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Department of Finance, Banking and Insurance

Beka Phutkaradze

Financial Integration and Economic Growth: Empirical Evidence from the Republic of Georgia

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Annotation

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Scientific supervisor:
Asie Tsintsadze – Doctor of Economics, Professor of Batumi Shota Rustaveli State University

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Doctor of Economics, Assistant Professor Leila Tsetskhladze

I General Description of the Paper

The actuality of the paper: Over the last decades, financial integration and its impact on socio-economic environment has been the subject of consideration of leading economists in the world. Special attention has been devoted to the example of developing countries. According to one of the definitions, financial integration is the movement of foreign goods and services, direct investments, foreign capital and commercial transactions between domestic and foreign markets. This is the integration of the local financial system with international financial markets and institutions.

Formation of world systems and world market of capitalism, technological achievements in communication and transport fields, increase of foreign economic activities between countries, production efficiency, management improvement and other economic and political factors have led to the necessity of forming financial globalization[1]. The development of financial stock markets, transnational corporations and international institutions are also of great importance.

In the world practice, dozens of articles and papers have been written about how to increase economic growth and what can facilitate this process. However, most of the works focus on the specific problems of a particular country/region and discuss such issues as banking sector development, evolution of insurance industry, improvement of tax and legislative base, etc. Despite the multitude of various papers, there is no clear and unambiguous answer on how financial integration impacts on a country's economy.

There are variety of opinions regarding the pros and cons of globalization. Globalists talk about those economic and technical achievements accompanying this process. Antiglobalists, mainly, emphasize the fact that the globalization of small countries like Georgia, shall lead to merger of culture and identity. Globalization enables the population to take advantage of free trade, thus satisfying consumers' demands in the most effective way and the rational use of world resources. All this increases competition, develops innovations, leads to the increase of global wealth and raise of living standards. On the other hand, globalization deepens inequality and poverty. It also significantly contributes the development of financial and currency crises.

After the collapse of the Soviet Union, Georgia (along with other post-socialist countries) joined the market economy transformation process. Unlike the Baltic States, Czech Republic and Poland, Georgia's transformation period was relatively more problematic and difficult. The country had difficulties with fiscal and monetary policy, as well as unrefined legislative base, hyperinflation, budget deficit and other social-economic problems. One of the most important factors was the Abkhaz war in the early 1990s, which significantly slowed down the country's development and striving for progress. Unemployment rate and black market share in the Georgian economy were

[1] In this paper the terms: financial integration, financial globalization, financial liberalization, and liberalization of capital accounts are referred to as synonyms.

unprecedentedly increased. All these lead to economic instability and political chaos in Georgia.

Though the Georgian government has implemented significant reforms and changes in various fields, stability and economic growth of the country is still far from the optimal level. High level of inflation and unemployment, underdeveloped financial sector and political instability has always been and still remains as the main obstacle to economic growth. That is why further investigations need to be conducted on various aspects of Georgia's economic growth in order to implement correct reforms in the future that will contribute to stimulating economic growth and macroeconomic stability.

The goal of the thesis is to analyze the integration of the Georgian economy into the global financial system and the impact of financial integration on the economic growth of the country (GDP) on the basis of empiricalal econometric method, particularly regression analysis.

From the view point of this goal, **main tasks of the thesis** are**:**

- Analysis of characteristics of the World Financial System and establishment of Financial Integration;
- Identification of forms of financial integration and determination of their scope of activities in Georgia;
- Impact of indirect (catalytic) effect of financial integration on economic and social life of Georgia;
- Identification and establishment of necessary and minimum provisions for successful application of financial integration;
- Investigation of impact of financial integration on the economic growth of Georgia based on regression analysis. Elaboration of practical recommendations as a result of this analysis.

The subject of the research of the paper is financial integration of Georgia into the world financial system and its impact on the country's economic growth.

The objective of the research is to determine the characteristics of trends between financial integration and the economy of Georgia.

