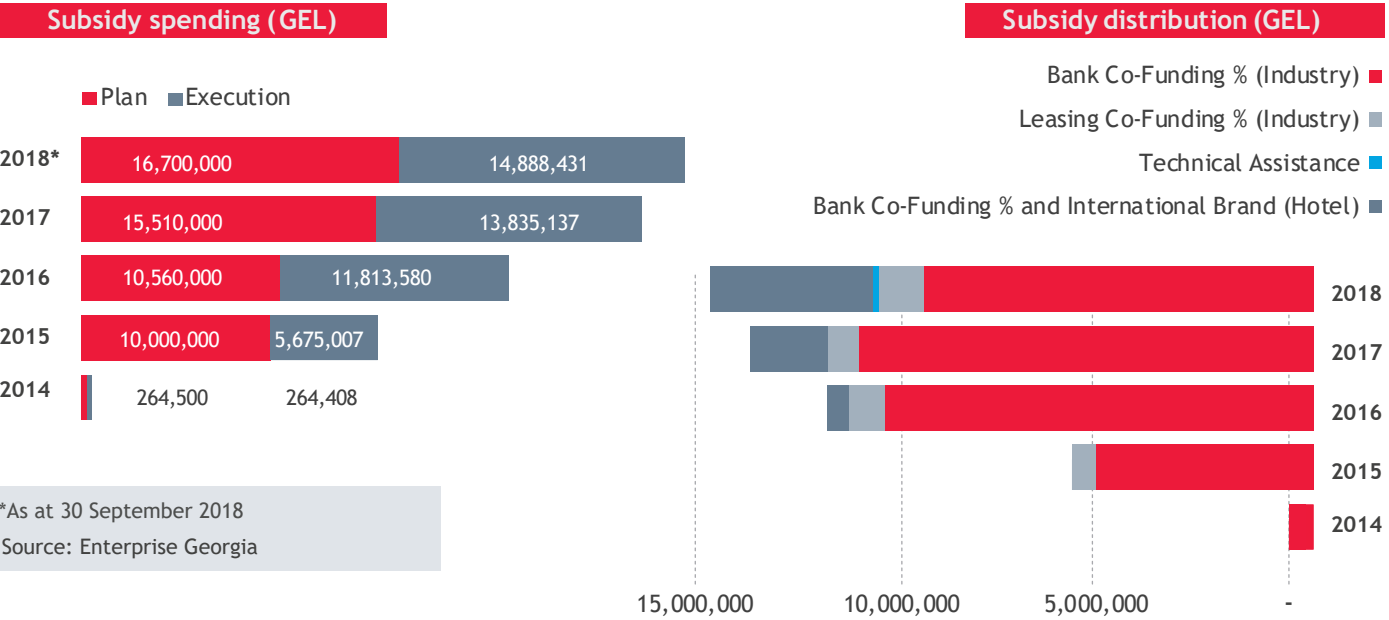
Due to the Larization regulations introduced in 2017, another significant change was the presentation of fees in the national currency instead of USD and EUR.

\*In 2016, Enterprise Georgia also introduced a new project 'Film in Georgia' which is a joint initiative of the Ministry of Economy and Sustainable Development of Georgia and the Ministry of Culture and Monuments Protection of Georgia. It aims to support the development of Georgia's film industry, attract international filmmakers to the country and position Georgia as the main Eastern European Filming Destination.

# PROGRAM OVERVIEW

## PROGRAM BUDGET

On the graphs below, there can be seen the yearly planned budget for subsidies of the Program (excl. 'Film in Georgia') in total and to what extent was the Agency able to match the execution to the plan for different financial components:



Source: Enterprise Georgia

# METHODOLOGY



# METHODOLOGY

## ECONOMIC ANALYSIS

The purpose of the Assessment is to determine the effects of the 'Produce in Georgia' Program, which means identifying efficiency of the Program as a whole and the results achieved by the individual beneficiaries alone. Also, the Assessment must reveal indirect effects of the Program such as change in the state of Georgian economy. Consequently the study includes both, micro and macro analysis. As macro analysis requires the necessary information to be available before the working process, the first step out of the two is generally micro analysis.

The first procedure of the micro economic analysis includes observation of the selected beneficiaries to obtain necessary information, which would be in compliance with the purpose of the Assessment. The Assessment methodology is considered to be comprehensive strategy which shows the specific methods chosen, in order to arrive at anticipated outcome.

Assessment approach can be qualitative, quantitative or combined, which demonstrates mix of the both quantitative and qualitative techniques, and methodologies and speculations in one report. Mixed research empowers qualitative discoveries to be enhanced by the quantitative outcomes, which means, that methodologies are corresponding to one another and do not present in congruent outcomes.

Most widespread research methods incorporate interviewing and observation. However, for conducting this research, it was decided that the interview method would be used as the principle procedure. Although, this method also varies according to the objective and it can be either:

▶ **IN-DEPTH**   ▶ **SEMI-STRUCTURED**   ▶ **LIGHTLY STRUCTURED**   ▶ **UNSTRUCTURED**

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Unstructured interviews are more widespread in a long-term working procedure where the respondents can state their opinions at a slower pace and have less limitations when it comes to responses.

As the Program Assessment required detailed study of the beneficiaries to distinguish the effects of the subsidies, in-depth interview technique has been chosen as the main method for the Assessment.

## IN-DEPTH INTERVIEW

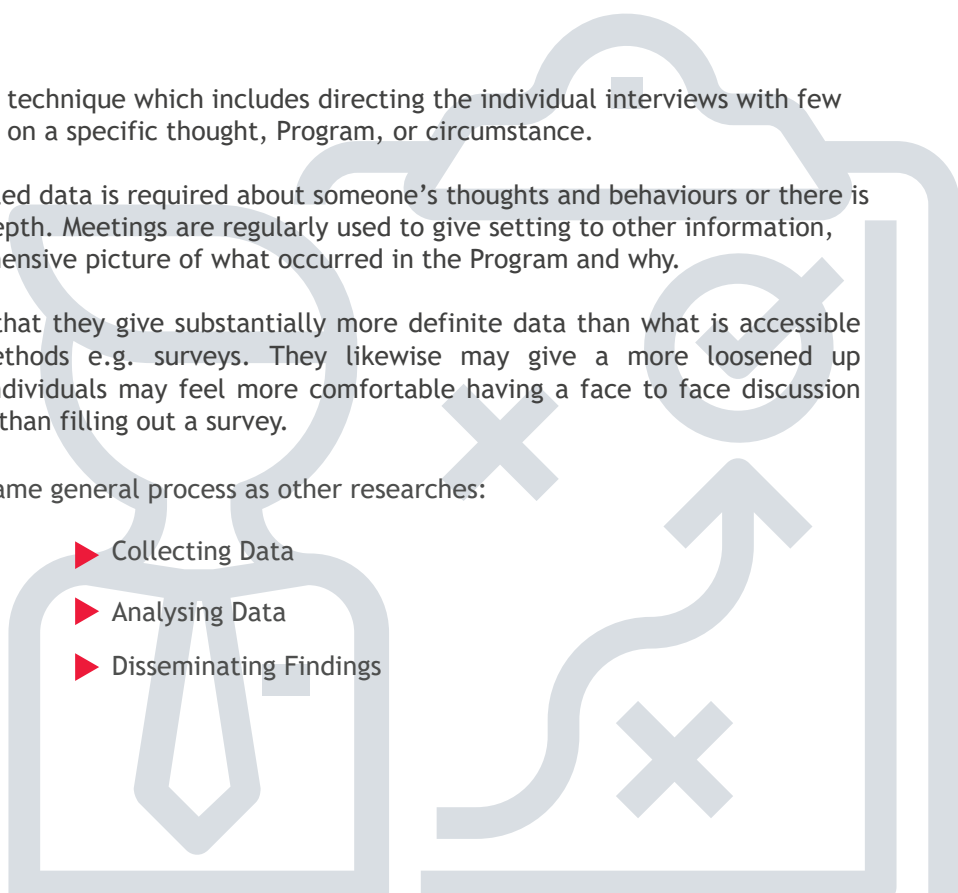
In-depth interview is a qualitative research technique which includes directing the individual interviews with few respondents to investigate their viewpoints on a specific thought, Program, or circumstance.

In-depth interviews are helpful when detailed data is required about someone's thoughts and behaviours or there is a need to investigate new issues more in depth. Meetings are regularly used to give setting to other information, (e.g. result data), offering a more comprehensive picture of what occurred in the Program and why.

The benefit of the in-depth interviews is that they give substantially more definite data than what is accessible through other information collection methods e.g. surveys. They likewise may give a more loosened up environment in which to collect data – individuals may feel more comfortable having a face to face discussion about their involvement in Program rather than filling out a survey.

In-depth interview procedures follow the same general process as other researches:

- ▶ Planning
- ▶ Developing Instruments
- ▶ Training Data Collectors
- ▶ Collecting Data
- ▶ Analysing Data
- ▶ Disseminating Findings



# METHODOLOGY

## PLANNING

The survey must include the sources of raw materials needed for production, any new machinery or technologies implemented, volume of export, the details of market research conducted (if at all), financial coefficients, the future possibilities, number of employees and their working conditions (including their salaries and wages) etc.

Before starting the work process, the first step of the survey was articulation, agreement on and documentation of its major objectives. Provided were the 100 beneficiary companies that had to be used in order to evaluate the effects of the 'Produce in Georgia' Program. These companies were chosen according to the criteria that at least 2 years have passed since they first got involved in the Program and got certain financial or technical support and with their prior agreement to cooperate, the next step - developing instruments and training data collectors - was brought forward. Film and Hotel components are not taken into consideration due to the specifics of the Program because there were not enough beneficiaries within these two directions of the program that satisfy the valuation requirements.

## DEVELOPING INSTRUMENTS AND TRAINING DATA COLLECTORS

The microeconomic analysis of the report requires specific criteria to conduct the surveys. From the interview protocol describing the information needed for the Assessment in detail, the questionnaire has been created by the team considering all the necessary questions and information to get sufficient data for further analysis.

The information needed for the research had to be collected from the key management representatives of the beneficiary companies since they are responsible for the materials provided.

After developing the questionnaire that fully satisfied all the requirements along with the filling out instructions for the respondents, the team members were once again briefed in detail about the whole process and how to start to build a relationship with target clients, how to assist them with filling the questionnaires out, plan a visit at the beneficiary's production site and what information to get out of the visit, how to check the information provided by the beneficiaries with the cross questions to make sure of its authenticity etc.

## COLLECTION OF THE DATA

The first step into starting the data collection process was for team members to introduce themselves to the assigned representative of the beneficiary company by sending them the questionnaire along with its instructions via e-mail. If the beneficiaries reviewed, filled out and sent the questionnaires back with sufficient information, the team members would plan a visit to and examine the production site. However, if the beneficiary struggled with the questionnaire, the team members would try and help them out on the phone or meet with them to work on the questionnaire together. After collecting all the available data from the beneficiaries willing to cooperate, the review process started.

All the information collected from the questionnaires have been reviewed and processed to determine what information was missing from the questionnaires (if any) and how the team should approach the beneficiary in this case. Some of the clients struggled with financial information such as financial coefficients, however the team either explained to them how to calculate them or performed the work on their own and sent them to the beneficiary company representative for review. The final step of filling the surveys out was for the team members to work on the filled-out questionnaire files, bring them to the ultimate condition for the beneficiaries to go over them, make final changes (if needed) and sign to authorize the team to start disseminating the findings.

# METHODOLOGY

## DISSEMINATING THE FINDINGS AND MACROECONOMIC ANALYSIS

After collecting the signed questionnaires, the team started the analysis of the data provided in order to distinguish between the information that is more and less useful and to find the key performance indicators. Following all the data processing, conclusions have been drawn.

In order to evaluate results of the 'Produce in Georgia' Program, the next step is to use the data received from the microeconomic analysis to arrive at numbers which show the results on a larger scale. For this purpose, macroeconomic analysis has been conducted. The instruments for the analysis were chosen according to the data presented in the questionnaires which fully represented the effects that needed to be determined. After consideration, the following indicators were selected for macroeconomic result study: GDP, GNI, employment and unemployment, domestic investments and external trade.

Gross Domestic Product - to assess the volume of domestic products created with the help of the Program, information was collected in various ways to arrive at the right indicator in the end. As different companies account for their production in different ways, the information regarding the GDP has directly been taken where available and in some cases, it was calculated by reducing the sales income with the intermediate consumption as both methods are used for similar calculations country-wide as well. After arriving at the right numbers, comparison was made with the total GDP in relevant years to determine the effect of the Program.

Investments - analysis of the investments in the Program include both, primary loans for which the interests were financed by the Program and other loans and capital investments made by the beneficiaries. The received indicators were compared to the internal investment made in the country for the relevant years. As all investments made by the beneficiary companies were internal, foreign direct investments were excluded from comparison.

Employment and unemployment - effect on the unemployment was determined by the change in the active labor force since starting the Program. The change from inactive to active labor was considered to be indeterminable as companies are unaware of the previous status of their employees. Consequently, this indicator was deemed to be unsuitable and the results of the Program were assessed by the change in numbers.

External Trade - numbers showing the external trade generated from the Program were analyzed in two different ways: first by the direct import/export made by the subsidized companies to show the total external trade balance of the Program and on the other hand, the trade volume was assessed according to the indirect effect, which shows the decrease of the imported goods due to the availability of the similar products on Georgian market.

Additionally, recommendations will be given to all the beneficiaries taking part in the survey and the Program representatives to give an advise about efficiency and successful implementation of the Program. These recommendations will be published in a separate report and reviewed by the beneficiaries and the management of the Program subsequently.



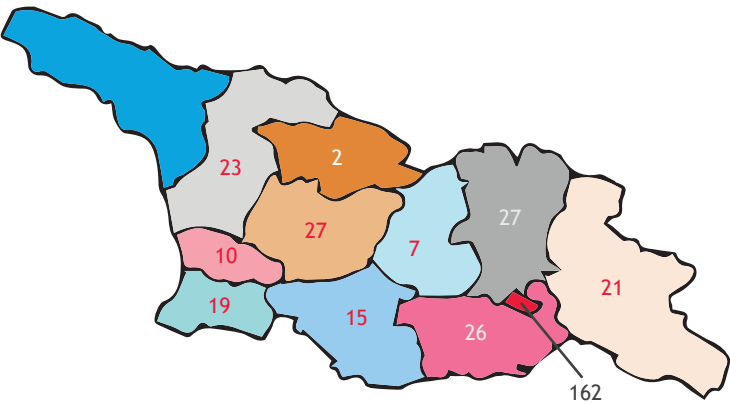
# BENEFICIARY ANALYSIS IN MICRO AND MACRO PERSPECTIVE

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# BENEFICIARY ANALYSIS

## OVERVIEW OF BENEFICIARIES



Source: Enterprise Georgia and BDO analysis

There are 338 unique beneficiaries (340 projects) participating in the Produce in Georgia Program from 30<sup>th</sup> May of 2014 to 30<sup>th</sup> September of 2018, however, this Report only focuses on 100, for whom at least 2 years have passed since they first got involved in the Program, hence it is possible to evaluate and observe the effectiveness of the Program based on how their businesses are doing and what is their contribution in the Georgian economy.

The map represents regional distribution of the financial aid received by the Beneficiaries, specifically, how many companies got it according to the regions.

As mentioned before in the Program overview section, some sub categories were added to the access to finance component later on and currently 3 main sectors have been revealed: 1. Hotel; 2. Agriculture; 3. Manufacturing. The total number of businesses getting financial aid for those categories amounted to 338:



Source: Enterprise Georgia and BDO analysis

Out of these 338 companies, only two were the ones who got two different financial components, bank loan and leasing, hence they are included in both parts. The distribution between components:



Source: Enterprise Georgia and BDO analysis

# BENEFICIARY ANALYSIS

## OVERVIEW OF BENEFICIARIES

Out of the 338 unique beneficiaries, some were start-ups, however some used the financial aid for expanding their business. In this case, the distribution between the two is equal:

Start-up/Expansion

Chart 5.3

Start-up Expansion



Source: Enterprise Georgia and BDO analysis

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Out of the chosen 100 companies participating, as the Program states, some used the funding for expanding their business and some used it to start it up:

Start-up/Expansion

Chart 5.4

Start-up Expansion



Source: Enterprise Georgia and BDO analysis

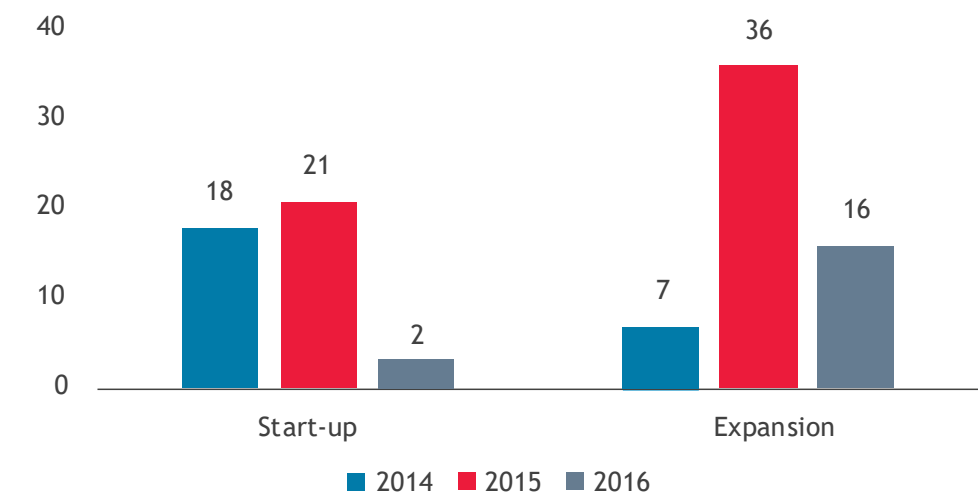
# BENEFICIARY ANALYSIS

## OVERVIEW OF BENEFICIARIES

The numbers indicated above can be presented according to the time frame and the business status of selected Beneficiaries in the following manner:

### Business status

Chart 5.5

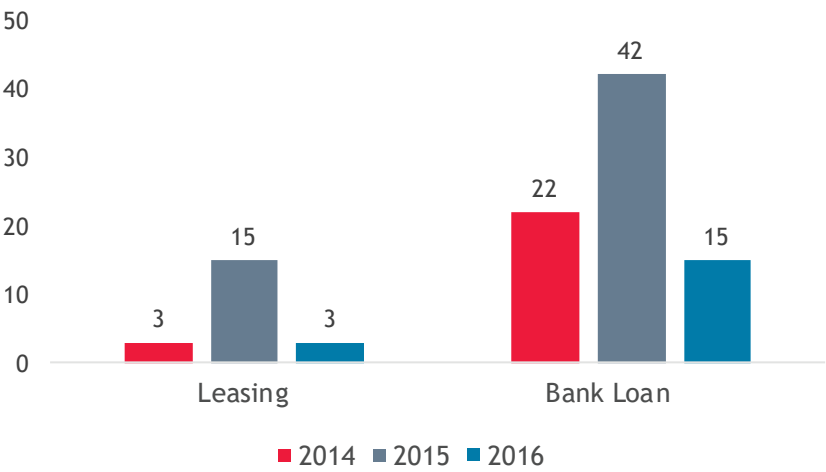


Source: Enterprise Georgia and BDO analysis

As mentioned before, the Program considers three components: leasing, bank loan and technical support. Out of 100 Beneficiaries, technical component was only used by 6 companies and each of them was used together with another component - bank credit:

### Component distribution

Chart 5.6



Source: Enterprise Georgia and BDO analysis

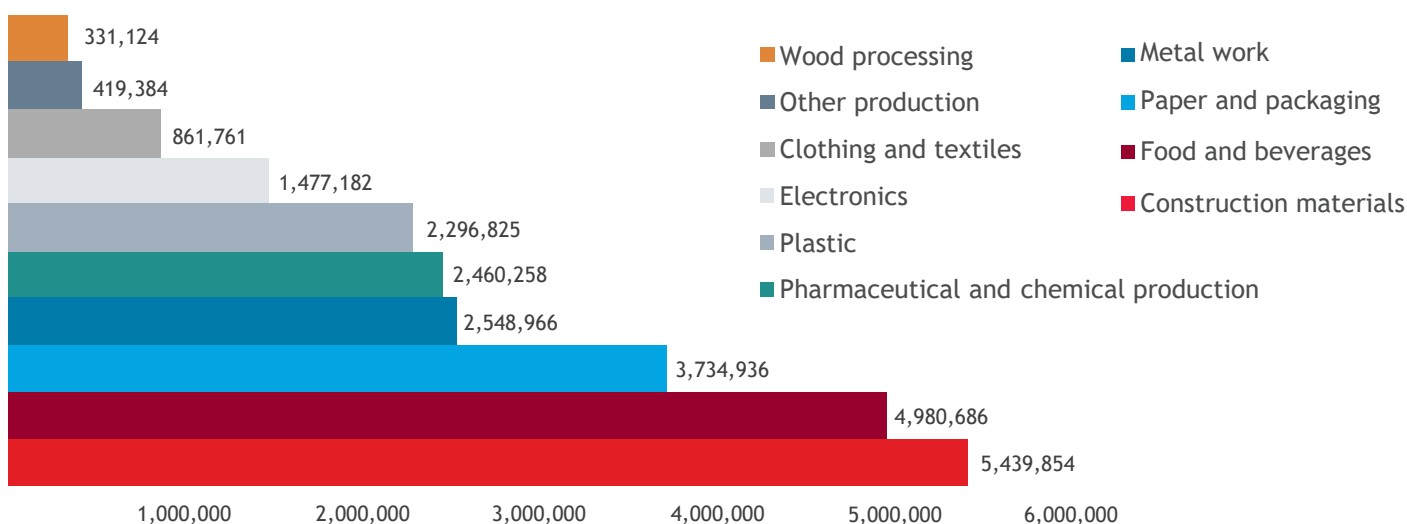
# BENEFICIARY ANALYSIS

## OVERVIEW OF BENEFICIARIES

### Subsidy volume according to industries (GEL)

Chart 5.7

The 100 Beneficiaries that the Report is focusing on, all belong to manufacturing category. Below you can see the distribution of the manufacturing companies according to the sectors by subsidy volume in GEL as at 30 September 2018:



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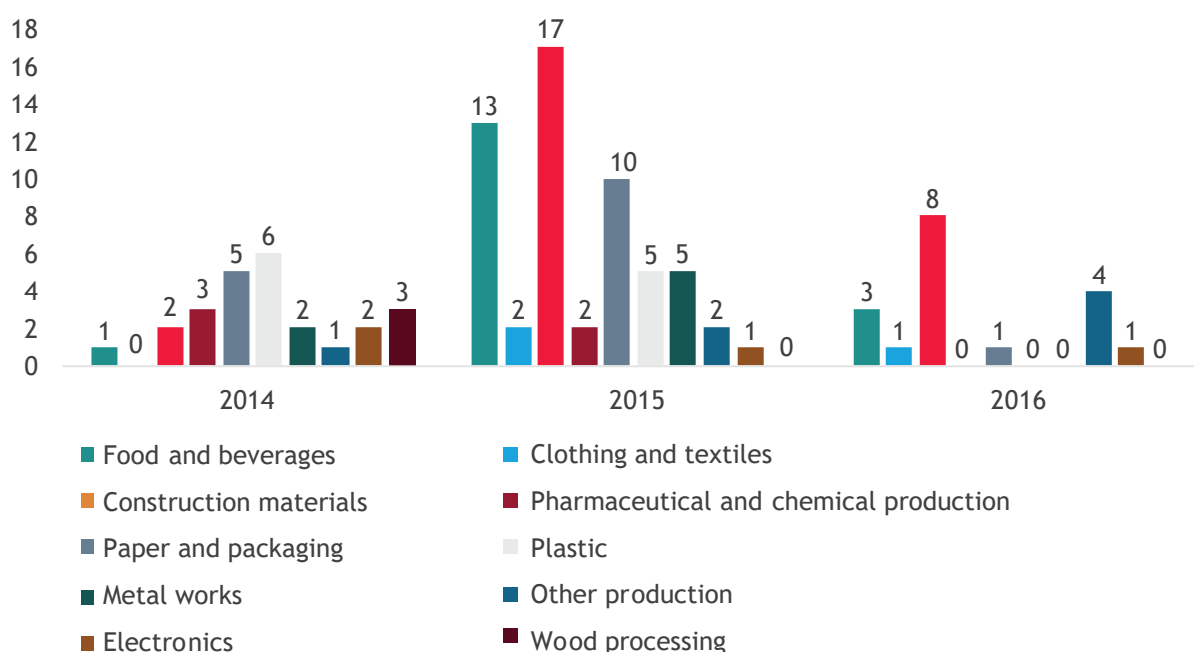
Classification of the businesses as the 'other production' was made due to the low number of Beneficiaries which had similar production. This sector includes products such as road signs, wooden furniture, pet products, CO<sub>2</sub>, tobacco and mattresses.

Source: Enterprise Georgia and BDO analysis

Below is presented sectoral distribution of the Beneficiaries according to their year of engagement in the Program:

### Beneficiaries distribution by sectors

Chart 5.8



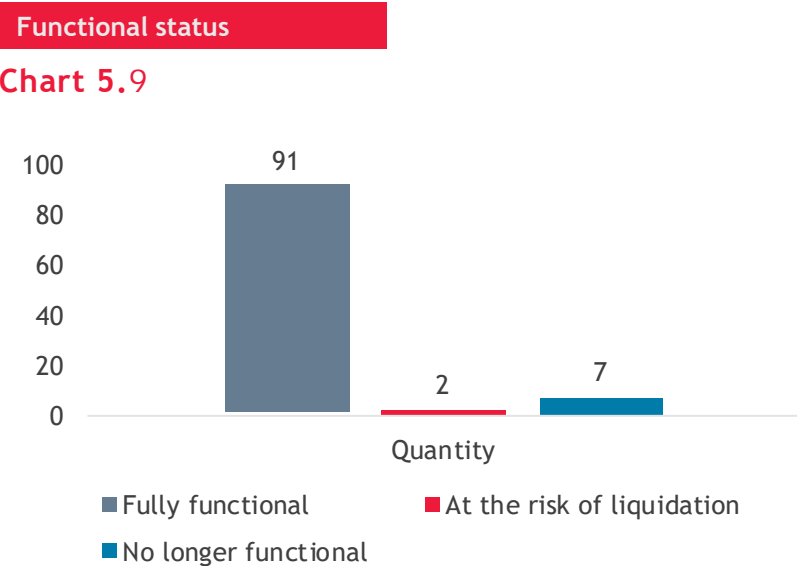
Source: Enterprise Georgia and BDO analysis



# BENEFICIARY ANALYSIS

## OVERVIEW OF BENEFICIARIES

The target Beneficiaries differ with their current functional status. Most of the companies were classified as fully functional after a visit and review of their financial indicators. Management of some companies claimed to be at risk of liquidation because of the existing difficulties on the market. The third category at the chart includes companies which are no longer functional as it was confirmed by their management. Status of the 100 selected companies:



From the selected 100 Beneficiaries, only 85 cooperated in the research process, out of which 4 companies stopped functioning and 2 are at the risk of liquidation. However, out of these 85, not all of them have provided answers to all the questions in the survey. From the Beneficiaries that cooperated only 30 are start-ups, while the other 65 are expansions. The data received from these beneficiaries have been used for the assessment presented further in the Report.

After getting involved in the Program, beneficiaries were obliged to submit mid-year reports for the duration of the Program, about spending of financial resources received, however there was neither a mandatory requirement to inspect beneficiaries' activities and/or financial performance after ending the Program nor the necessity of participating in any other surveys. The involvement in the survey was voluntary hence the number of Beneficiaries refusing to take part in the research was relatively high (15 Beneficiaries).

The information obtained from 85 Beneficiaries has been developed and grouped in a way that made the analysis and the evaluation of the results gathered available in the micro perspective. More specifically, the data was analyzed in the following aspects:

- GDP generated by the Beneficiaries in general and according to specific sectors
- Review of the resources used for production by the Beneficiaries and its sales market
- Import analysis and substitution along with Beneficiaries' competitive advantages
- Investments contributed by the Beneficiaries and their share in total internal investments
- Employment statistical and average salary analysis within the Program
- Taxes collected in general and within the Program
- Financial Indicators of the Beneficiaries

# BENEFICIARY ANALYSIS

## GDP GENERATED BY THE BENEFICIARIES WITHIN AND OUTSIDE THE PROGRAM

One of the most important economic indicators of National Accounts is Gross Domestic Product, which represents total market value of all final goods and services produced in an economic territory of a country in a specific time period.

The amount of GDP measures how well the economy is functioning and high GDP indicates that other indicators are improving as well. For example, within the high level of production unemployment rate also decreases and consequently, the average wage increases as the employees become harder to replace and companies have to pay higher salaries. Gross national income also may increase due to the higher salaries and more new income received by the company shareholders. Hence, calculating GDP is important for assessing the status of economy.

GDP in current prices is generally calculated using three different internationally recognized approaches:

1. Production approach
2. Expenditure approach
3. Income approach

Economic transactions are recorded on accrual basis using current market prices in accordance with international methodology (National Accounts System (SNA-93)), so the information from individual companies will be comparable as they also account on accrual basis.

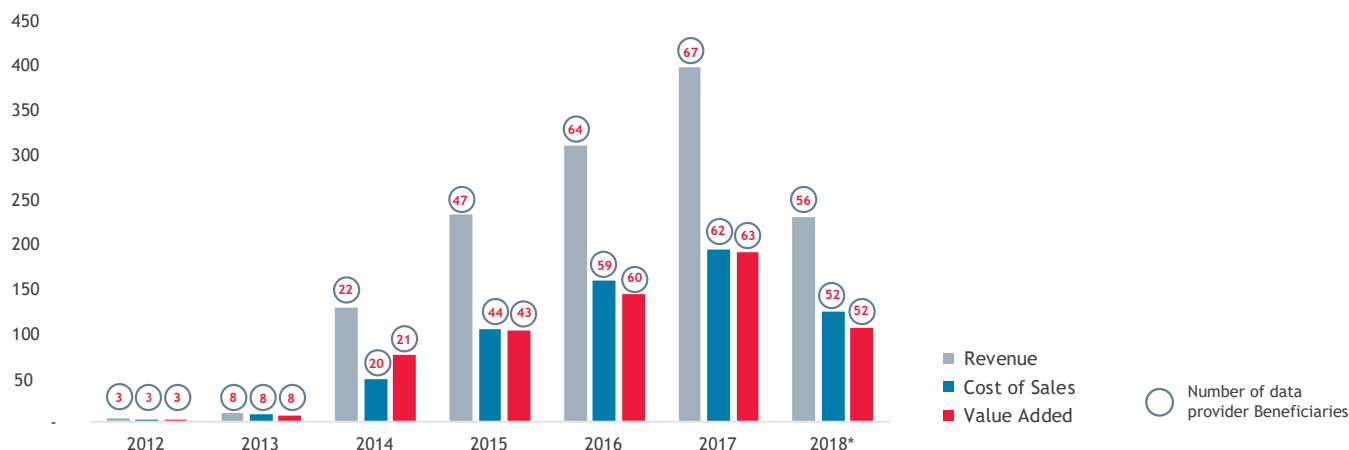
GDP for the interviewed beneficiaries has been calculated with the production approach as the necessary information in this regard is more available to the companies. Value added is usually used for GDP measurement. Value added indicates the enhancement which is made by a company to its product/service prior to offering the product to consumers.

On micro level, revenue and cost of sales, along with value added according to the years are analyzed for 85 Beneficiaries. The result indicates that total revenue in years 2012-2018 amounted to GEL1,309 mln, cost of sales -GEL681 mln and value added amounted to GEL639 mln. These performance indicators have been assessed in terms of years as well.

These results include information from 4 companies which operated in 2015-2017 and are no longer functional and 2 companies operating in 2015-2018, are currently at the risk of liquidation, but they were not singled out due to their immaterial share in values.

**Chart 5.10**

**Performance indicators of Beneficiaries by years (Mln GEL)**



\*Incomplete year  
Source: Beneficiaries' data and BDO analysis

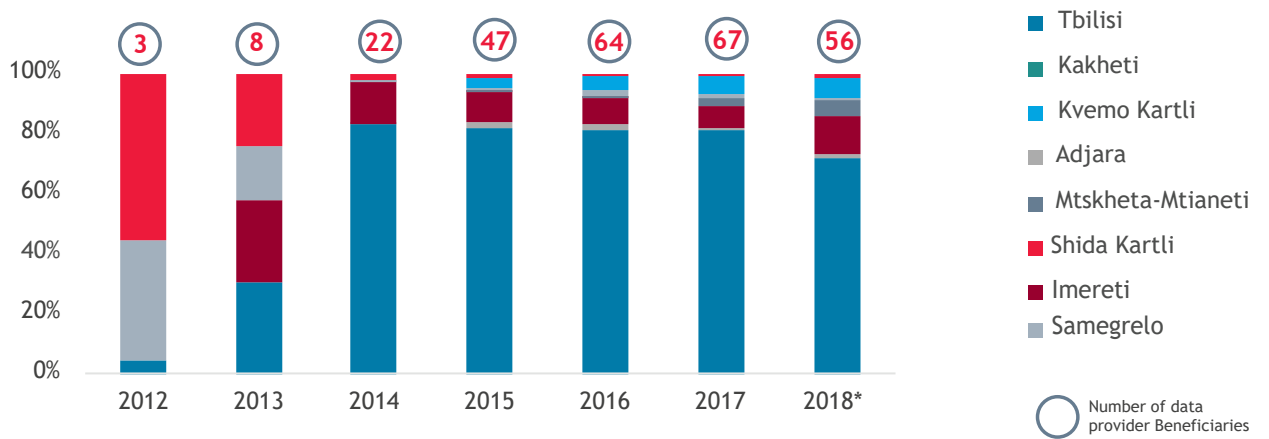
# BENEFICIARY ANALYSIS

## GDP GENERATED BY THE BENEFICIARIES WITHIN AND OUTSIDE THE PROGRAM

One way to assess the performance of the Beneficiaries is to look at the total revenue and value added of the companies in regional context. The revenue received amounted GEL1,309 mln by the companies according to their registration location in years 2012 - 2018.

### Beneficiaries' revenue by regions

Chart 5.11



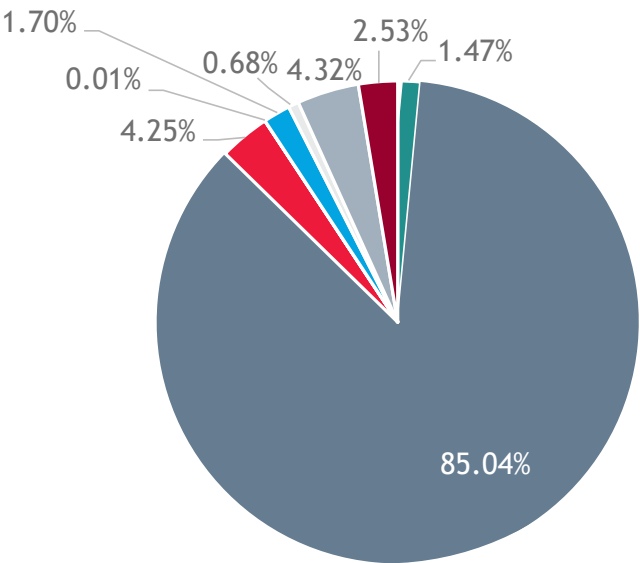
\*Incomplete year  
Source: Beneficiaries' data and BDO analysis

The value added created constituted GEL639 mln by the Beneficiaries according to their registration location, in the years 2012 - 2018\*:

Chart 5.12

### Value added by regions

- Tbilisi
- Samegrelo
- Kakheti
- Shida Kartli
- Imereti
- Kvemo Kartli
- Adjara
- Mtskheta-Mtianeti



\*Incomplete year  
Source: Beneficiaries' data and BDO analysis

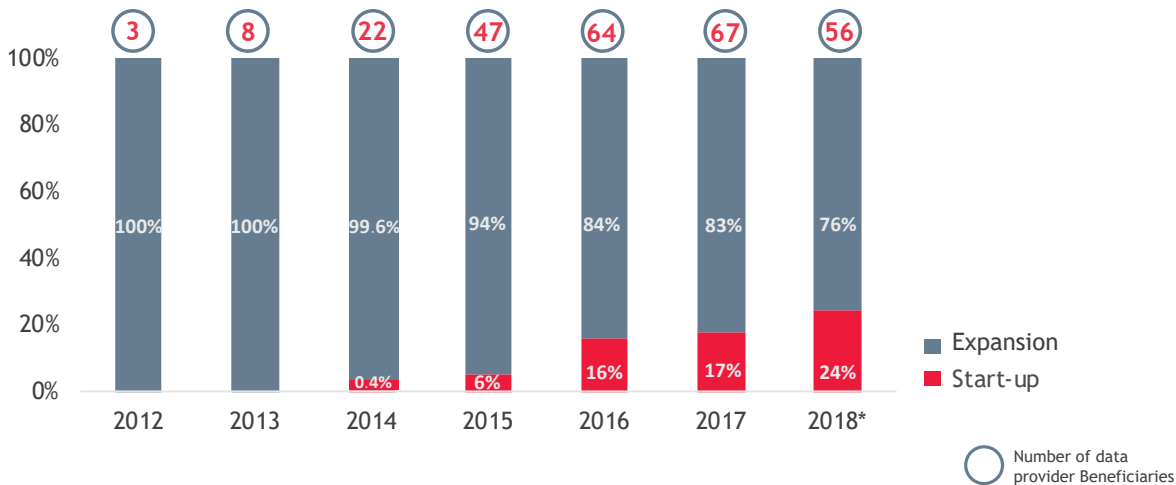
# BENEFICIARY ANALYSIS

## GDP GENERATED BY THE BENEFICIARIES WITHIN AND OUTSIDE THE PROGRAM

The distribution of revenue between expansion and start-up companies:

Revenue by business status

Chart 5.13

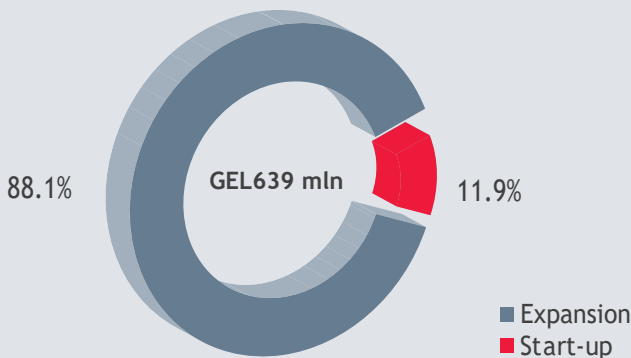


40 \*Incomplete year  
Source: Beneficiaries' data and BDO analysis

The distribution of value added between expansion and start-up for the Beneficiaries throughout the years 2012-2018\*:

Value added by business status

Chart 5.14



While the total revenue earned by Beneficiaries is over billion GEL and value added is over 0.5 billion GEL, the bigger share belongs to the expanded companies rather than start-ups, hence, the effect is caused by both, Program and individual investments.

\*Incomplete year  
Source: Beneficiaries' data and BDO analysis



# BENEFICIARY ANALYSIS

## GDP GENERATED BY THE BENEFICIARIES WITHIN AND OUTSIDE THE PROGRAM ACCORDING TO THE SECTORS

Different sectors and products financed along with their value added have been analyzed for years 2012-2018:

### Metal Works

The already existing market in Georgia for Metal production and processing includes various types of metal goods such as steel frameworks, steel construction materials, steel pipes, metal furniture etc.

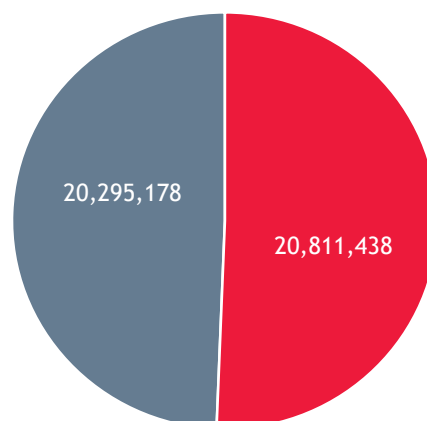
The manufacturers have not necessarily offered new products to their production list, however, they have invested in improving the quality of their existing products by purchasing new and updated machinery.

From the given list of Beneficiaries,

**only 5 do metal work.**

### Regional distribution of metal work by value added (GEL)

Chart 5.15



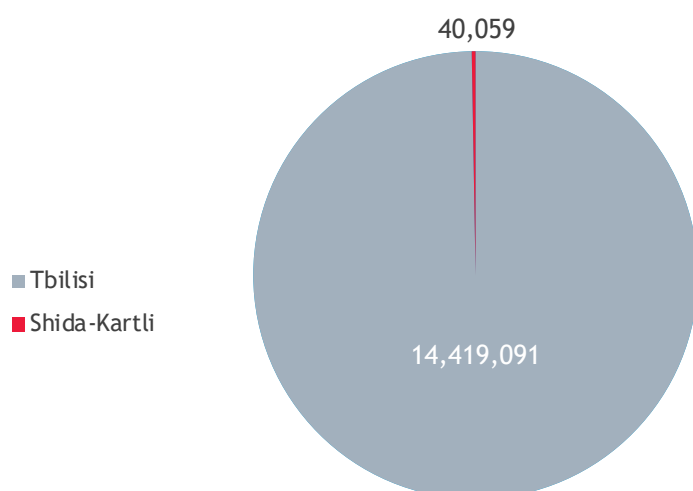
■ Tbilisi  
■ Kvemo-Kartli

Source: Beneficiaries' data and BDO analysis

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### Regional distribution of plastic production by value added (GEL)

Chart 5.16



■ Tbilisi  
■ Shida-Kartli

### Plastic

The Plastic manufacturing includes creating products such as plastic pipes, polyethylene goods, food packaging, plastic bags, sponges etc.

