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EXPECTED TRENDS IN TRADE RELATIONS BETWEEN GEORGIA AND THE EUROPEAN UNION

PRZEWIDYWANE TENDENCJE W HANDLU POMIĘDZY GRUZJĄ A UNIĄ EUROPEJSKĄ

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Summary. The main goal of the article is to perform a statistical analysis of the trade relations of Georgia with the European Union in 2008–2014 and provide a long-term forecast of its main parameters for 2015–2024. Therefore, the objective of the study is to identify the principal trends in the trade relations of Georgia with the European Union in 2008–2014. The article applied qualitative and quantitative methods of data analysis widely accepted in economic science, including statistical data processing, data grouping and methods of inductive-deductive data analysis. The scientific study applies survey, observation, as well as comparative, analytical, and graphical methods, which are used by the author to compare and analyze the facts and assess solutions to some specific issues. Although the indicators of trade turnover with the EU countries increase continuously, the so-called growth factor still remains on a relatively low level. The indicators of economic openness in Georgia and the country's integration with the world economy remain low. However, in the author's opinion, a steady increase in imports and exports is expected to occur in the coming 10 years.

Key words: export, import, methods, statistical analysis.
Słowa kluczowe: eksport, import, metody, analiza statystyczna.

INTRODUCTION

The level of Georgia's economic development depends to a huge extent on the country's relations with the rest of the world, as economic development of the developing countries is conditioned by market liberalization and integration processes. Therefore, it is important to study the developmental trends in foreign economic relations of Georgia by using statistical methods. The importance of these methods in assessing its economy cannot be overlooked, particularly as it comes to the formation of trade space, with the quantitative methods used to analyze different phenomena. This is not surprising, as today, the scientific study of economic events and the drafting of recommendations based on its conclusions, seems impossible without employing mathematical and statistical methods and latest achievements in computing sciences. These methods are equally indispensable when one ventures to assess Georgia's economic integration with Europe, present its foreign trade indicators and dynamics of prognostic indicators.

The main goal of the article is to perform a statistical analysis of the trade relations of Georgia with the European Union in 2008–2014 and provide a long-term forecast of its main parameters for 2015–2024.

METHODOLOGY

The study used general and special statistical methods: survey, data gathering, grouping and analysis, and in particular, relative and average valuation techniques, dynamic series, graphic representation, etc. For the forecast, simple methods of trend identification and forecasting were used: average absolute growth and average annual growing rate and linear function as an analytical method. As it comes to more complex tools, auto-regression and sliding average was applied by adding a trend component to ARIMA-type model obtained with the use of Eviews-6 software. The smoothing and forecasting demonstrated that in our case, the most accurate was the linear function. Consequently, the predictive values given in the article were calculated by using a linear function.

RESULTS

As the official statistics suggest, in 2008–2014 foreign trade turnover of Georgia increased by 47%, including 91.4% of export growth and 36.0% of import growth. Nonetheless, a negative trade balance is still a major problem for Georgia.[1] As per 2014 data, the negative trade balance of Georgia was 5 735 mln USD with a 19.3% increase since 2008. However, in that very period the average annual growth rate of exports and imports was 111.3% and 105.2%, respectively.

In 2008–2014, the foreign trade turnover of Georgia increased annually by 6.7% on average; however, the trade deficit increased as well. In 2014, as compared to 2008, the negative trade balance of Georgia increased by 19.3%, while the average annual growth was 2.9%. Despite the fact that the trade geography expanded and the number of trade partner countries increased (totaling to 145 countries recently), the export-import coverage ratio did not increase. In 2013–2014, the number of countries Georgia had positive trade balance with increased from 40 to 43, but on the other hand, the number of countries Georgia had negative trade balance with has increased as well from 94 to 102. In this period, the structure of export goods did not show any significant changes, either (Abesadze 2014).

The major problem for Georgia both in terms of broadly understood foreign trade and its relations with the EU is the country's negative trade balance (Dzebisauri 2012). Despite the fact that the indicators of export performance with the EU have been steadily changing since 2005, due to particularly high import growth rates, the negative foreign trade balance of the country remains high. Although in 2014 it amounted to 1 748 550.4 thousand USD and thus showed a 16% decrease since 2012, it nonetheless increased by 5.2% compared to the previous year and by 1% compared to 2008 (Table 1, 2, 3).

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[1] Calculations are made based on GEOSTAT data.