Theoretical basis of the research is the principles and theories related to financial integration and economic growth. The works of both Georgian and foreign researchers are used. The data obtained from the World Bank, International Monetary Fund and Ministry of Finance of Georgia, Georgian Statistics Office and National Bank of Georgia is the basis for the researches and analysis conducted in the paper.

The methodological basis of the paper is the systematization of data, their verbal review and analysis, presenting the formulas and graphs of results obtained and interconnections, depicting these interconnections with mathematical-statistical methods, particularly regression analysis**.**

The scientific innovation of the research is systemic understanding of global financial integration and its classification based on historical specifications. Among the major subjects of global financial integration there are its main acting subjects and according to their evolution, stages of the world financial system development are defined. The advantages and disadvantages of financial integration, having significant impact on the

economic growth and macroeconomic stability of the country, are emphasized. Those minimum and necessary conditions to be met by the country in order to avoid threat to its stable economic development are also underlined. The econometric model influencing the economic growth of the country's financial integration has been developed. There has been a large database processed and certain connections have been found by means of mathematical-statistical methods, as well as the possibilities of influencing Georgia's economic indicators of financial integration are given in specific figures.

The practical significance of the thesis lies in evaluating the role of integration into the country's global financial system and its impact on Georgia's economic growth. The findings and conclusions of the research may be used by relevant authorities in the process of implementing the policy of financial integration for determining the strategy. From the academic view point, it is recommended to use the issues discussed when studying "economic policy", "world economy" and "international economy".

The volume and structure of the work. Thesis "Financial integration and its impact on the country's economic growth; Empiricalal research using regression analysis "consists of 162 printed pages, 4 chapters, 17 paragraphs, 26 subparagraphs, introduction, conclusions and references used.

The objectives of this research, its tasks and relevant solutions have led us to structure the thesis as follows:

Introduction
Chapter 1. Review of the essence, goals and history of financial integration
§ 1.1. Essence, signs and categories of financial integration
§ 1.2. Goals and tasks of financial integration
§ 1.3. Review of history of financial globalization and financial integration
1.3.1. First period of financial integration 1690-1789
1.3.2. Second period of financial integration 1875-1914
1.3.3. Third period of financial integration 1975-2007

Chapter 2. Review of Georgia’s economic development stages and trends of financial integration
§ 2.1. Review of Georgia’s economic development stages
2.1.1. Analysis of Soviet economic heritage
2.1.2. Challenges in the second half of 1990
2.1.3. Review of economic reforms in 2004- 2016
§ 2.2. Review of basic macroeconomic indicators
2.2.1. GDP and Inflation
2.2.2. Foreign trade, foreign debt and exchange rate
2.2.3. Compound budget, income and expenditures
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2.3.1. Summary of financial integration review of Georgian economy

Chapter 3. Review of modern literature on financial integration
§ 3.1. Current context and main approaches

§ 3.2. Review of economic theory on financial integration
3.2.1. Short review of theoretical models used in empiricalal researches
§ 3.3. Debates about the role of financial integration from the view point of economic growth
3.3.1. Financial integration and economic growth in 1970-2005
3.3.2. Conclusions about connection of financial integration and economic growth
§ 3.4. Debates about the role of financial integration from the view point of instability
3.4.1. Social and economic expenses of financial crisis
§ 3.5. Debates about the structure of capital flows and economic growth
3.5.1. Direct foreign investments
3.5.2. Portfolio capital flows
3.5.3. Flows of foreign loan
§ 3.6. Indirect profit (indirect and catalytic) of financial integration
3.6.1. Development of financial sector
3.6.2. Improvement of Institutions and Management Quality
3.6.3. Improvement of macroeconomic policy
§ 3.7. Necessary and minimal provisions for successful financial integration
3.7.1. Developed financial sector and state institutions
3.7.2. Efficient macroeconomic policy
3.7.3. Absolute liberalization of foreign trade
3.7.4. Integration level in international financial system
§ 3.8. Summary of literature review