After starting the Program, out of **9 plastic manufacturers**, most have only improved the quality and/or the quantity of their products and only one has introduced a new product not only within the company, but on the whole Georgian market as well.

Source: Beneficiaries' data and BDO analysis

# BENEFICIARY ANALYSIS

## GDP GENERATED BY THE BENEFICIARIES WITHIN AND OUTSIDE THE PROGRAM ACCORDING TO THE SECTORS

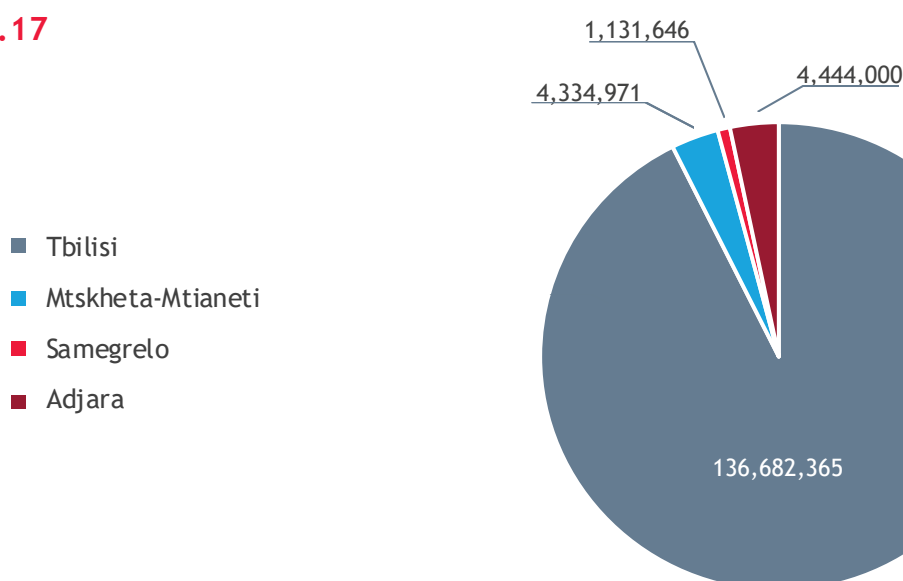
### Food and Beverages

The food and beverage sector includes end products that range from distributing frozen semi-produced goods to the bakeries to producing coffee, ice-cream, sausages, beer and non-alcoholic beverages.

Since starting the Program, out of **14 Beneficiaries** involved in the food and beverage sector, none of them have implemented any new products or technologies, however one of them divided their products into two lines - one is higher quality range and the other one is lower quality.

#### Regional distribution of food and beverages by value added (GEL)

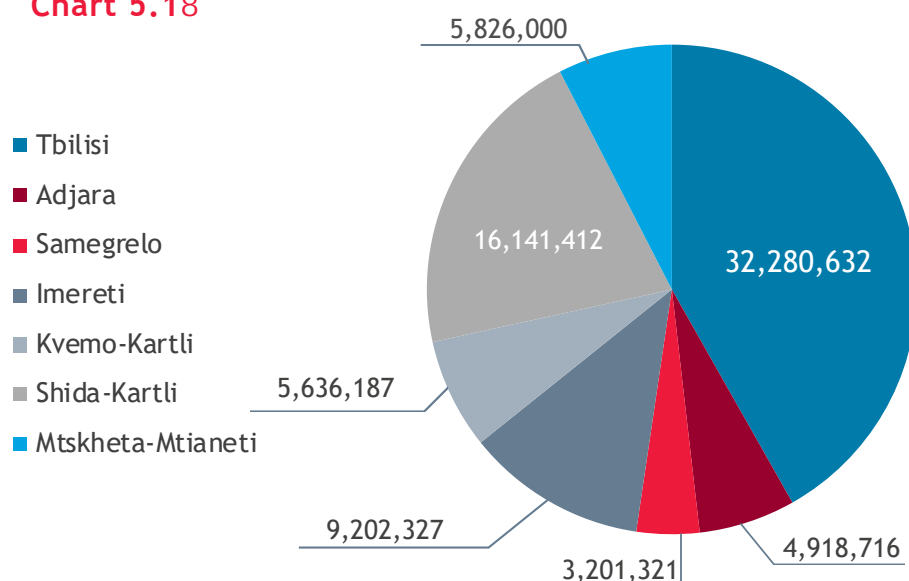
Chart 5.17



Source: Beneficiaries' data and BDO analysis

#### Regional distribution of construction materials by value added (GEL)

Chart 5.18



Source: Beneficiaries' data and BDO analysis

### Construction materials

Construction Materials sector offers a wide range of products from bricks, natural stone, concrete and cement to mirrors, wooden and iron doors, glasses, etc.

As the most, 18 Beneficiaries are functioning in this sector, naturally, alterations and innovations have been presented. For example, bricks with rounded edges, printing on the glass, usage of dacite stone in decorations, etc.

# BENEFICIARY ANALYSIS

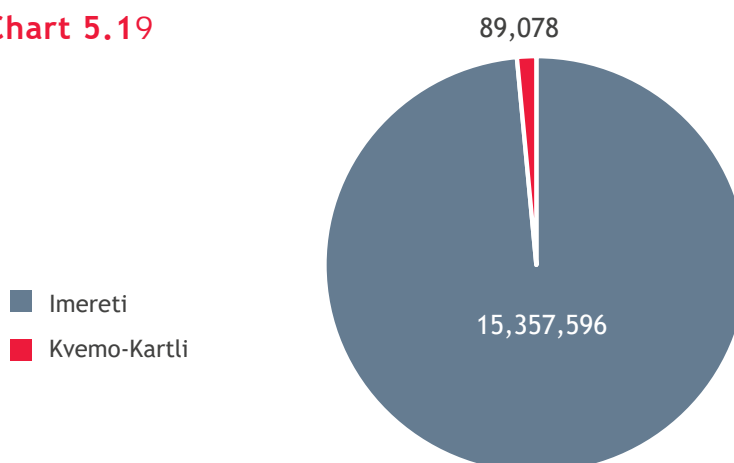
## GDP GENERATED BY THE BENEFICIARIES WITHIN AND OUTSIDE THE PROGRAM ACCORDING TO THE SECTORS

### Clothing and Textiles

2 **Beneficiaries** involved in the clothing and textile sector mainly work on the clothing pieces for men and women and even after engaging in the Program they have not implemented any new product lines - just better quality.

Regional distribution of clothing and textiles by value added (GEL)

Chart 5.19



Source: Beneficiaries' data and BDO analysis

43

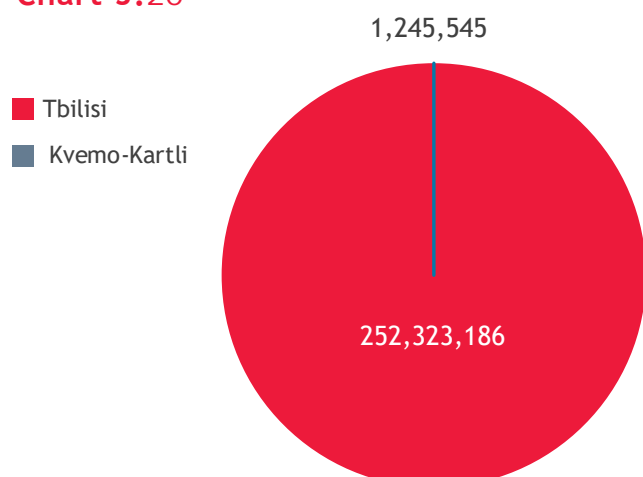
### Pharmaceuticals and Chemical Production

The pharmaceutical and chemical production involves lines such as producing fungicides, drugs & medications and processing a unique plant which is an active pharmaceutical ingredient and is used in many medicines. Another product on the market is a blood bank and plasma centre located in Tbilisi and is exclusively concentrated on exporting the produce.

After getting involved in 'Produce in Georgia' program, neither of the 4 **Beneficiaries** have added any new technologies, however they have improved the quality and the capacity of the goods produced.

Regional distribution of pharmaceuticals and chemical production by value added (GEL)

Chart 5.20



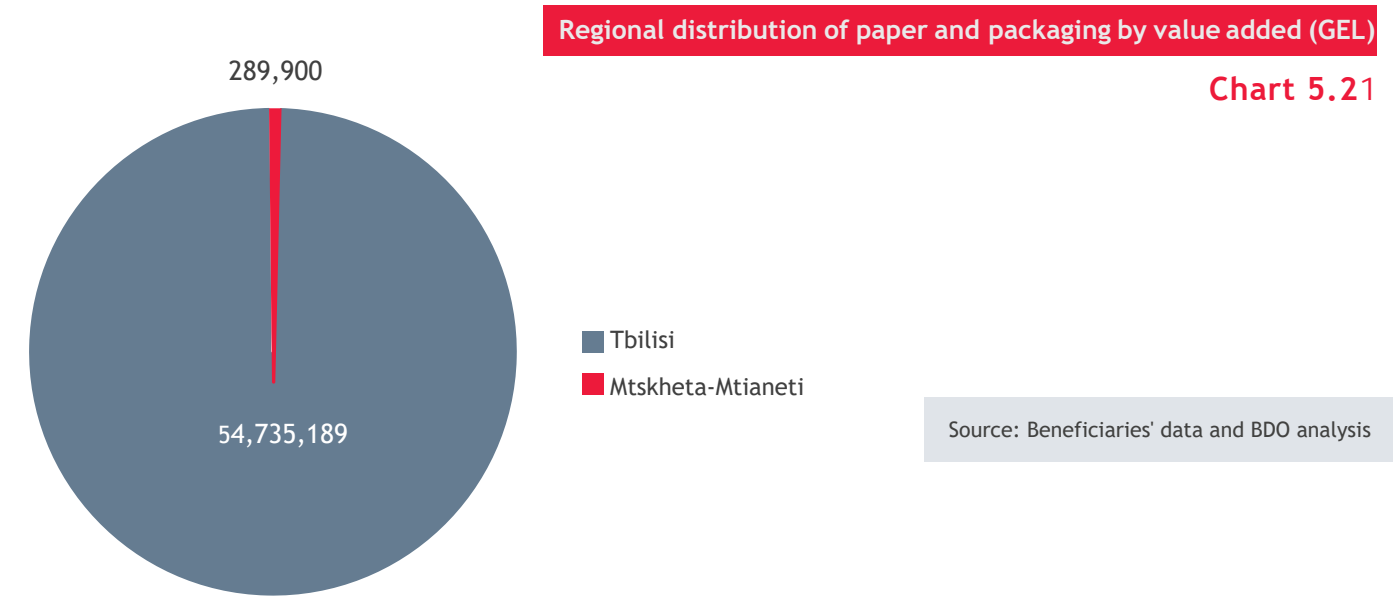
Source: Beneficiaries' data and BDO analysis

# BENEFICIARY ANALYSIS

## GDP GENERATED BY THE BENEFICIARIES WITHIN AND OUTSIDE THE PROGRAM ACCORDING TO THE SECTORS

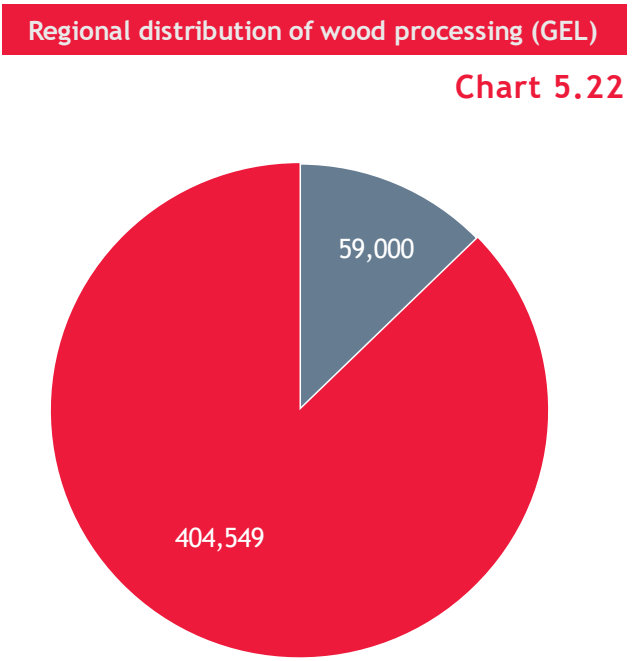
### Paper and Packaging

Paper and packaging sector ranges from publishing houses to wine labels and paper bags production. Even though there are **9 Beneficiaries** in the sector, only few new products have been added after engaging in the Program including paper cups and non-weaving paper bags.



### Wood Processing

The wood processing involves producing briquettes as well as wood furniture and lighting. After commencement of the Program there have not been any significant improvements or implementations other than increasing the volume of production. The sector only includes **2 Beneficiaries**.





# BENEFICIARY ANALYSIS

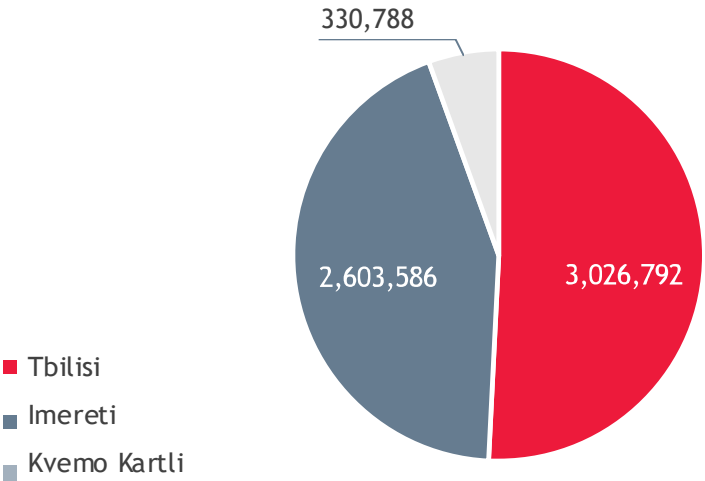
## GDP GENERATED BY THE BENEFICIARIES WITHIN AND OUTSIDE THE PROGRAM ACCORDING TO THE SECTORS

### Electronics

Electronics is relatively new sector for Georgian production market, so as, only **4 Beneficiaries** were involved. Their production includes variable and fixed electrodes and copper and aluminum cables. Innovations have been scarce as well and only high and low electromotive force aviation cables were identified as a new product.

Regional distribution of electronics production by value added (GEL)

Chart 5.23

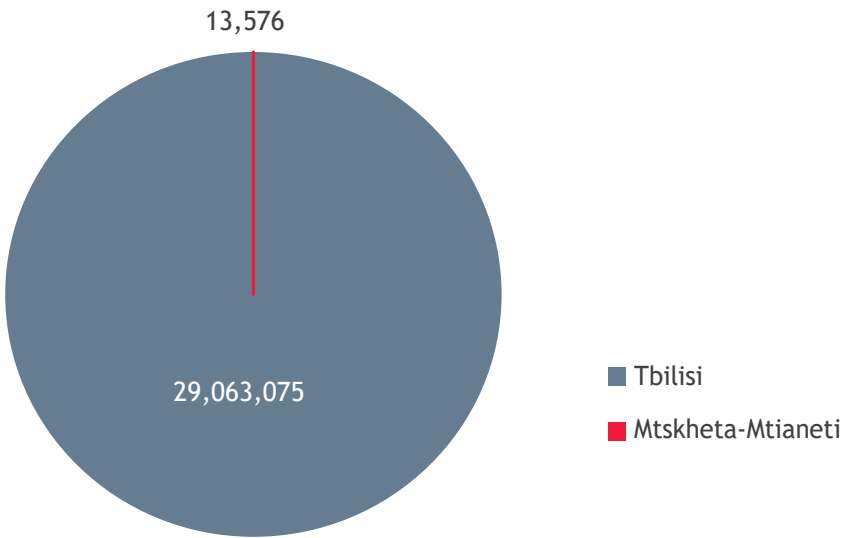


### Other Production

Other production category includes manufacturing of such products as road signs, wooden furniture, pet products, CO<sub>2</sub>, tobacco and mattresses. From the year 2014, no new products have been added to the market by the **5 Beneficiaries** involved in the research, however some of them have increased their volume.

Regional distribution of other production by value added (GEL)

Chart 5.24

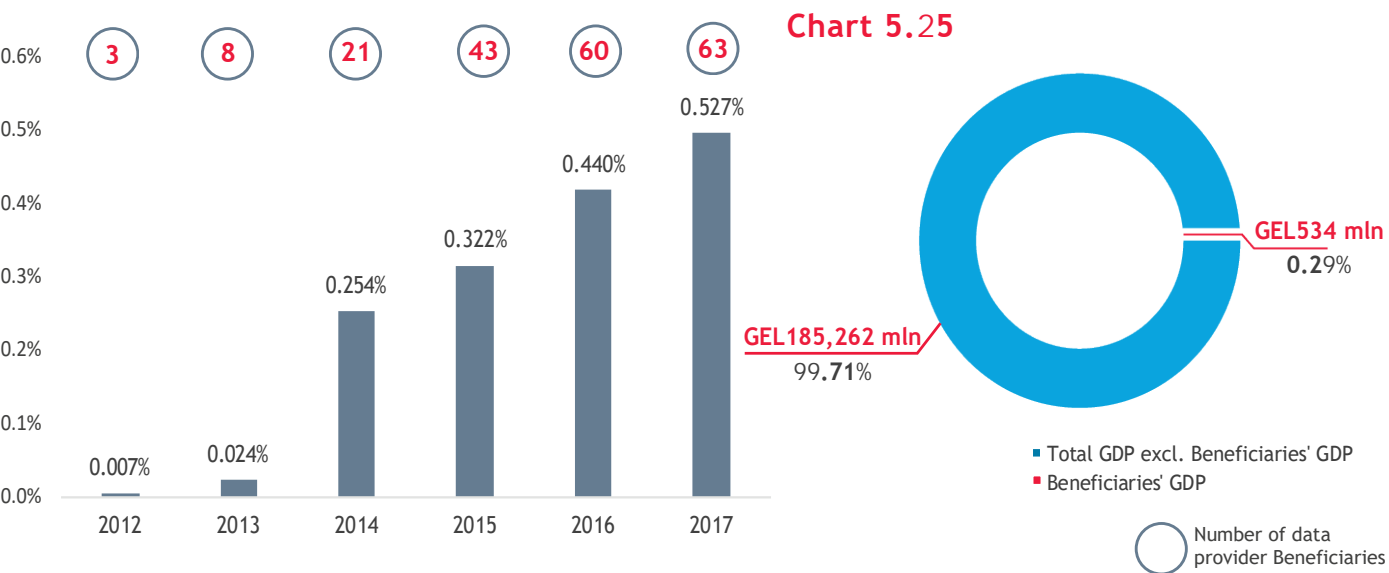


# BENEFICIARY ANALYSIS

## IMPACT OF GDP CREATED BY THE BENEFICIARIES ON TOTAL GDP

Assessment of direct effect on GDP has been made by comparing the value added created by the Beneficiaries to the total value added of the country according to the years. It should be noted that, as companies do their accounting in the current prices, comparison has also been done with the nominal GDP.

Share in GDP created by the Beneficiaries in the country's GDP in 2012-2017

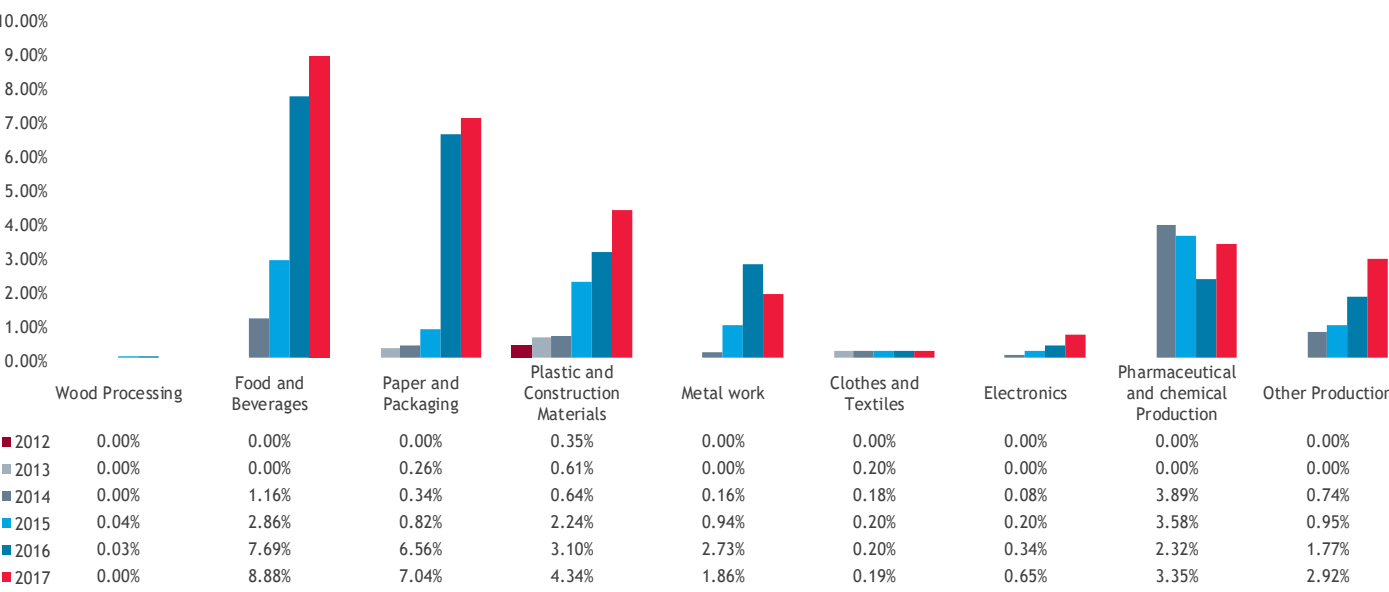


Source: National Statistics Office of Georgia  
Beneficiaries' data and BDO analysis

Efficiency of the Program can vary between the sectors as well, since the subsidies given out are not proportional for each of them. Consequently, the shares must be looked at from the sector oriented perspective to identify the real impact. Shares of value added created by the Beneficiaries in their relevant sectors according to the years are disclosed on the following chart.

Share of GDP created by the Beneficiaries, in the countries total GDP of relevant sectors

Chart 5.26



Source: National Statistics Office of Georgia  
Beneficiaries' data and BDO analysis

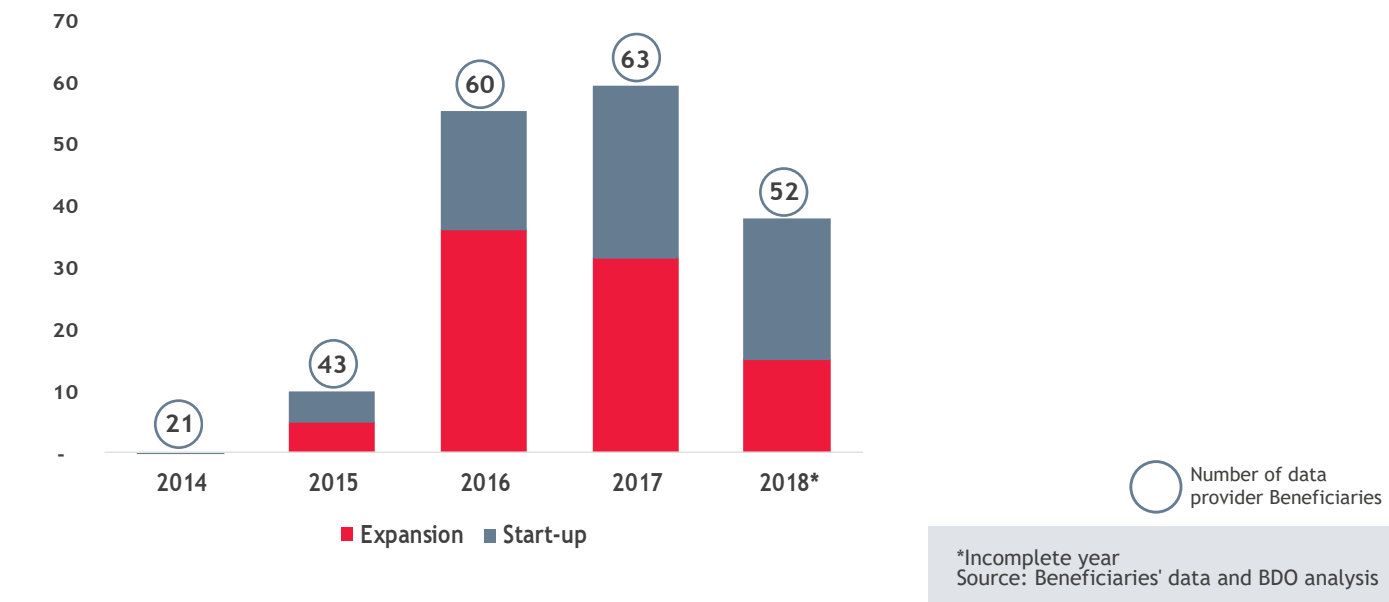
# BENEFICIARY ANALYSIS

## GDP GENERATED BY THE BENEFICIARIES WITHIN THE PROGRAM

As it was discussed in the GDP generated by the Beneficiaries within and outside the Program subsection, the results show over GEL0.5 billion value added created, however, this amount does not present the net effect of the program as 60% of the Beneficiaries are within the expansion business status. Expanded businesses only have certain equipment or production lines which are connected to the Program, hence, their total results should be altered accordingly to arrive at the relevant data representing only the impact achieved within the Program. Adjustment has been made by applying ratio - received loan within the Program divided to total asset in the end of each year from 2014 for each beneficiaries. This adjustment was made under the assumption that mentioned ratio shows the significance of the investment due to the Program compared to the assets a beneficiary has been holding before.

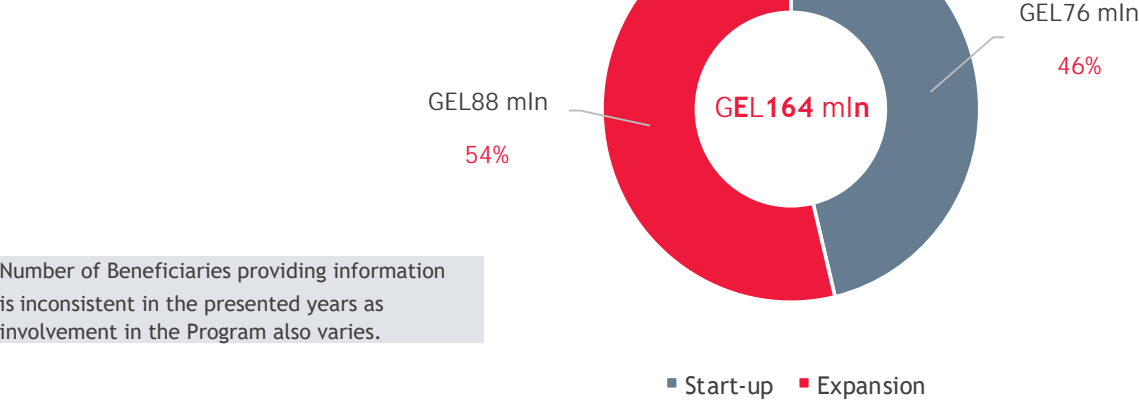
GDP created by the Beneficiaries within the Program (Mln GEL)

Chart 5.27



GDP created by the Beneficiaries within the Program 2014-2018\* (Mln GEL)

Chart 5.28



Number of Beneficiaries providing information is inconsistent in the presented years as involvement in the Program also varies.

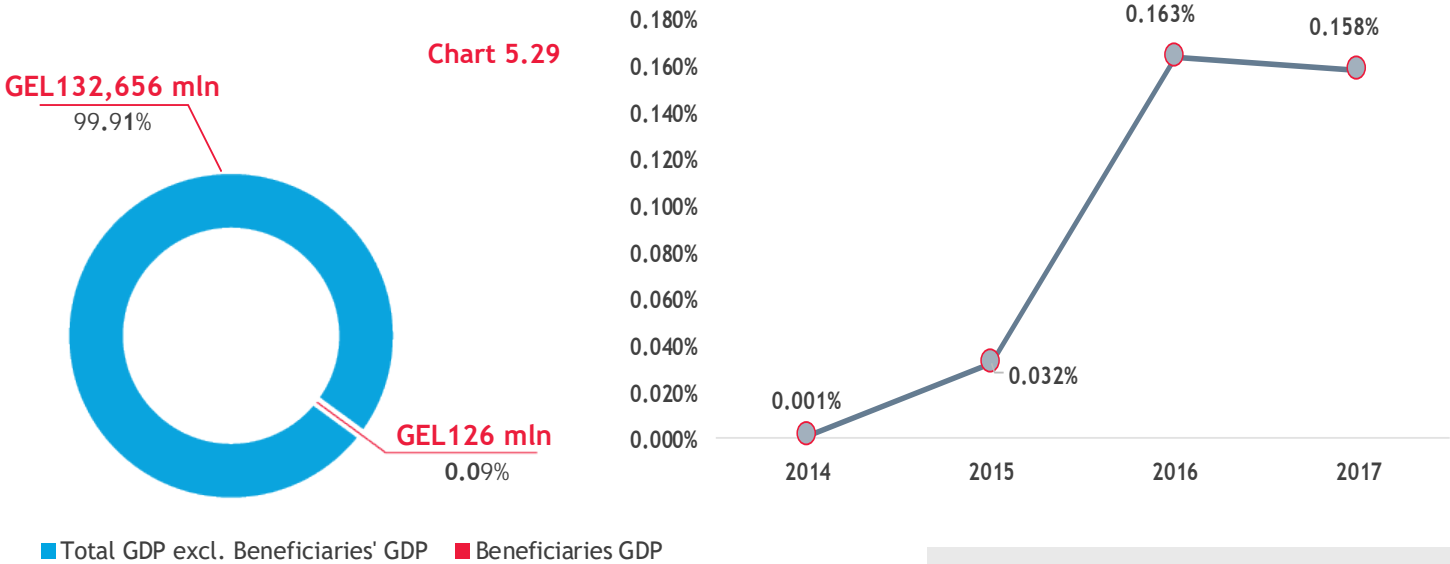
\*Incomplete year  
Source: Beneficiaries' data and BDO analysis

# BENEFICIARY ANALYSIS

## IMPACT OF GDP CREATED BY THE BENEFICIARIES WITHIN THE PROGRAM ON TOTAL GDP

To show the direct effect of the GDP created withing the Program, compared to the GDP of the country, assessment has been made using the adjustment mentioned above.

Adjusted Share of GDP created within the Program, in the country's GDP in 2014-2017



Source: Beneficiaries' data and BDO analysis

Another method that has been used to determine the effect of the subsidies paid by the Program on the GDP created by the Beneficiaries, is the linear regression analysis. For this purpose, the subsidy was considered as an independent variable and the value added created was taken as a dependent variable, while using information provided by 68 Beneficiaries. The model has been made for the purpose of the revealing the role of the funds provided, hence only a single independent variable was used and least-squares estimation technique was applied for assessment.

The linear regression showed that correlation between the GDP created and the paid subsidy is only 0.32, which does not generally indicate high level of interdependence. The standard deviation and determination coefficient also revealed that the model does not show reliable estimates as the dependent variable changes according to various other factors not included in the model. Detailed analysis of the model is presented in the appendix 2.

The numerical analysis above shows that while the overall share of the Program in GDP may remain low, it is overallly increasing. However, this increase is not to be considered as the result only achieved with the help of the subsidies provided. As the regression analysis suggests, GDP is dependent of various factors and the subsidy alone cannot create material impact on economy if other economic indicators are not also working in a way which enables there to be a increase in social welfare.

# BENEFICIARY ANALYSIS

## PRODUCTION RESOURCES USED BY BENEFICIARIES

Although, the high level of output indicates economic growth at a glance, if the intermediate consumption mostly consists of imported goods, the actual value added created in the country will be much less. With the intention to determine distribution between imported raw materials and local raw materials, purchases of each sector have been analyzed. The following countries were identified by the Beneficiary companies as the location of imported goods:

Import countries by sectors for Beneficiaries\*

Chart 5.30



- Electronics
- Construction materials
- Metal work
- Pharmaceutical and chemical production
- Plastic
- Paper and packaging
- Food and beverages
- Other production

No specific countries were mentioned for clothing and textiles and wood processing.

\*Colors on the chart only indicates number of sectors which import from the specific country, hence, they do not show the difference in import volume.  
Source: Beneficiaries' data and BDO analysis



# BENEFICIARY ANALYSIS

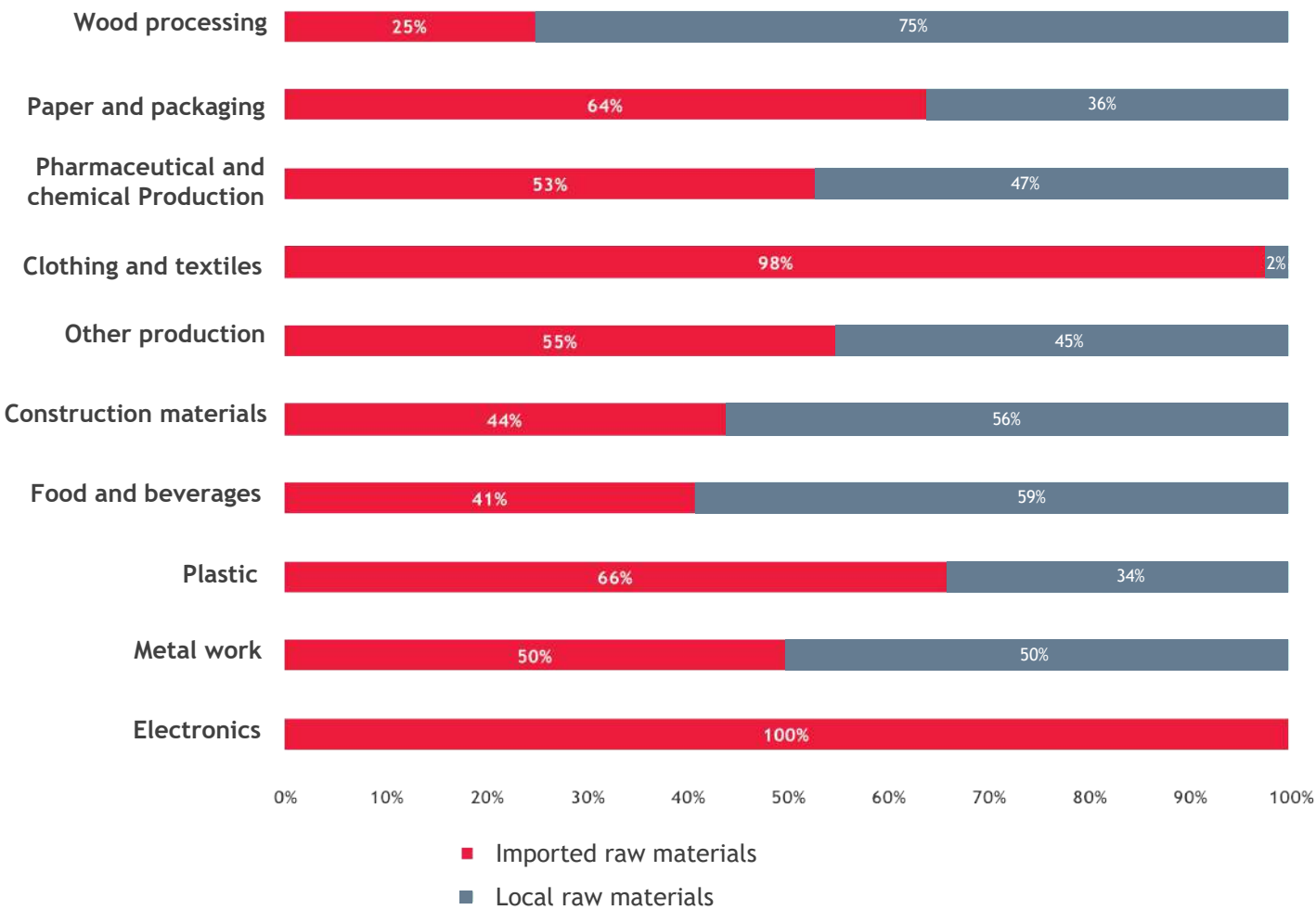
## PRODUCTION RESOURCES USED BY BENEFICIARIES

As it can be seen from the list above, most common location of import are Turkey and China.

More detailed overview of the raw materials sources has been made by assessing whether the raw materials are obtained on the local market or from abroad.

### Review of resources used for production

Chart 5.31



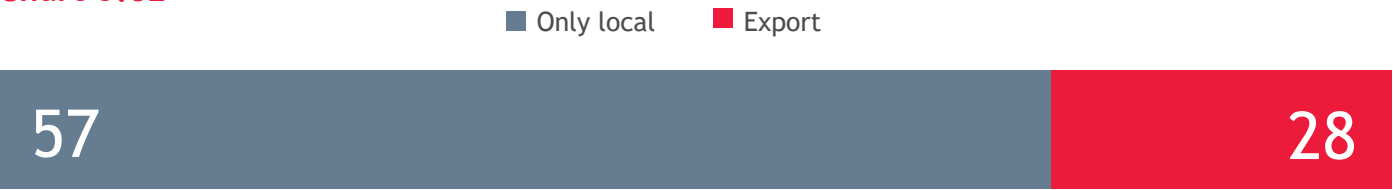
Source: Beneficiaries' data and BDO analysis

# BENEFICIARY ANALYSIS

## EXPORT PERFORMANCE

As country imports products, it also needs exports as the means of payment for the goods received from other countries. Hence, export plays important role as it influences current account of the country and highly effects the final outcome, whether there is a current account deficit or positive balance. Consequently, sales of 85 Beneficiaries have been analyzed in terms of distribution between local and export markets:

Chart 5.32



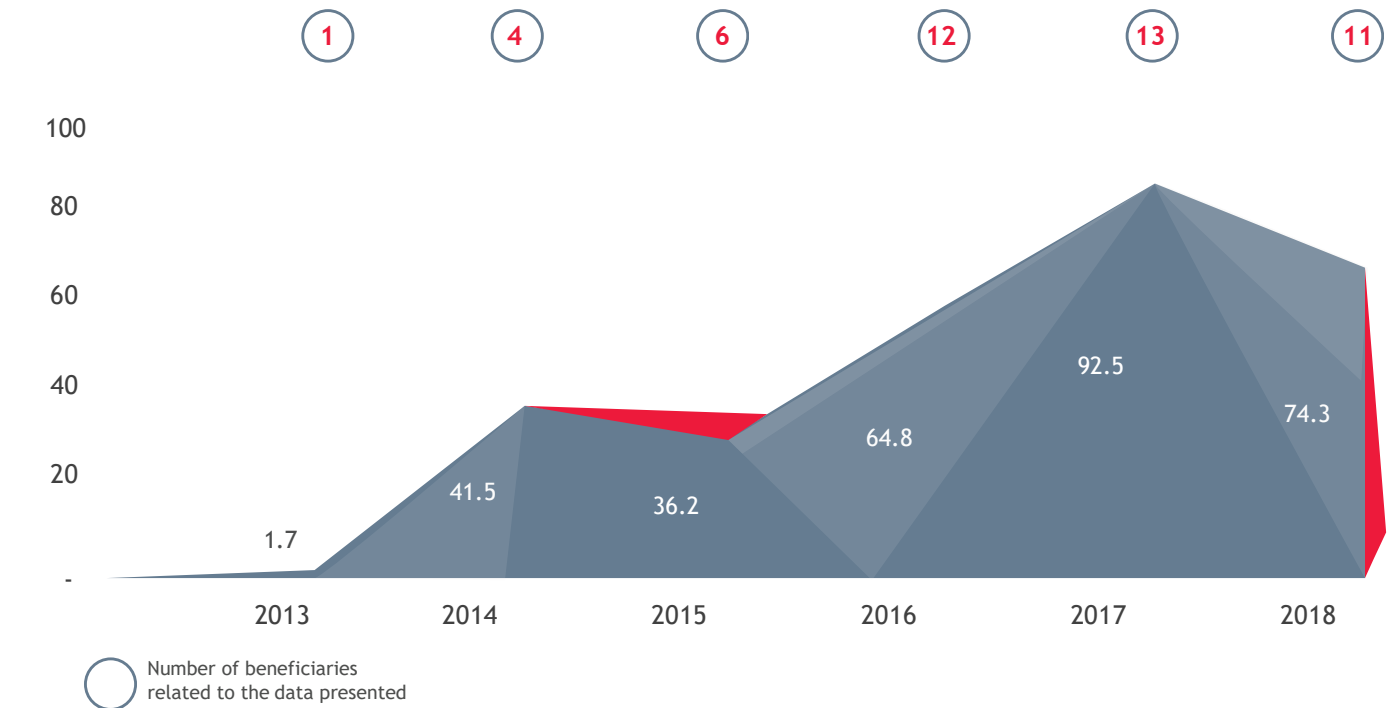
Source: Beneficiaries' data and BDO analysis

51

The total revenue received from the export sales of the mentioned Beneficiaries amounted to GEL311,037,990 in the years 2013-2018\*:

## Export volume (Mln GEL)

Chart 5.33



\*Incomplete year  
Source: Beneficiaries' data and BDO analysis

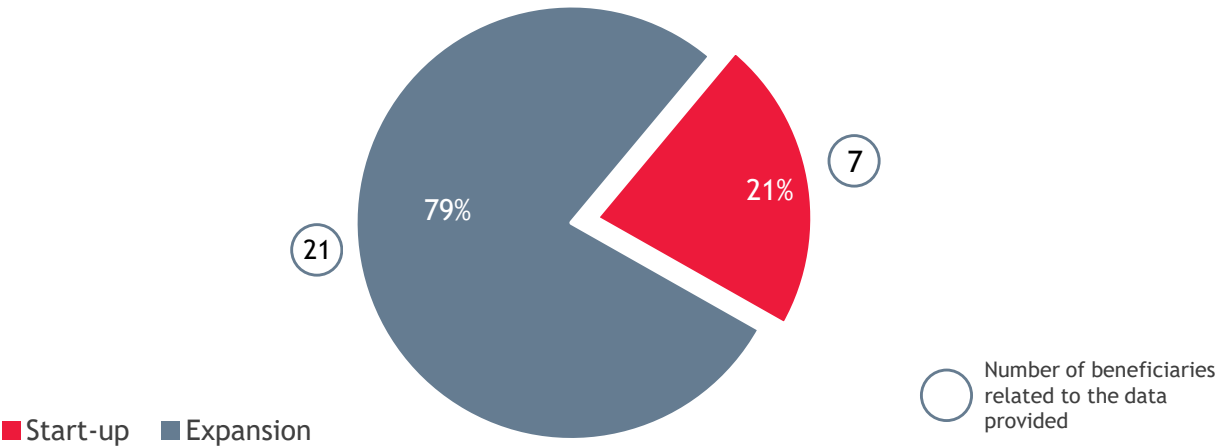
# BENEFICIARY ANALYSIS

## EXPORT PERFORMANCE

Beneficiaries' revenue distribution by their business status:

Export by business status

Chart 5.34

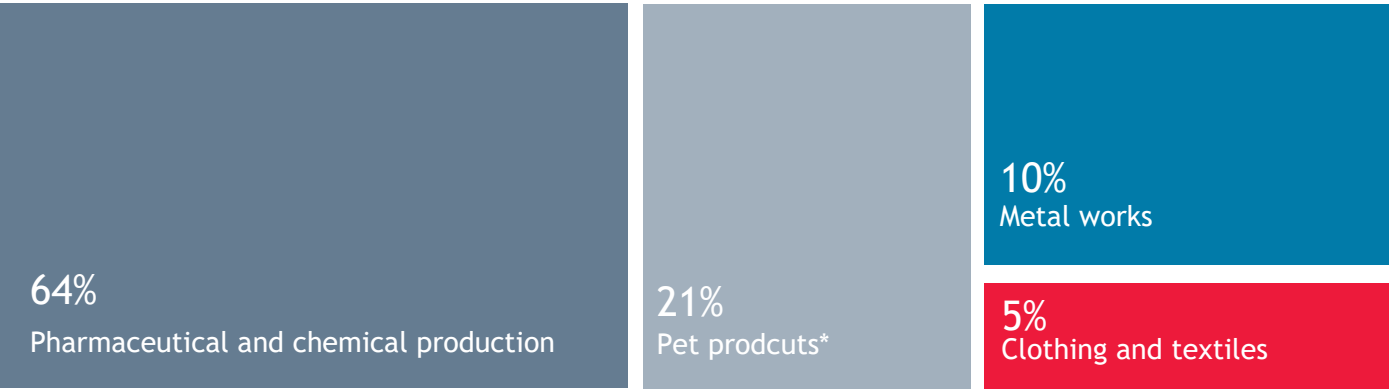


Source: Beneficiaries' data and BDO analysis

In addition to analyzing performance by business status, export has been evaluated in terms of sectors, as some markets are more difficult to reach than the others. Within the Program, only four sectors make up 99% of the total export made by total number of Beneficiaries:

Main exporting sectors

Chart 5.35



\*Pet products is a part of 'other production' sector and it is singled out for this specific case due to its large share  
Source: Beneficiaries' data and BDO analysis

For pharmaceutical and chemical production, export is made in countries such as **UK, Iraq, Uzbekistan** as well as neighboring countries **Russia, Armenia** and **Azerbaijan**. Metal works also has a wide range of countries which include: **Japan, Switzerland, Thailand**, etc. Clothing and textile oriented companies export their product in European countries such as **Germany** and **Italy** and pet products includes export in **France, Netherlands, Poland, Belgium**, etc.