Table 1. Dynamics of growth rates of foreign trade with the EU [%]

Years	Export	Import	Turnover	Balance
2005	0.94	1.20	1.19	1.49
2006	0.95	1.50	1,40	1.65
2007	1.70	1.38	1.42	1.33
2008	1.25	1.14	1.15	1.35
2009	0.71	0.76	0.75	0.77
2010	1.30	1.10	1.13	1.09
2011	1.37	1.40	1.39	1.13
2012	0.83	1.18	1.12	1.27
2013	1.72	0.93	1.10	0.80
2014	1.02	1.04	1.04	1.05

Source: own compilation based on data from the National Statistical Office of Georgia.

The indicators of economic openness, such as the foreign trade to GDP ratio which represents the sum of exports and imports as a share of GDP, including i.e. export and import quotas, are still low.

Table 2. Dynamics of quotas for Georgia

Quota [%]	Year						
	2008	2009	2010	2011	2012	2013	2014
Export	11.7	10.5	14.4	15.2	15.0	18.0	17.3
Import	49.2	41.8	45.2	48.8	50.8	49.7	52.0
Foreign trade	60.9	52.3	59.6	64	65.8	67.7	69.3
Foreign trade balance	−61.6	−58.7	−51.6	−52.7	−54.4	−46.8	−50

Source: own compilation based on data from the National Statistical Office of Georgia.

As for the EU countries, the indicators are as follows.

Table 3. Dynamics of quotas for the EU countries

Quota [%]	Year						
	2008	2009	2010	2011	2012	2013	2014
Export	2.1	1.5	2.7	2.9	2.2	3.7	3.8
Import	10.8	8.5	12.7	14.3	15.3	14.1	14.3
Foreign trade	12.8	10.0	12.4	17.2	17.5	17.8	18.1
Foreign trade balance	−68	−70	−80.6	−66.2	−74.8	−58.4	−58.1

Source: own compilation based on data from the National Statistical Office of Georgia.

As the dynamics of 2008–2014 demonstrate, the values of export quota exceeded the acceptable minimum, showing a growing trend and which per most recent data is 17.3. In the study period, it reached its maximum point in 2013 to decrease by 0.7 point in the following year; however, the export quota demonstrated a growing trend which proves that national goods are becoming increasingly competitive on the foreign market. As for the import quota, it is also characterized by a growing trend in recent years which shows the domestic market's saturation with imported goods. This is clearly evidenced by the indicator of the foreign trade quota (negative in all years), which in generally indicates, also with respect to the EU, that the trade relations of Georgia are mostly associated with import (Abesadze 2015).

So one may venture to say that the economic openness of Georgia is still rather limited. As per our calculations, the export quota was 17.3% and import quota was 52% in 2014. The same indicators for the EU countries were 3.8% and 14.3%, respectively. However, the dynamics of the indicator of export quota increases evidencing the increasing competitiveness of domestic goods on foreign market, but the import quota also increases swiftly evidencing the saturation of the domestic market with imported goods.

In 2014, the foreign trade turnover of Georgia with the EU amounted to 2990 mln USD D, which is 4% more than in the previous year. The export totaled 621 mln USD (2% increase) and the import was 2369 mln USD (4% increase). The share of these countries in the foreign trade turnover of Georgia was 26%, including 22% in export and 28% in import. 30% of the trade deficit was on the account of the EU countries (Abesadze 2015). In 2015 the situation changed and increased to 29% in export and to 33% in import (Fig.1 and Fig. 2).
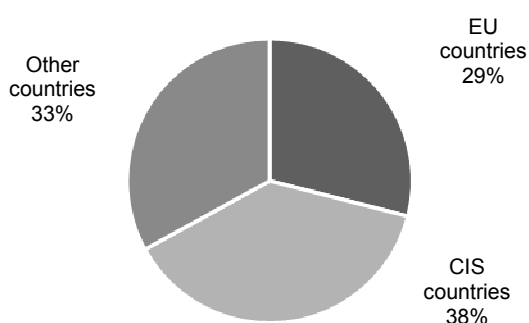

Fig. 1. Georgian exports by country groups in 2014
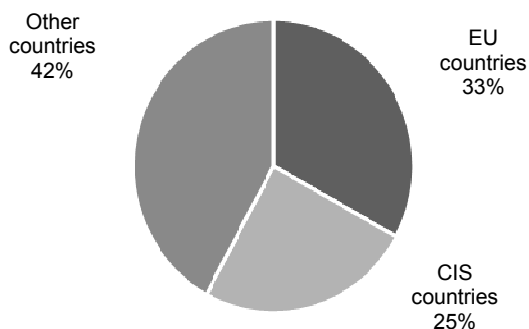Source: National Statistical Office of Georgia (2014).