Chapter 4. Empirical research and regression model
§ 4.1. Principles of empirical research
§ 4.2. Regression model
4.2.1. Data, their determination and sources
4.2.2. Non-stationarity and transformation of time series data
§ 4.3. Empiricalal results
Conclusions
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II Main part of the thesis

The first chapter of the paper "Review of the essence, goals and history of financial integration" is devoted to the forms of implementation of financial integration: Sharing information, best practices and modern technologies between financial institutions; attracting of funds directly from international capital markets by the firms; direct investments by investors in international capital markets; creation of new financial derivatives (products) and trading in international capital markets; uninterrupted movement of foreign capital flows between the countries and participation of foreign capital in domestic/national financial markets.

In order to achieve the goal set in the thesis, the possibility of implementing the abovementioned forms of financial integration are analyzed. One of the most important conditions providing financial integration is the level of financial market development. Financial integration can not be carried out without difficulties, so in the paper particular attention was paid not only to the problems within the country but also to the investigation of impact of financial status of the countries involved in international financial system. Among the restrictions that may hinder absolute integration there are:

- Free functioning of financial institutions;
- Business freedom to directly attract the necessary funds;
- Freedom of international capital and bond investors to invest in financial tools of their interest in the domestic capital markets.

These restrictions are legal, but in some cases they exist to overcome the deficiencies of financial markets. Consequently, removal of some legal restrictions will only worsen the world economy. To analyze the issue thoroughly, the three most important periods of financial globalization and financial integration are reviewed in the paper: 1690 - 1789; 1875 - 1914 and 1975-2007. It should be noted that the first period (1690-1789) has not been mostly investigated, though proper attention is paid to this period in the paper.

Financial integration between developed countries has been increased significantly in 1980-1990, as well as the level of liberalization of their capital accounts. Integration between financial markets and banks lead to such benefits as higher productivity and risk distribution. At the same time, increased interdependence was accompanied by its expenses, showing increased vulnerability towards systemic risks. During this period financial integration was the result of the deregulation policy implemented in many countries during the last decades, thus simplifying the bureaucratic demands and the role of regulatory bodies.

Herewith, as soon as the level of economic openness increased, countries became more vulnerable to external shocks. Some economists claimed that global financial integration resulted in the growth of instable capital flows that laid the foundation for turbulence of financial markets. Taking into consideration the high level of integration between nations, the systemic crisis could easily moved from one country to another. The 1980s and 1990s were full of currency crises and sovereign defaults, including the 1987 "Black Monday" crisis in the US, the 1992 currency system crisis in Europe, the 1994 Mexican peso crisis, the 1997 Asian currency crisis, the 1998 Russian financial crisis, and the 1998-2002 Argentinian peso crisis. Reasons of these crises were rather different and

diverse, starting with speculative assaults on fixed exchange rates and ending with dysfunctional banking systems.

As a result of research on system crisis, economists have achieved consensus - for the country's economy to benefit from financial integration, this country shall meet certain prerequisites. The mentioned preconditions include stable macroeconomic policy, sound fiscal policy, strong bank regulation and the right to protect property. Economists mostly support the following sequence of financial integration: facilitation of direct foreign investment, liberalization of domestic capital markets and acceptance of capital free flow only after the country has an effective and developed capital market and regulatory systems.

In addition, the developing market economy should have a reliable currency for both domestic and international investors to take advantage of financial integration, such as more liquidity, more investment activity, and accelerated economic growth. If the country has unlimited access to foreign capital markets and has no reliable currency, it may become vulnerable to capital speculative activity that can lead to serious economic and social expenditures.

However, many economists suggest that the biggest financial crisis since the Great Depression in the 1930s took place in 2007-08. The world's largest financial institutions faced bankruptcy, which was eliminated only with the help of national governments, but this did not stop the crisis. It has caused a sharp drop in stock markets, which was later reflected on the real economy - a long period of recession and unemployment has begun. The crisis affected both the developed and the majority of developing countries, and the damage amounted to trillions US dollars.