By the export analysis it can be seen that beneficiaries export in a wide range of countries all over the world, however, most export comes from only a few sectors while others are still in the process of development.

# BENEFICIARY ANALYSIS

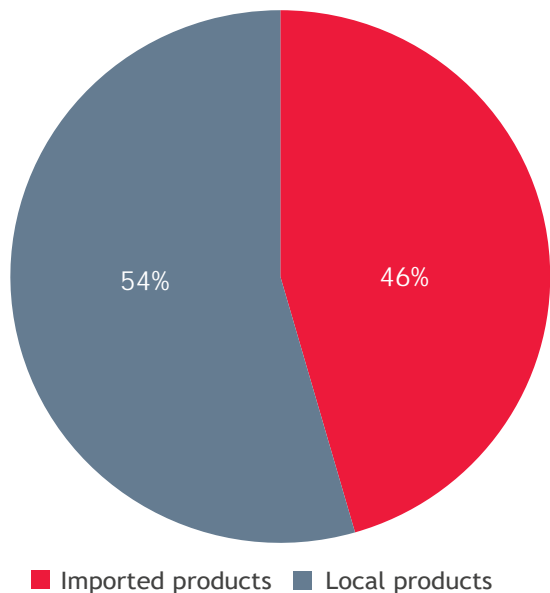
## COMPETITION AND IMPORT SUBSTITUTION

Competition promotes improvement of the quality of goods and services produced, self-regulation of prices, innovation, productivity improvement and, therefore, the economic prosperity of the public. Since the country's import significantly exceeds its export due to the lack of domestic production, it is hard to replace imported products within the certain sectors.

Based on 80 Beneficiaries' results from the interview, 54% think that local manufacturers are their main competitors. The rest 46% think that their main competitors on Georgian market are imported products.

Beneficiaries responses regarding their main competitors on the market

Chart 5.36



Based on 80 Beneficiaries' data, where 2 companies stopped functioning in 2018 and 2 are currently under the risk of liquidation  
Source: Beneficiaries' data and BDO analysis

Most of the Beneficiaries in the electronics, metal work, plastics and pharmaceutical and chemical production sectors believe that the share of imported produce in their sector is quite high and is considered as their main competitive challenge in terms of price, variety and scale. On the Georgian market, most of the Beneficiaries consider quality as their main competitive advantage. Focusing on the quality, without reaching the economy of scale makes product expensive than the imported one.

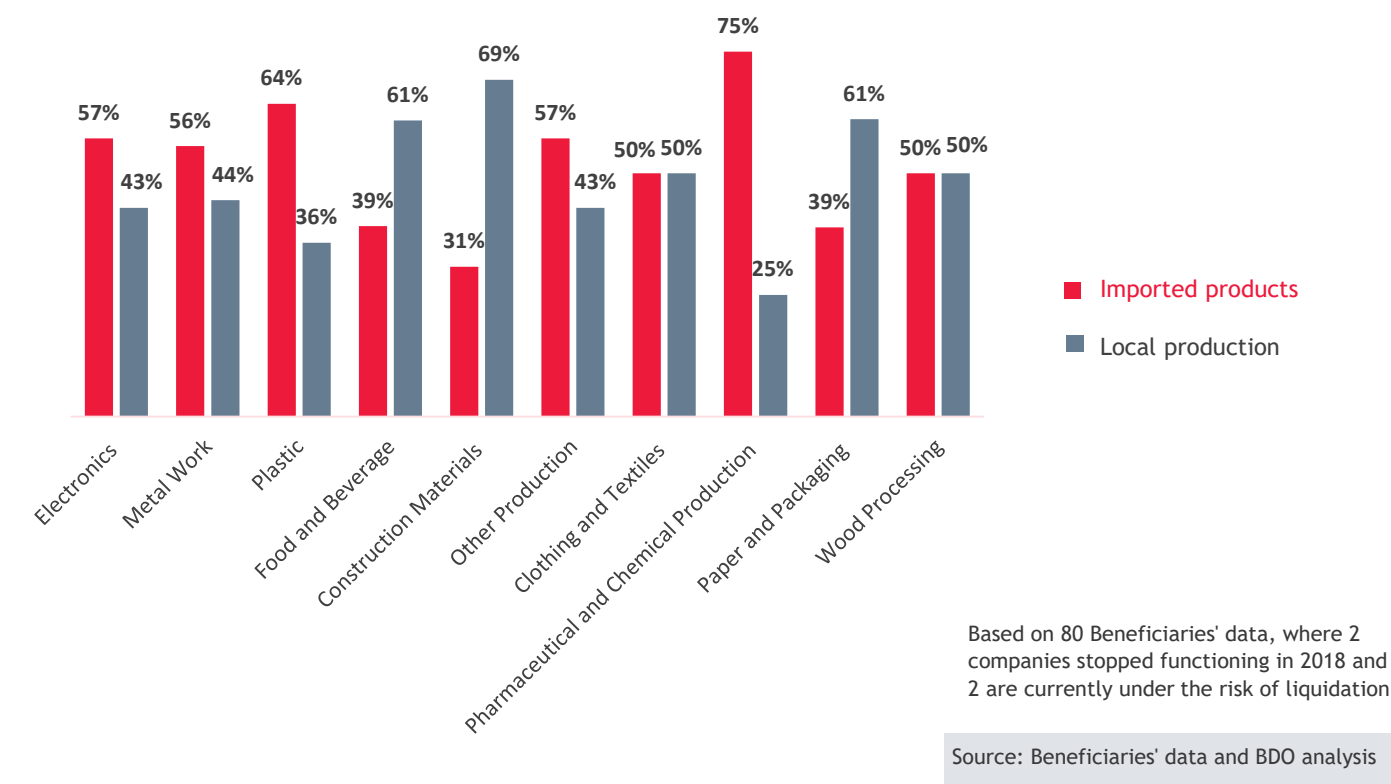
Within the 'Produce in Georgia' Program, majority of the Beneficiaries are in the food and beverage and construction materials sectors. The internal competition prevails in the context of these sectors, indicating that the Beneficiaries operating within the mentioned fields replace imported products on the market along with increasing internal competition.

# BENEFICIARY ANALYSIS

## COMPETITION AND IMPORT SUBSTITUTION

Main competitors of the Beneficiaries in terms of local production and imported goods by sectors

Chart 5.37





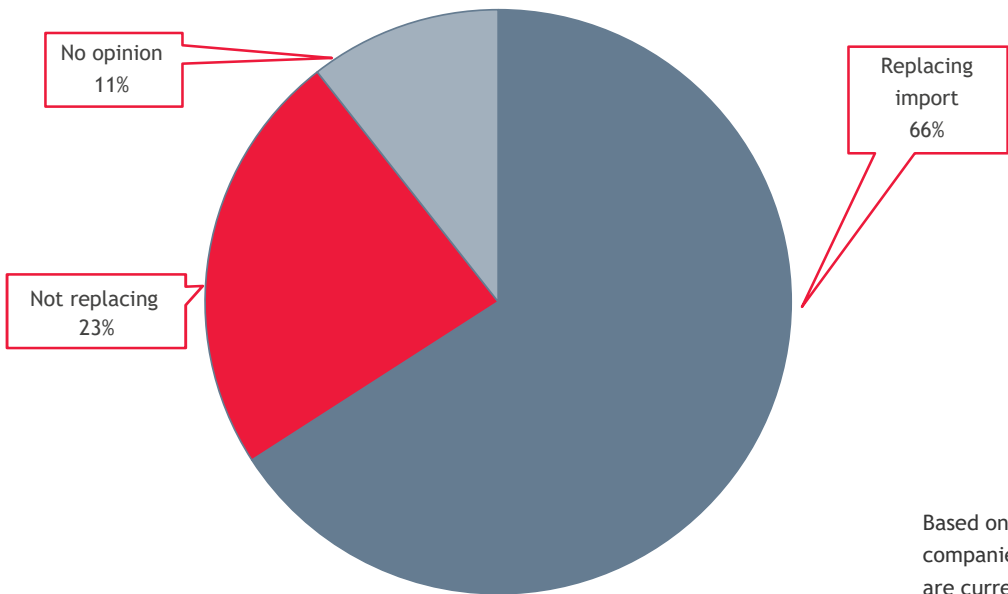
# BENEFICIARY ANALYSIS

## COMPETITION AND IMPORT SUBSTITUTION

Considering the increase of scale of production, quality improvement, variety and fast delivery, within the program, 66% of Beneficiaries believe that their product replaced imported goods on the Georgian market, 23% think that they were not able to replace imported products and 11% had no opinion about their competitors on market.

Beneficiaries' opinion about substitution of import

Chart 5.38



Based on 80 Beneficiaries' data, where 2 companies stopped functioning in 2018 and 2 are currently under the risk of liquidation

Source: Beneficiaries' data and BDO analysis



# BENEFICIARY ANALYSIS

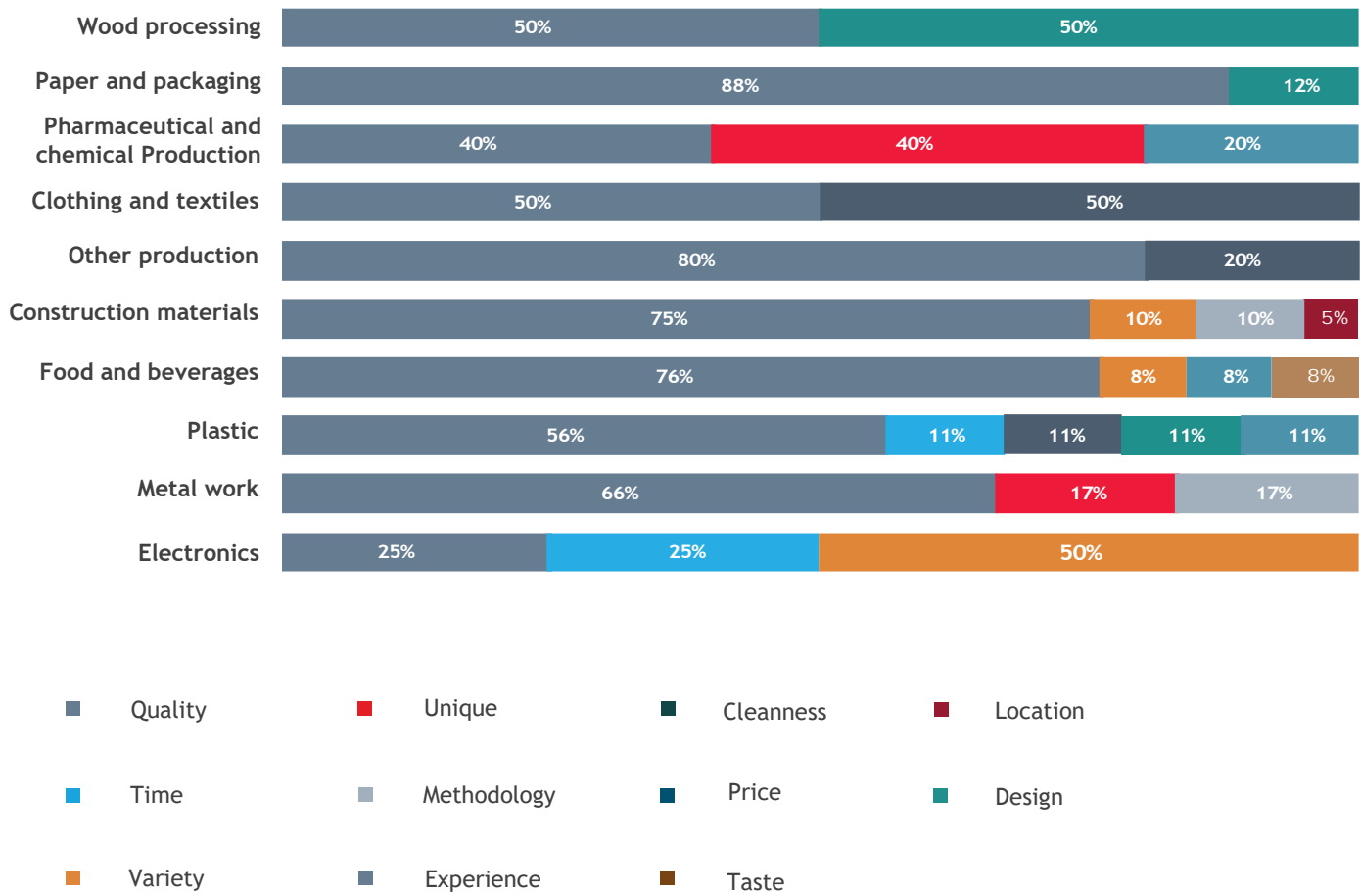
## COMPETITIVE ADVANTAGES OF BENEFICIARIES

Competitive advantage is the unique ability of a firm to utilize its resources effectively, by offering consumers greater value, either by means of lower prices, high quality and many different features in which business can obtain a competitive advantage.

Based on the responses received during the interviews with the Beneficiaries, we have identified the features, that grant the Beneficiaries superiority over their competitors:

### Competitive advantages of the beneficiaries

Chart 5.39



Based on 80 Beneficiaries' data, where 2 companies stopped functioning and 2 are at the risk of liquidation

Source: Beneficiaries' data and BDO analysis

# BENEFICIARY ANALYSIS

## INVESTMENTS CONTRIBUTED BY THE BENEFICIARIES

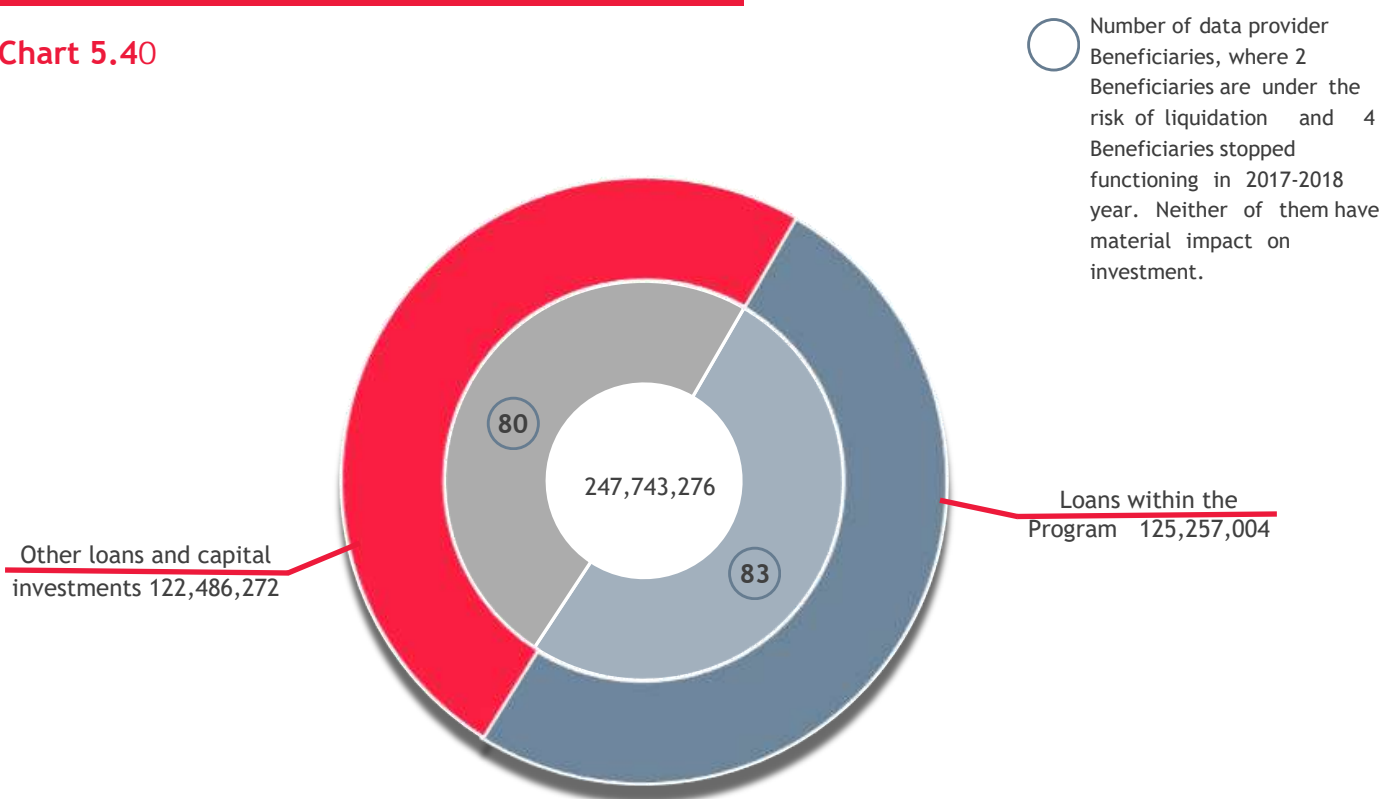
Domestic investment is one of the most important components for the economic growth of the country and it correlates with different economic variables. Investment has an immediate impact on GDP and can increase value added in production as well as affect taxation and unemployment. The main goal of this part is to analyze investments mobilized within the Program.

Investments in the Beneficiaries, include both, loans received within the Program and other loans and capital funding made by the Beneficiary companies' owners under the assumption that, as the Program required 80% of the financial resources received by the loan to be directed at fixed assets, other loans and capital funding was a long-term investment as well. In order to get the understanding on those two different sources of investments, interview was conducted with 85 Beneficiaries out of which 2 companies were unable to determine the exact amount of the loan due to the lack of internal accounting system and 5 of them refused to provide information because of confidentiality issues.

Please note investment is given in GEL and is converted from foreign currencies using the annual average exchange rate of the year in which the investment was occurred or loan was issued, published by NBG.

### Investments made by the Beneficiaries in 2014-2018\*(GEL)

Chart 5.40



Source: Beneficiaries' data and BDO analysis

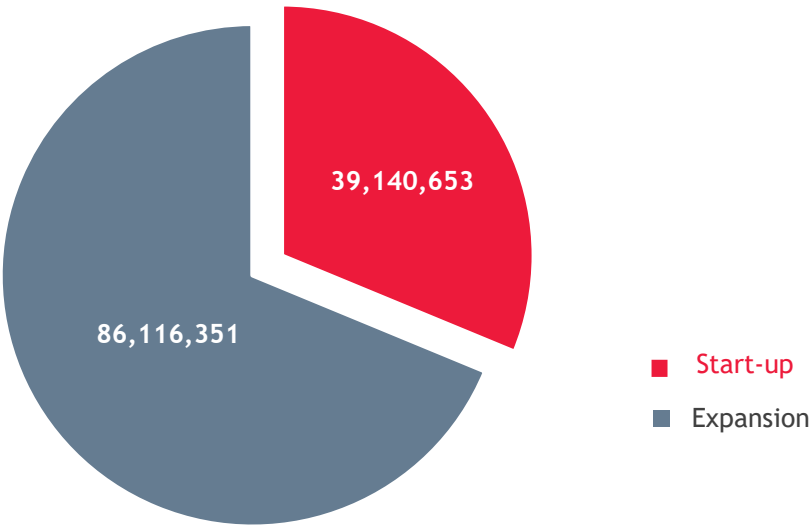
Distribution of received loans within the Program and other loans and capital funding made by the owners between start-up and expansion companies is - 31% to 69% for loans within the Program and 18% to 82% for other loans and capital funding made by the owners.

# BENEFICIARY ANALYSIS

## INVESTMENTS CONTRIBUTED BY THE BENEFICIARIES

Loans within the Program by business status in 2014-2018\* (GEL)

Chart 5.41



Based on 29 Beneficiaries' data for start-up, out of which 2 beneficiaries are under the risk of liquidation and 3 Beneficiaries stopped functioning in 2017-2018 year.

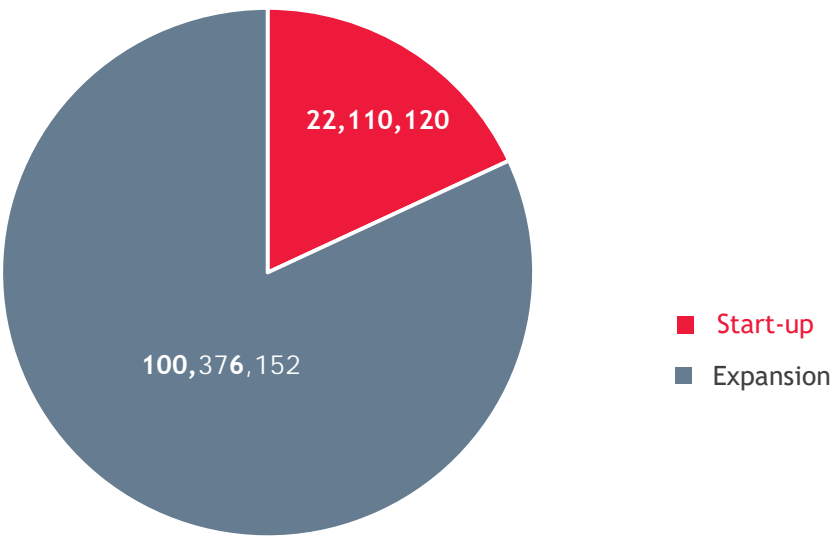
54 Beneficiaries' data for expansion, out of which 1 beneficiary stopped functioning in 2018 year.

The data of beneficiaries which have stopped functioning or have a risk of liquidation has immaterial impact on investment.

\*Incomplete year  
Source: Beneficiaries' data and BDO analysis

Loans and capital investments other than within the Program, made by the Beneficiaries, by business status in 2014-2018\* (GEL)

Chart 5.42



Based on 29 Beneficiaries' data for start-up, out of which 2 beneficiaries are under the risk of liquidation and 3 Beneficiaries stopped functioning in 2017-2018 year.

51 Beneficiaries' data for expansion, out of which 1 beneficiary stopped functioning in 2018 year.

The data of Beneficiaries which have stopped functioning or have a risk of liquidation has immaterial impact on investment.

\*Incomplete year  
Source: Beneficiaries' data and BDO analysis

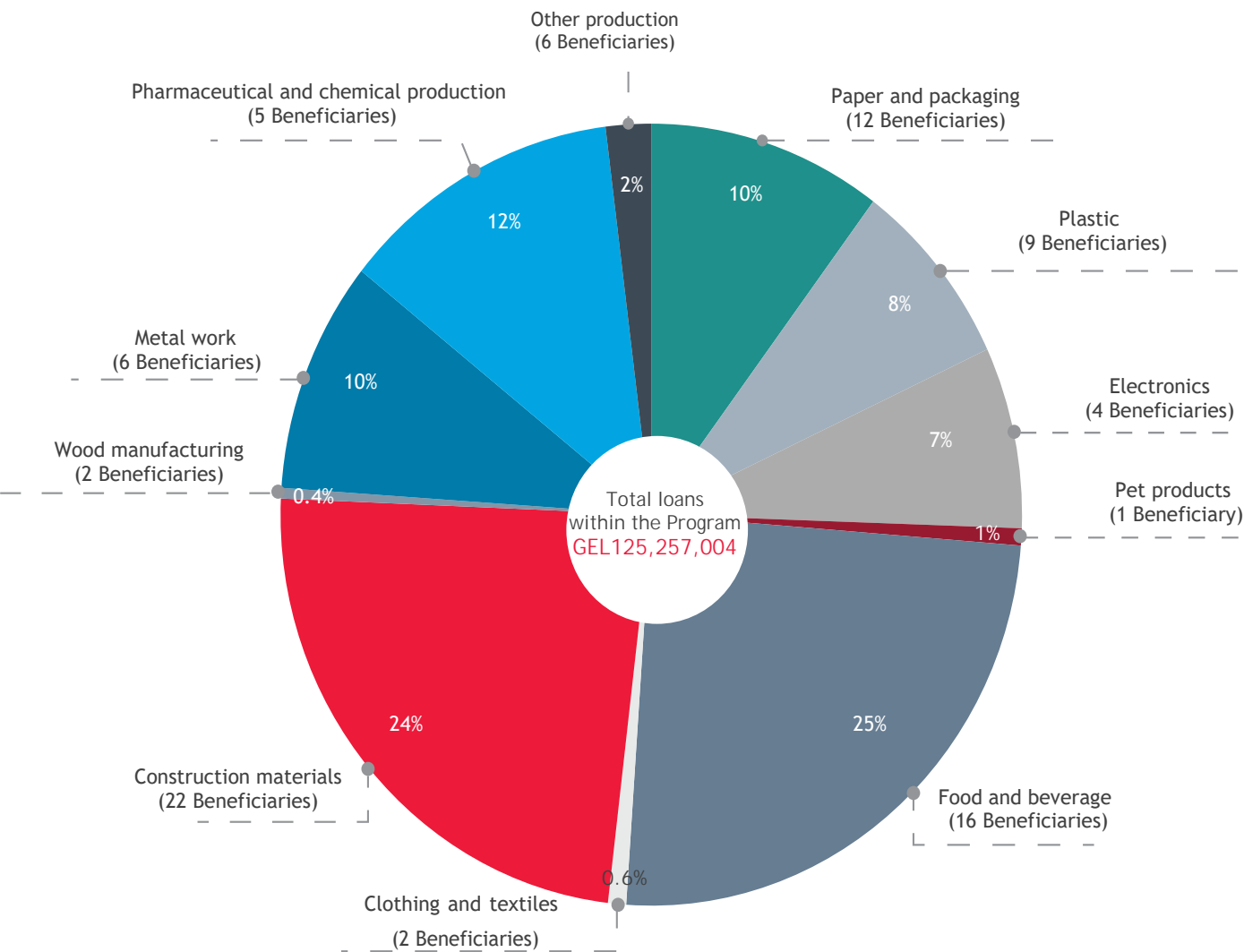
# BENEFICIARY ANALYSIS

## INVESTMENTS CONTRIBUTED BY THE BENEFICIARIES

During the 'Produce in Georgia' Program analysis, 11 main sectors have been identified where funding was obtained from the Program. Based on the amount of subsidized loans, food and beverage and construction material production sectors seem to be more active to receive financial aid.

### Subsidized sectors

Chart 5.43



Number of data provider  
Beneficiaries, where 2 Beneficiaries  
are under the risk of liquidation and  
4 Beneficiaries stopped functioning  
in 2017-2018 year. Neither of them  
have material impact on total  
Program loan.



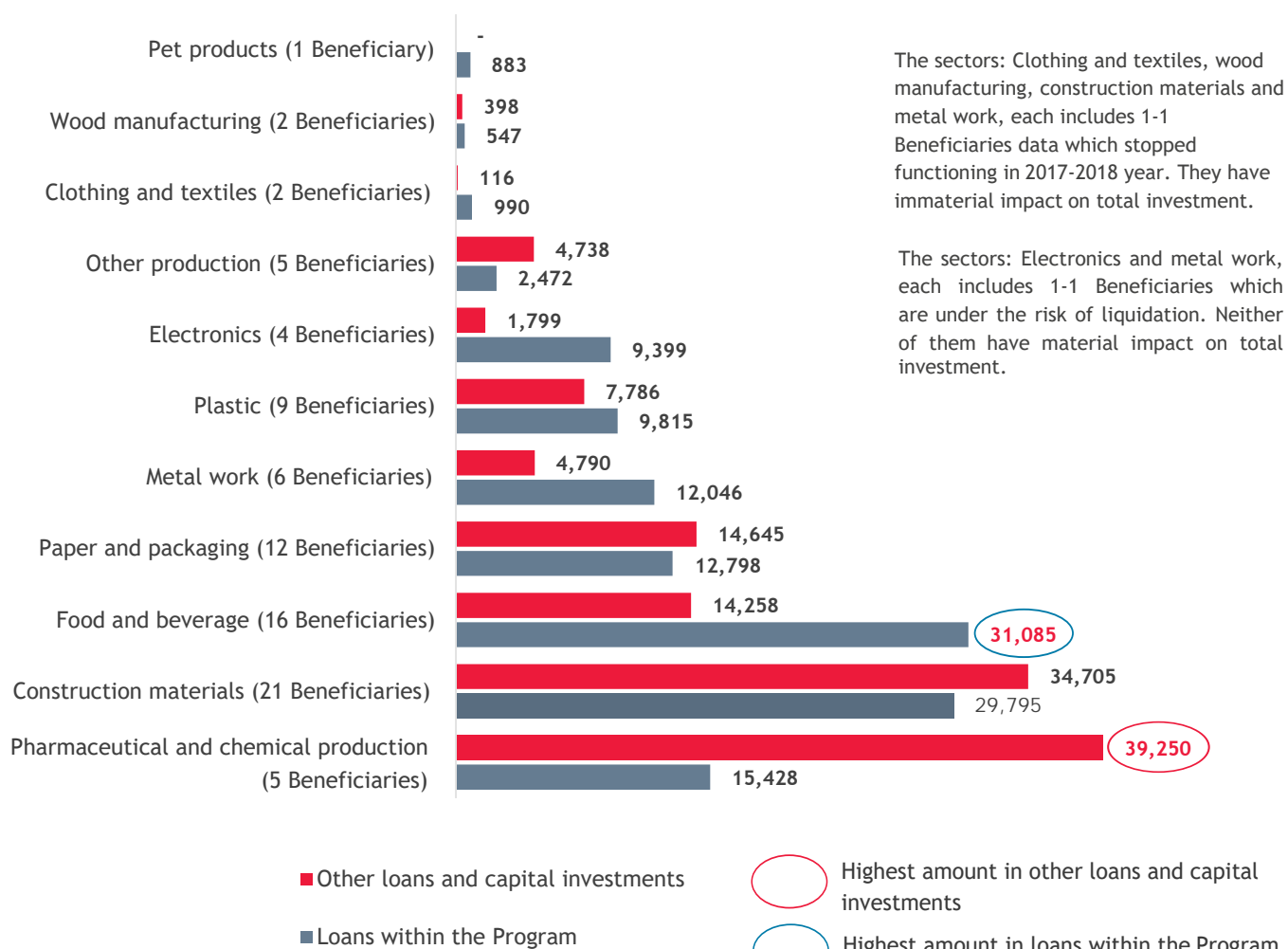
# BENEFICIARY ANALYSIS

## INVESTMENTS CONTRIBUTED BY THE BENEFICIARIES

On the contrary to subsidized sectors, the largest amount of investment made by Beneficiary's owners along with other loans is recorded in pharmaceutical and chemical engineering sector and amounted GEL39,250,444 (the data is collected from the 5 selected Beneficiaries).

Total investments by sectors for Start-ups and Expansions together in 2014-2018\* (Thousand GEL)

Chart 5.44



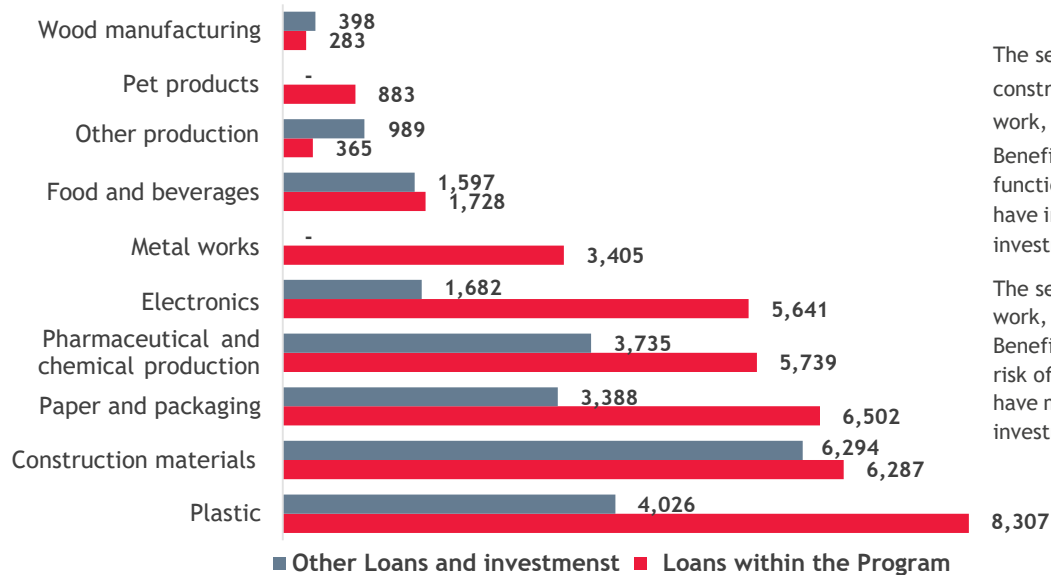
\*Incomplete year  
Source: Beneficiaries' data and BDO analysis

# BENEFICIARY ANALYSIS

## INVESTMENTS CONTRIBUTED BY THE BENEFICIARIES

### Total investments by sectors for Start-up in 2014-2018\* (Thousand GEL)

Chart 5.45



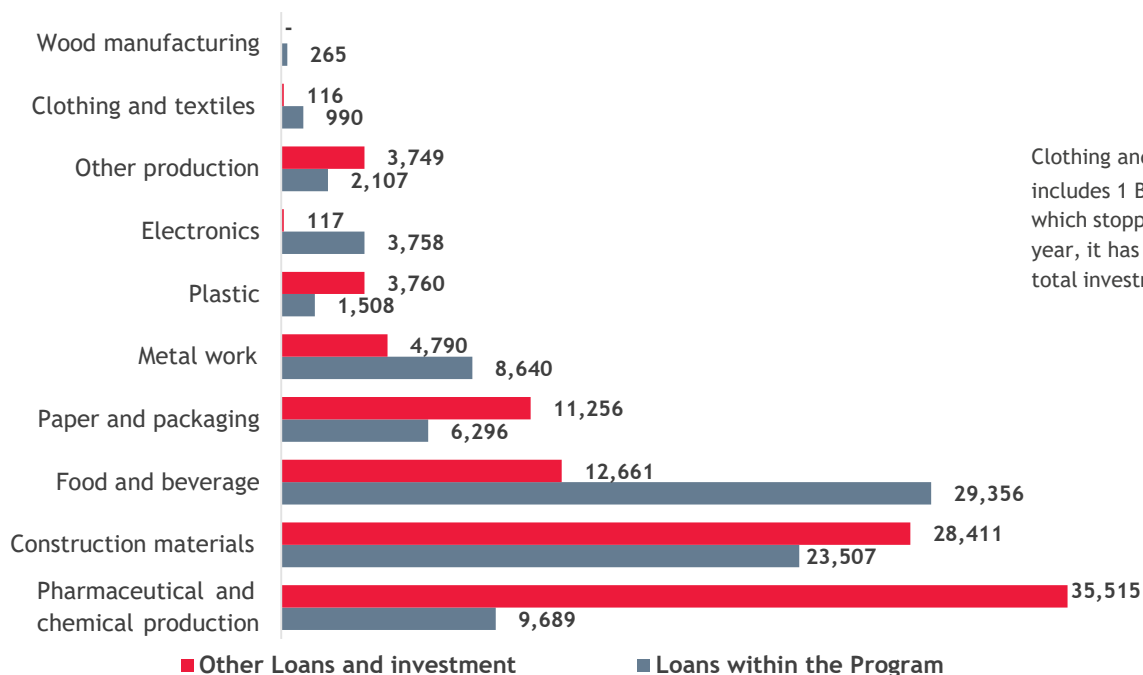
The sectors: Wood manufacturing, construction materials and metal work, each includes 1-1 Beneficiaries data which stopped functioning in 2017-2018 year. They have immaterial impact on total investment.

The sectors: Electronics and metal work, each includes 1-1 Beneficiaries which are under the risk of liquidation. Neither of them have material impact on total investment.

\*Incomplete year  
Source: Beneficiaries' data and BDO analysis

### Total investments by sectors for Expansion in 2014-2018\* (Thousand GEL)

Chart 5.46



Clothing and textiles sector includes 1 Beneficiary's data which stopped functioning in 2018 year, it has immaterial impact on total investments.

\*Incomplete year  
Source: Beneficiaries' data and BDO analysis

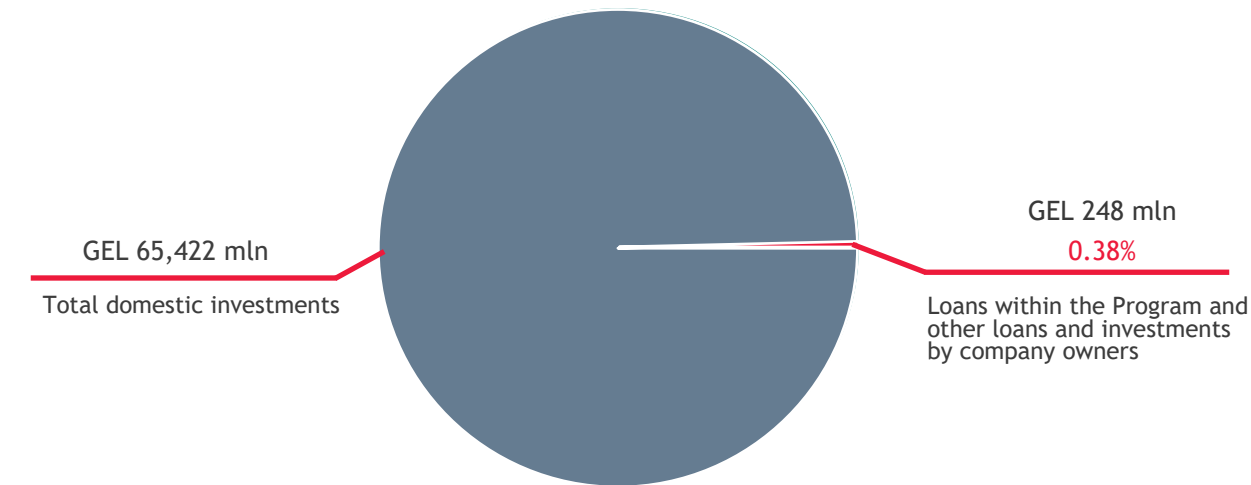
# BENEFICIARY ANALYSIS

## SHARE OF TOTAL PROGRAM INVESTMENT IN A TOTAL COUNTRY INTERNAL INVESTMENT

In order to understand the share proportion of loans received within the Program in total domestic investment, which is obtained according to the report - ‘Basic Economic and Financial Indicators’ published by the Ministry of Finance of Georgia, total loan issued within the Program has been compared to the internal investment made in the country for the 2014-2018 year (2018 is expected data). As all investments made by the Beneficiary companies were internal, foreign direct investments were excluded from comparison.