Fig. 2. Georgian imports by country groups in 2014
Source: National Statistical Office of Georgia (2014).

As the trends in Georgia's foreign trade balance show, in 2014 the country traded with 28 EU member states and had no export relations with Luxemburg only. The negative trade balance of 1 748 550 thousand USD was settled with all countries. The highest turnover values were obtained in Bulgaria, Italy, Spain, Germany and Lithuania. The share of the major top ten EU export countries was 19.6% of all export, 90% of import with the EU, and 18.7% of the trade turnover with the EU countries (Fig. 3 and Fig. 4).

The major commodities exported to the EU is copper ores and concentrates, walnut (both, fresh and old), natural grape wines, mineral and fresh waters, ferrous alloys, etc. The major import products in 2014 were oil and oil products, medications, cars, wheat and muslin, cigars, cigarillos and cigarettes made of tobacco or its substitutes, etc.
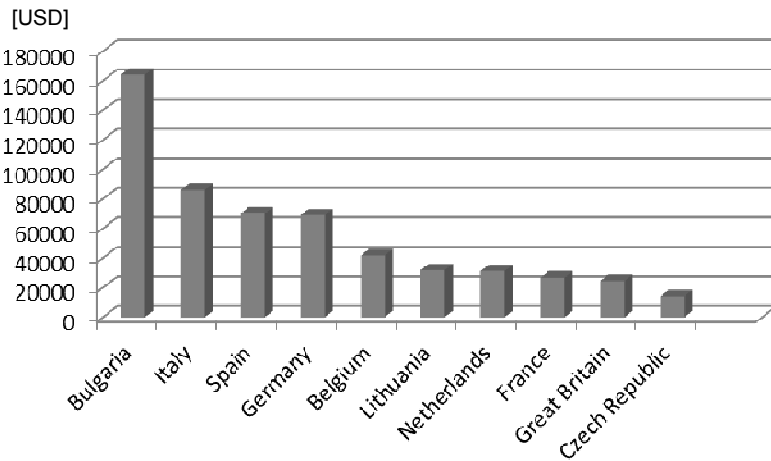

Fig. 3. Top ten import countries in 2014
Source: National Statistical Office of Georgia (2014).

The EU country with the highest import volume was Germany with 19.7% share in total EU import. Romania and Italy ranked second and third, with a share of 13.1% and 9.4%, respectively. Generally, these top ten countries accounted for 20.4% of the total import value; their share in the import with the EU was 74% accounting for 15.3% of the total foreign trade turnover and 58.7% of the total foreign trade turnover with the EU countries.
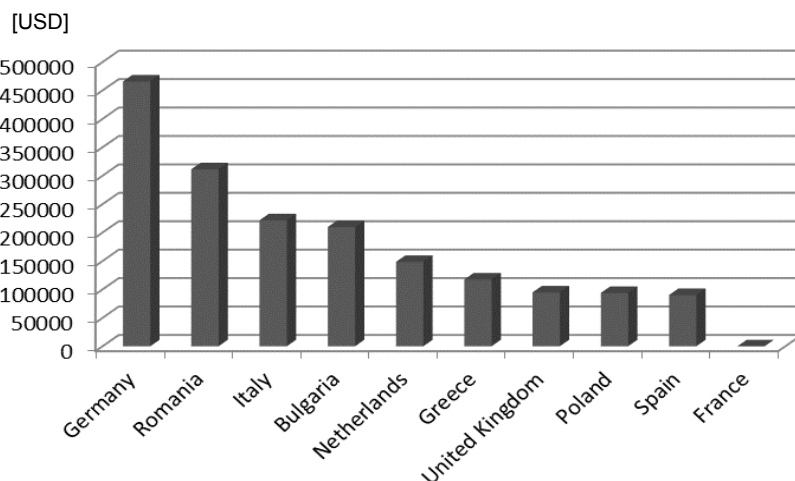

Fig. 4. Top ten export countries in 2014
Source:National Statistical Office of Georgia (2014).

The level of integration of Georgia with the world economy is low. To assess it, we calculated its share in total GDP in dynamics for each indicator, which are given in the Table below. The aggregated sum of economic relations expressed in the last column and last row values is a coefficient designed to measure Georgia's international economic integration. It was calculated from the sum of average foreign economic relations, which, as per our calculations, came to 20.2% in the considered period. This means that in 2008–2014, Georgia could realize only 20.2% of its foreign economic potential (Table 4).