The mentioned financial crisis was due to complex inefficient policy, encouraging the ownership of real estate, facilitated access to mortgage loans for low-rating borrowers; the compensation systems oriented on making of short-term risky profits instead of creating long-term value; the absence of adequate capital reserves, which would allow banks and insurance companies to cover their financial obligations.

This financial crisis has had negative impact on global financial integration. Namely, investors' confidence towards global stock markets has fallen; issuing loans has been toughened, international trade and foreign capital flows have been sharply declined. However, due to unprecedented fiscal incentives of governments and central banks, it was possible to avoid the systemic collapse of global financial system in the next few years with the help of cheap money monetary policy and institutional benefits.

The analysis of historical stages of financial integration allows proper determination of driving force and direction that is important for planning the country's macroeconomic and foreign economic activity. The issues discussed in other chapters of the paper are based on the complex and contradictory events of financial integration before the modern period which resulted in its enhancement.

The second chapter of the paper "Review of Georgia's Economic Development Stages and Financial Integration Trends" was based on the analysis of historical stages of financial integration, allowing us to underline those factors that laid foundation to Georgia's integration into the global economy. Generally, financial integration is a difficult and long-

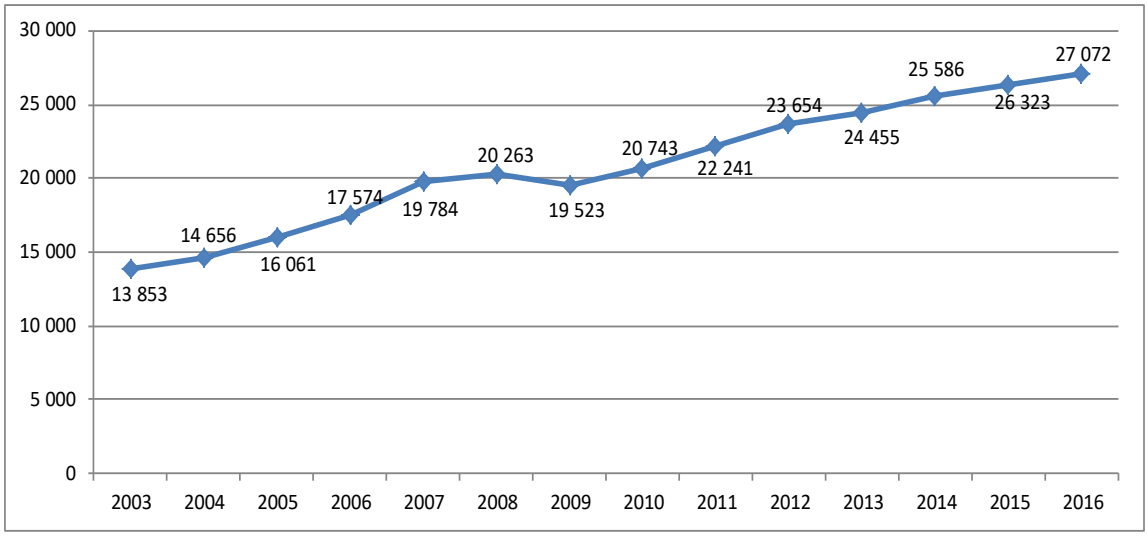
term process, but the degree of complexity increases when the country lacks institutional development.

After the collapse of the Soviet Union, Georgia moved to a new stage of economic reforms. The priority directions of reforming were allocated. Creation of the free economic system without the existence of monetary credit institutions and tax and budgetary organizations was almost impossible. That is why the state started to elaborate correct and effective methods for economic regulation. The economic reforms carried out by the Polish Finance Minister have become the main example then, but the absence of relevant institutions of market economy and the lack of experience of independent management of the economy led the country to the deadlock at an early stage of development. It was almost impossible to solve the problem without the help from international financial organizations. In 1995-1998 legislative regulatory base for market relations have been created, tax and customs institutions, the two-tier banking system have been established, economic relations with international organizations have been strengthened, which shared their experience with the country and helped in successful implementation of the transformation process. In this period, the main process of privatization was actualy completed and trade relations became even more liberal.