Domestic investment in 2014-2018\* (GEL)

Chart 5.47



\*Incomplete year  
Source: Beneficiaries’ data and BDO analysis

# BENEFICIARY ANALYSIS

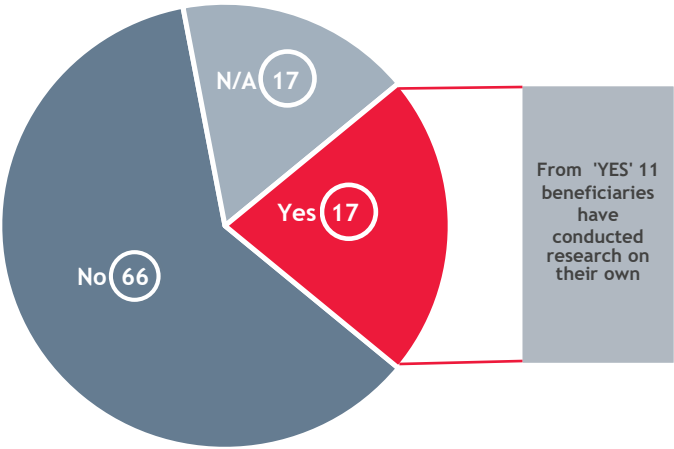
## RESEARCH AND DEVELOPMENT

It is important to analyze the information about conducted researches within the Program, in order to reveal the results about how many of the Beneficiaries spend financial resources for market researches, for staying ahead in the competitive environment irrespective of its size as well as its client strength and business status.

At the first stage, when business plans were required to be presented in order to get involved in the Program beneficiaries have prepared business plans and market research analysis without any assistance from third-party companies. Even later on, when it is expected that a company expands and enters new markets, the Beneficiaries claim that it is preferred to gather all the information about target markets or customers on their own (secondary research).

Conducted researches by the Beneficiaries in 2014-2018\* (GEL)

Chart 5.48



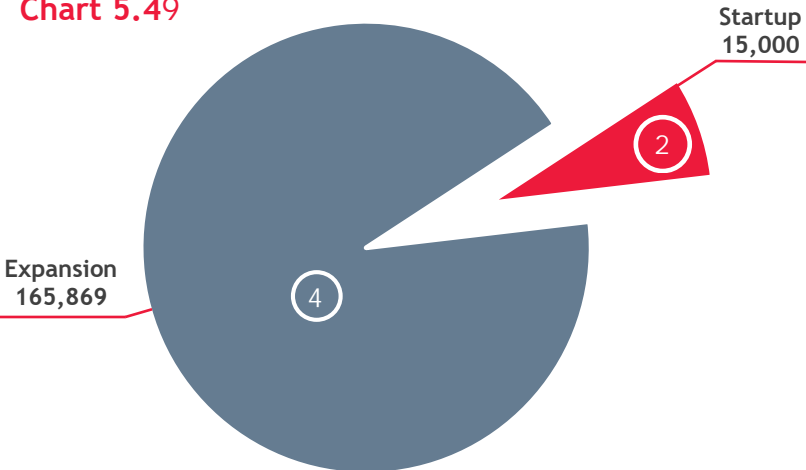
Number of data provider Beneficiaries includes 2 Beneficiaries which are under the risk of liquidation and 4 Beneficiaries which stopped functioning in 2017-2018.

\*Incomplete year  
Source: Beneficiaries' data and BDO analysis

After involving the Program only 6 Beneficiaries have done market research with the help of research and developing organization and the total amount of this service was approximately GEL180,869.

The cost of conducted researches by business status after involving in the Program in 2014-2018\* (GEL)

Chart 5.49



○ Number of Beneficiaries related to data presented

\*Incomplete year  
Source: Beneficiaries' data and BDO analysis

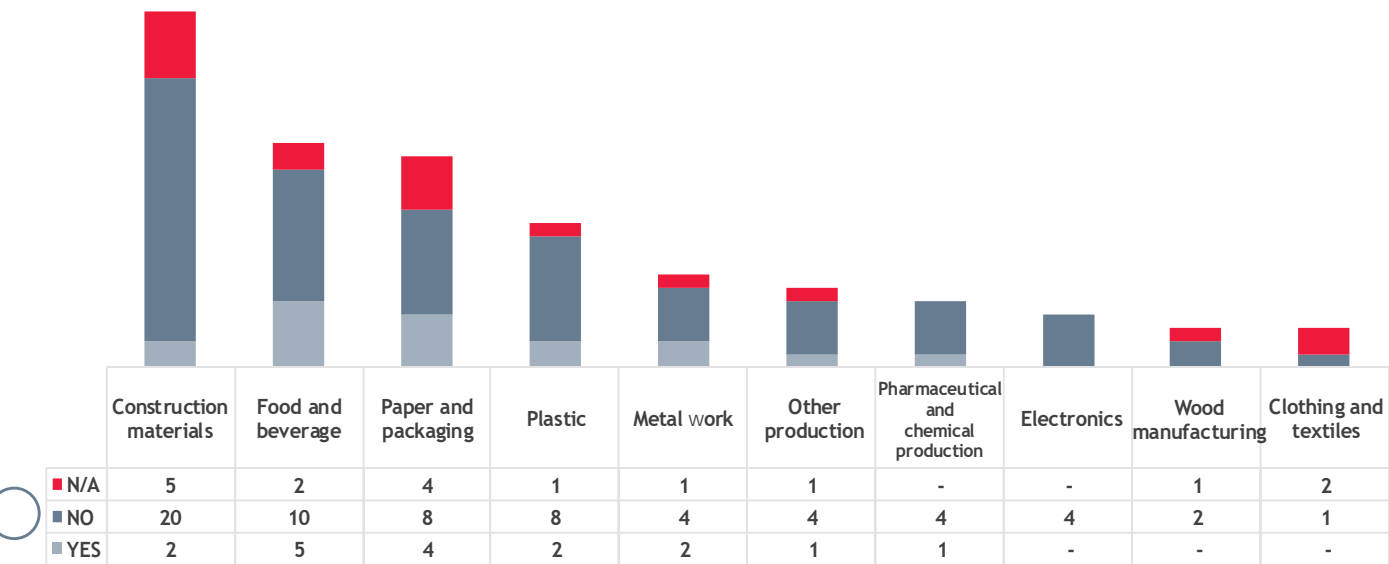
# BENEFICIARY ANALYSIS

## RESEARCH AND DEVELOPMENT

According to the inquires, beneficiaries operating in food and beverage sector are more active in doing researches (themselves or with the support of specialized organizations) than in any other sectors, which may be due to the specific characteristics of the sector.

Researches undertaken by Beneficiaries themselves or with the help of third parties by sectors in 2014-2018\*

Chart 5.50



Number of data provider Beneficiaries includes 2 Beneficiaries which are under the risk of liquidation in plastic and electronics sector (in line 'NO') and 4 Beneficiaries in wood manufacturing, metal work, construction materials and clothing and textiles sector (3 in line 'NO' and 1 in line 'N/A') which stopped functioning in 2017-2018 year.

\*Incomplete year  
Source: Beneficiaries' data and BDO analysis

Only 7% of the Beneficiaries (out of 83 Beneficiaries, which have provided information about this issue) have conducted market researches after being involved in the Program in order to measure customer attitudes, expectations and level of satisfaction. Generally, Beneficiaries neglect the need for market researches due to their expensive costs and prefer to conduct secondary researches with lower costs.



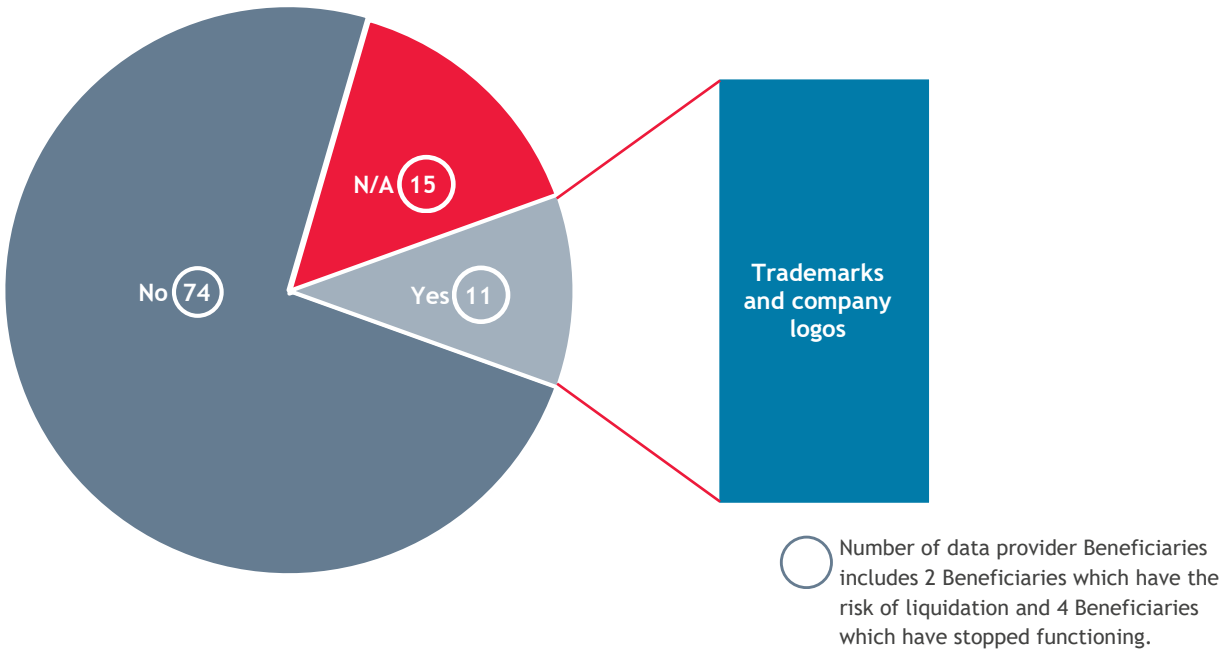
# BENEFICIARY ANALYSIS

## INTANGIBLE ASSETS CREATED WITHIN THE PROGRAM

Beneficiaries seem to invest in tangible assets more often than in intangible assets. Only 13% (out of 85 Beneficiaries which have provided information related to this issue) have acquired intangible assets, which mostly includes creation of trademarks and company logos.

Created/acquired intangible assets in 2014-2018\*

Chart 5.51



\*Incomplete year  
Source: Beneficiaries data and BDO analysis



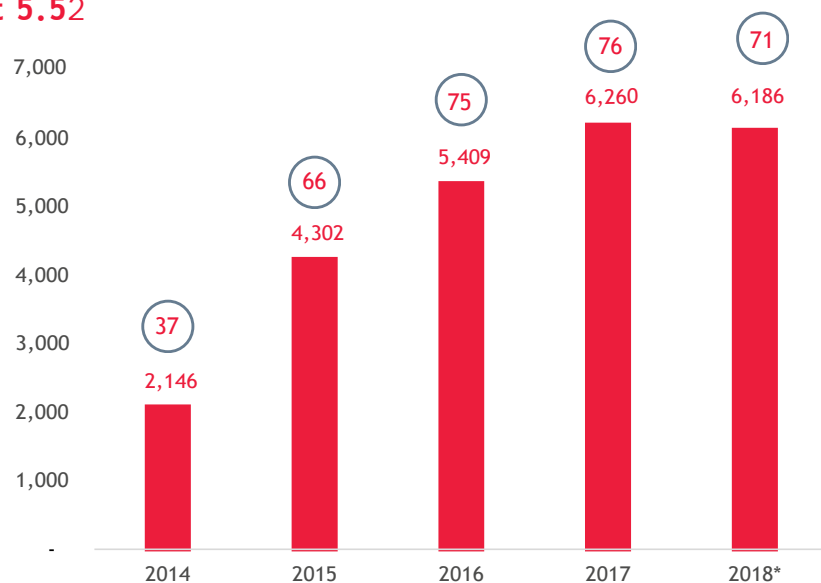
# BENEFICIARY ANALYSIS

## EMPLOYMENT STATISTICS WITHIN THE PROGRAM

One of the most important aspects of measuring the economic effect is growth in employment rate of the country. The number of personnel employed by Beneficiaries according to the years is shown on the chart below.

### Total average number of employees in Beneficiaries through the years 2014-2018\*

Chart 5.52



Number of data provider Beneficiaries where:

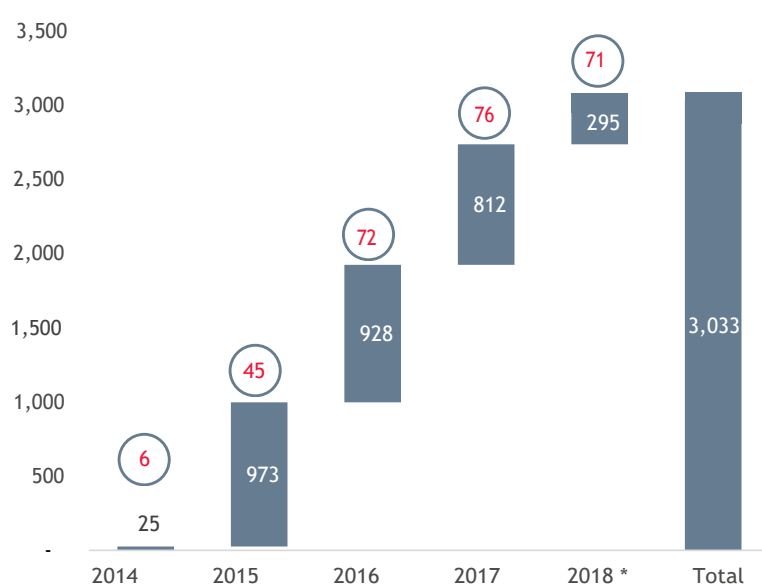
- There is 1 Beneficiary's data in 2014-2016 which has stopped functioning in 2017
- There is 1 Beneficiary's data in 2015-2016 which have stopped functioning in 2017
- There are 2 Beneficiaries' data, in 2015-2017 which have stopped functioning in 2018

\* Incomplete year  
Source: Beneficiaries' data and BDO analysis

After the Beneficiaries' engagement in the 'Produce in Georgia' Program, the net growth of employees has reached 3,033. This figure is calculated with the consideration of employee turnover in companies from year to year.

### Net increase of the employees after the 'Produce in Georgia' Program commencement, 2014-2018\*

Chart 5.53



Number of data provider Beneficiaries where:

- There is 1 Beneficiary's data in 2014-2017 which has stopped functioning in 2018
- There is 1 Beneficiary's data in 2015-2018 and 1 Beneficiary's data in 2017-2018 which have risk of liquidation
- There is 1 Beneficiary's data in 2015-2017 which has stopped functioning in 2018.
- There are 2 Beneficiaries' data in 2015-2018 which have currently stopped functioning.

\* Incomplete year  
Source: Beneficiaries' data and BDO analysis

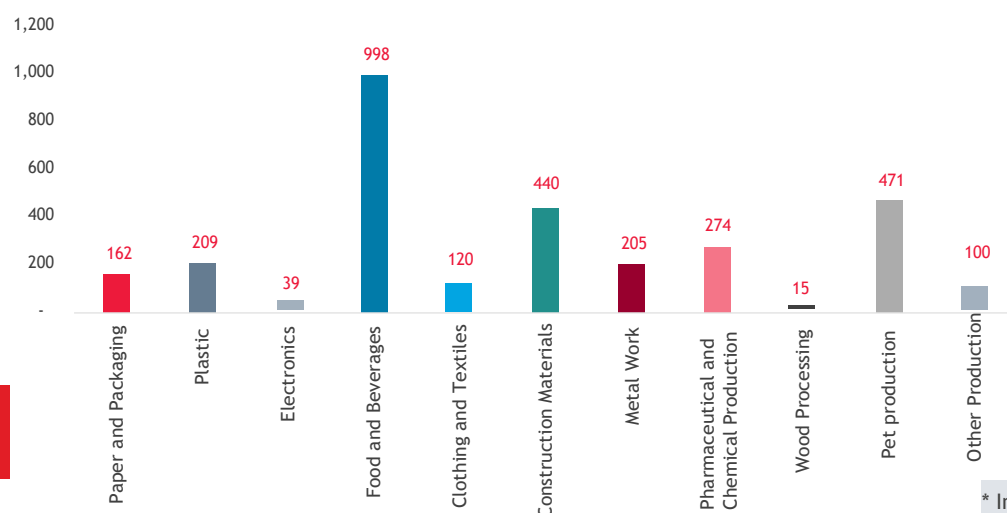
# BENEFICIARY ANALYSIS

## EMPLOYMENT STATISTICS WITHIN THE PROGRAM

The result of the analysis shows that different sectors are presented by the different employment growth. Top 3 sectors which have been outlined by the highest net increase of employees are food and beverages, pet production and construction materials. The difference between the sectors might be caused by the uneven distribution of the 85 interviewed Beneficiary companies in these sectors.

**Net increase of the employees after the 'Produce in Georgia' Program commencement by sectors, 2014-2018\***

**Chart 5.54**

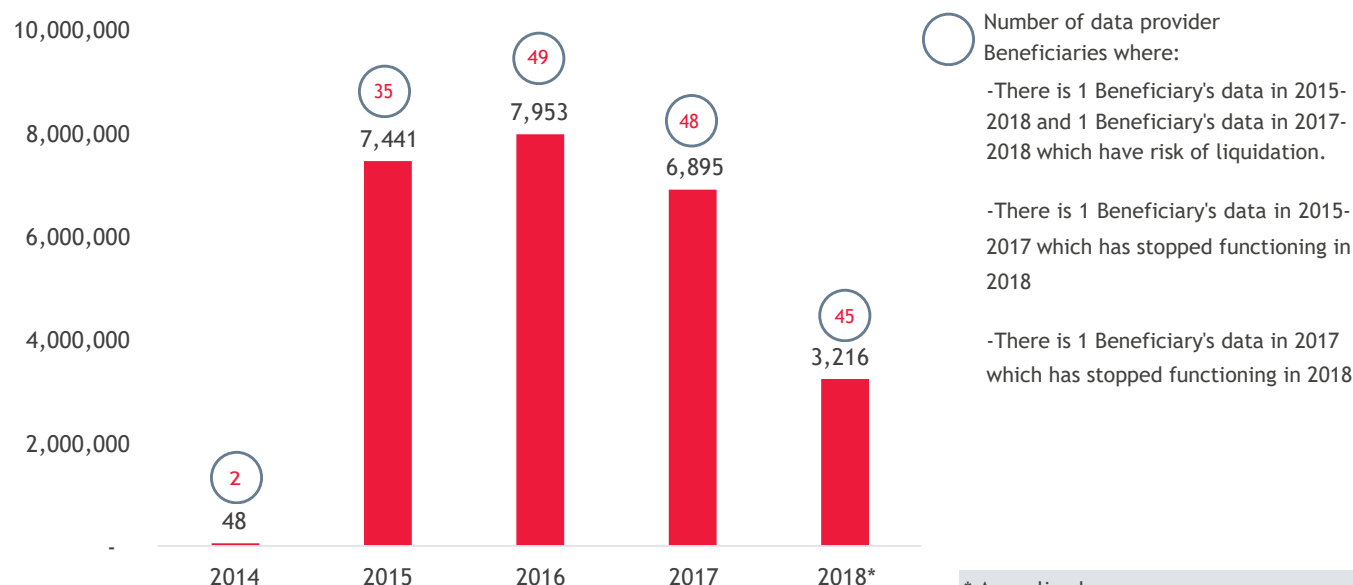


\* Incomplete year  
Source: Beneficiaries' data and BDO analysis

The total salary fund paid to the new 3,033 employees by the Beneficiary companies, after the engaging in the Program amounted around GEL25,552,635 without personal income taxes, in 2014-2018\*.

**The salary fund generated by new employees after the 'Produce in Georgia' Program commencement, 2014-2018\*(Thousand GEL)**

**Chart 5.55**



Number of data provider Beneficiaries where:

- There is 1 Beneficiary's data in 2015-2018 and 1 Beneficiary's data in 2017-2018 which have risk of liquidation.
- There is 1 Beneficiary's data in 2015-2017 which has stopped functioning in 2018
- There is 1 Beneficiary's data in 2017 which has stopped functioning in 2018

\* Annualized  
Source: Beneficiaries' data and BDO analysis

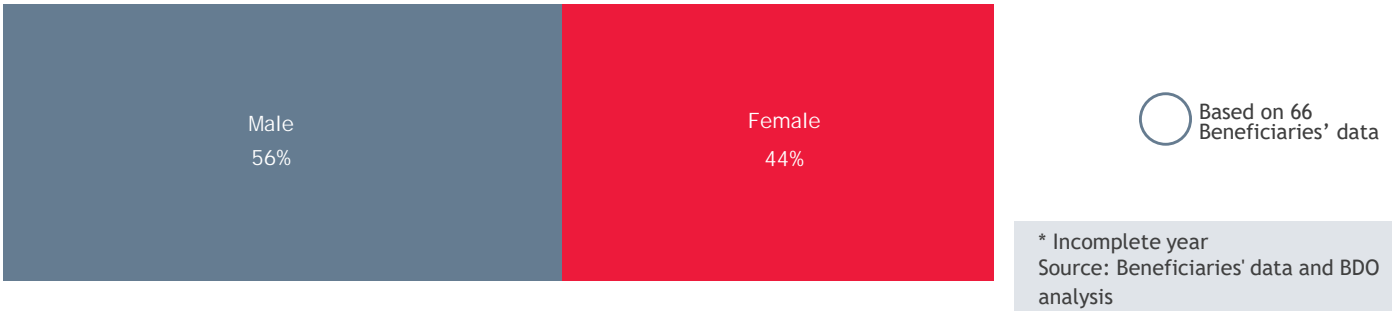
# BENEFICIARY ANALYSIS

## EMPLOYMENT STATISTICS WITHIN THE PROGRAM

In terms of gender, the share of employees is almost equal. The difference might be caused by the specifics of the sectors Beneficiaries are operating in.

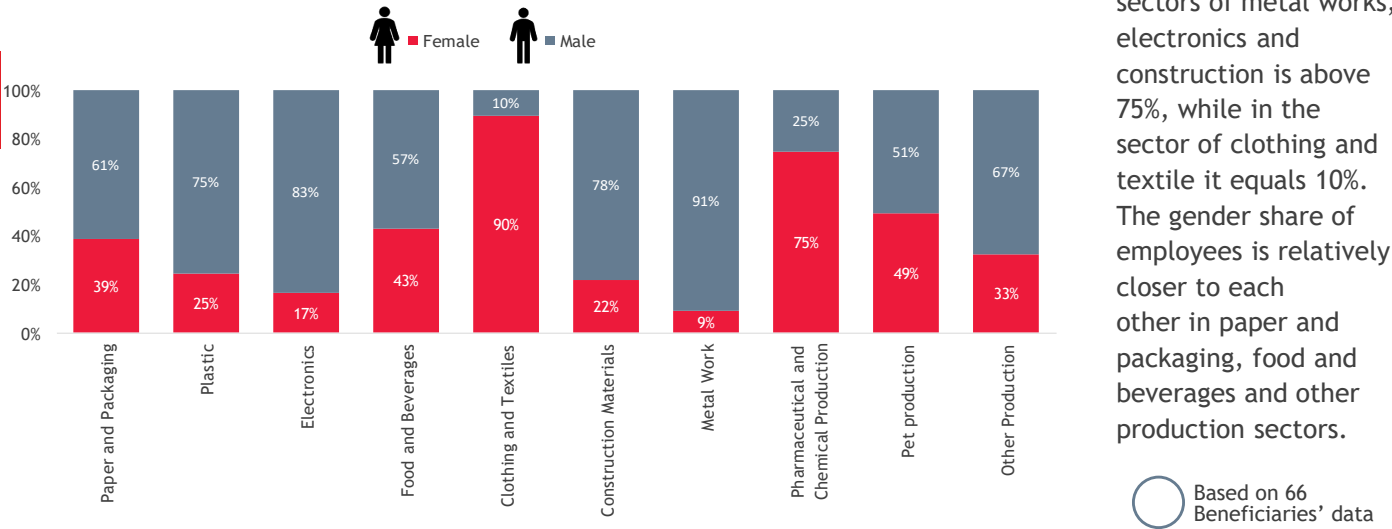
The share of males and females in the total of beneficiaries' average employees in 2018\*

Chart 5.56



Share of employees by sectors in the gender context, 2018\*

Chart 5.57



## AVERAGE SALARY BY SECTORS

Beneficiary companies are positioned in different sectors. The average salary also vary due to the specifics of the sectors.

For analyzing average salaries, the average salaries medians have been compared to industry benchmarks by sectors. The median for salaries can be computed by listing all salaries in ascending order and then selecting the value located in the centre of that distribution. According to the best practice, the median salary is more accurate way to estimate salary in each sector.

\* Incomplete year  
Source: Beneficiaries' data and BDO analysis





# BENEFICIARY ANALYSIS

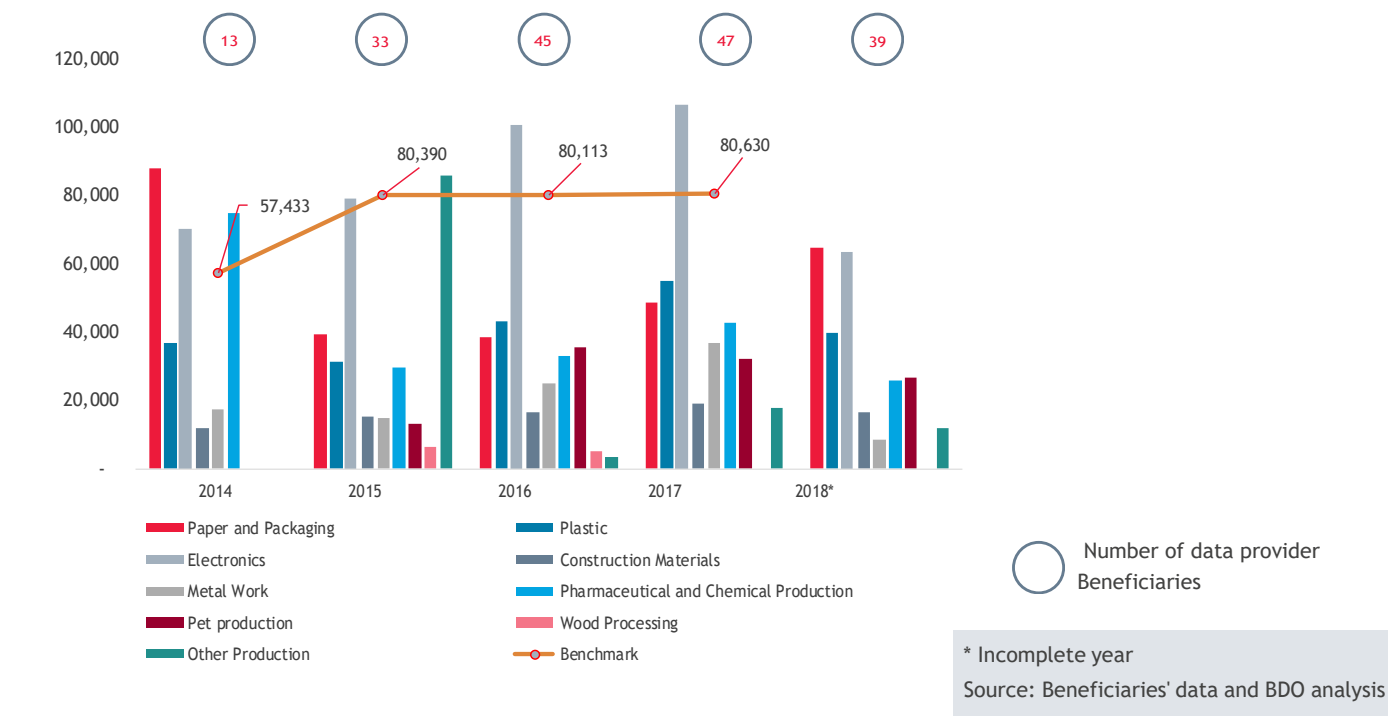
## LABOR PRODUCTIVITY PER EMPLOYED PERSON

Productivity measures the efficiency of a company's production process and it is calculated by dividing the outputs produced by a company by the inputs used in its production process. Labor productivity is calculated by dividing the company's sales revenue by the number of employees.

For comparing labor productivity median to the industry benchmarks, sectors have been matched to NACE, as it has been used while comparing average salaries median to the benchmark by sectors.

Labor productivity per employed person, after the Program commencement, 2014-2018\*  
(GEL, excluding VAT)

Chart 5.60



The median of the labor productivity per employed person in the sector of electronics in 2018, is calculated according to the data provided by 4 Beneficiaries in total, out of which 1 company has the risk of liquidation and the company has the significant negative impact to calculate the median. In the case of excluding an input of this beneficiary, labor productivity per employed person in the mentioned sector would be over 92% of the presented result in 2018.

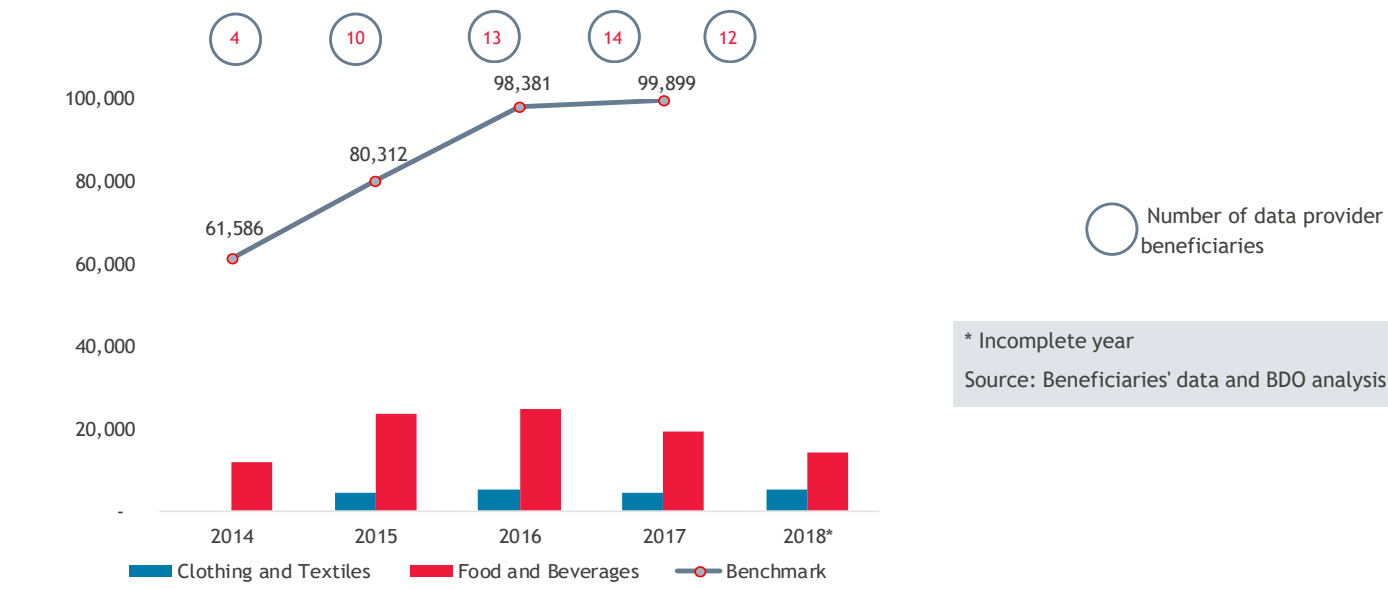
The median of the labor productivity per employed person in the sector of wood processing, in 2015-2016, is calculated according to the data provided by 1 beneficiary in total, which has stopped functioning from 2017.

# BENEFICIARY ANALYSIS

## LABOR PRODUCTIVITY PER EMPLOYED PERSON

Labor productivity per employed person, after the 'Produce in Georgia' Program commencement, 2014-2018\* (GEL, excluding VAT)

Chart 5.61



The median of the labor productivity per employed person in the sector of clothing and textiles, in 2015-2017, is calculated according to the data provided by 2 Beneficiaries in total, out of which 1 company has stopped functioning from 2018 and the company has the significant negative impact when calculating the median. In the case of excluding an input of this company, labor productivity per employed person would be over 92% of the presented data in 2015, 53% of the presented data in 2016 and 63% of the presented data in 2017.

# BENEFICIARY ANALYSIS

## LABOR PRODUCTIVITY PER EMPLOYED PERSON

Since 2016 was the last year of engagement in the Program for analyzed beneficiaries, the overall results of the Program, regarding the labor productivity, might have been more comprehensively reflected in 2017, where positive trend is shown almost in every sector, comparing to the previous year.

Improvement of productivity ratio might be the result of acquiring modern machinery and implementing the new technologies and thus, reducing the number of required workforce. However, the reduction of the ratio in several sectors might be related to the competition on the relevant market as well as to the inefficiency of the Beneficiaries' management.

In macro perspective, labor productivity median in each sector is lower than the benchmark. This can be explained by the Beneficiaries' lack of ability to use new machinery to their full potential and/or inefficient use of resources and/or selling the products for low prices. It should also be taken into consideration that the benchmarks in NACE list of sectors include data for several subsectors and this may cause some differences in the values.



# BENEFICIARY ANALYSIS

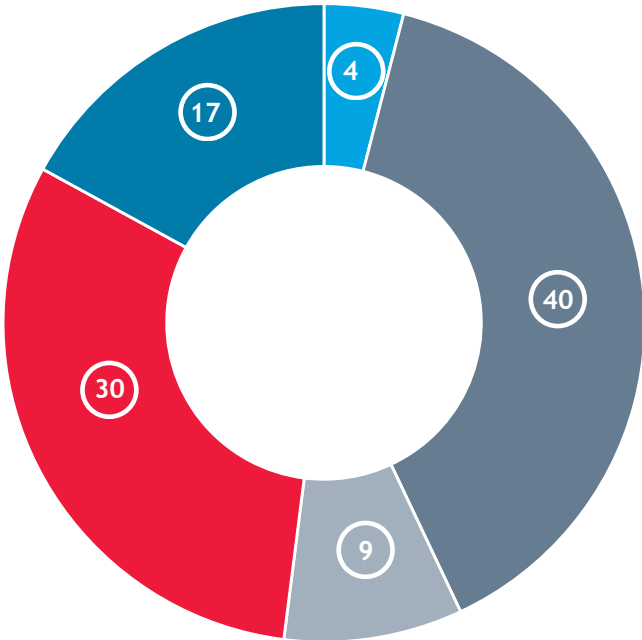
## PROFESSIONAL DEVELOPMENT

One of the most important resource for companies is their employees, that plays a vital role in companies’ success. So, having a qualified staff and permanently taking care of their professional development is the best way a company can invest in their success.

Personal development for the interviewed Beneficiaries has been studied in several directions and some major issues have been outlined. In particular, the majority of the Beneficiaries uses internal trainings for enhancing the knowledge of their staff. Internal trainings include teaching new employees work specifics on the place. Some of the agreements signed between beneficiaries and suppliers provide the specialist to visit the company and hold trainings in order to teach the working specifics of the purchased machinery and equipment. Beneficiaries permanently teach employees labor safety as well.

Beneficiaries’ attitude towards professional development

Chart 5.62



External trainings include courses, exhibitions, meetings with various state agencies, where employees can learn more about important issues, such as specific standards in different working sectors as well as sending the employees abroad to attend special trainings and qualification improving courses. Expenses for such business trips vary. Some of the interviewed beneficiaries try to apply both - internal and external trainings.

- Internal and external trainings
- Internal trainings
- External trainings
- No trainings
- N/A

○ Number of data provider beneficiaries

Source: Beneficiaries' data and BDO analysis

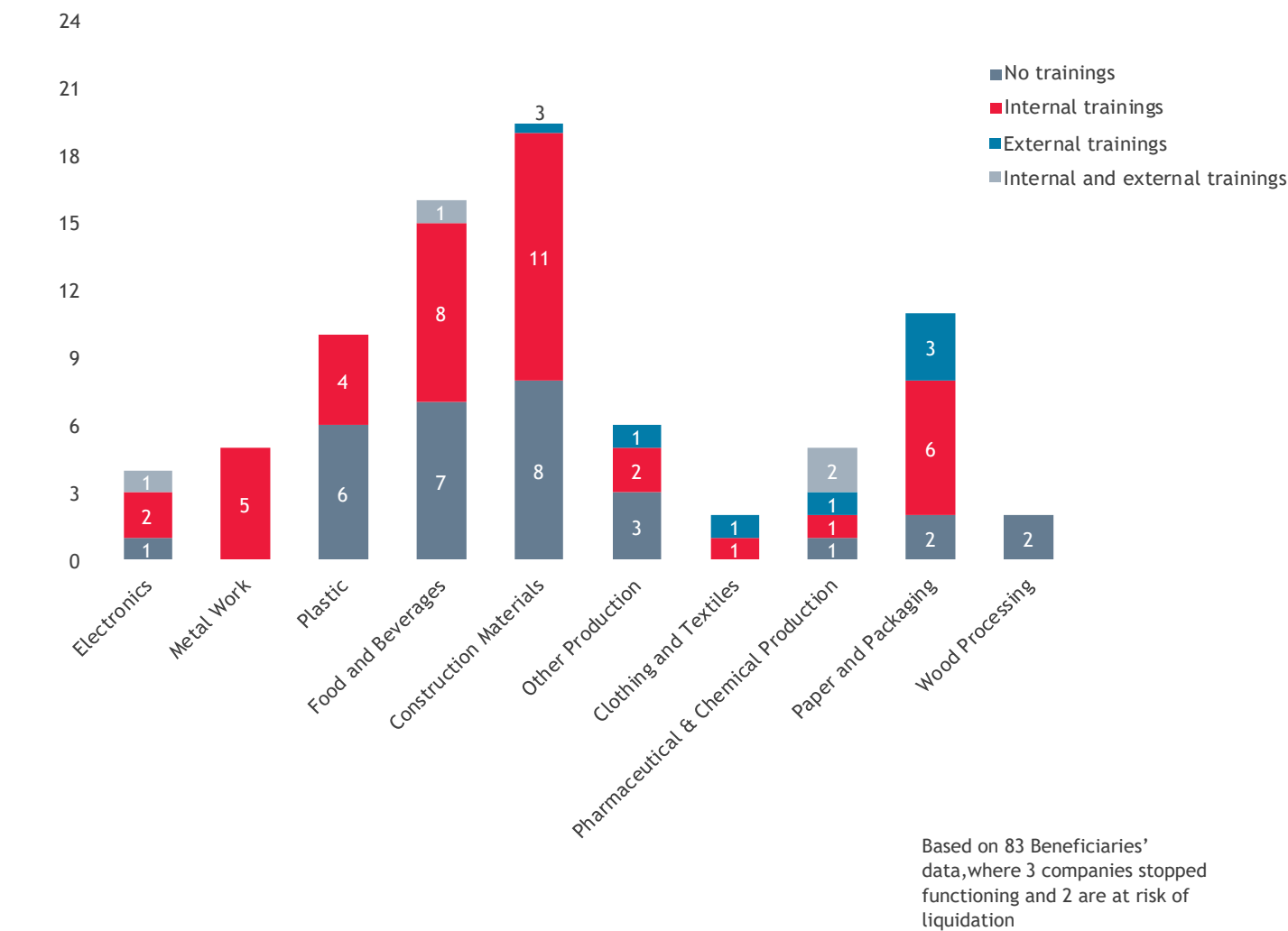
# BENEFICIARY ANALYSIS

## PROFESSIONAL DEVELOPMENT

During the interviews with Beneficiaries’ management about professional development of the staff, survey has identified sectors, where external and internal trainings are systematically held, as well as sectors, where companies are less concerned about employees’ skills improvement.

Professional development by sectors

Chart 5.63



When analyzing the data presented on the chart, the number of the Beneficiaries in each sector should be observed. It must also be taken into consideration, that some sectors have their specifications while performing their work. Beneficiaries in food and beverages and construction materials sectors mostly use internal trainings for improving qualification of the employees, however, beneficiaries in pharmaceutical and chemical production sector prefer both, internal and external trainings.

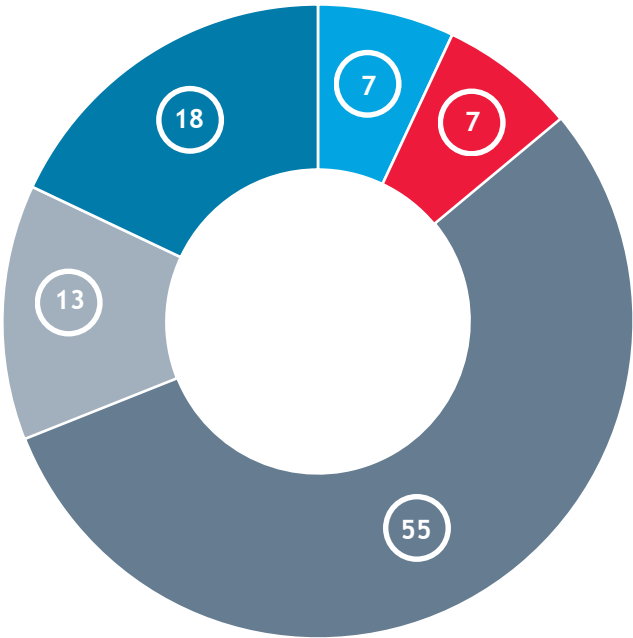
# BENEFICIARY ANALYSIS

## DEVELOPMENT PROSPECTS

While presenting plans for future development, interviewed Beneficiaries were mostly emphasizing expansion by the increased volume of manufactured product. Beneficiaries plan to increase the scale of production only if the market is in the relevant demand. Expansion in that direction will increase the volume of manufactured products for both - local market sales and for export as well. Only if market condition enables them to do so.