Table 4. Relations with the rest of the world

Quota [%]	Year							
	2008	2009	2010	2011	2012	2013	2014	2008–2014
Primary incomes	9.3	8.9	10.3	13.4	14.5	13.3	12.5	11.7
Current transfers	9.6	10.3	10.9	10.9	10.5	10.5	10.8	10.5
Foreign trade	60.9	52.3	59.6	64.1	65.8	67.7	69.3	62.9
Investments	12.2	6.1	7.0	7.7	5.8	5.8	7.7	7.5
Foreign loan	19.4	25.2	28.0	24.7	25.3	26.4	26.5	25.1
Incomes from international tourism	0.6	0.9	3.2	3.9	5.3	6.4	6.0	3.8
Average of the sum of indicators of foreign economic relations	18.7	17.3	19.8	20.8	21.2	21.7	22.1	20.2/20.2

Source: own compilation based on data from the National Statistical Office of Georgia (2008–2014).

It must be noted that the coefficient value dropped by 1.1% as compared to the years of 2003–2008. As it can be seen, the decreased integration value is mostly the result of the reduced share in GDP calculated according to investment.

When forecasting economic processes, it is necessary to apply various methods to predict the levels of the same time series. Therefore, the simple methods of trend identification and forecasting were used to forecast export and import: average absolute growth and average annual growing rate and linear function as an analytical method. As it comes to some more complex methods, auto-regression and sliding average was applied by adding a trend component to ARIMA-type model obtained with the use of Eviews-6 software. The smoothing and forecasting showed that in our case, the most accurate was the linear function. Consequently, the predictive values given in the article were calculated using a linear function. Import and export forecasts were calculated with the equation: $y = 1224945.1 + 180032.3\,t$ and $y = 256889.82 + 39085.04\,t$.

As our forecast suggests, a regular growth trend of import and export with the EU countries is expected in the coming 10 years (Fig. 5).

Over the period of 2014–2024 the exports are forecasted to witness an increase by 48.4%, while the imports from the EU are expected to show higher growing rates with an increase of 80.9%.[2] This means that the major problem for Georgia is still its negative trade balance. Despite the fact that along with its import growth, export also increases, the rate of export growth is still lower. According to the forecast, import will exceed export by 4.7 times. Hence, no increase of an export-import coverage ratio is expected. Therefore, the government of Georgia faces some substantial challenges and will have to come up with an

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[2] Own compilation based on data from the National Statistical Office of Georgia (2014–2024).

optimal plan for the country's development that would also support the revival of domestic production in all possible ways. Otherwise, pessimistic forecasts might become true (Abesadze 2015).
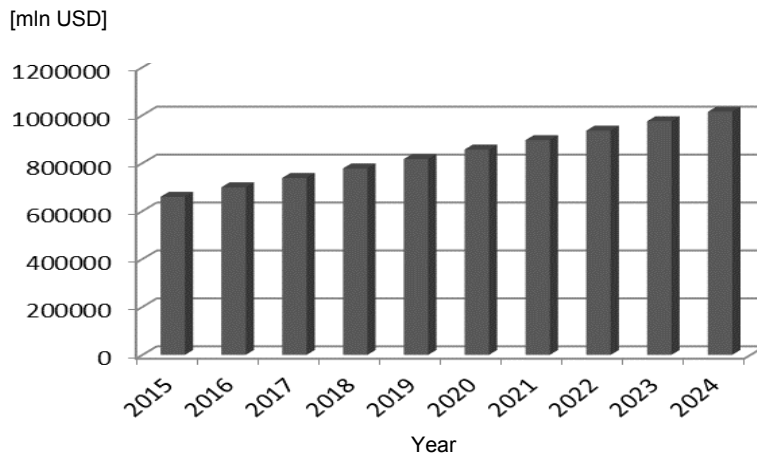

Fig. 5. Forecast of export
Source: own compilation based on data from the National Statistical Office of Georgia.