Since 1995 the economy of Georgia has slightly improved: GDP grew by 2.6% and inflation was 157.4%, which was better indicator compared to previous years. In the following years (1996-1997), the economic environment has further improved resulting in the 24% growth of the gross domestic product. (Chikhladze and Dzotsenadze, 2013).

The situation has adversely changed during 1998-2002, with a 2% decrease in economic indicators. Though, in 2003, despite those hard events going on in the country, GDP grew by more than 10%. Excluding the extremely difficult economic situation of 2008-2009, the level of economic growth of Georgia was rather high in the following years. In 2008, due to the well-known events (Russian-Georgian War), growth of GDP only reached 1,9% and in the following year it decreased by 3,9% (Chikhladze and Dzotsenadze, 2013). Factor contributing recession was the global financial crisis that made thorough changes to the world financial markets.

Graph №1 GDP based on constant prices of 2010 (2003-2016)



Source: National Statistics Office of Georgia and National Bank of Georgia http://www.nbg.gov.ge/ and http://geostat.ge/ Revised by us 01. 03.2018

Deficit of current account has been one of the biggest risk-factors for the country. The negative balance in 2014 reached its peak level - 5,741 million USD. To some extent it was caused by the high exchange rate of GEL, since the strong exchange rate of the local currency towards other currencies stimulates the growth of import. On the other hand, however, import growth has negative impact on the country's trade balance (Table №1). And indeed, over 2011-2014, trend of import increase was obvious, which was reflected on the negative balance of foreign trade. (Chikhladze and Dzotsenadze, 2013)

Table №1 Foreign trade turnover and Foreign trade balance, 2010-2016 (million USD)

	2010	2011	2012	2013	2014	2015	2016
Foreign trade turnover	6913	9259	10433	10933	11463	9505	9408
Registered Export of Goods (FOB)	1677	2186	2377	2910	2861	2205	2113
Registered Import of Goods (CIF)	5236	7072	8056	8023	8602	7300	7295
Foreign trade balance	-3559	-4886	-5680	-5112	-5741	-5096	-5182
Export without re-export	1380	1693	1606	1812	1873	1637	1657

Source: National Statistics Office of Georgia, revised by us in 15.02.18

Despite the fact that in 2015 the negative balance was reduced, we can not say that the country’s economy has grown. Decrease was caused by the reduction of both export and import, which indicates the regress of financial integration. Studying of reasons has shown that the exchange rate of GEL has dramatically decreased (up to 40%) in 2015, which led to the reduction of import by 1302 million USD, or about 15%. Besides, deterioration and instability of the political and economic environment in the region has significantly affected our country's exports. This is quite logical, as the main export markets for Georgia are of the neighboring countries. As a result, in 2016 compared to 2014, the export index has decreased by 26% and almost reached the figures of 2011.

Regional and local economic crises may reduce capital flows (eg. export, foreign direct investment, etc.). This is particularly obvious on the example of small and developing countries like Georgia. Therefore, they apply to various international institutions and partner countries rather often to eliminate current account deficits. As the Table No.2 shows, Georgia's total foreign debt has been growing for years. By 2015 it exceeded 15 billion US dollars. And by 2016 this figure almost amounts to 15.8 billion USD (see Table No.2). About 2/3 of this external debt refers to the governmental sector and non-financial corporations, while the relative share of the banking sector is 1/5.