Beneficiaries’ plans for future development

Chart 5.64



Another way the Beneficiaries are considering expansion is by increasing their product assortment.

Beneficiaries intend to diversify key markets and offer customers variety of manufactured products.

Among the interviewed beneficiaries are those which do not have a specific plan for expansion at this time. However, they do not exclude changes in future.

○ Number of data provider beneficiaries

- Increasing of assortment and volume of production
- Increasing of assortment
- Increasing the volume of production
- No specific plan
- N/A

Source: Beneficiaries' data and BDO analysis



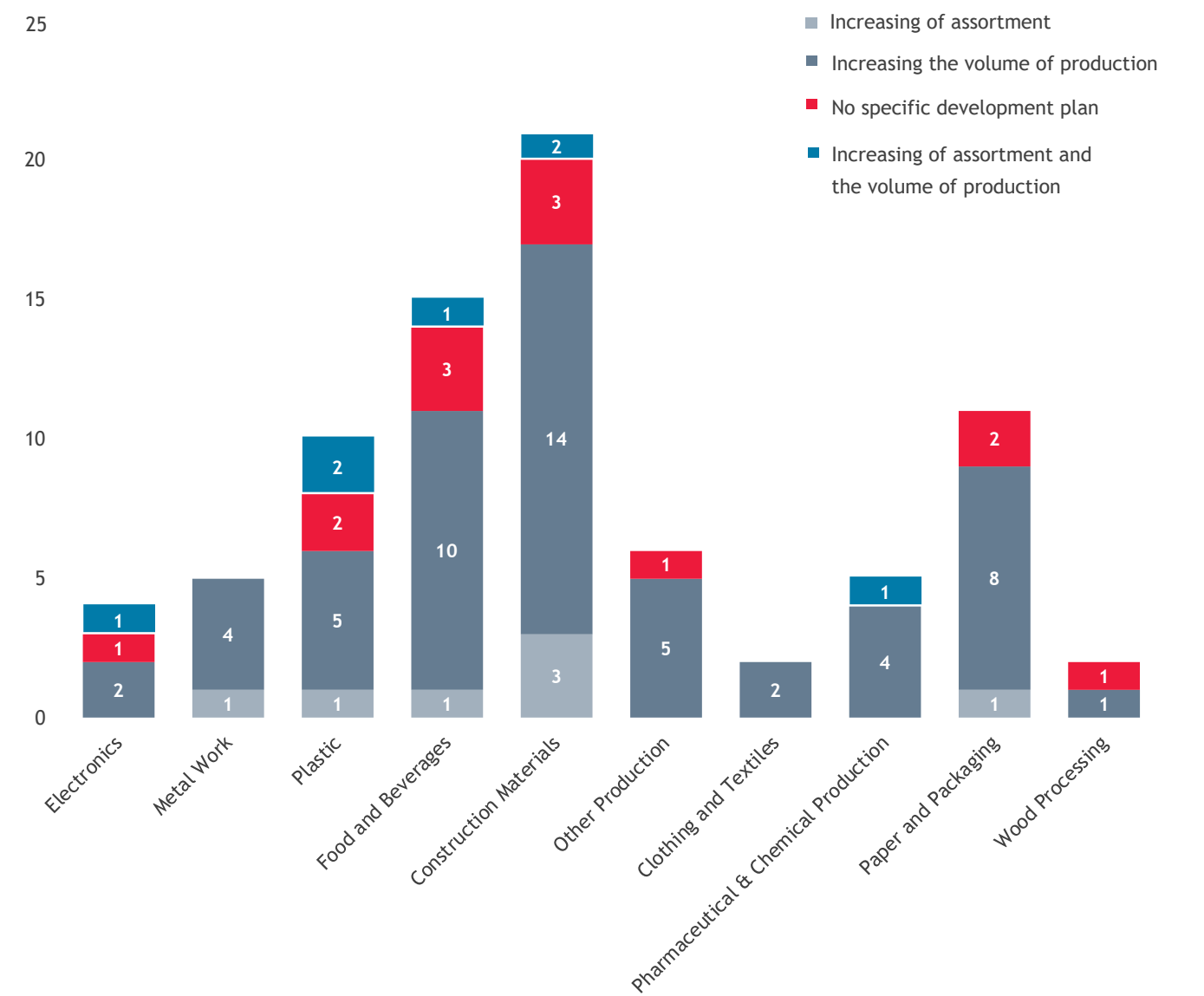
# BENEFICIARY ANALYSIS

## DEVELOPMENT PROSPECTS

Development prospects by sectors is represented on the chart below:

Development prospects by sectors

Chart 5.65



Based on 82 Beneficiaries' data, where 3 companies stopped functioning and 2 are at the risk of liquidation

Source: Beneficiaries' data and BDO analysis

# BENEFICIARY ANALYSIS

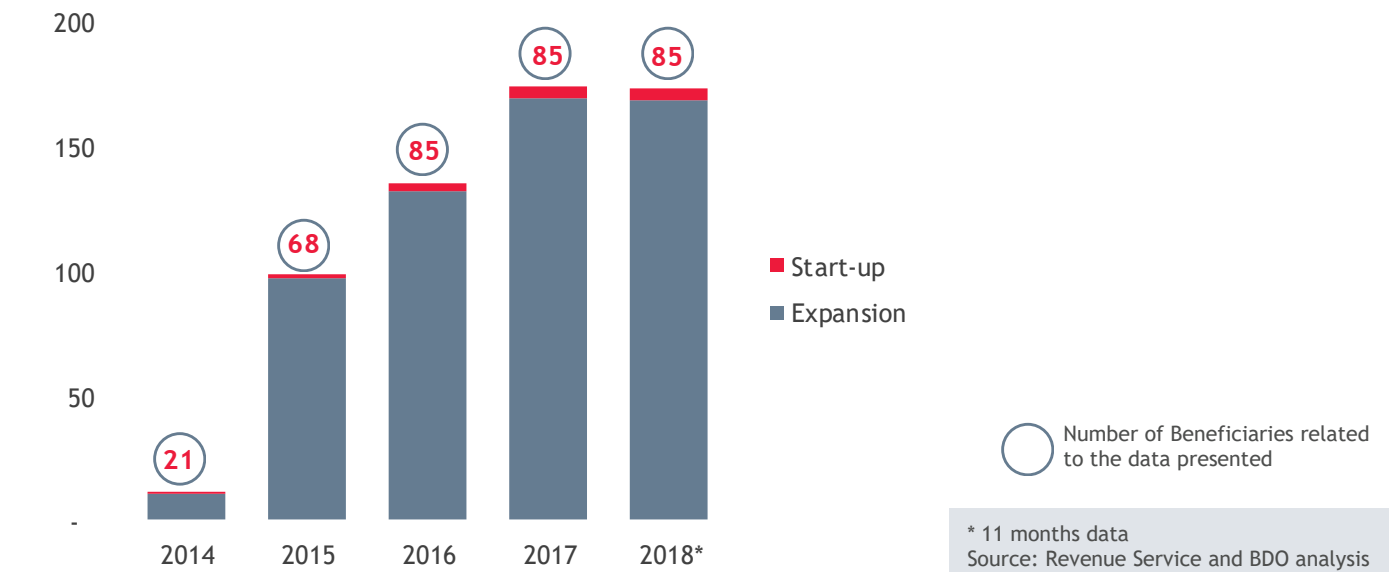
## TAXES COLLECTED

One of the indicators of increased economic activities in a country may be the increased amount of tax receivings in a state budget, ignoring any changes in tax rates or in tax incentives.

Total collected taxes from the Program Beneficiaries, including expansions, without separation of proportion associated with the Program and start-ups, whose amount might be totally considered as the Program merit, since businesses started up within the Program, have been analyzed by the years.

Total paid taxes by Beneficiaries (Mln GEL)

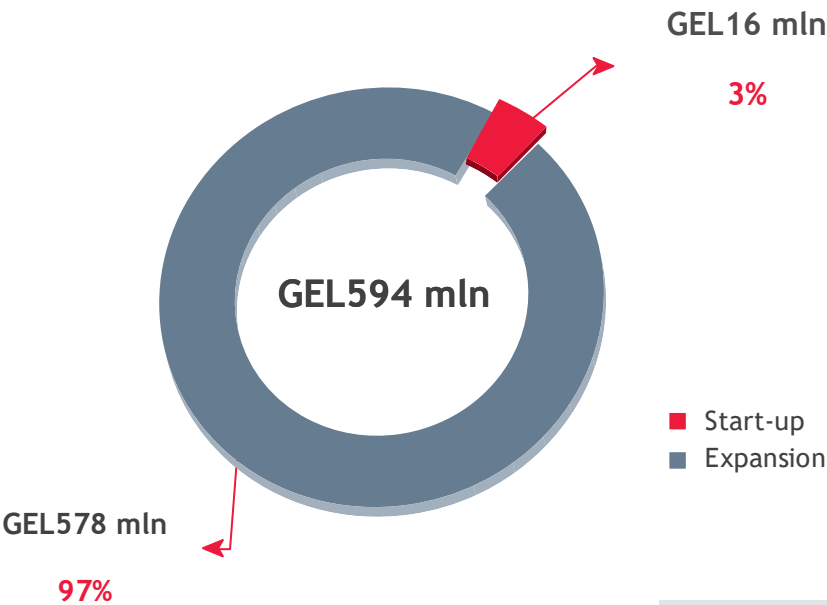
Chart 5.66



Considering the information presented in the chart 5.66, total collected taxes from the Program Beneficiaries for the period of 2014-2018\*:

Total paid taxes by Beneficiaries in 2014 - 2018\* (Mln GEL)

Chart 5.67



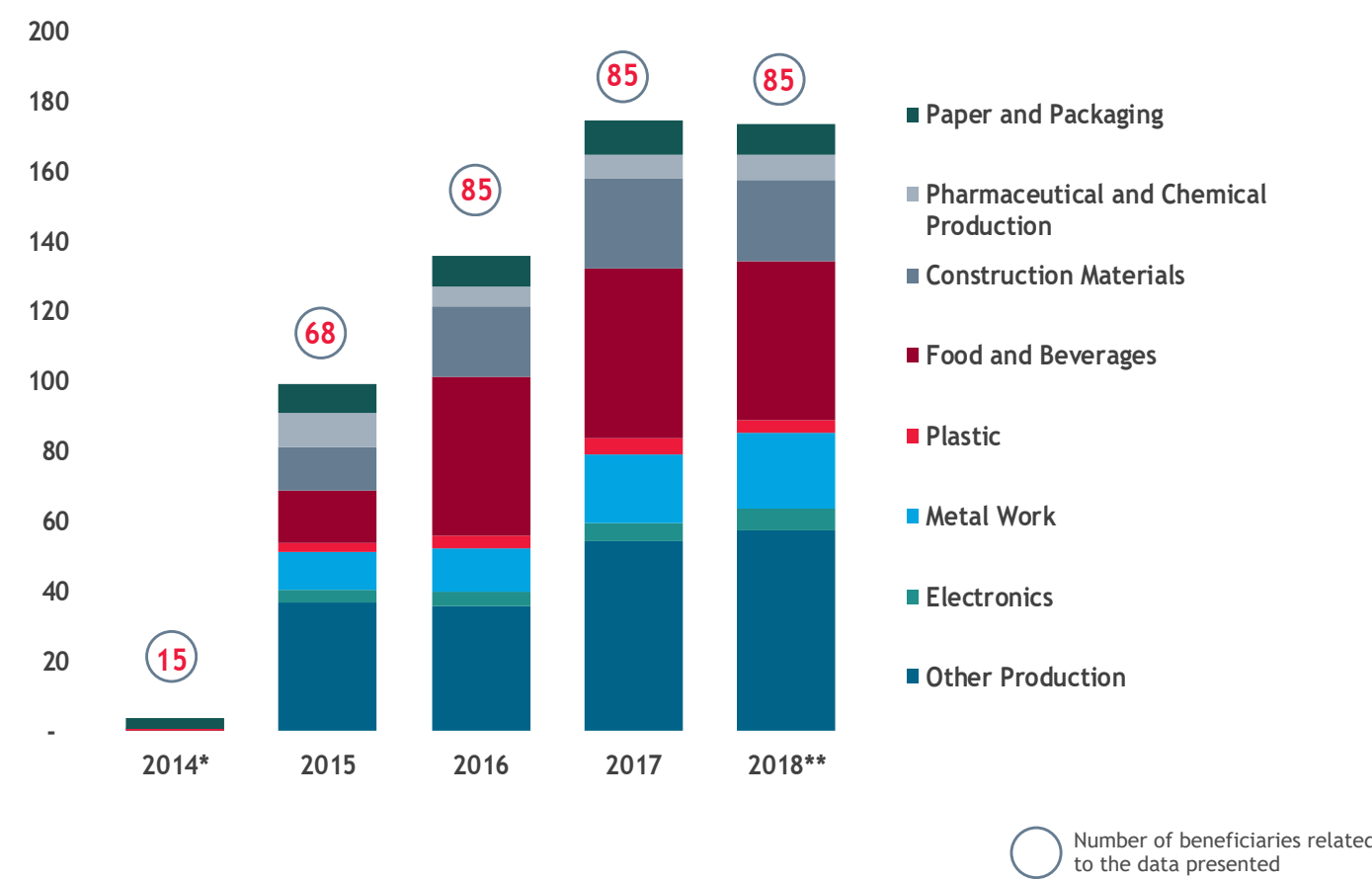
\* 11 months data  
Source: Revenue Service and BDO analysis

# BENEFICIARY ANALYSIS

## TAXES COLLECTED

Total paid taxes by sectors, considering the years of Beneficiaries' engagement in the Program (Mln GEL)

Chart 5.68



\*Due to the risk of being identified, data of several beneficiaries have not been provided by Revenue Service in electronics, food and beverage, metal works and construction materials sectors in 2014, amounted approximately GEL7 million.  
\*\*11 months data  
Source: Revenue Service and BDO analysis

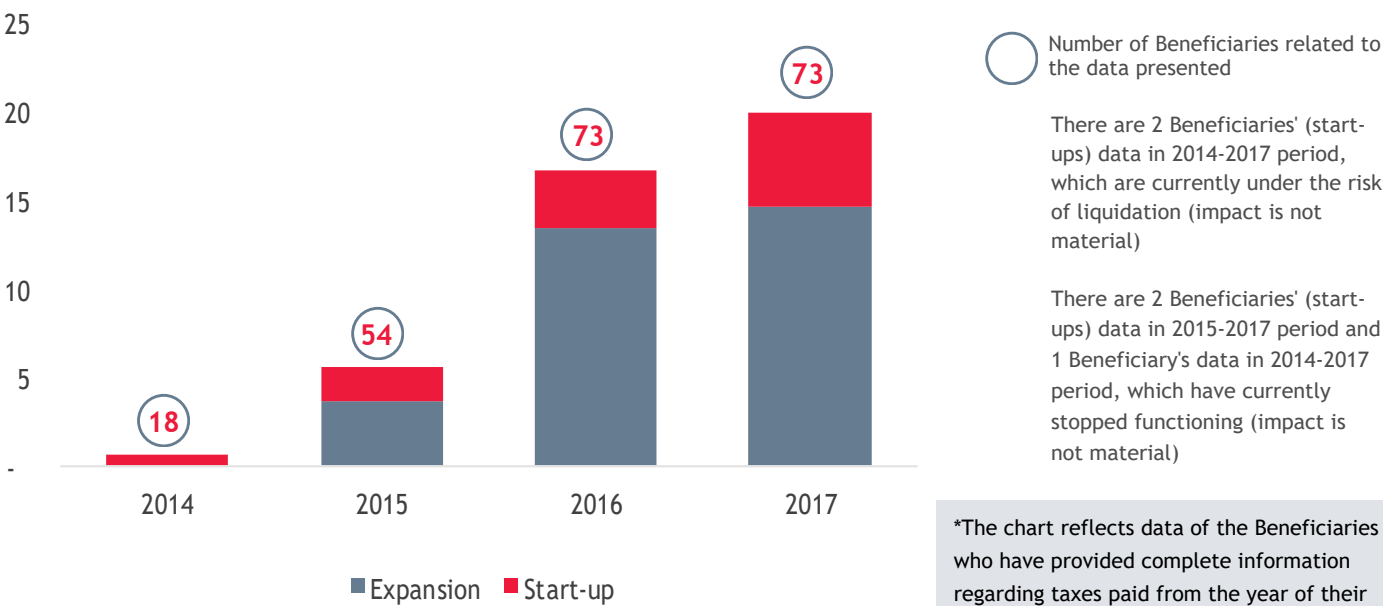
# BENEFICIARY ANALYSIS

## TAXES COLLECTED WITHIN THE PROGRAM

In order to assess the direct effect of the Program in collected taxes and to identify the amount mobilized within the Program, total collected taxes from start-up companies are considered as the Program merit, as for expansions, portion of the paid taxes related to the Program have been indicated by applying ratio - received loan within the Program divided to total asset of Beneficiaries in the end of each year from 2014 for each company. Mentioned ratio shows the share of the investment within the Program compared to the total assets of the company .

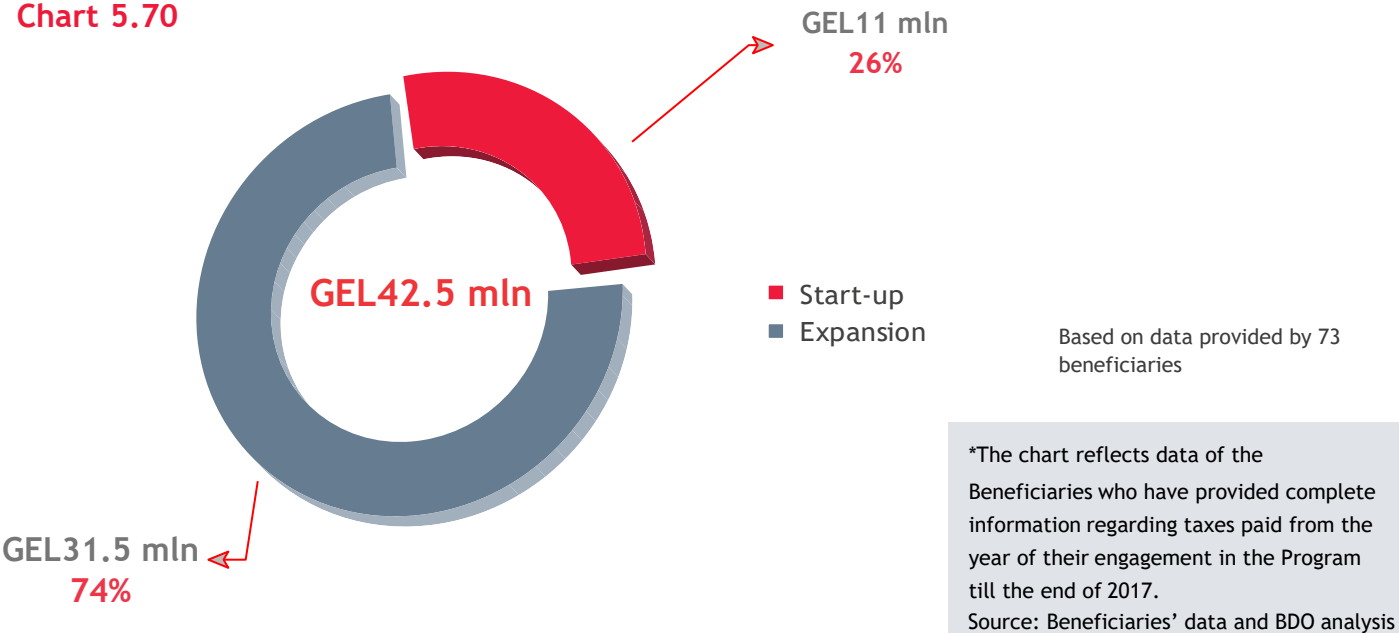
Mobilized taxes within the Program\* (Mln GEL)

Chart 5.69



Total mobilized taxes within the Program\* 2014-2017 (Mln GEL)

Chart 5.70

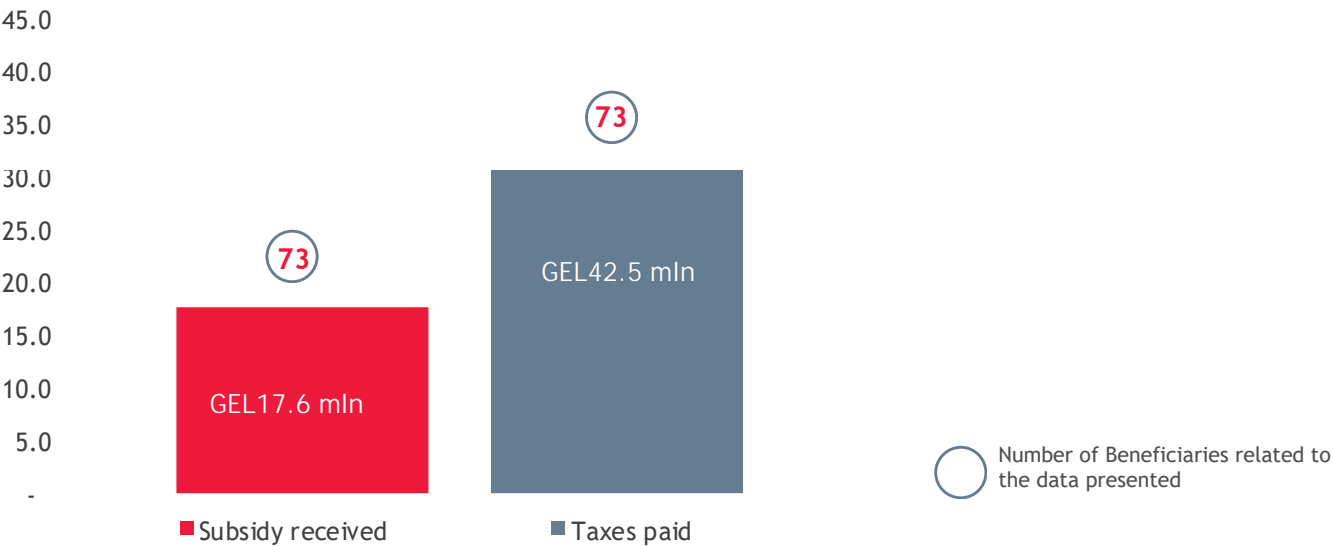


# BENEFICIARY ANALYSIS

## TAXES COLLECTED WITHIN THE PROGRAM

Subsidies received and taxes paid within the Program by the Beneficiaries in 2014-2017 (Mln GEL)

Chart 5.71



80

Since the data provided by the Beneficiaries for 2018 is incomplete due to the unfinished accounting period, in order to avoid misstatement comparing the subsidies received and the taxes paid by the Beneficiaries, complete years data (2014-2017) has been analyzed only.

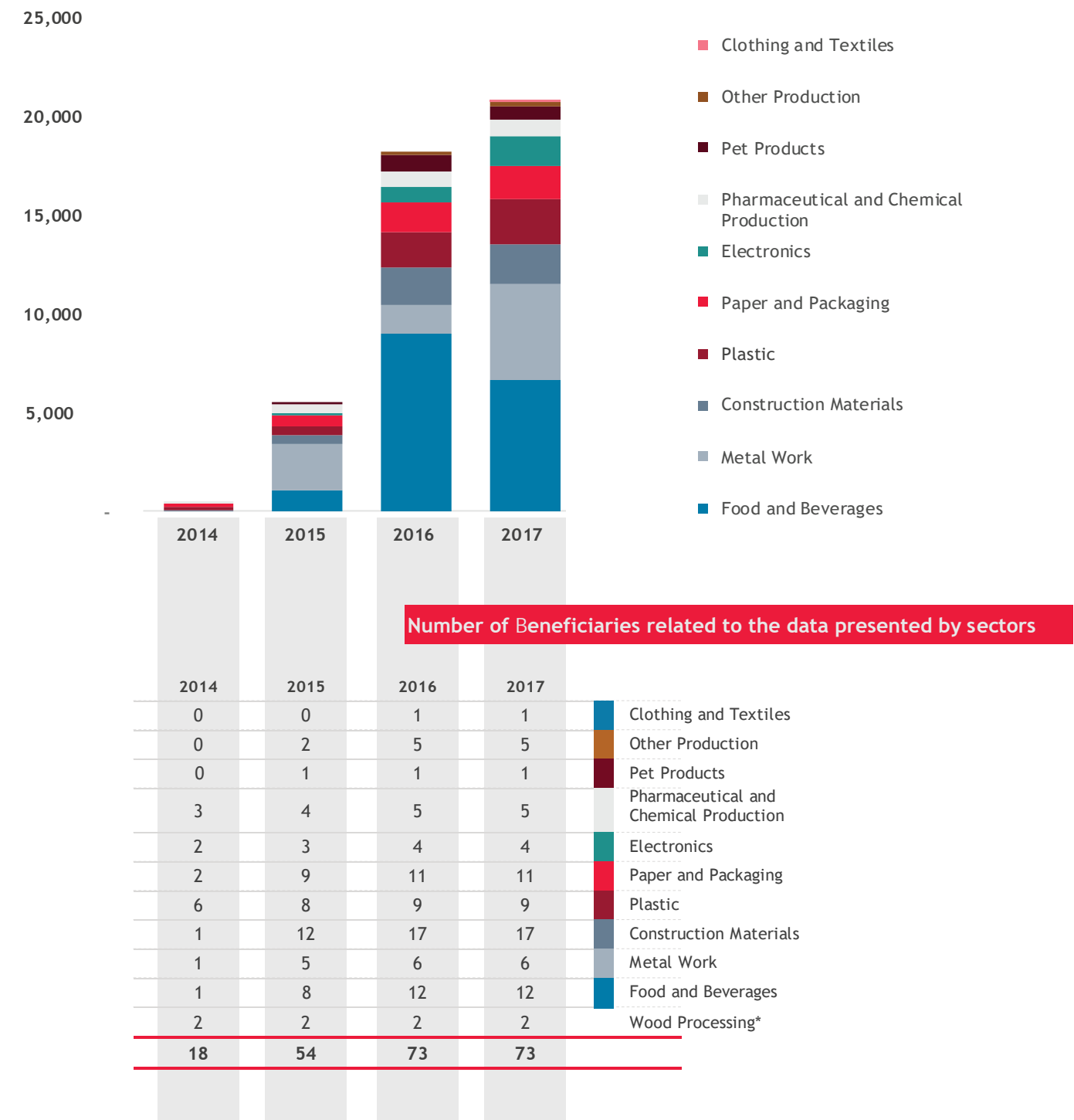
Source: Enterprise Georgia, Beneficiaries' data and BDO analysis

# BENEFICIARY ANALYSIS

## TAXES COLLECTED WITHIN THE PROGRAM

Mobilized taxes within the Program by sectors (Thousand GEL)

Chart 5.72



\*According to the data provided, taxes in wood processing sector have not been paid in state budget by the Beneficiaries, during the given period.  
Source: Beneficiaries data and BDO analysis



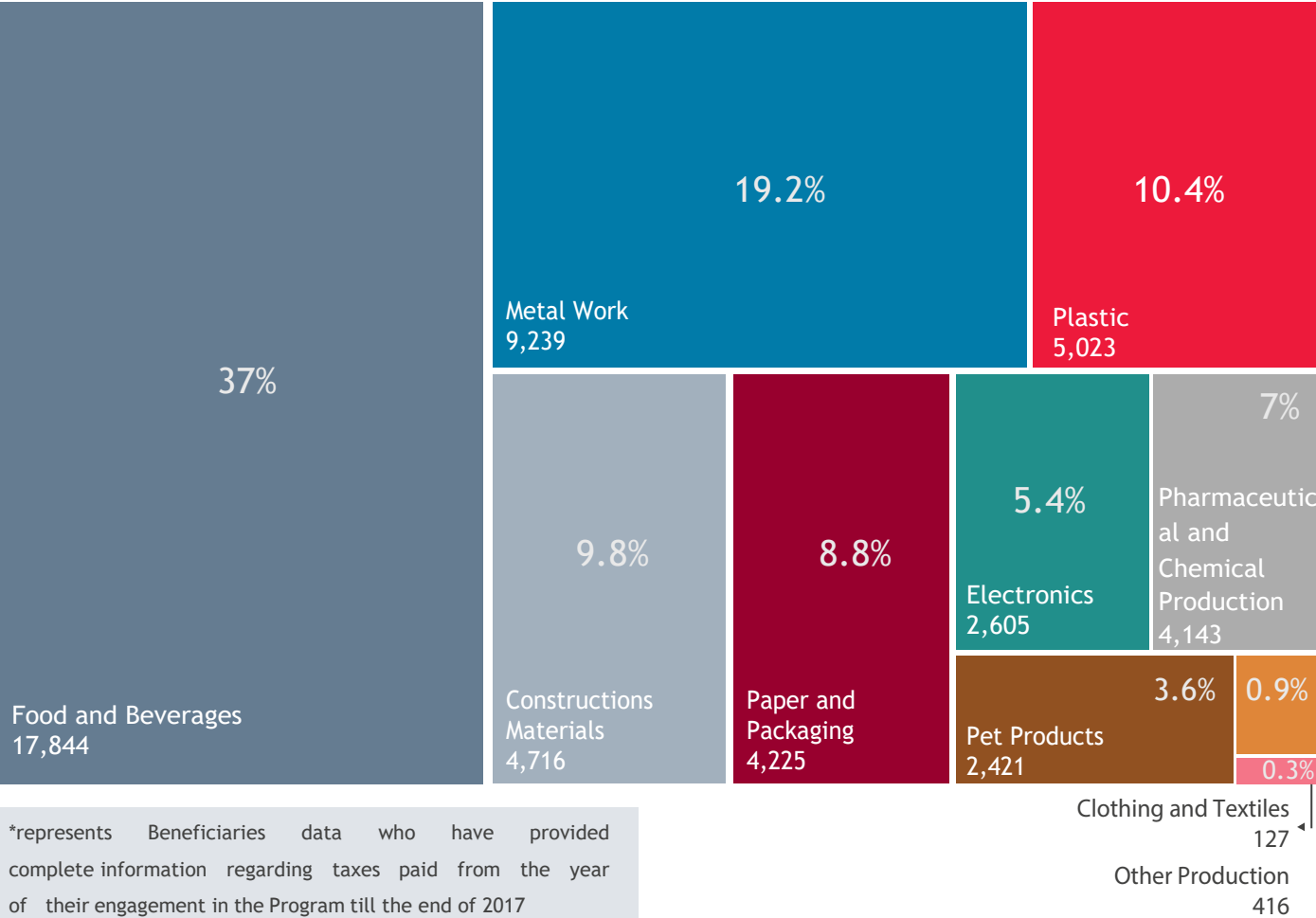
# BENEFICIARY ANALYSIS

## TAXES COLLECTED WITHIN THE PROGRAM

The biggest share in mobilized taxes, during the analyzed period, is shown in food and bverage sector followed by metal work and plastic sectors.

Total mobilized taxes from the Beneficiaries within the Program by sectors in 2014-2017\* (Thousand GEL)

Chart 5.73



\*represents Beneficiaries data who have provided complete information regarding taxes paid from the year of their engagement in the Program till the end of 2017  
Source: Beneficiaries' data and BDO analysis

- Electronics

■ Metal Work

■ Paper and Packaging

■ Plastic

■ Construction Materials
- Pharmaceutical and Chemical Production

■ Food and Beverages

■ Clothing and Textiles

■ Pet Products

■ Other Production

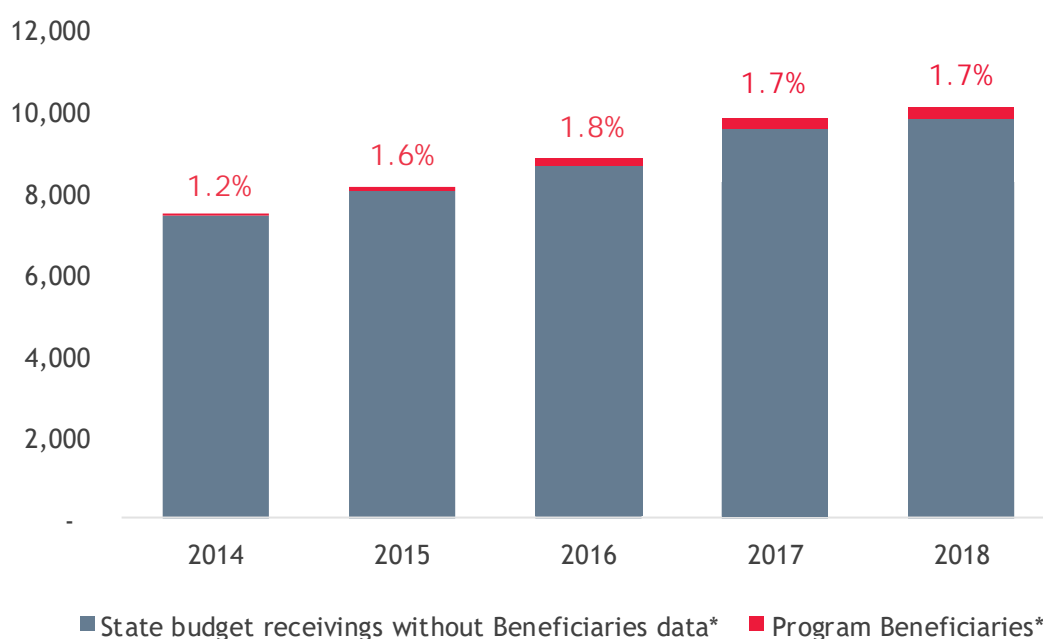
# BENEFICIARY ANALYSIS

## TAXES COLLECTED

Tax collected from the Program Beneficiaries, without separation of proportion associated with the Program, takes 1% of total tax receivings in state budget.

Share of tax collected from the beneficiaries in total tax receivings (Mln GEL)

Chart 5.74



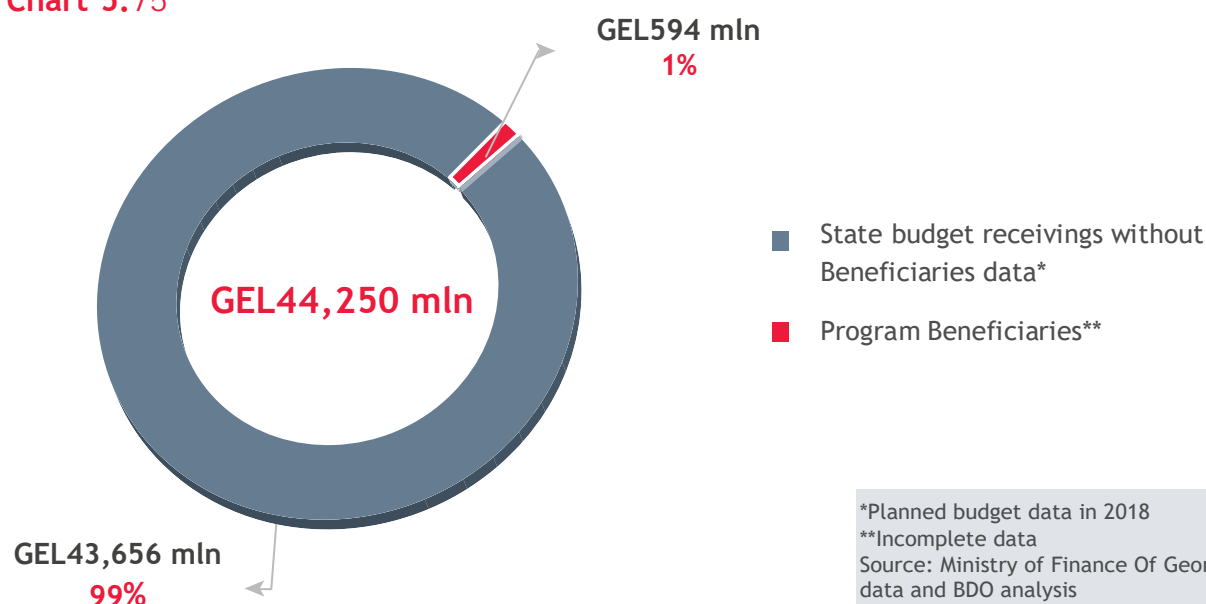
\*Planned budget data of 2018

\*\*Incomplete data

Source: Ministry of Finance Of Georgia, Beneficiaries' data and BDO analysis

Share of total tax collected from the Beneficiaries in state budget tax receivings in 2014-2018\* (Mln GEL)

Chart 5.75



\*Planned budget data in 2018

\*\*Incomplete data

Source: Ministry of Finance Of Georgia, Beneficiaries' data and BDO analysis

# BENEFICIARY ANALYSIS

## KEY PERFORMANCE INDICATORS

This section provides information on financial indicators by different sectors. The purpose of this information is to find out the general trends of **liquidity, financial leverage, profitability ratios and cash conversion cycle** according to the Beneficiaries participating in different sectors. For the analysis, financial indicators of each Beneficiary have been grouped according to sectors. BDO analysis includes unified indicators of start-ups and expansions by different sectors that have been calculated according to the financial information provided by the Beneficiaries and have been compared to the relevant benchmark between the period from 2014 to 2017.

For each industry, Emerging market data published on the website of NYC Stern School of Business has been used for benchmark calculations (Hereinafter, 'NYC Stern'). For Emerging market, there are total of 94 industries data presented on the website, out of which 14 industries have been selected for BDO analysis. The mentioned industries include the financial data for 5,230 firms.

Financial indicators are presented by unified data of start-ups and expansions:

## ELECTRONICS SECTOR

N	Number of data provider Beneficiaries	1	3	3	3	3
	Financial indicators	2014	2015	2016	2017	2018*
1	Current ratio	1.39	1.31	1.25	1.24	1.29
	Change %		-6%	-5%	-1%	4%
2	Quick ratio	0.43	0.51	0.40	0.49	0.60
	Change %		19%	-22%	23%	22%
3	Debt to equity ratio	3.00	2.55	4.69	3.56	5.55
	Change %		-15%	84%	-24%	56%
	Debt to equity ratio benchmark	0.26	0.17	0.19	0.19	
	Difference from benchmark in unit	2.74	2.38	4.50	3.37	
4	Debt ratio	0.26	0.69	1.35	0.80	0.42
	Change %		166%	95%	-41%	-47%
	Debt ratio benchmark	0.09	0.06	0.07	0.06	
	Difference from benchmark in unit	0.17	0.63	1.28	0.74	
5	Gross profit margin	13%	18%	16%	17%	15%
	Change %		39%	-14%	8%	-10%
6	Net profit margin	-5%	-21%	-9%	0%	1%
	Change %		-316%	56%	105%	96%
	Net profit margin benchmark	3%	3%	3%	5%	
	Difference from benchmark in percentage point	8%	24%	12%	5%	
7	Return on equity (ROE)	(0.15)	(0.22)	(0.09)	0.03	0.01
	Change %		-49%	61%	136%	-73%
	ROE benchmark	0.06	0.05	0.06	0.14	
	Difference from benchmark in unit	0.21	0.27	0.13	0.11	
8	Return on assets (ROA)	(0.07)	(0.07)	(0.03)	0.01	0.01
	Change %		7%	56%	129%	44%
	ROA benchmark	0.02	0.02	0.02	0.05	
	Difference from benchmark in unit	0.09	0.09	0.05	0.04	
9	Cash conversion cycle in days	(38)	220	116	61	251
	Change (days)		259	104	55	190

\* Incomplete year

Source: Beneficiaries data, BDO analysis and NYC Stern

Change % - represents the percentage change in comparison to the previous year

# BENEFICIARY ANALYSIS

## KEY PERFORMANCE INDICATORS

### ELECTRONICS SECTOR

Financial indicators in electronics sector have been calculated by the financial data provided by 3 Beneficiaries in total, out of which **two are the start-ups** and **one is an expansion**. The analysis of 2018 includes the financial information of one of the Beneficiaries which is at the risk of liquidation. However, it has not singled out due to the immaterial impact.

Since the analysis is mainly based on start-ups, the financial indicators are less comparable to benchmark from 2014 to 2016, and is less informative in overall. It is more reasonable to rely on the data of subsequent years, which is actually only 2017, since the start-ups would have become financially more stable for this period.

**Current ratio** in electronics sector are stable through the years and exceed 1. Current assets of the Beneficiaries operating in this sector are at least 1.24 times more than current liabilities. According to **quick ratio**, it is comprehensible that the large share of cash resources is mainly distributed in inventory.

**Debt to equity** fluctuates through the years but varies in the defined range. **Debt ratio** is significantly deviated compared to the benchmark. In the analysis of this sector only 3 Beneficiaries' data has been used, out of which two are start-ups and in the initial stage of activities, they had large amount of debts. From 2016, debt ratio shows an improving trend due to the start-ups began to reduce their liabilities.

85

**Gross profit margin** is steadily fluctuating between 13% to 18% from 2014 to 2018 and **net profit margin** is negative between the period from 2014 to 2016, which is due to the fact that the analysis has been mainly based on start-ups and they operated at a loss at the initial stage of activities, however, the tendency is improving and in 2017 exceeds to zero.

**ROE** and **ROA** indicators are increasing over the years and approaching the benchmark data from the electronics sector. ROA is higher than ROE in the last period that implies that the Beneficiaries began to reduce the debts since 2015. A higher ROA ratio is always better because it shows that the Beneficiary is more effectively managing its assets to produce greater amount of net income.

**Cash conversion cycle** tendency improves significantly over the years. The indicator in 2018 does not describe the accurate picture, due to the fact that the financial data provided by the Beneficiaries was for an incomplete year.