This not too optimistic forecast is based on the presumption presumes that the share of the EU countries in exports and imports will continue to grow: if the trend observed in the study period is maintained, the share of the European Union in exports will be maintained at 24–25% in the forecast period, i.e. in 2015–2024, and its share in imports will increase to 31% (Fig.6).
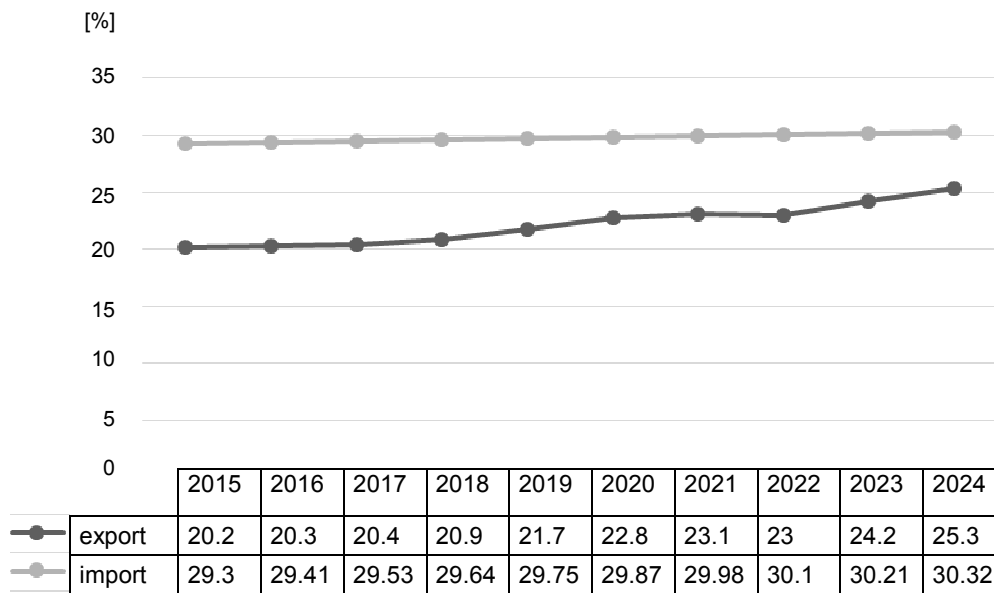

	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
export	20.2	20.3	20.4	20.9	21.7	22.8	23.1	23	24.2	25.3
import	29.3	29.41	29.53	29.64	29.75	29.87	29.98	30.1	30.21	30.32

Fig. 6. Forecast of EU share in Georgia's import and export
Source: own compilation based on data from the National Statistical Office of Georgia (2015–2024).

The high accuracy of the forecast is evidenced by the values of Theil index of inequality with 0.22 of forecasted export in the EU countries and 0.35 of import.

So the data confirm that the export values with the EU states are increasing, but of the situation is not so unequivocal in terms of GDP's advance. If the total export growth rate in 2013 exceeded the GDP growth rate by 1.67 times, in 2014 its value decreased and the coefficient equaled to 0.94 (0.97 with the EU countries). Indicators of instability were fixed in 2008–2012. This demonstrates growing instability of the integration process (Paresashvili 2013).

CONCLUSIONS

Despite the fact that the foreign trade turnover of Georgia increased by 47% in 2008–2014 the trade deficit also increased in the same period. The trade dynamics shows a decreasing trend in the rates of export and import values. On the other hand, export and import figures with the EU increase steadily. Due to exceptionally high increase in imports, the negative balance of foreign trade remains high. The indicator of economic openness of Georgia is still low, including the export and import share in GDP. Values of foreign trade parameters remain low. It is important to note that the foreign trade growth is the result of an increasing import growth trend (Atanelishvili 2014). The level of Georgia's integrity with the world economy is rather low, which is a fact that significantly affects the country's ability to fulfill the EU convergence criteria (Silagadze 2013). However, the according to the calculated prognostic values, one may expect further intensification of Georgia's economic integration with the European Union.

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Streszczenie. Niniejsza publikacja ma na celu przeprowadzenie analizy statystycznej handlu pomiędzy Gruzją a Unią Europejską w latach 2008–2014 oraz przedstawienie długoterminowej prognozy podstawowych parametrów tegoż handlu na lata 2015–2024. W związku z powyższym celem publikacji jest identyfikacja głównych tendencji w handlu pomiędzy Gruzją a Unią Europejską w latach 2008–2014. W artykule zastosowano metody jakościowej i ilościowej analizy danych przyjęte w naukach ekonomicznych, w tym metody grupowania danych, analizy statystycznej, indukcyjnej i dedukcyjnej analizy ekonomicznej. W pracy skorzystano z badań ankietowych, obserwacji, jak również z analizy porównawczej i analizy graficznej, wykorzystanych w celu porównania i analizy faktów oraz oceny rozwiązań zastosowanych w konkretnych kwestiach. Wskaźniki obrotu handlowego z krajami UE wykazują systematyczny wzrost, choć tak zwany wskaźnik wzrostu pozostaje na względnie niskim poziomie. Wskaźniki otwartości gospodarki Gruzji oraz stopień integracji tego kraju ze światową gospodarką są wciąż niskie. Jednakże, zdaniem autora, w ciągu najbliższych 10 lat spodziewać się można stałego wzrostu importu i eksportu do krajów UE.