Table №2: Total foreign debt 2011-2016 (thousand USD)

	2011	2012	2013	2014	2015	2016
Governmental sector	3,695,195	4,250,558	4,190,599	4,255,819	4,390,341	4,677,798
National Bank	815,400	582,320	338,205	251,759	219,244	200,281
Banks	2,119,618	2,468,535	2,646,886	2,683,354	2,957,126	2,974,359
Other sectors	2,239,384	3,327,974	3,471,499	3,586,600	4,503,475	5,430,808
Non-Banking Finance Corporations	99,329	171,596	186,880	219,910	246,936	254,879
Non-finance corporations	2,140,055	3,156,378	3,284,619	3,366,689	4,256,539	5,175,929
Loans between companies	2,724,935	2,662,851	2,648,357	3,074,086	3,012,955	2,505,546
Total foreign debt	11,594,532	13,292,238	13,295,547	13,851,617	15,083,141	15,788,793

Source: National Bank of Georgia - www.nbg.ge; revised by us 23.02.2018

In the end it must be noted that current account of our country still remains negative, which means that far more capital flows out of the country than flows in. And growing deficit of current and subaccounts is particularly noteworthy, which in its turn is due to the low level of development of industrial sector.

The level of financial integration of the country depicts its macroeconomic policy, investment environment, prospects of economic growth, stability indicators, and what is most important, whether free inflow and outflow of foreign funds to the country is admissible or not. From this view point, Georgia is among the most liberal and open countries in the world.

Table N3 clearly depicts that since 2001 to 2016, main transfers in the financial account of Georgia's balance of payments were made in the subaccount of foreign direct investments, as well as significant transfers took place in portfolio investments and other investment accounts. In contrast to this fact, turnover of reserve assets and financial derivatives' accounts was rather modest.

Table №3 Turnover on financial account of Georgia 2001-2016 (million USD)

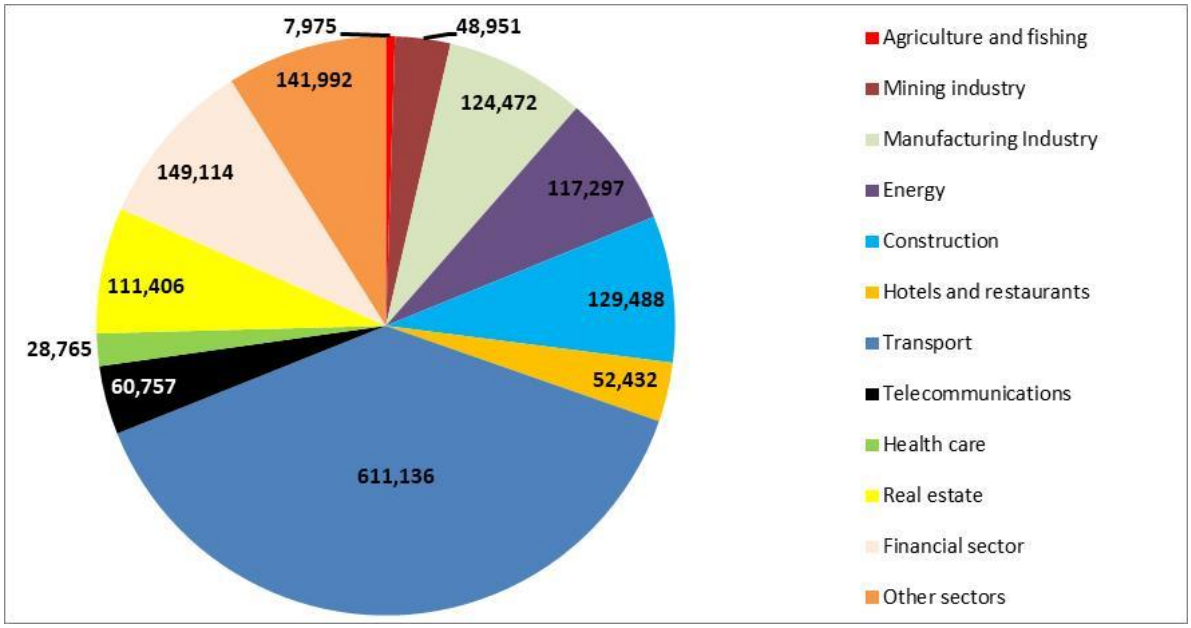
	2001	2002	2003	2004	2005	2006	2007	2008
Direct investments	106	156	331	483	542	1183	1676	1418
Portfolio investments	0	0	1	-14	15	140	21	623
Financial derivatives	0	0	0	0	0	0	1	8
Other investments	119	64	20	9	178	180	597	842
Reserves	-51	-32	19	-178	-111	-439	-377	-131
Financial account	173	188	370	300	625	1065	1918	2760
	2009	2010	2011	2012	2013	2014	2015	2016
Direct investments	677	679	902	614	830	1356	1267	1177
Portfolio investments	11	251	133	848	-37	209	-154	41
Financial derivatives	1	1	5	5	-2	8	-2	-4
Other investments	853	300	1208	347	11	132	499	787
Reserves	-616	-208	-572	-38	45	33	99	-245
Financial account	925	1,022	1,675	1,777	847	1,739	1,710	1,756