# BENEFICIARY ANALYSIS

## KEY PERFORMANCE INDICATORS

Financial indicators are presented by unified data of start-ups and expansions:

### PHARMACEUTICAL AND CHEMICAL PRODUCTION SECTOR

N	Number of data provider Beneficiaries	3	4	4	4	2
	Financial indicators	2014	2015	2016	2017	2018*
1	Current ratio	8.07	1.99	1.19	1.14	0.46
	Change %		-75%	-40%	-5%	-59%
2	Quick ratio	4.69	1.64	0.33	0.49	0.30
	Change %		-65%	-80%	46%	-37%
3	Debt to equity ratio	(2.24)	(4.25)	(0.51)	(0.61)	(2.75)
	Change %		-90%	88%	-19%	-350%
	Debt to equity ratio benchmark	0.09	0.07	0.09	0.09	
	Difference from benchmark in unit	2.33	4.32	0.60	0.70	
4	Debt ratio	(0.28)	0.54	0.36	0.26	(2.31)
	Change %		294%	-34%	-28%	-992%
	Debt ratio benchmark	0.05	0.04	0.04	0.04	
	Difference from benchmark in unit	0.33	0.50	0.32	0.22	
5	Gross profit margin	68%	32%	38%	31%	60%
	Change %		-53%	21%	-20%	94%
6	Net profit margin	-58%	-131%	-39%	-5%	33%
	Change %		-125%	70%	88%	777%
	Net profit margin benchmark	8%	8%	10%	10%	
	Difference from benchmark in percentage point	66%	139%	49%	15%	
7	Return on equity (ROE)	0.36	0.09	(0.01)	0.13	0.03
	Change %		-75%	-116%	1035%	-78%
	ROE benchmark	0.10	0.09	0.12	0.12	
	Difference from benchmark in unit	0.26	0.00	0.13	0.01	
8	Return on assets (ROA)	(0.07)	(0.11)	(0.11)	(0.02)	0.44
	Change %		-61%	-3%	79%	2052%
	ROA benchmark	0.05	0.04	0.06	0.06	
	Difference from benchmark in unit	0.12	0.15	0.17	0.08	
9	Cash conversion cycle in days	614	↓ 378	↑ 450	↓ 319	↓ 262
	Change (days)		236	71	130	57

\* Incomplete year

Source: Beneficiaries data, BDO analysis and NYC Stern

Change % - represents the percentage change in comparison to the previous year

Financial indicators in pharmaceutical and chemical production sector are calculated based on the financial data provided by 4 Beneficiaries in total, out of which **three are start-ups** and **one is an expansion**.

Since the analysis is mainly based on start-ups, the financial indicators are less comparable to benchmark from 2014 to 2016, and is less informative in overall. It is more reasonable to rely on the data of subsequent years, which is actually only 2017, since the start-ups would have become financially more stable for this period.

# BENEFICIARY ANALYSIS

## KEY PERFORMANCE INDICATORS

### PHARMACEUTICAL AND CHEMICAL PRODUCTION SECTOR

At the beginning of the analytical period, the Beneficiaries operating in pharmaceutical and chemical production sector have been more stable in terms of **liquidity**. According to the analysis, the amount of current assets of the Beneficiaries have been decreasing compared to the current liabilities, due to the decreasing tendency of inventory in the last period. Quick ratio is better to determine liquidity compared to the current ratio, because the current ratio includes all those assets that may not be easily liquidated, like prepaid expenses and inventory. According to the financial data of Beneficiaries, total share of inventory is almost 50% of current assets in pharmaceutical and chemical sector.

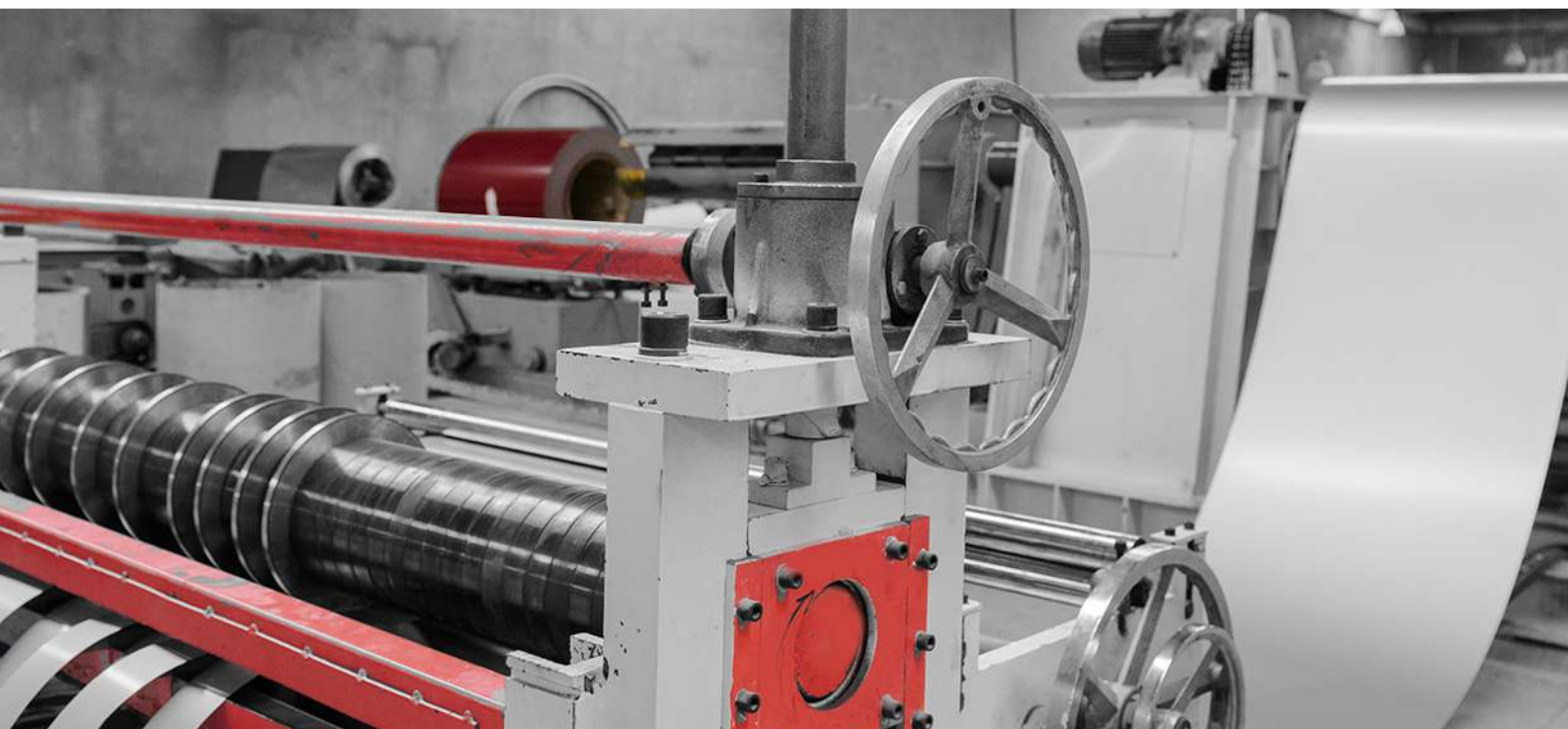
**Debt to equity ratio** is less than one through the years and is significantly deviated from the benchmark indicators. The Beneficiaries have been increasing both long-term liabilities and equity within the analytical period, but the debt to equity indicator trend fluctuates and has not been improving, that implies the amount of long-term liabilities exceed equity each year. Contrary to that, **debt ratio** is comparable to the benchmark and does not differ materially over the analyze period.

**Net profit margin** is negative from 2014 to 2017, since the analysis has been mainly based on start-ups and they operated at a loss at the initial stage of activities, however, the tendency has been improving and in 2018 exceeds zero.

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**ROE** as **ROA** indicators in pharmaceutical and chemical production sector are featured with low values, although, they do not deviate compared to benchmark.

**Cash conversion cycle** tendency has been improving considerably over the years. Better conversion cycle means that the Beneficiaries money is tied up in the inventory for less time.





# BENEFICIARY ANALYSIS

## KEY PERFORMANCE INDICATORS

Financial indicators are presented by unified data of start-ups and expansions:

### PLASTIC SECTOR

N	Number of data provider Beneficiaries	2	3	4	4	4
	Financial indicators	2014	2015	2016	2017	2018*
1	Current ratio	1.39	0.92	(3.54)	2.21	1.22
	Change %		-34%	-484%	162%	-45%
2	Quick ratio	0.75	(0.21)	(2.62)	1.10	0.32
	Change %		-129%	-1124%	142%	-71%
3	Debt to equity ratio	(44.76)	(102.42)	(3.91)	(0.79)	(1.78)
	Change %		-129%	96%	80%	-126%
	Debt to equity ratio benchmark	0.41	0.40	0.33	0.37	
	Difference from benchmark in unit	45.17	102.82	4.24	1.16	
4	Debt ratio	3.62	1.05	1.20	1.09	1.05
	Change %		-71%	14%	-9%	-4%
	Debt ratio benchmark	0.16	0.16	0.12	0.16	
	Difference from benchmark in unit	3.46	0.89	1.08	0.93	
5	Gross profit margin	19%	17%	14%	12%	17%
	Change %		-13%	-13%	-20%	51%
6	Net profit margin	-63%	-38%	-15%	-20%	-4%
	Change %		39%	61%	-32%	79%
	Net profit margin benchmark	6%	5%	7%	5%	
	Difference from benchmark in percentage point	69%	43%	22%	25%	
7	Return on equity (ROE)	1.53	0.04	0.69	0.68	0.23
	Change %		-97%	1628%	-2%	-
	ROE benchmark	0.14	0.10	0.15	0.21	
	Difference from benchmark in unit	1.39	(0.06)	0.54	0.47	
8	Return on assets (ROA)	(0.11)	(0.13)	(0.16)	(0.12)	(0.03)
	Change %		-16%	-19%	22%	78%
	ROA benchmark	0.06	0.04	0.06	0.09	
	Difference from benchmark in unit	0.17	0.17	0.22	0.21	
9	Cash conversion cycle in days	60.68	8.96	107.04	110.97	149.72
	Change (days)		52	98	4	39

\* Incomplete year

Source: Beneficiaries data, BDO analysis and NYC Stern

Change % - represents the percentage change in comparison to the previous year

Financial indicators in plastic sector are calculated based on the financial data provided by 4 Beneficiaries in total, out of which **three are the start-ups** and **one is an expansion**. The analysis from 2015 includes the financial information of one of the Beneficiaries which is at the risk of liquidation. However, it has not singled out due to the immaterial impact.

Since the analysis is mainly based on start-ups, the financial indicators are less comparable to benchmark from 2014 to 2016, and is less informative in overall. It is more reasonable to rely on the data of subsequent years, which is actually only 2017, since the start-ups would have become financially more stable for this period.

# BENEFICIARY ANALYSIS

## KEY PERFORMANCE INDICATORS

### PLASTIC SECTOR

**Liquidity ratios** (current and quick ratios) have been unstable over the years in plastic sector and show significant changes in positive and negative aspects, but in recent years show an improving trend, that imply the Beneficiaries operating in this sector have become more stable in terms of liquidity. They have been increasing the amount of current assets and reducing the current liabilities.

**Debt to equity ratio** has been negative through the years, but implies significant positive changes in the last three years and has been approaching the benchmark of the plastic sector.

**Debt ratio** has been improving over the years meaning that the Beneficiaries in plastic sector have been reducing debts and increasing assets.

**Gross profit margin** has been steadily fluctuating between the range 12%-19%, that implies the Beneficiaries in plastic sector have at least 12% price margin on its production over the years. From 2014 to 2018, **net profit margin** has been notably deviated from the benchmark value and has been less than one, which means the Beneficiaries have had significant amount of operational and non-operational expenses and they have operated at a loss, however the tendency has been improving and in the last period approaching the benchmark.

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**ROE** and **ROA** ratios have steadily varied in the defined range through the years. ROE, similar to ROA indicator, is significantly deviated from the benchmark, but has been approaching to them over the last period. ROE has been decreasing and ROA improving on the contrary, which means the amount of equity and assets of the Beneficiaries have been increasing compared to the net income.

**Cash conversion cycle** shows the increasing tendency between 2015-2018, which means that the Beneficiaries' money has been tied up in the inventory for more time.

# BENEFICIARY ANALYSIS

## KEY PERFORMANCE INDICATORS

Financial indicators are presented by unified data of start-ups and expansions:

### FOOD AND BEVERAGES

N	Number of data provider Beneficiaries	2	5	7	8	6
	Financial indicators	2014	2015	2016	2017	2018*
1	Current ratio	0.70	3.04	1.56	1.70	2.62
	Change %		337%	-49%	9%	54%
2	Quick ratio	0.58	2.00	1.26	1.00	1.68
	Change %		247%	-37%	-21%	68%
3	Debt to equity ratio	2.29	2.15	1.47	1.64	1.09
	Change %		-6%	-32%	12%	-34%
	Debt to equity ratio benchmark	0.24	0.23	0.22	0.23	
	Difference from benchmark in unit	2.05	1.92	1.23	1.41	
4	Debt ratio	1.68	0.83	0.51	0.45	0.34
	Change %		-51%	-38%	-13%	-24%
	Debt ratio benchmark	0.10	0.11	0.10	0.09	
	Difference from benchmark in unit	1.58	0.72	0.41	0.36	
5	Gross profit margin	47%	46%	45%	46%	57%
	Change %		-2%	-2%	2%	24%
6	Net profit margin	10%	8%	4%	8%	48%
	Change %		-20%	-48%	86%	509%
	Net profit margin benchmark	5%	5%	6%	6%	
	Difference from benchmark in percentage point	5%	3%	2%	2%	
7	Return on equity (ROE)	1.36	0.36	0.61	0.39	0.26
	Change %		-73%	68%	-36%	-35%
	ROE benchmark	0.10	0.09	0.11	0.20	
	Difference from benchmark in unit	1.26	0.27	0.50	0.19	
8	Return on assets (ROA)	0.31	0.14	0.06	0.14	0.26
	Change %		-55%	-55%	129%	82%
	ROA benchmark	0.04	0.04	0.05	0.08	
	Difference from benchmark in unit	0.27	0.10	0.01	0.06	
9	Cash conversion cycle in days	131	40	60	74	210
	Change (days)		91	19	15	136

\* Incomplete year

Source: Beneficiaries data, BDO analysis and NYC Stern

Change % - represents the percentage change in comparison to the previous year

Financial indicators in food and beverages sector are calculated based on the financial data provided by 8 Beneficiaries in total, out of which **seven are the expansions** and **one is a start-up**.

# BENEFICIARY ANALYSIS

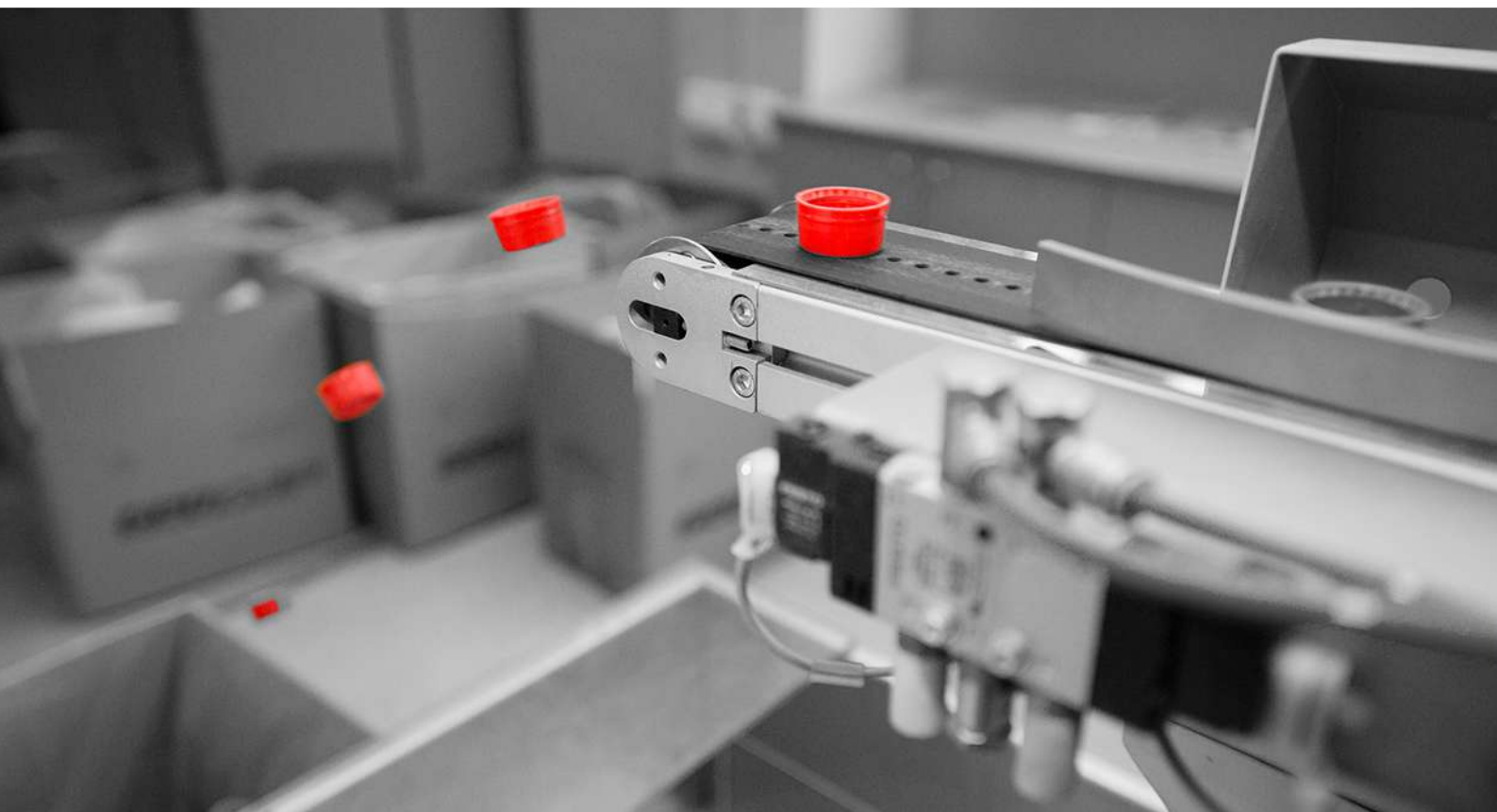
## KEY PERFORMANCE INDICATORS

### FOOD AND BEVERAGES SECTOR

**Liquidity**, as **financial leverage**, presents an improving trend through the years. According to that, the Beneficiaries operating in food and beverages sector has been increasing the amount of assets and decreasing the liabilities. **Debt to equity** and **debt ratios** significantly differ from benchmark, however, the trend is positive and has been approaching to it in the last years.

**Gross profit margin** exceeds 45% every year that indicates that the Beneficiaries have around 50% price margin on its' production. Similar to **ROA**, **net profit margin** indicator does not significantly differ from the benchmark through the years and it varies in the defined range.

Despite an improvement tendency in all parts of indicators, **Cash conversion cycle** shows increasing trend, which means that the Beneficiaries' money is tied up in the inventory for more time.



# BENEFICIARY ANALYSIS

## KEY PERFORMANCE INDICATORS

Financial indicators are presented by unified data of start-ups and expansions:

### CONSTRUCTION MATERIALS

N	Financial indicators	2014	2015	2016	2017	2018*
1	Current ratio	1.88	1.89	1.75	2.06	2.05
	Change %		1%	-7%	18%	0%
2	Quick ratio	1.40	0.87	0.67	1.11	1.61
	Change %		-37%	-23%	66%	45%
3	Debt to equity ratio	0.27	0.70	0.93	0.60	1.31
	Change %		159%	33%	-35%	117%
	Debt to equity ratio benchmark	0.37	0.35	0.36	0.35	
	Difference from benchmark in unit	0.10	0.35	0.57	0.25	
4	Debt ratio	0.18	0.38	0.46	0.53	0.42
	Change %		108%	22%	14%	-19%
	Debt ratio benchmark	0.14	0.14	0.14	0.12	
	Difference from benchmark in unit	0.04	0.24	0.32	0.41	
5	Gross profit margin	30%	30%	41%	32%	41%
	Change %		2%	36%	-21%	27%
6	Net profit margin	58%	24%	15%	12%	16%
	Change %		-58%	-37%	-24%	39%
	Net profit margin benchmark	5%	4%	4%	6%	
	Difference from benchmark in percentage point	53%	20%	11%	6%	
7	Return on equity (ROE)	0.69	0.33	0.21	0.14	0.21
	Change %		-53%	-37%	-32%	48%
	ROE benchmark	0.09	0.05	0.06	0.19	
	Difference from benchmark in unit	0.60	0.28	0.15	0.05	
8	Return on assets (ROA)	0.57	0.31	0.16	0.14	0.17
	Change %		-46%	-49%	-14%	27%
	ROA benchmark	0.03	0.02	0.03	0.07	
	Difference from benchmark in unit	0.54	0.29	0.13	0.07	
9	Cash conversion cycle in days	307	32	87	54	163
	Change (days)		276	56	33	108

\* Incomplete year

Source: Beneficiaries data, BDO analysis and NYC Stern

Change % - represents the percentage change in comparison to the previous year

Financial indicators in construction materials sector are calculated by the financial data provided by 9 Beneficiaries in total, out of which **seven are expansions** and **two are start-ups**.

# BENEFICIARY ANALYSIS

## KEY PERFORMANCE INDICATORS

### CONSTRUCTION MATERIALS SECTOR

**Liquidity** shows an improving tendency through the years, meaning that the Beneficiaries operating in this sector has been increasing the amount of current assets compared to current liabilities.

**Debt to equity** and **debt ratios** have been increasing, that implies the Beneficiaries have been considerably increasing long-term liabilities due to the purpose of their business development. However, liquidity ratios have been improving in the mentioned sectors, that implies the Beneficiaries invest the mentioned loans properly.

The Beneficiaries have better **net profit margin** compared to the benchmark and the tendency has been maintained over the years. A higher net profit margin means that the Beneficiaries are more efficient at converting sales into actual profit.

**Cash conversion cycle** has been unstable over the years and implies a significant positive as well as negative changes. However, it varies below 100 from 2015 to 2017, which is quite a good indicator.



# BENEFICIARY ANALYSIS

## KEY PERFORMANCE INDICATORS

Financial indicators are calculated from financial data provided by 1 Beneficiary which is the **expansion**:  
**CLOTHING AND TEXTILES SECTOR**

N	Number of data provider Beneficiaries	1	1	1
	Financial indicators	2015	2016	2017
1	Current ratio	0.73	0.55	0.55
	Change %		-25%	0%
2	Quick ratio	0.48	0.50	0.41
	Change %		5%	-18%
3	Debt to equity ratio	0.72	1.66	1.34
	Change %		130%	-19%
	Debt to equity ratio benchmark	0.23	0.25	0.25
	Difference from benchmark in unit	0.49	1.41	1.09
4	Debt ratio	0.19	0.34	0.31
	Change %		83%	-10%
	Debt ratio benchmark	0.11	0.11	0.11
	Difference from benchmark in unit	0.08	0.23	0.20
5	Gross profit margin	7%	7%	7%
	Change %		0%	0%
6	Net profit margin	16%	7%	10%
	Change %		-59%	57%
	Net profit margin benchmark	4%	3%	4%
	Difference from benchmark in percentage point	12%	4%	6%
7	Return on equity (ROE)	0.66	0.29	0.42
	Change %		-56%	46%
	ROE benchmark	0.08	0.08	0.08
	Difference from benchmark in unit	0.58	0.21	0.34
8	Return on assets (ROA)	0.17	0.06	0.10
	Change %		-65%	62%
	ROA benchmark	0.04	0.03	0.03
	Difference from benchmark in unit	0.13	0.03	0.07
9	Cash conversion cycle in days	25	↑ 28	↑ 45
	Change (days)		3	17

\* Incomplete year

Source: Beneficiaries data, BDO analysis and NYC Stern

Change % - represents the percentage change in comparison to the previous year

Financial indicators in clothing and textiles sector are calculated based on the financial data provided by 1 Beneficiary which is the **expansion**.



# BENEFICIARY ANALYSIS

## KEY PERFORMANCE INDICATORS

### CLOTHING AND TEXTILES SECTOR

In this sector liquidity ratios (**current and quick ratios**) steadily varies in around 0.5-0.7 range through the years that means the current assets of the Beneficiaries in this sector are around 0.5 times less than liabilities and the trend has been decreasing in the last years, accordingly the Beneficiaries are not liquid enough. Current ratio almost equals to quick ratio, that implies the total share of inventory is small in current assets.

**Financial leverage** indicates a worsening trend, and has been decreasing through the years, that means the long-term liabilities of the Beneficiaries have been raising over the years compared to total assets.

The Beneficiaries have better **net profit margin** compared to the benchmark and the tendency has been maintained over the years. A higher net profit margin means that the Beneficiaries are more efficient at converting sales into actual profit.

**Cash conversion cycle** shows increasing trend, which means that the Beneficiaries' money has been tied up in the inventory for more time.



# BENEFICIARY ANALYSIS

## KEY PERFORMANCE INDICATORS

Financial indicators are presented by unified data of start-ups and expansions:

### PAPER AND PACKAGING SECTOR

N	Number of data provider Beneficiaries	1	5	7	7	6
	Financial indicators	2014	2015	2016	2017	2018*
1	Current ratio	0.89	1.24	1.47	0.86	2.46
	Change %		38%	19%	-42%	187%
2	Quick ratio	0.85	1.17	1.09	0.64	1.94
	Change %		39%	-7%	-42%	203%
3	Debt to equity ratio	0.77	0.56	0.46	1.56	1.24
	Change %		-27%	-19%	242%	-20%
	Debt to equity ratio benchmark	0.60	0.45	0.42	0.43	
	Difference from benchmark in unit		0.17	0.11	0.04	1.13
4	Debt ratio	0.36	0.84	0.44	0.54	0.49
	Change %		133%	-48%	24%	-11%
	Debt ratio benchmark	0.26	0.21	0.17	0.17	
	Difference from benchmark in unit	0.10	0.63	0.27	0.37	
5	Gross profit margin	41%	33%	33%	23%	31%
	Change %		-19%	0%	-30%	32%
6	Net profit margin	-5%	4%	17%	16%	19%
	Change %		190%	275%	-4%	19%
	Net profit margin benchmark	4%	5%	5%	6%	
	Difference from benchmark in percentage point	9%	1%	12%	10%	
7	Return on equity (ROE)	(0.19)	(0.002)	0.38	0.41	0.59
	Change %		99%	19434%	7%	44%
	ROE benchmark	0.05	0.08	0.08	0.13	
	Difference from benchmark in unit	0.26	0.08	0.30	0.28	
8	Return on assets (ROA)	(0.09)	0.03	0.04	0.05	0.11
	Change %		133%	49%	16%	107%
	ROA benchmark	0.02	0.04	0.03	0.06	
	Difference from benchmark in unit	0.11	0.01	0.01	0.01	
9	Cash conversion cycle in days	96	↑ 175	↓ 128	↑ 174	↑ 278
	Change (days)		79	47	46	104

\* Incomplete year

Source: Beneficiaries data, BDO analysis and NYC Stern

Change % - represents the percentage change in comparison to the previous year

Financial indicators in paper and packaging sector are calculated based on the financial data provided by 7 Beneficiaries in total, out of which **four are start-ups** and **three are expansions**.

Since the analysis is mainly based on start-ups, the financial indicators are less comparable to benchmark from 2014 to 2016, and is less informative in overall. It is more reasonable to rely on the data of subsequent years, which is actually only 2017, since the start-ups would have become financially more stable for this period.

# BENEFICIARY ANALYSIS

## KEY PERFORMANCE INDICATORS

### PAPER AND PACKAGING SECTOR

In paper and packaging sector **liquidity ratios** show an improving trend from 2015 except 2017 and can be stated that the current assets of the Beneficiaries in this sector exceed current liabilities through the years, which means that the Beneficiaries have the ability to pay off their short-term liabilities with its current assets.

**Debt to equity** and **debt ratios** have been increasing, that implies the Beneficiaries have been considerably increasing long-term liabilities due to the purpose of their business development. However, liquidity and profitability ratios have been improving in the mentioned sectors, that implies the Beneficiaries invest the mentioned loans properly. Ratios has been significantly deviated from the benchmark over the last years and has been exceeded it, especially in last period of analysis.

**Profitability ratios** such as gross and net profit margins, ROE and ROA indicators imply an improving tendency and exceed the benchmark. According to the analysis, the Beneficiaries have been more efficient at converting sales into actual profit within the years. A rising ROE implies that the Beneficiaries have been increasing their ability to generate more profit without needing much capital.

Contrary to that, **Cash conversion cycle** has been worsening since 2016 meaning that the Beneficiary with a large cash conversion cycle requires more time to buy the inventory, sell it, and receive cash from customers.



# BENEFICIARY ANALYSIS

## KEY PERFORMANCE INDICATORS

Financial indicators are presented by unified data of start-ups and expansions:

### METAL WORK

N	Number of data provider Beneficiaries	4	4	3	2
	Financial indicators	2015	2016	2017	2018*
1	Current ratio	1.79	2.24	3.23	2.01
	Change %		25%	44%	-38%
2	Quick ratio	1.07	0.82	1.43	0.57
	Change %		-23%	75%	-61%
3	Debt to equity ratio	0.21	0.38	0.23	0.15
	Change %		80%	-40%	-35%
	Debt to equity ratio benchmark	0.48	0.46	0.40	
4	Difference from benchmark in unit	0.27	0.08	0.23	
	Debt ratio	0.32	0.29	0.13	0.08
	Change %		-8%	-54%	-42%
5	Debt ratio benchmark	0.21	0.19	0.14	
	Difference from benchmark in unit	0.11	0.10	0.01	
	Gross profit margin	54%	28%	43%	70%
6	Change %		-48%	57%	61%
	Net profit margin	2%	-2%	11%	29%
	Change %		-185%	804%	161%
7	Net profit margin benchmark	1%	1%	5%	
	Difference from benchmark in percentage point	1%	3%	6%	
	Return on equity (ROE)	0.54	0.41	0.11	0.36
8	Change %		-25%	-74%	245%
	ROE benchmark	0.02	0.02	0.11	
	Difference from benchmark in unit	0.52	0.39	0.00	
9	Return on assets (ROA)	0.00	0.00	0.20	0.15
	Change %		0%	14433%	-24%
	ROA benchmark	0.01	0.01	0.04	
9	Difference from benchmark in unit	0.01	0.01	0.16	
	Cash conversion cycle in days	149,75	113.38	108.56	956.88
	Change (days)		36	5	848

\* Incomplete year

Source: Beneficiaries data, BDO analysis and NYC Stern

Change % - represents the percentage change in comparison to the previous year

Financial indicators in metal work sector are calculated based on the financial data provided by 4 Beneficiaries in total, out of which **one is a start-up** and **three are expansions**. The analysis of the years 2015-2016 includes the financial information of one of the Beneficiaries which is no longer functioning. However, it has not singled out due to the immaterial impact.



# BENEFICIARY ANALYSIS

## KEY PERFORMANCE INDICATORS

### METAL WORK SECTOR

**Current ratio** in metal work sector has been increasing steadily through the years and exceed 1. Since 2015, current assets of the Beneficiaries operating in this sector have been at least 1.79 times more than the current liabilities.

**Financial leverage ratios** (Debt to equity and Debt ratio) have been less than 1 over the years and do not differ essentially from the benchmark. They also show an improving tendency which means that the Beneficiaries participating in metal work sector has been reducing the amount of total liabilities and getting financially more stable within the years.

**Profitability ratios** such as gross and net profit margins, ROE and ROA indicators imply an improving tendency and exceed the benchmark. Since there are many start-ups involved in the analysis, the overall picture presented in 2014-2016 may be inauthentic.

Since 2015, **Cash conversion cycle** is high over the years but indicates an improving trend. Different result is presented in 2018, which is due to the fact that the financial information provided by the Beneficiaries are for an incomplete year.





# APPENDIX 1 QUESTIONNAIRE

# QUESTIONNAIRE

Survey questionnaire for the results of the industrial part, technical support and financial component availability of the 'Produce in Georgia' Program:



Company: BDO LLC  
Type of Research: In-depth Interview  
Interviewer:

Beneficiary:  
Identification Code:  
Address:  
Contact Information:  
Date:

N	Question	Beneficiary's answer	Respondent (name, surname, occupation)	Responsible person (name, surname, occupation)	Documents/Information to be provided
1	What is your attitude towards the program "Produce in Georgia"				
2	In your opinion, is the program effective or not and does it play a significant role in developing the business environment? Why?				
3	How did you find out about the program?				
4	How difficult did you find to participate in the program "Produce in Georgia"?				
5	How difficult did you find to get the financial aid (credit loan, leasing, technical support) and what would you wish to improve?				
6	Would you be able to start/expand your business without participating in the program?				
7	What difficulties did you face when involved in the program (financial as well as technical)?				
8	Please give recommendations in order to improve the program.				
<b>Detailed economic and financial analysis of the beneficiary:</b>					
9	Please indicate the date of commencement of the activity (official business registration date and the date of starting the activity, if different).				
10	Please briefly describe your business activity.				
11	Please indicate the number of final beneficiaries (owners) in the gender context.				
12	Please indicate the loan/leasing issuing organization, the amount of loan/lease (total), loan/leasing receiving stages (the amount and stages of received tranches), loan/lease terms (interest rate, term/period)				
13	Please specify the volume and terms of subsidy received directly within the program.				
14	Please specify the date you started using the received financial aid?				
15	Please indicate the amount and total cost of the released products (cost and selling price) before and after engaging in the program (please provide the comparative data, full year, months etc.)				
16	In your opinion, did the financial results of your business (revenues, expenses, gross profit etc.) improve after receiving the funding or not? How were the abovementioned indicators before and after engaging in the program? Please provide the relevant data and calculations.				
17	Please specify the yearly productivity ratio (workforce productivity ratio, business productivity ratio) for 3 years prior to and up to the current date after engaging in the program.				
18	Do you export your products/services (please specify the date you started exporting) or do you have any specific plans or initiative in this regard?				
19	Please specify the volume of exported products/services in quantity, sum and according to countries before and after engaging in the program.				
20	In your opinion, did your export potential increase after engaging in the program? How?				
21	Please indicate/describe the sources of the needed raw materials for your production; do you import them or buy it on the local market? (please indicate the percentage share distribution)				
22	If you import the raw materials, please indicate to what extent is it possible to replace them with the raw materials available on the local market? According to what criteria do you choose the market (price, quality, product diversity, etc.)?				



# QUESTIONNAIRE

N	Question	Beneficiary's answer	Respondent (name, surname, occupation)	Responsible person (name, surname, occupation)	Documents/Information to be provided
23	Please indicate the yearly marketing costs for 3 years prior to and up to the current date after engaging in the program.				
24	Please indicate the yearly volume of implemented investments for 3 years prior to and up to the current date after engaging in the program.				
25	Please indicate the yearly amount of paid taxes according to the types of taxes (income tax, property tax, profit tax, excise tax, import tax, etc.) for 3 years prior to and up to the current date after engaging in the program.				
26	Please indicate whether you (as a business) have conducted any research (for consumer market, customer attitude, product characteristics, etc.)? If yes, please specify the cost and content of the research.				
27	Please indicate if you have implemented any new technologies/purchased any new equipment after receiving the funding? If yes, please explain.				
28	Have you created any intellectual property after receiving the funding? If yes, please explain.				
29	Please indicate if you have received any certificate after receiving the funding? If yes, please explain.				
30	Please indicate the new product / service release? (In the new product / service it is meant to improve, modernize existing product / service and create a completely different product / service)				
31	Please indicate if your accounting and financial reporting were/are according to the international standards before or after engaging in the program?				
32	Please indicate the average monthly number of employees in terms of years, in total and in gender context (3 years prior to and up to the current date after receiving the funding).				
33	Please indicate whether you have temporary employees or not (the percentage share in relation to permanent employees in months and gender context).				
34	Please indicate the volume of the average monthly wage and other salaries (including and excluding taxes) (3 years prior to and up to the current date after receiving the funding). Abovementioned information should also be presented in gender context.				
35	Please indicate the amount of annual salary fund (including and excluding taxes) for 3 years prior to and up to the current date after engaging in the program.				
36	Please indicate if you have any activities for the professional development of employees and/or if you plan any events for sharing the knowledge and experience with the individuals interested in the business? If yes, please explain.				
37	Does your business have a potential for expansion? If yes, please provide the information about possible perspectives, what direction are you planning on expanding in and what are the requirements for it?				
38	Please indicate if you're planning on adding a new business direction/product? If yes, please explain and specify.				
39	Please indicate who do you consider as your competitors in your region and within the country? What is your position on the market?				
40	Please indicate what is your business or product competitive advantage compared to others?				
41	In your opinion, have the local buyers reduced the imported products with help of yours? Or did the local producers' products get replaced?				

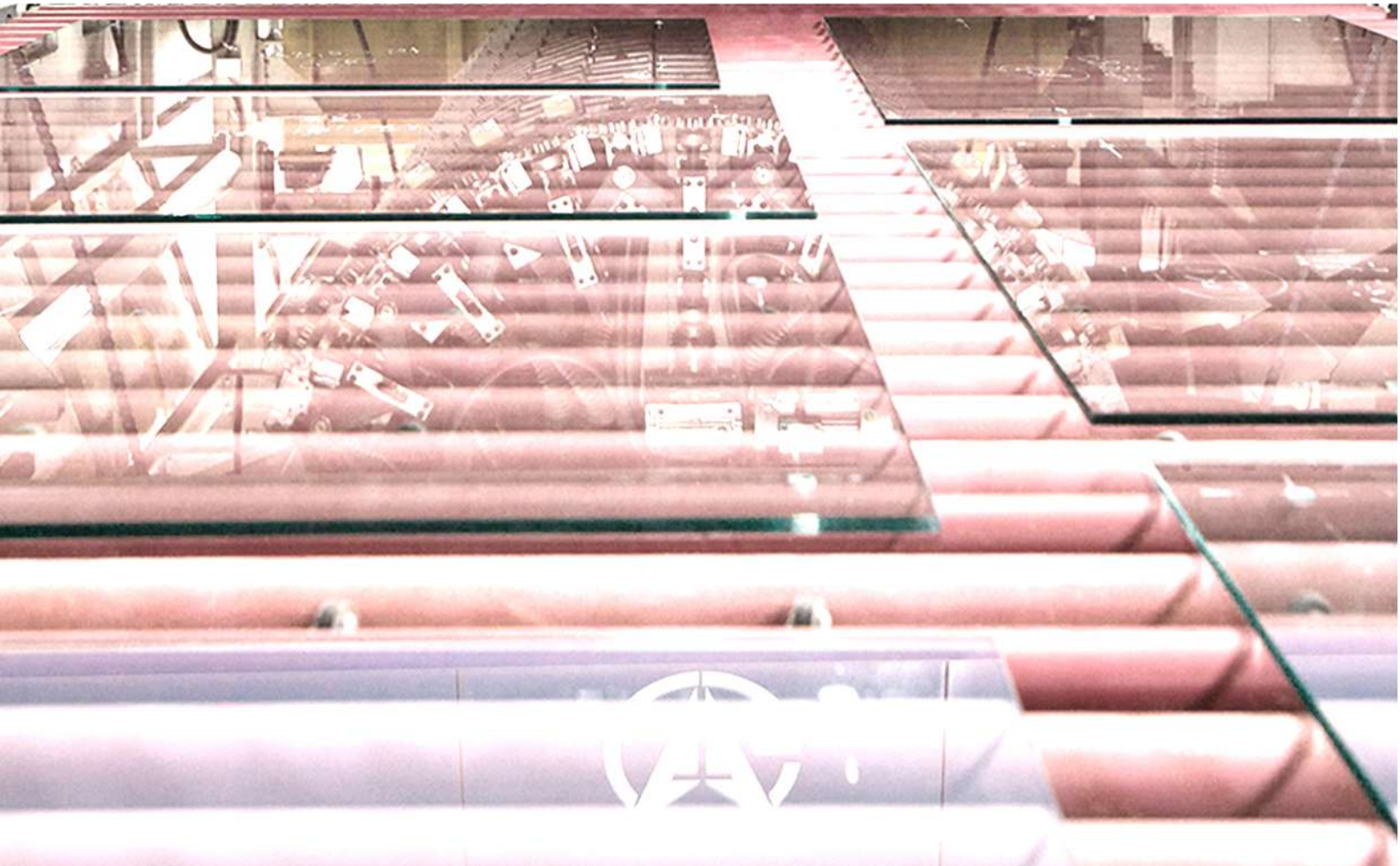
# QUESTIONNAIRE

N	Question	Beneficiary's answer	Respondent (name, surname, occupation)	Responsible person (name, surname, occupation)	Documents/Information to be provided
42	In your opinion, what is your business share within your business sector? Does your business affect the development of your business sector?				
43	Please indicate the annual financial indicators for 3 years prior to and up to the current date from engaging in the program (liquidity ratio, financial leverage, profitability, cash conversion cycle).				
44	Please provide the balance sheets or audited financial statements of the company for 3 reporting years prior and up to the current date after engaging in the program.				

*Please note that in the year of receiving the funding, the information provided must be in two parts according to months (before and after engaging in the program) and the quantitative data provided (salaries, wages, etc.) must indicate if they are calculated and presented including or excluding taxes.*

*I hereby confirm that the information provided is accurate and true and I agree that the information presented can be used for analysis and can be included in the reporting statements (if needed) only if the company name and other identifying data are confidential.*

*Signature of the responsible representative of the beneficiary*





# APPENDIX 2 REGRESSION ANALYSIS

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# REGRESSION ANALYSIS

Regression analysis has been used as additional tool in order to determine the precise effect provided funds have on the GDP which the Beneficiaries generate. For this purpose, data pairs of 68 Beneficiaries, have been observed and the model function is as follows:

$$Y = 1,040,610 + 5.7712 X$$

where, Y is GDP created by 68 Beneficiaries; X is subsidy provided by the Program.

The amount 1,040,610 shown in the model is a coefficient, which usually describes average results of the dependent variable (Y) when the independent variable (X) is zero. In this specific case, the number indicates how much GDP would have been generated by the Beneficiaries if there had been no subsidies. However, this way of interpretation is assumed to be general and is not reliable in some economic situations.

The amount in front of the independent variable, 5.7712 is b coefficient, which describes the average change of dependent variable which is a result of a marginal change in the independent variable. In this case, coefficient indicates that with each additional subsidized GEL, +5.7712 GDP is created.

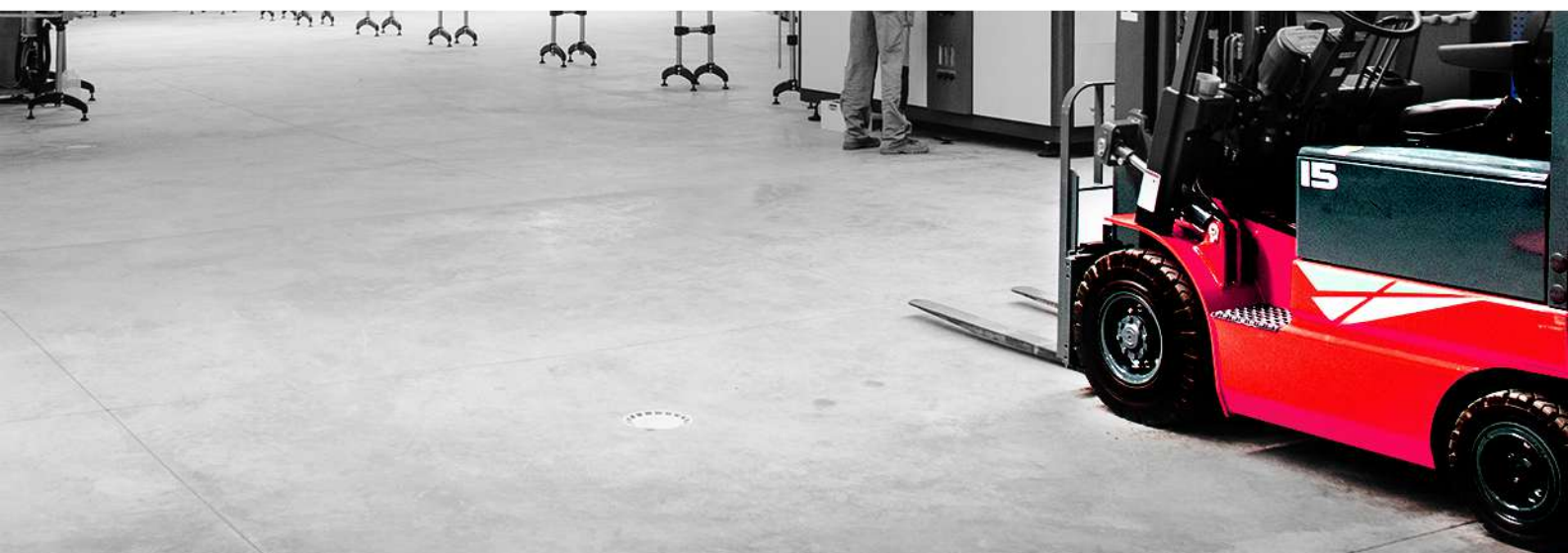
Correlation between the two selected indicators has also been assessed:

$$\text{Corr}(Y, X) = 0.32$$

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The result shows that the interdependence of the indicators is not very high, as high degree of correlation is generally believed to be above 0.8. While the correlation coefficient is positive and indicates that growth of subsidy results in a growth of GDP as well, the amounts do not change accordingly and the effect created is less than the funds provided.

Determination coefficient ( $R^2$ ) has also been considered for further analysis as it is important output of regression analysis.  $R^2$  for the model amounted to only 0.10, which is a relatively low result for this indicator. Determination coefficient generally describes the proportion of the variance that can be predicted with the independent variable. In this case it indicates that only the presented (0.10) proportion of the GDP created can be predicted with the subsidies provided by the Program as the result changes accordingly to the other various indicators which are not presented in the model.





# APPENDIX 3 FINANCIAL INDICATORS

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# KEY PERFORMANCE INDICATORS

Financial indicators have been grouped and analyzed in four main directions: liquidity ratios, financial leverage, profitability ratios and cash conversion cycle. Liquidity ratios have been integrated into current and quick ratios. Financial leverage has been integrated into debt to equity and debt ratios. Profitability ratios have been integrated into gross and net profit margins, return on equity and return on assets.

## LIQUIDITY RATIO

### CURRENT RATIO

The current ratio is a liquidity and efficiency ratio that measures a firm's ability to pay off its short-term liabilities with its current assets. The beneficiaries with larger amounts of current assets will more easily be able to pay off current liabilities when they become due without having to sell off long-term, revenue generating assets.

Current ratio must be analyzed in the context of the norms of a particular industry. Some industries for example retail, have very high current ratios. Others, for example service providers such as accounting firms, have relatively low current ratios because their business model is such that they do not have any significant current assets. Manufacturing industries require significant working capital investment in inventory, trade debtors, cash, etc., and therefore companies operating in such industries may reasonably be expected to have current ratios of 2 or more. Commonly acceptable current ratio is 2; it's a comfortable financial position for most enterprises. Acceptable current ratios for most industrial companies equals to 1.5.

$$\text{Current Ratio} = \text{Current Assets} \div \text{Current Liabilities}$$

### QUICK RATIO

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The quick ratio is a liquidity ratio that measures the ability of a beneficiary to pay its current liabilities when they come due with only quick assets. Quick assets are current assets that can be converted to cash within 90 days or in the short-term. A higher current ratio is always more favorable than a lower current ratio because it shows the beneficiary can more easily make current debt payments.

$$\text{Quick Ratio} = (\text{Total Current Assets} - \text{Inventory}) \div \text{Current liabilities}$$

## FINANCIAL LEVERAGE

### DEBT TO EQUITY RATIO

The debt to equity ratio is a financial, liquidity ratio that compares a beneficiary's total debt to total equity. The debt to equity ratio shows the percentage of beneficiary financing that comes from creditors and investors. A higher debt to equity ratio indicates that more creditor financing (bank loans) is used than investor financing (shareholders). Each sector has different debt to equity ratio benchmarks, as some industries tend to use more debt financing than others.

A lower debt to equity ratio usually implies a more financially stable business. beneficiaries with a higher debt to equity ratio are considered riskier to creditors and investors than beneficiaries with a lower ratio.

$$\text{Debt-Equity Ratio} = \text{Total Liabilities} \div \text{Total Equity}$$

### DEBT RATIO

Debt ratio is a solvency ratio that measures a firm's total liabilities as a percentage of its total assets. In a sense, the debt ratio shows a beneficiary's ability to pay off its liabilities with its assets. beneficiaries with higher levels of liabilities compared with assets are considered highly leveraged and riskier.

$$\text{Debt Ratio} = \text{Total Liabilities} \div \text{Total Assets}$$



# KEY PERFORMANCE INDICATORS

## PROFITABILITY RATIOS

### GROSS PROFIT MARGIN

Gross profit margin is a profitability ratio that calculates the percentage of sales that exceed the cost of goods sold. In other words, it measures how efficiently a beneficiary uses its materials and labor to produce and sell products profitably. The gross profit percentage could be negative, and the net income could be coming from other one-time operations. The beneficiary could be losing money on every product they produce, but staying afloat because of a one-time insurance pay-out.

$$\text{Gross Profit Margin} = (\text{Net sales} - \text{cost of sales}) \div \text{Net Sales}$$

### NET PROFIT MARGIN

The net profit margin, also known as net margin, indicates how much net income a beneficiary makes with total sales achieved. A higher net profit margin means that a beneficiary is more efficient at converting sales into actual profit. It is one of the most essential financial ratios.

$$\text{Net Profit Margin} = \text{net profit (after taxes)} \div \text{total revenue}$$

### RETURN ON EQUITY (ROE)

The return on equity ratio or ROE is a profitability ratio that measures the ability of a firm to generate profits from its shareholders investments in the beneficiary. ROE is also an indicator of how effective management is at using equity financing to fund operations and grow the beneficiary. Higher ROE is almost always better than lower, but have to be compared to other beneficiaries' ratios in the sector. Since every sector has different levels of investors and income, ROE can't be used to compare beneficiaries outside of their industries very effectively.

$$\text{Return on Equity} = \text{Net Income} \div \text{Average Equity}$$

### RETURN ON ASSETS (ROA)

The return on assets ratio, often called the return on total assets, is a profitability ratio that measures the net income produced by total assets during a period by comparing net income to the average total assets. ROA measures how efficiently a beneficiary can manage its assets to produce profits during a period. A higher ratio is better because it shows that the beneficiary is more effectively managing its assets to produce greater amounts of net income. A positive ROA ratio usually indicates an upward profit trend as well. ROA is most useful for comparing beneficiaries in the same industry as different industries use assets differently.

$$\text{Return on Assets} = \text{Net Income} \div \text{Average Total Assets (ROA)}$$

## CASH CONVERSION CYCLE (CCC)

The cash conversion cycle is a cash flow calculation that attempts to measure the time it takes a beneficiary to convert its investment in inventory and other resource inputs into cash. In other words, it measures how long days cash is tied up in inventory before the inventory is sold and cash is collected from customers.

The cash cycle has three distinct parts. The first part of the cycle represents the current inventory level and how long days it will take the beneficiary to sell this inventory. The second stage of the cash cycle represents the current sales and the amount of time it takes to collect the cash from these sales. The third stage represents the current outstanding payable.

The shorter the cash conversion cycle, the better the beneficiary is at selling inventories and recovering cash from these sales while paying suppliers.

$$\text{CCC} = \text{Inventory} \div \text{Cost of sales X 365} + \text{Accounts receivable} \div \text{Sales X 365} - \text{Accounts payable} \div \text{Cost of sales X 365}$$

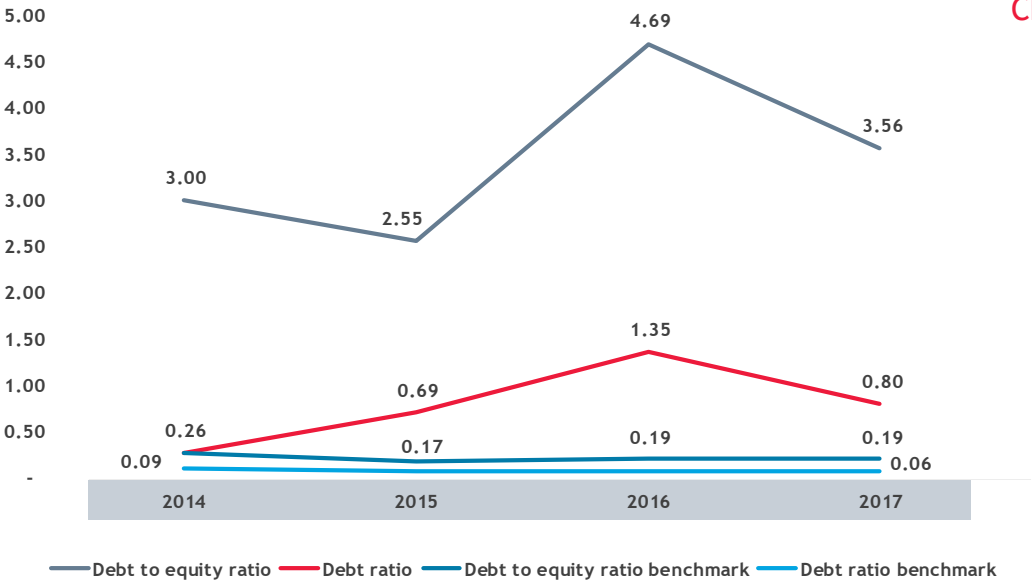
# KEY PERFORMANCE INDICATORS

## ELECTRONICS SECTOR

**Debt to equity** ratio is quite high through the years, which means that the Beneficiaries participating in the electronics sector have significantly greater amount of debts than the equity. This implies that the Beneficiaries increasing long-term liabilities due to the purpose of their business development. However, liquidity ratios have been improving in the mentioned sectors, that implies the Beneficiaries invest the mentioned loans properly. Compared to benchmark, there are significant deviations, but it should also be noted that in the analysis of this sector only 3 Beneficiaries' data are used, out of which two are start-ups and have consequently large debts.

Debt to equity and Debt ratios for both Start-up and Expansion

Chart 6.1

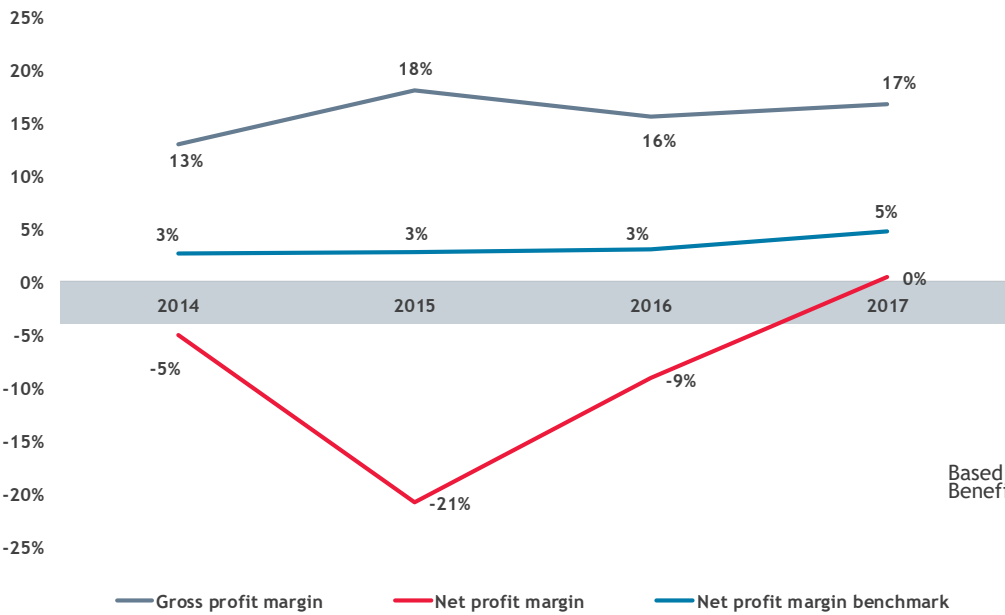


Based on 3 Beneficiaries' data

**Gross profit margin** is steadily fluctuating between 13% to 18% through 2014 to 2018, when **Net profit margin** had negative trend till 2015 but steadily improving annually since 2015 that implies the Beneficiaries are more efficient at converting sales into actual profit year by year.

Gross and Net profit margins for both Start-up and Expansion

Chart 6.2



Based on 3 Beneficiaries' data

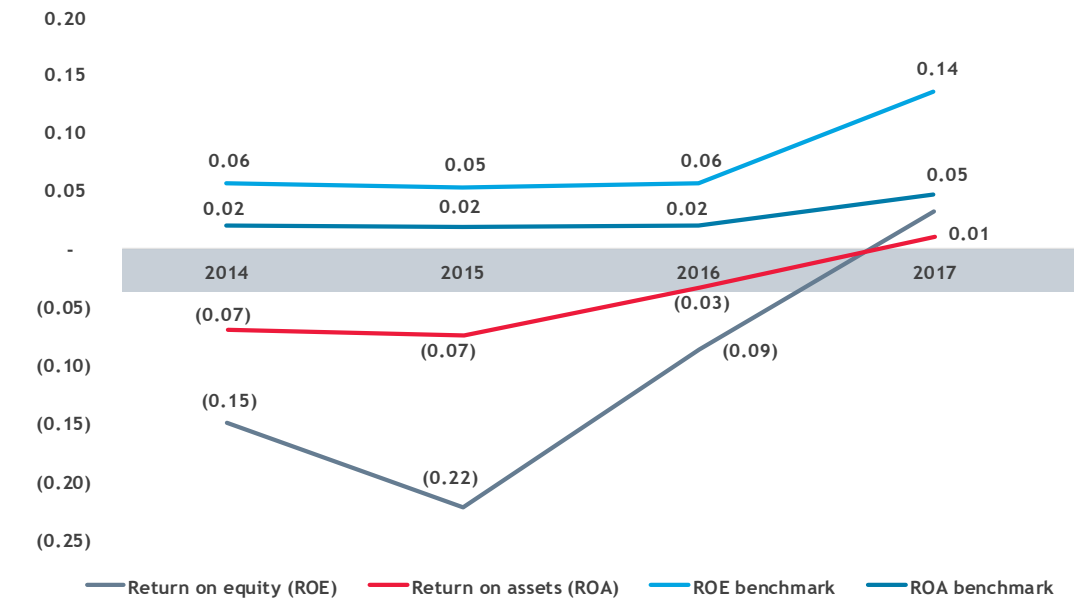
# KEY PERFORMANCE INDICATORS

## ELECTRONICS SECTOR

The similar condition is indicated on **ROE** and **ROA** ratios. These indicators are increasing over the years and approaching the benchmark data from the electronics sector. ROA is higher than ROE in the last period that implies that the Beneficiaries began to reduce the debts since 2015. A higher ROA ratio is always better because it shows that the Beneficiary is more effectively managing its assets to produce greater amounts of net income.

ROA and ROE for both Start-up and Expansion

Chart 6.3

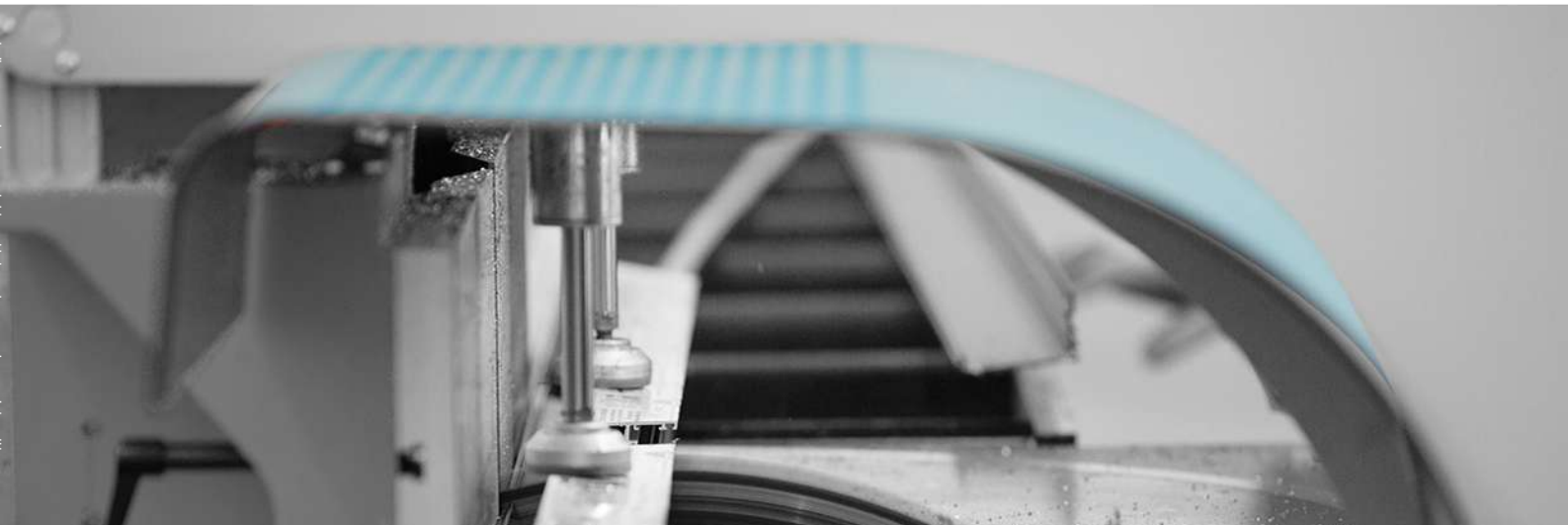


Based on 3 Beneficiaries' data

Source: Beneficiaries' data, BDO analysis and NYC Stern

**Cash conversion cycle in days** are also improving through the years. A small conversion cycle means that a beneficiaries money is tied up in inventory for less time. In other words, a beneficiary with a small conversion cycle can buy inventory, sell it, and receive cash from customers in less time.

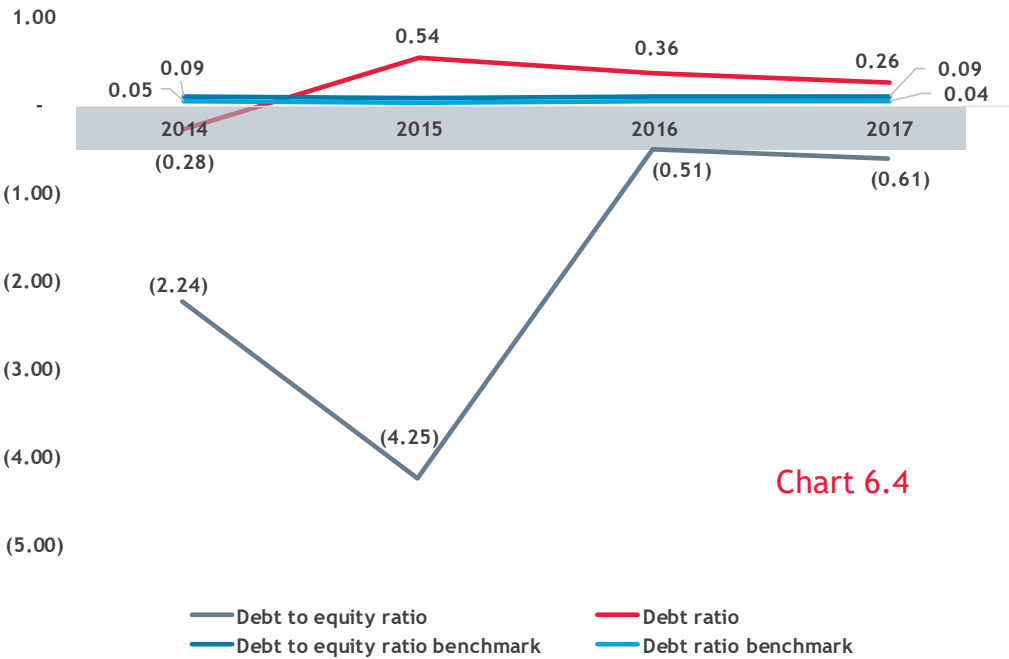
Different result is given in 2018, which is due to the fact that financial information provided by Beneficiaries are for an incomplete year.



# KEY PERFORMANCE INDICATORS

## PHARMACEUTICAL AND CHEMICAL PRODUCTION SECTOR

Debt to equity and Debt ratios for both Start-up and Expansion

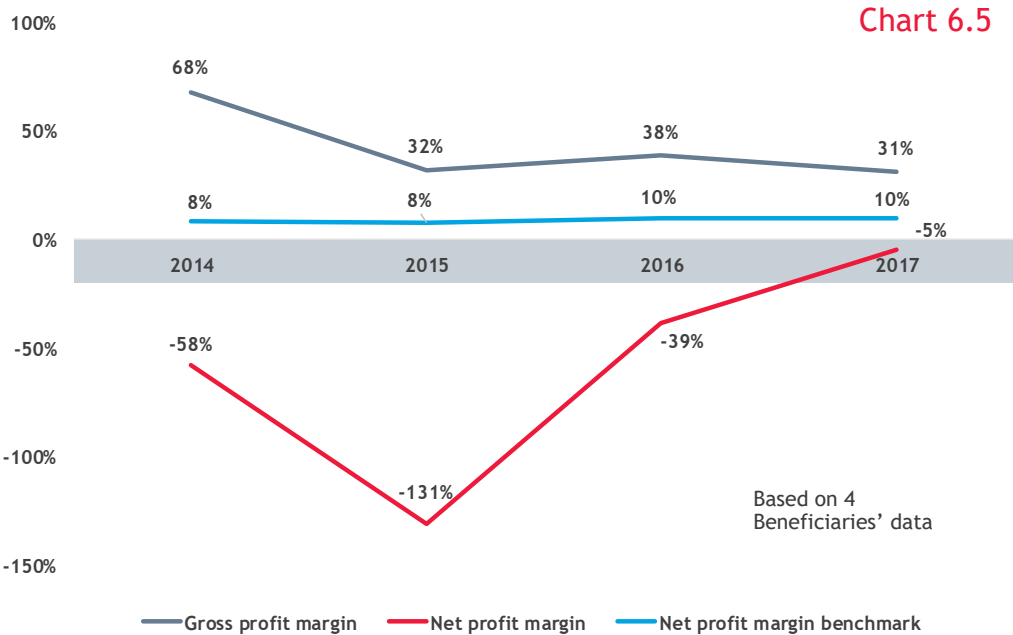


**Debt to equity** ratio is unstable over the years and implies significant changes in both positive and negative aspects. Contrary to that **Debt ratio** is improving through the years, but is significantly different from the benchmark data of this sector. Debt to equity ratio is presented in a negative value, because the equity in financial information provided by the Beneficiaries were presented with negative value.

Source: Beneficiaries' data, BDO analysis and NYC Stern

**Gross profit margin** has decreased by around 50 percent in 2015 compared to the previous year, but the tendency of further years is stable and varies between 32 to 38 percent. **Net profit margin** is improving annually that implies that the Beneficiaries are more efficient at converting sales into actual profit year by year. Net profit margin was negative in the initial years, as the Beneficiaries participating in the sector had to work on losses.

Gross and Net profit margins for both Start-up and Expansion



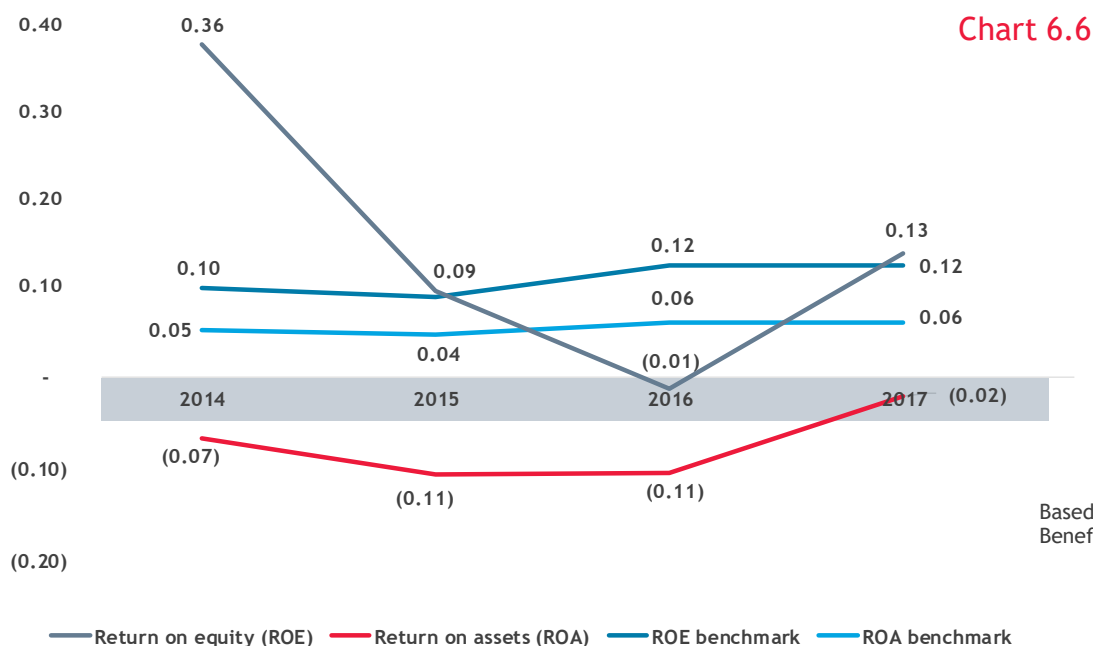
Source: Beneficiaries' data, BDO analysis and NYC Stern

# KEY PERFORMANCE INDICATORS

## PHARMACEUTICAL AND CHEMICAL PRODUCTION SECTOR

ROE and ROA ratios as Cash conversion cycle in days are unstable over the years and implies significant changes in both positive and negative aspects. Data presented in 2018 does not describe the real picture due to the fact that financial information provided by Beneficiaries are for an incomplete year.

### ROA and ROE for both Start-up and Expansion



Source: Beneficiaries' data, BDO analysis and NYC Stern



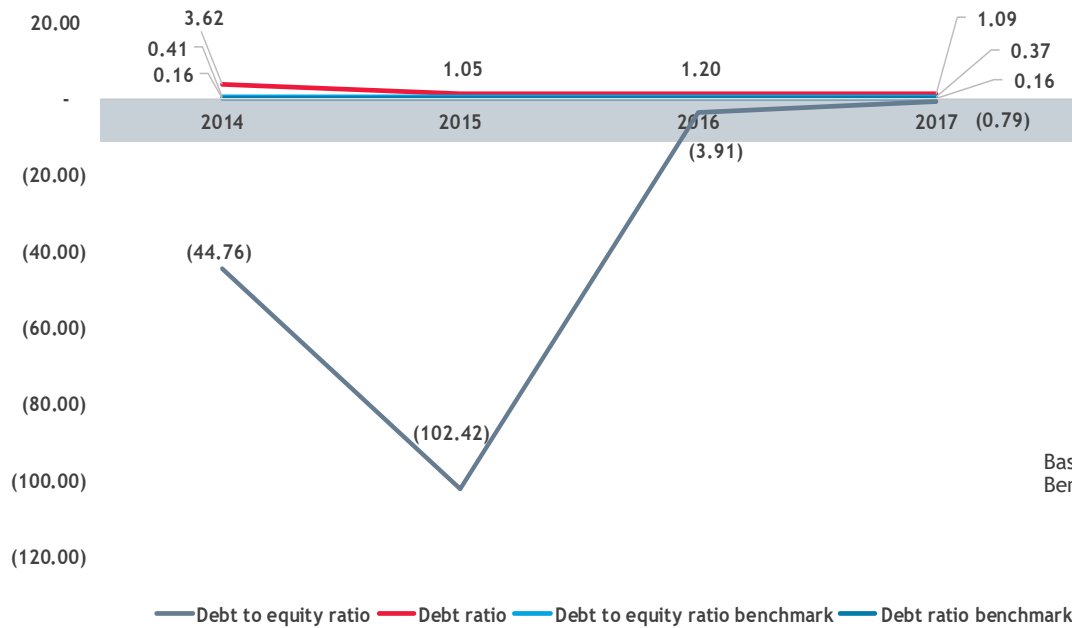
# KEY PERFORMANCE INDICATORS

## PLASTIC SECTOR

**Debt to equity** ratio was negative in the initial years, but implies significant changes in positive aspects in the last three years and is approaching the benchmark data from the plastic sector.

Debt to equity and Debt ratios for both Start-up and Expansion

Chart 6.7

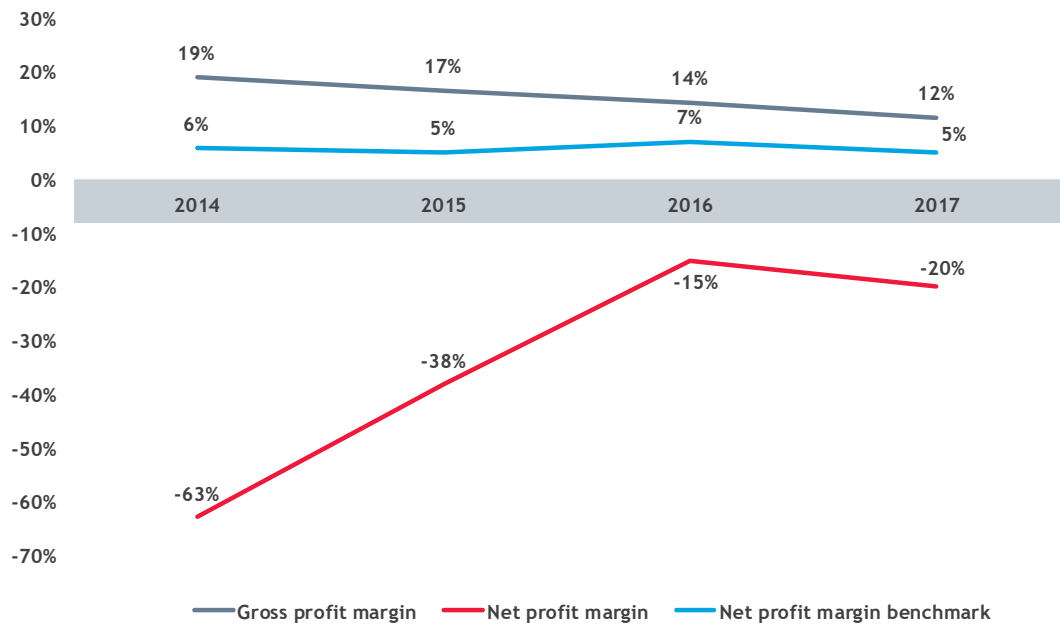


Source: Beneficiaries' data, BDO analysis and NYC Stern

**Gross profit margin** is steadily fluctuating between 12% to 19% through 2014 to 2018, when **Net profit margin** is unstable and negative through the years and implies significant changes in both positive and negative aspects

Gross and Net profit margins for both Start-up and Expansion

Chart 6.8



Source: Beneficiaries' data, BDO analysis and NYC Stern



# KEY PERFORMANCE INDICATORS

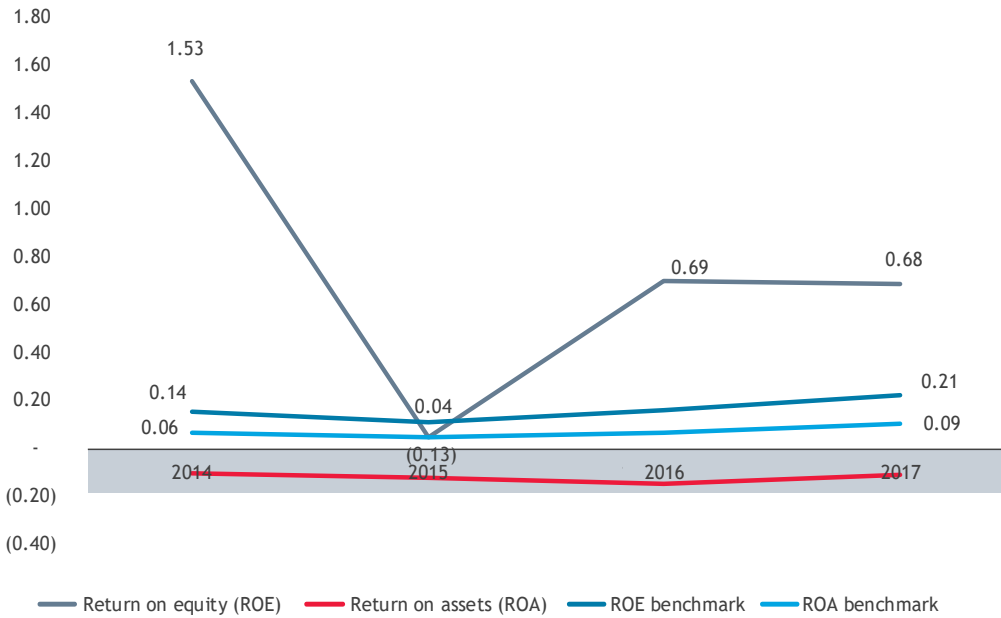
## PLASTIC SECTOR

ROA and ROE for both Start-up and Expansion

Chart 6.9

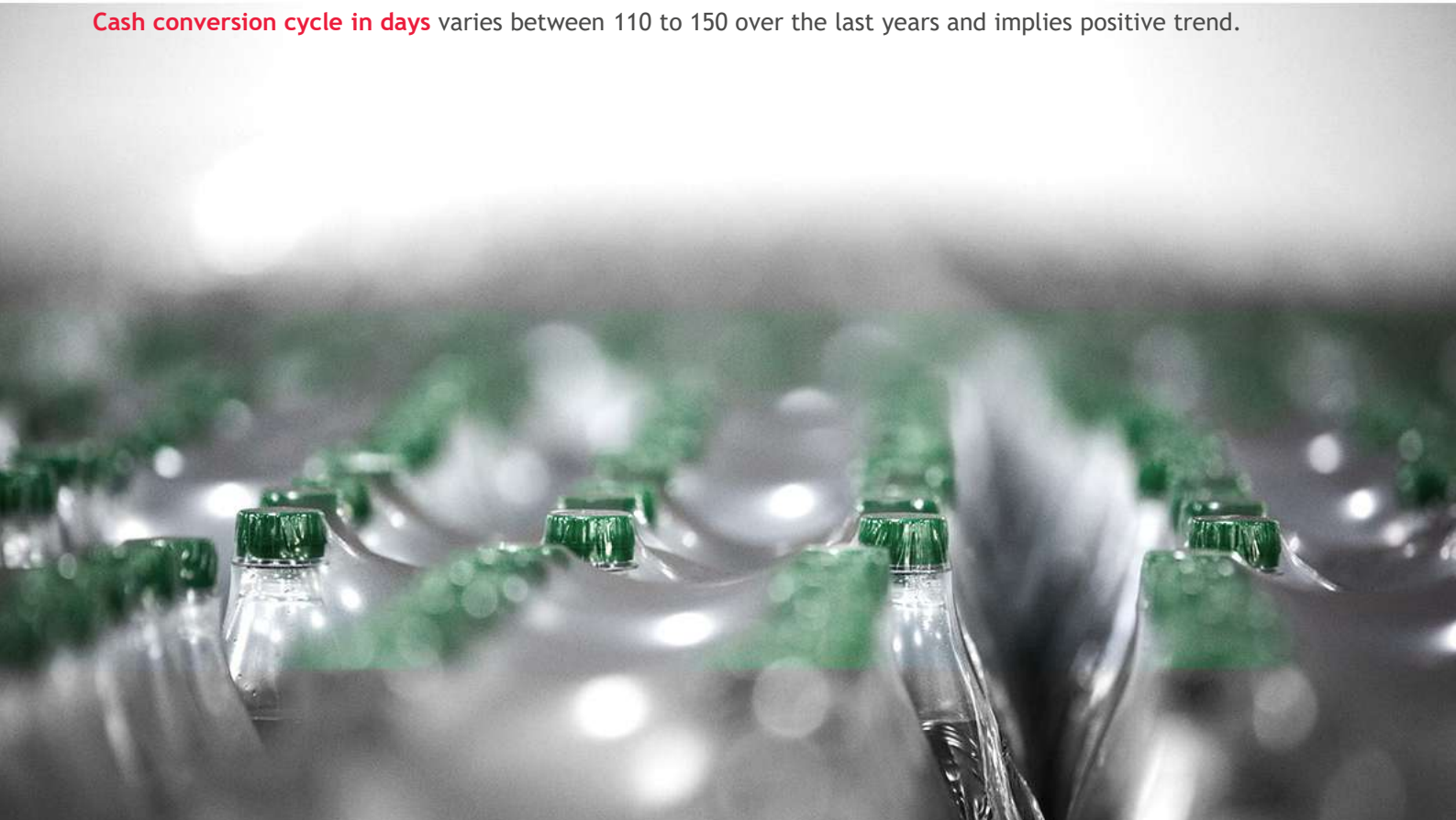
ROE and ROA ratios are steadily varies in the defined range through the years.

Based on 4 Beneficiaries' data



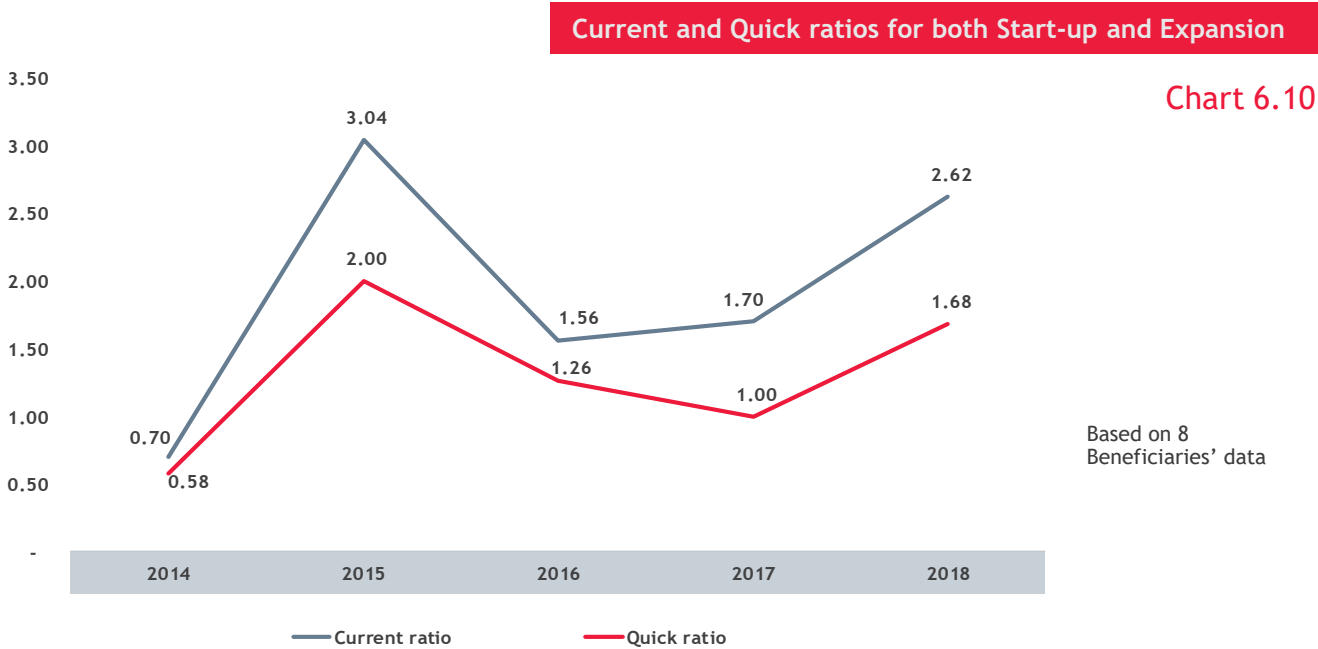
Source: Beneficiaries' data, BDO analysis and NYC Stern

Cash conversion cycle in days varies between 110 to 150 over the last years and implies positive trend.