Source: https://www.nbg.gov.ge/index.php?m=304#sagareoseqtori National Bank of Georgia; Revised by us 21.04.2018

From the view pont of sectors, the volume of foreign investments underlines those areas that are more popular in Georgia. If we observe on the investments by industries, we

will find out that the leading sphere was transport in 2016; it is followed by the financial sector and construction (Graph N2).

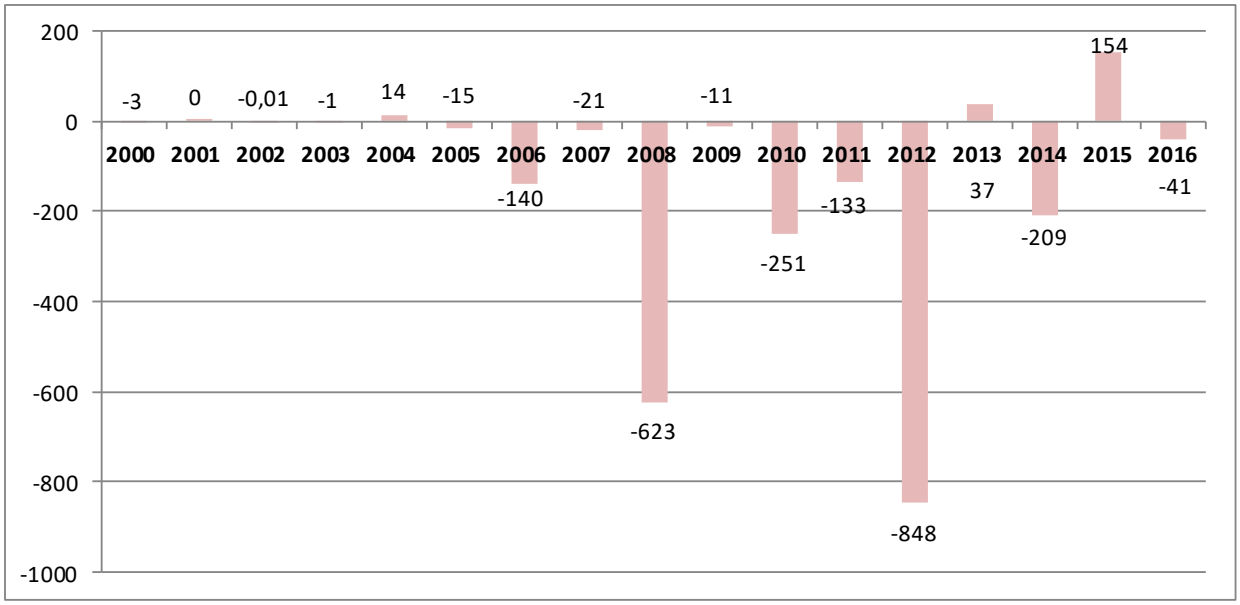
Graph №2 Foreign direct investments according to economic sectors, 2016 (thousand USD)



Source: National Statistics Office of Georgia http://geostat.ge/cms/site_images/_ _Geo.pdf and http://www.investingeorgia.org/ revised by us 07.04. 2018

Graph №3 clearly indicates that unlike the net foreign direct investment, the balance of net portfolio investments has often changed from positive to negative and vice versa. This means that portfolio investments are not stable and critical situations (crisis) for the country often cause financial outflows from the country. The mentioned fact - i.e the high mobility of capital clearly points out the high level of openness and financial integration of the country. Apparent flow of portfolio investments from the country is evident in 2008 and 2012 (Graph №3). This can be explained by the increase of risks existing in the country, associated with the war in 2008 and the changes of government in 2012, eventually resulting in the outflow of portfolio investments.