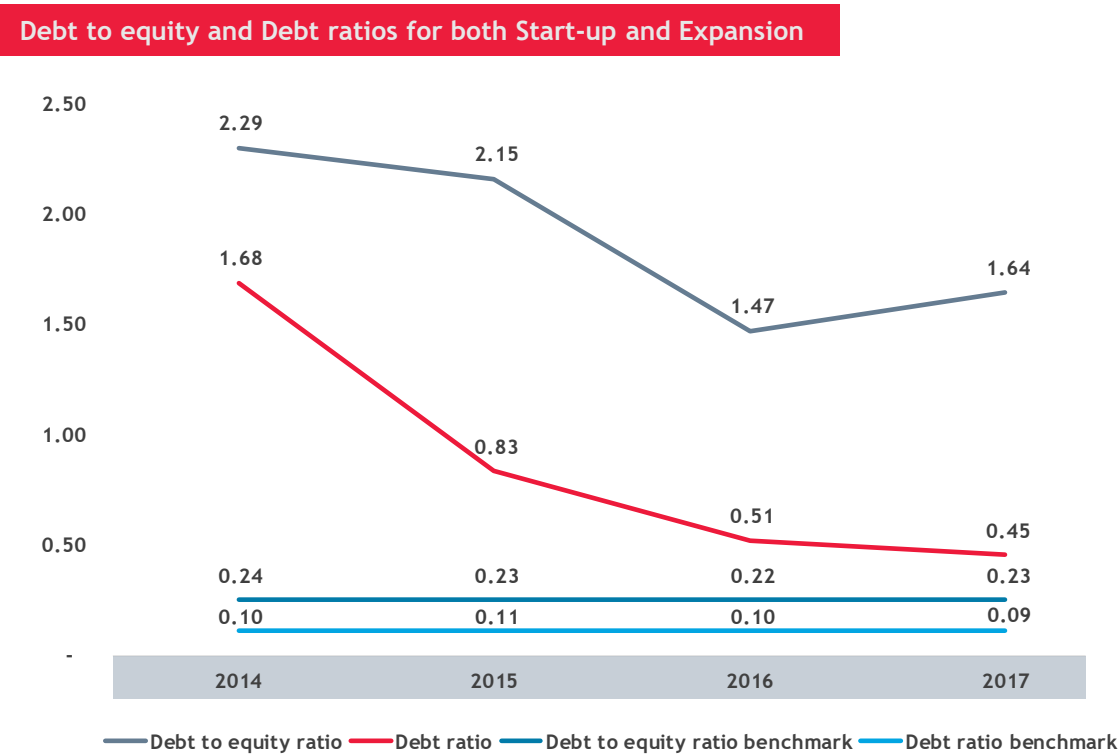
# KEY PERFORMANCE INDICATORS

## FOOD AND BEVERAGES SECTOR



Source: Beneficiaries' data and BDO analysis

**Debt to equity** ratio is greater than 1 through the years, which means that the Beneficiaries participating in the electronics sector have greater amount of debts than the equity. Compared to benchmark, there are significant deviations, but it should also be noted that the trend is positive and ratio is decreasing in the last years.

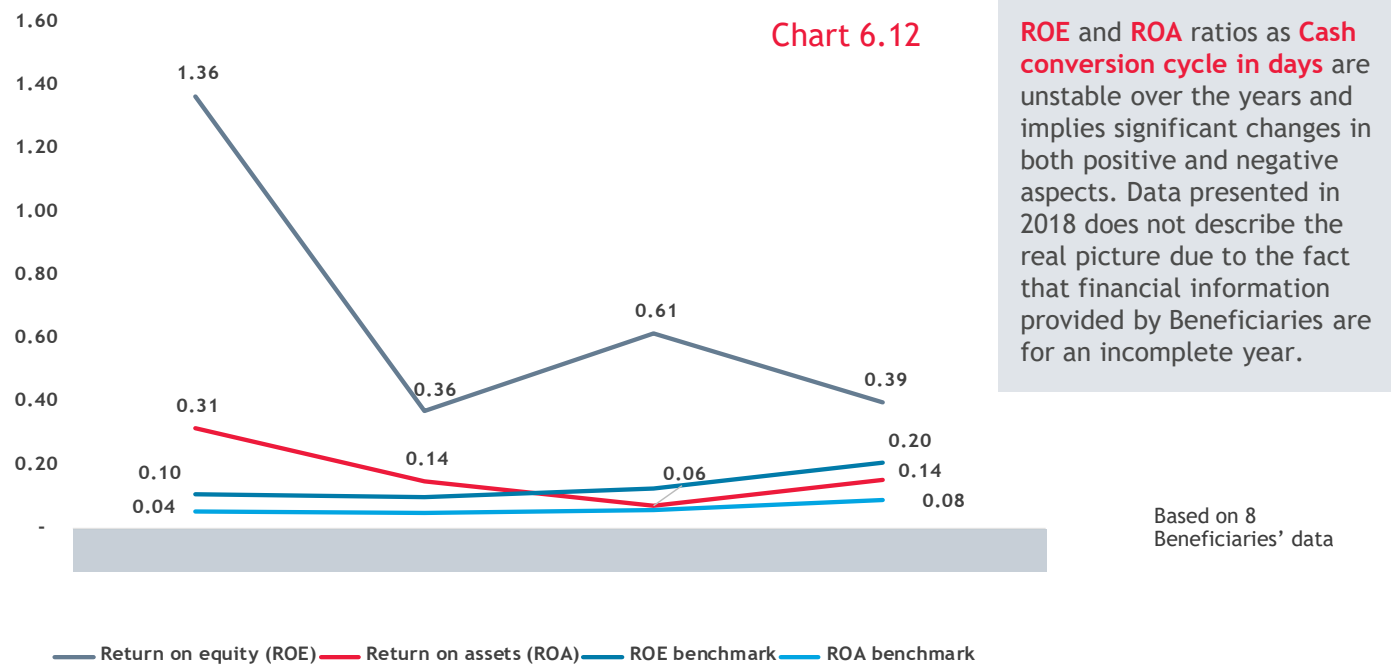


Source: Beneficiaries' data, BDO analysis and NYC Stern

# KEY PERFORMANCE INDICATORS

## FOOD AND BEVERAGES SECTOR

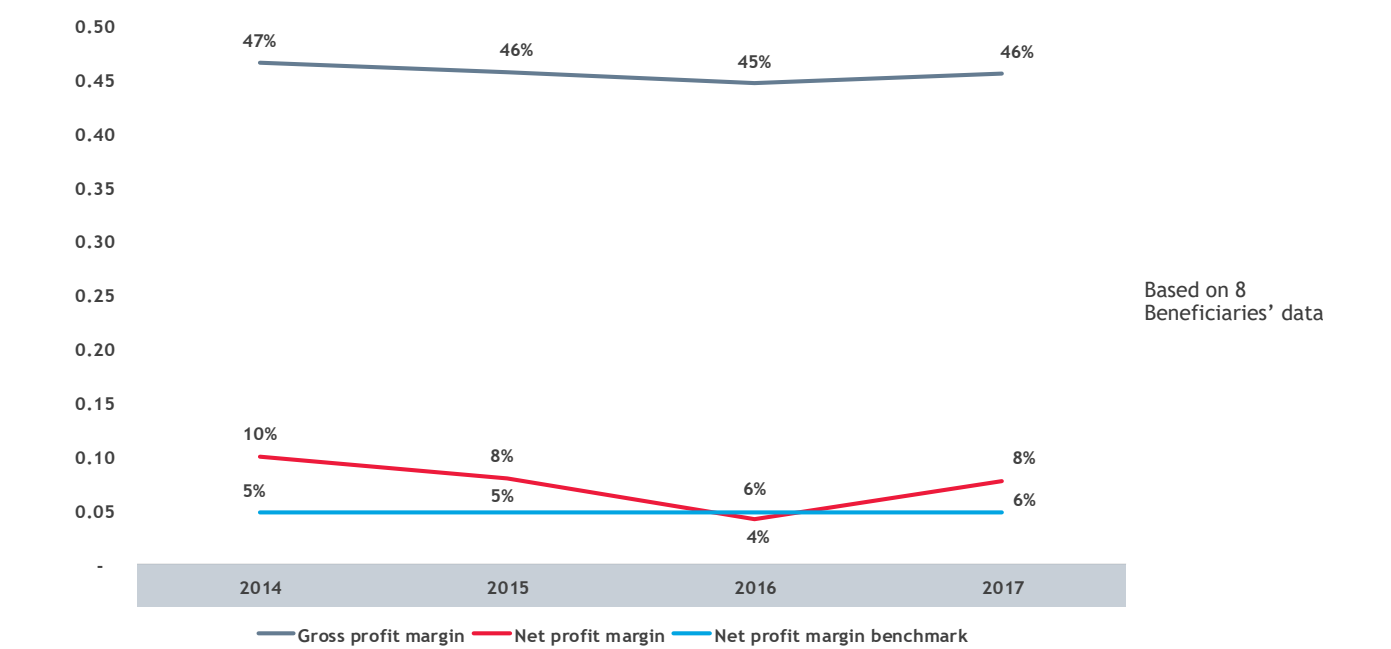
ROA and ROE for both Start-up and Expansion



Source: Beneficiaries' data, BDO analysis and NYC Stern

Gross profit margin as Net profit margin is steadily varies in the defined range by years and there are not significant deviations compared to benchmark data. A higher profit margins mean that a beneficiary is more efficient at converting sales into actual profit.

Gross and Net profit margins for both Start-up and Expansion



Source: Beneficiaries' data, BDO analysis and NYC Stern

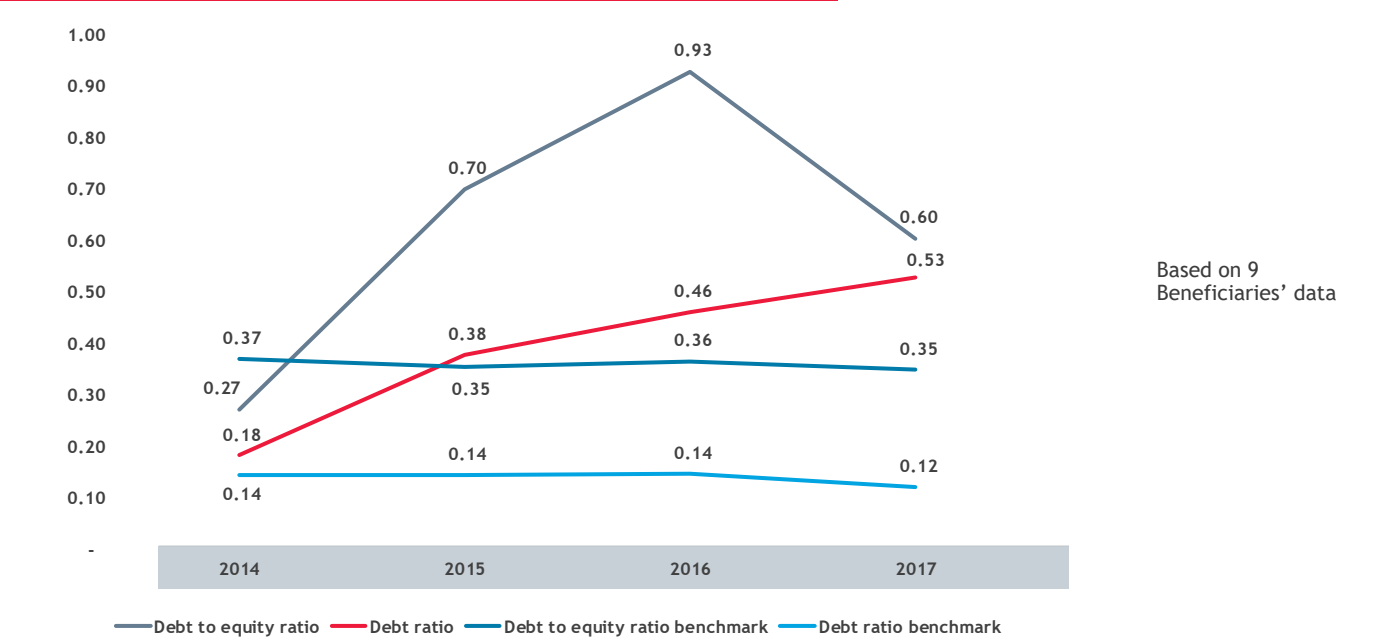
# KEY PERFORMANCE INDICATORS

## CONSTRUCTION MATERIALS SECTOR

Contrary to that, financial leverage (**Debt to equity and Debt ratio**) is increasing through the years, but is less than 1 which implies that the Beneficiaries participating in construction materials sector are financially stable.

Debt to equity and Debt ratios for both Start-up and Expansion

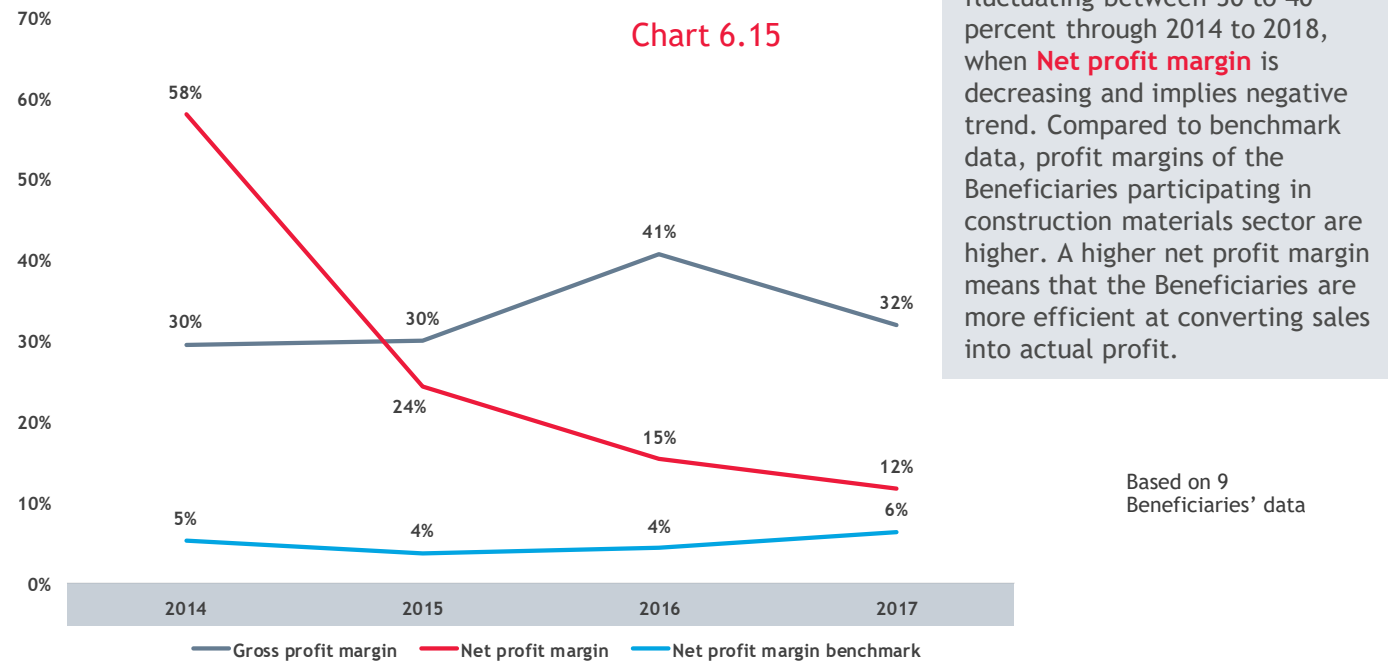
Chart 6.14



Source: Beneficiaries' data, BDO analysis and NYC Stern

Gross and Net profit margins for both Start-up and Expansion

Chart 6.15



Source: Beneficiaries' data, BDO analysis and NYC Stern

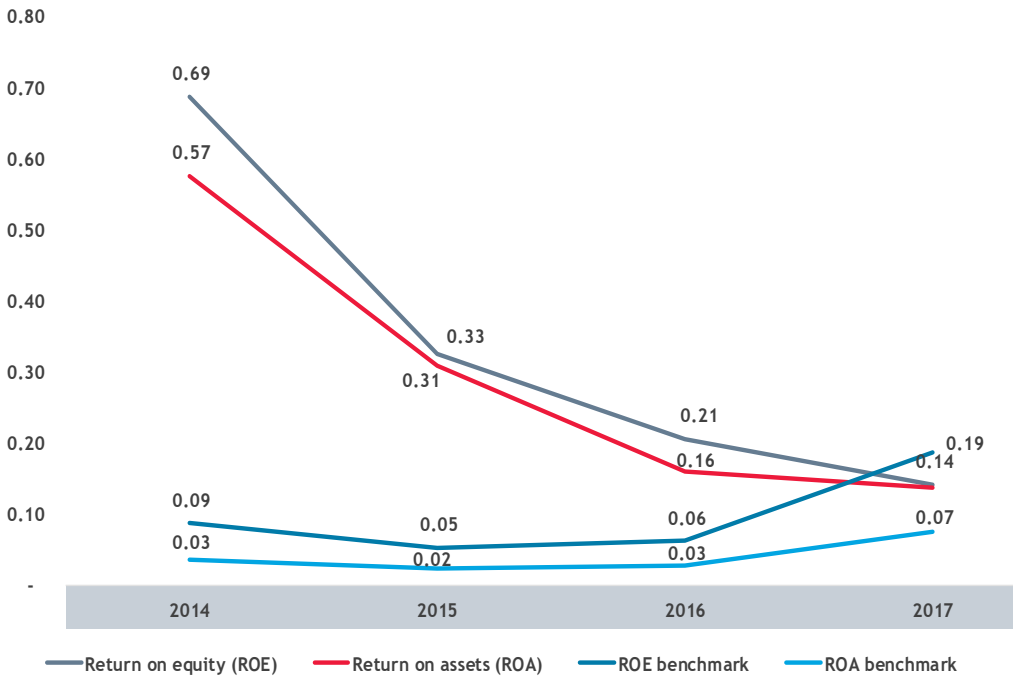
# KEY PERFORMANCE INDICATORS

## CONSTRUCTION MATERIALS SECTOR

ROE and ROA ratios as Cash conversion cycle in days are unstable over the years and implies significant changes in both positive and negative aspects. Data presented in 2018 does not describe the real picture due to the fact that financial information provided by Beneficiaries are for an incomplete year.

ROA and ROE for both Start-up and Expansion

Chart 6.16



Based on 9 Beneficiaries' data

Source: Beneficiaries' data, BDO analysis and NYC Stern



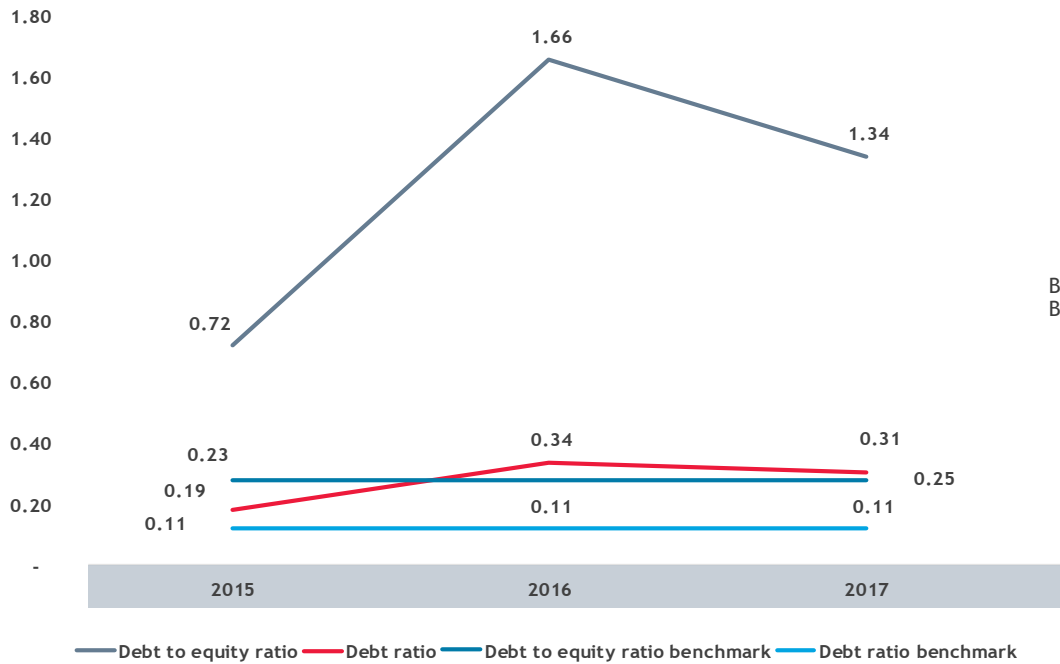
# KEY PERFORMANCE INDICATORS

## CLOTHING AND TEXTILES SECTOR

According to the Beneficiary’s data **Debt to equity** ratio and **Debt ratio** are increased significantly in 2016 which is derived from the fact that the Beneficiary obtained the loan for expansion purposes. Since 2017 mentioned financial indicators shows the decreasing trend.

Debt to equity and Debt ratios for Expansion

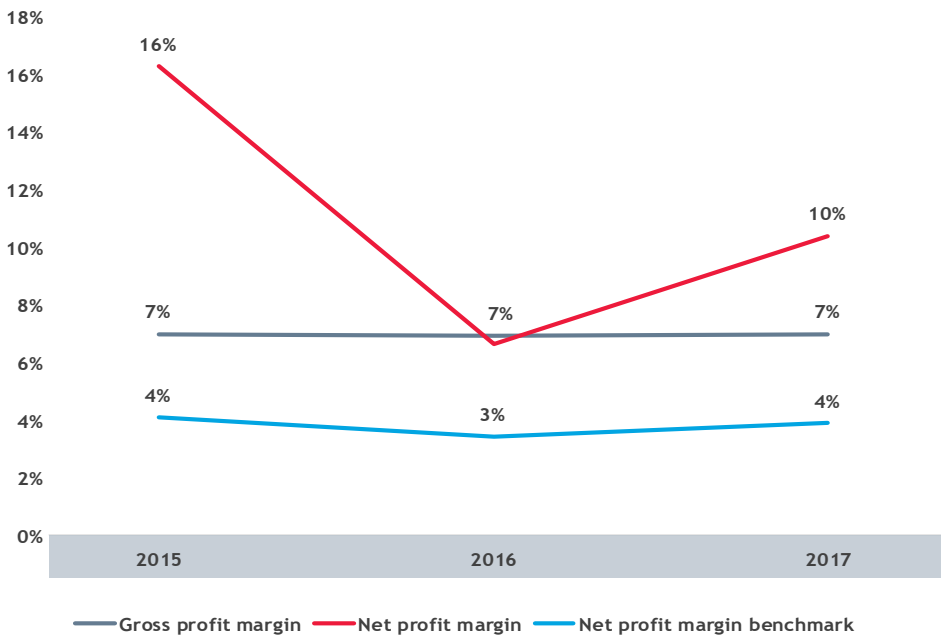
Chart 6.17



Source: Beneficiaries’ data, BDO analysis and NYC Stern

Gross and Net profit margins for Expansion

Chart 6.18



**Gross profit margin** is steadily amounts to 7 percent, when **Net profit margin** is unstable and fluctuates through 2014 to 2017, that implies significant changes in both positive and negative aspects.

Compared to benchmark data, profit margin of the Beneficiary participating in clothing and textile sector is higher. A higher net profit margin means that the Beneficiary is more efficient at converting sales into actual profit.

Based on 1 Beneficiaries’ data

Source: Beneficiaries’ data, BDO analysis and NYC Stern



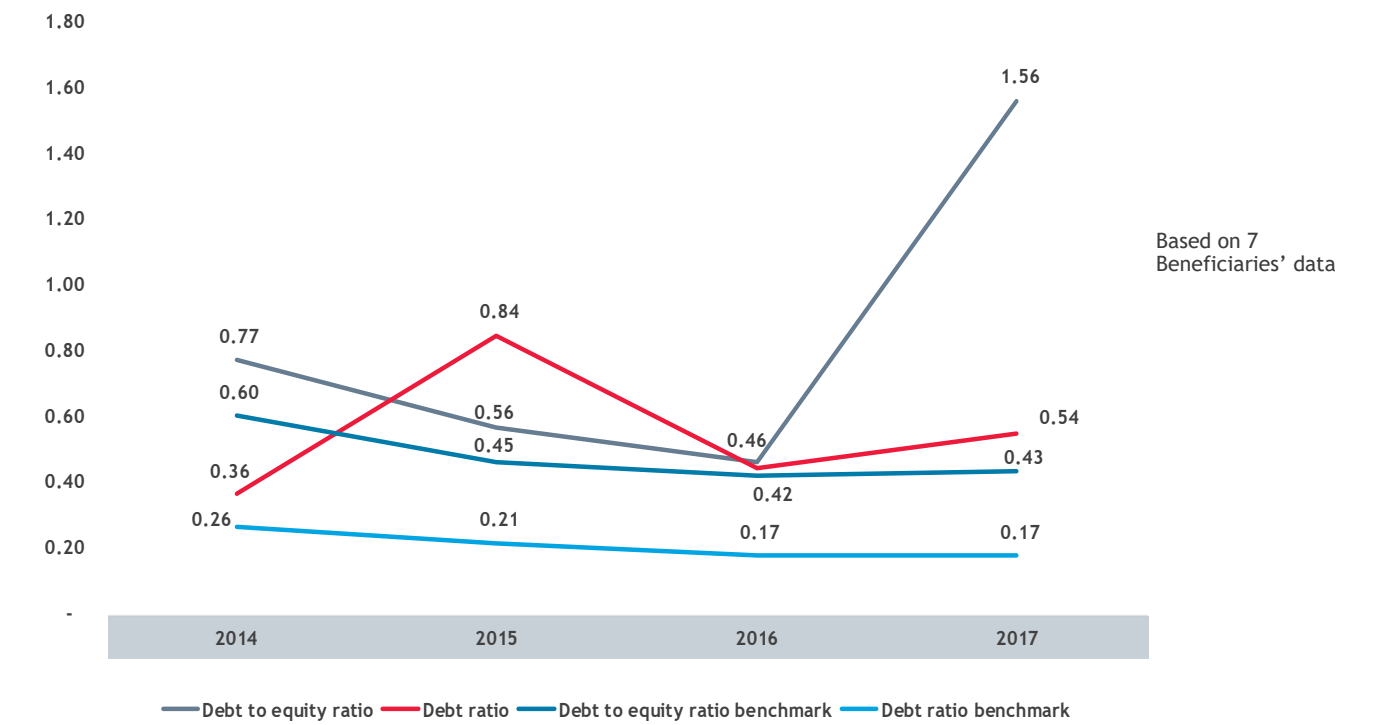
# KEY PERFORMANCE INDICATORS

## PAPER AND PACKAGING SECTOR

**Debt to equity** ratio increasing over the years and reaches to 1.24 in 2018, which means that the Beneficiaries participating in the paper and packaging sector have greater amount of debts than the equity. Compared to benchmark, significant deviations were not observed until 2017. Debt ratio is unstable and fluctuates through 2014 to 2017, but is less than 1 which implies that the Beneficiaries are financially stable. Beneficiaries with lower levels of liabilities compared with assets are considered as less leveraged.

Debt to equity and Debt ratios for both Start-up and Expansion

Chart 6.19



Source: Beneficiaries' data, BDO analysis and NYC Stern

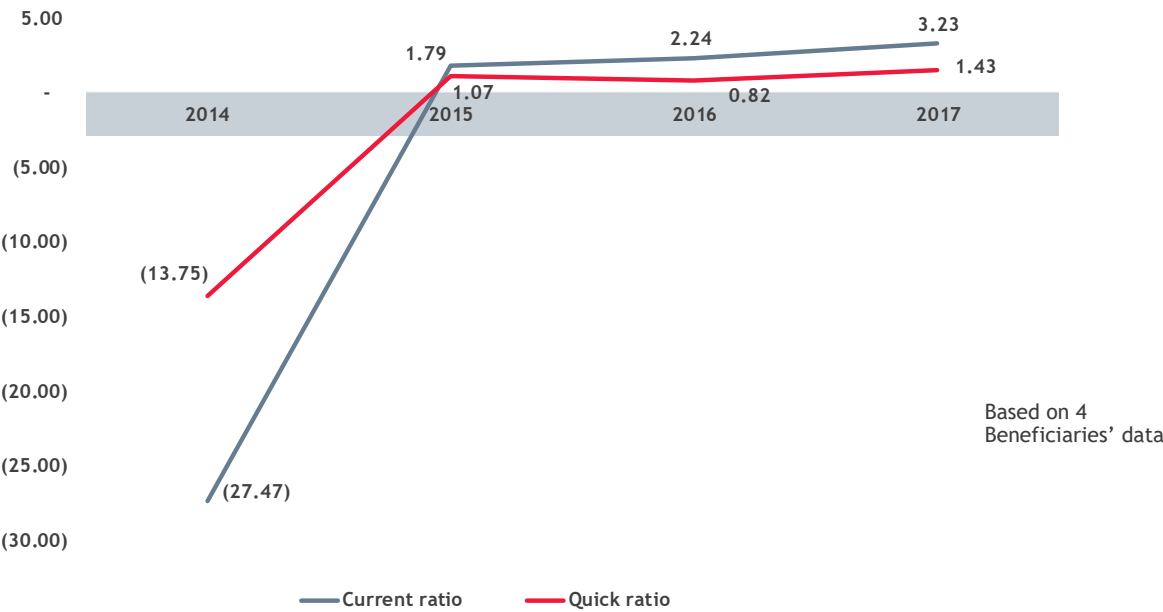


# KEY PERFORMANCE INDICATORS

## METAL WORK SECTOR

Current and Quick ratios for both Start-up and Expansion

Chart 6.20

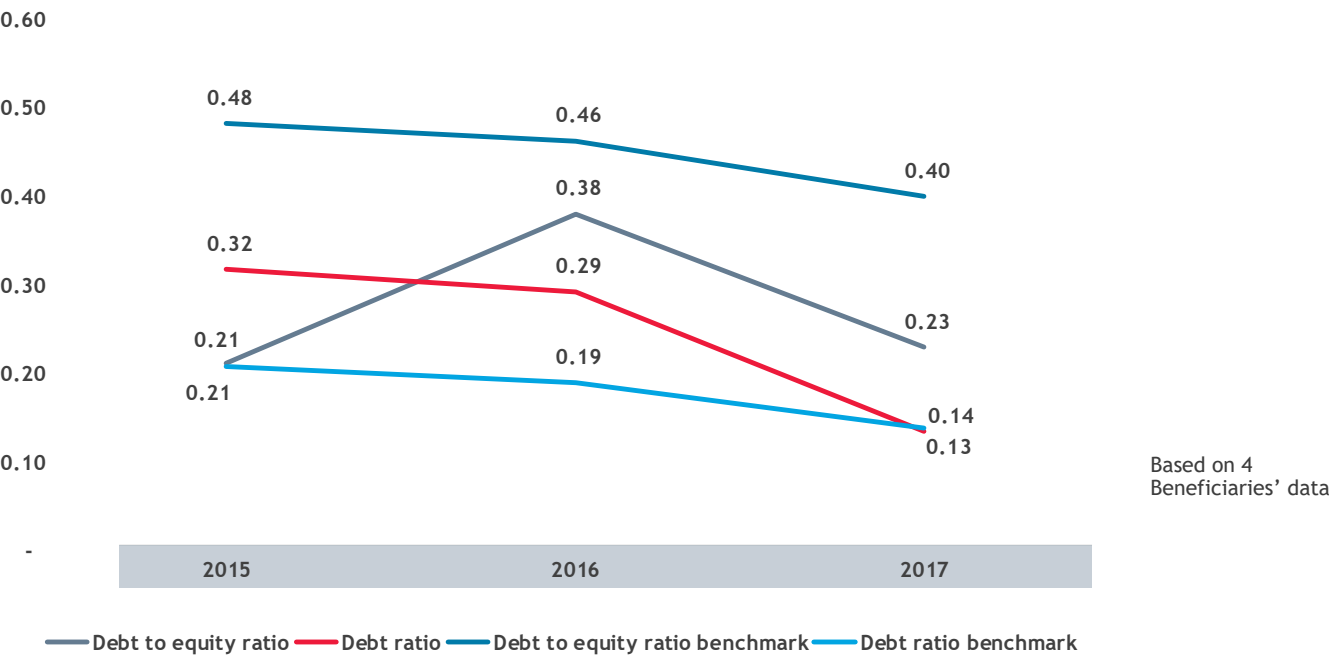


Source: Beneficiaries' data and BDO analysis

Financial leverages (**Debt to equity and Debt ratio**) are less than 1 over the years and improving annually which implies that the Beneficiaries participating in metal work sector are financially stable.

Debt to equity and Debt ratios for both Start-up and Expansion

Chart 6.21



Source: Beneficiaries' data, BDO analysis and NYC Stern

# KEY PERFORMANCE INDICATORS

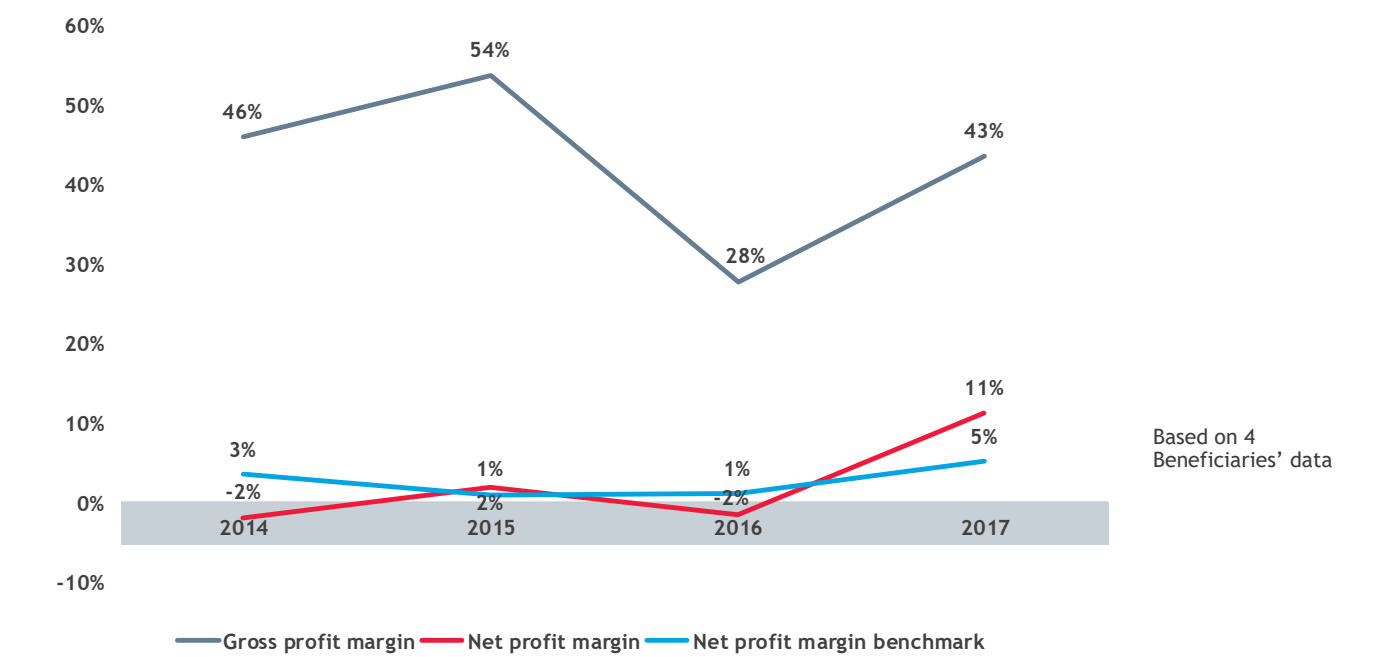
## METAL WORK SECTOR

**Gross profit margin** is steadily fluctuating between 40 to 55 percent through 2014 to 2017, and significantly increases in 2018 but data presented in 2018 does not describe the real picture due to the fact that financial information provided by Beneficiaries are for an incomplete year. **Net profit margin** considerably growth in last two years that implies that the Beneficiaries are more efficient at converting sales into actual profit.

Net profit margin of the Beneficiaries participating in metal work sector exceed the benchmark data and keeps the trend in the next year.

Gross and Net profit margins for both Start-up and Expansion

Chart 6.22



Source: Beneficiaries' data, BDO analysis and NYC Stern



# APPENDIX 4 INFORMATION SOURCES, GLOSSARY OF KEY TERMS

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# INFORMATION SOURCES

- The decree of the Government of Georgia about the approving the state Program 'Produce in Georgia'
- The list of 100 beneficiaries of the Program 'Produce in Georgia' with the contact and profile information, dates of the agreements and the amount of the subsidies
- Appendix about the research of Program 'Produce in Georgia' industrial part, technical support and financial availability components results
- Information provided by the beneficiaries
- [www.geostat.ge](http://www.geostat.ge)
- [www.mof.ge](http://www.mof.ge)
- [www.investingeorgia.org](http://www.investingeorgia.org)
- [www.nbg.gov.ge](http://www.nbg.gov.ge)
- [www.heritage.org](http://www.heritage.org)
- [www.doingbusiness.org](http://www.doingbusiness.org)
- [www.napr.gov.ge](http://www.napr.gov.ge)
- [www.enterprisegeorgia.gov.ge](http://www.enterprisegeorgia.gov.ge)



# GLOSSARY OF KEY TERMS

Term	Definitions
Agency	LEPL Enterprise Georgia
APMA	Agricultural Projects' Management Agency
Assessment	Report prepared by BDO LLC in accordance with the engagement letter signed with Enterprise Georgia
Beneficiary	Company participating in the Program
Benchmark	A standard or point of reference against which data may be compared
Expansion	Expansion of the existing company in different operating directions
CCC	Cash Conversion Cycle
FDI	Foreign Direct Investment
GDP	Gross Domestic Product, total market value of all final goods and services produced in an economic territory of a country in a specific time period
GITA	Georgia's Innovation & Technology Agency
Larization	The usage of the domestic currency in Georgian economy
Median	The value separating the higher half from the lower half of a data sample
Mln	Million
NACE	The statistical classification of economic activities in the European Community
NASP	National Agency of State Property
NBG	National Bank of Georgia
Program	'Produce in Georgia' Program
ROA	Return on Assets
ROE	Return on Equity
SNA - 93	The System of National Accounts
Start-up	A newly established company
Subsidy	Financial assistance for beneficiaries in terms of payable interest, granted by the Program
VAT	Value Added Tax



# APPENDIX 5 ASSUMPTIONS AND DISCLAIMERS

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# ASSUMPTIONS AND DISCLAIMERS

The Impact Assessment of industrial, technical support and access to finance components for the 'Produce in Georgia Program' (as per the scope of works specified in the Terms of Reference provided by Enterprise Georgia) include microeconomic and macroeconomic analysis.

The first phase of the study has started in September 2018 and was finalized in December 2018. The second phase of the study comprising recommendations to all the participating beneficiaries and the Program representatives will be finalized until April 2019. We assume no obligation to revise or supplement this Report or advise any parties of any changes in any matter set forth herein after the date of the Report. Furthermore, we hereby state that results outlined in the Report may be subject to modifications and/or revisions provided that any specifications and/or changes are made to the information supplied to us for the purpose of this Report.

**127** Findings of the Report are those that we could have reasonably derived from the working procedures of services performed. The specific procedures which were performed had been agreed with Enterprise Georgia and were performed as presented in the Report.

Our analysis was solely based on the data/information provided by the beneficiary companies and publicly available data. Save as stated in the Report, we have reviewed the supplied information and commented upon it to the extent only that we consider it to be material in the context of the Report.

Sources of information have been indicated in the Report and the results disclosed therein are consistent with the information which was made available to us in the process of our work and were in compliance with the terms indicated in the Contract. However, we have assumed without further inquiry that all factual circumstances stated in the supplied information are true and correct representation of actual circumstances. We have made no independent investigation of such facts and have relied, to the extent that we deem such reliance proper.

Except as stated in the Report, we have assumed that the supplied information is true, complete and accurate. Furthermore, we assume the genuineness of all signatures on all documents forming part of the supplied information or obtained by us.

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# ABOUT BDO IN GEORGIA AND BDO NETWORK

## GLOBAL OUTLOOK

BDO’s seamless global approach allows us to serve clients through a central point of contact, granting access to relevant experience across borders - where you need us, when you need us.

1,591 Offices worldwide	80,087 Total personnel	162 Countries within our global reach	\$8.99b Global revenues
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\*Statistics as of and for the year ended 30 September 2018

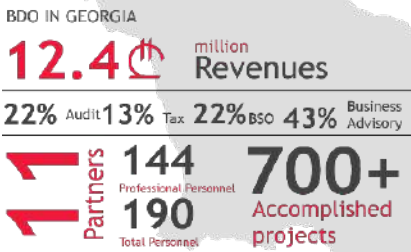


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### BDO IN GEORGIA

Our focus on growth and development, empowering our people through knowledge and exceptional relationships, a client base of successful businesses and individuals who trust us continually, demonstrate our strong financial results.

Our strong technical skills and significant service knowledge, which enables them to deal with all technical matters, without the need to defer decisions and advice to others. BDO's industry focus is part of who we are and how we serve our clients. We demonstrate our experience through knowledgeable professionals, relevant client work and participation in the industries we serve.



€M	2017	2016	2015
GEOGRIA REVENUE	12.4	9.8	7.0

\*Statistics as of and for the year ended 31-12-2017

TBILISI



By latest available official ratings BDO ranks 3<sup>rd</sup> among the largest audit firms operating in the country.



BDO is one of the 5 audit firms in Georgia to be awarded the top category in the quality assurance review by the regulatory body in the country - Service for Accounting, Reporting and Auditing Supervision.

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