Graph №3: Net portfolio investments 2000-2016 (million USD)



Source: National Bank of Georgia; revised by us 21.03.2018

As we have seen from above analysis, Georgia's economy quite acutely reacts to the events developed in the region or in the world markets. Statistics show that during the global financial crisis (in addition to Russian-Georgian war) foreign direct investments have been drastically reduced. Similarly, due to the European debt crisis, Georgia experienced unprecedented fall in portfolio investments (Graph N3), which reached its peak level in 2010-2013. Our observations suggest drop in exchange rate of GEL towards USD, which is caused by the economic and financial crisis developed in the region in 2014. All this suggests that the integration level of Georgia into the global financial system is quite high, and therefore the risks caused by external factors are also big. Once again this fact emphasizes the importance of implementing optimal macroeconomic policy for our country.

Chapter three of the paper aims at making general synthesis of existing researches on this topic and creating certain conclusions. The work emphasizes not only the direct effect of financial integration, but also indirect (catalyc) impacts. We discuss the assumption claiming that liberalization of the capital account is a fundamental problem for the financial crisis of developing countries over the last two decades.

Maurice Obstfeld [1994] was one of the earlier economists, who conducted an influential study on relationship between global financial integration and economic growth. His main conceptual framework was based on benefits of global diversification and risk-sharing opportunities through financial integration. According to the paper, most countries obtain great welfare gains from financial globalization, because international financial integration allows shifting of world portfolio from less-profitable countries to high-profitable ones, compensating respective risks. This hypothesis is consistent with conventional belief about financial openness theory. Financial globalization gives opportunity to increase investments in developing economies, offering investors a higher return on investment (ROI), compared to industrial countries [Lucas, 1990]. Financial diversification reduces the risk-free rate in the developing economies, which means that the cost of capital is diminishing as well, while the overall and ultimate impact on economic growth is positive.

Decrease in the cost of capital through efficient risk-allocation stimulates economic growth [Badri and Sheshgelani, 2016].

Some remarkable studies outline that apart from direct channels, through which financial openness affects economic growth, there are indirect impact-channels as well, such as: efficient capital allocation, enhanced production specialization, transfer of management experience and corporate governance etc. [Obstfeld, 1994]. The research papers on direct impact-channels seek for a positive relationship between financial integration and economic development. On the other hand, the papers on indirect channels state that positive growth effects are only collateral and can be reached through healthier financial system, institutional quality and efficient macroeconomic policies [Bekaert et al., 2005]. Anti-globalists actively criticize direct positive IFI-growth nexus and question the benefits from indirect impact-channels as well. They argue that the benefits from indirect impact-channels are rather intangible and undocumented, while the negative outcomes from financial integration are colossal and real [Obstfeld, 2008]. Klein and Olivei [2000] and Levine [2001] advocate that the financial integration may improve a country's financial sector by importing financial services from more experienced countries and consequently support economic growth. Numerous authors claim that capital flows depend on the advancement of a country's financial system and other important macroeconomic factors. Therefore, potential benefits from financial openness depend on the soundness of financial sector and these macroeconomic variables, especially for the developing and emerging economies. These prerequisites that are necessary to reap positive IFI-growth effects are commonly referred as "threshold" conditions [Kose et al., 2010]. In general, these "threshold" factors are country characteristics, such as: the degree of trade and capital flow openness, wealth distribution, the level of income and financial development, institutional quality and efficiency of macroeconomic policies. For instance, Aoki et al. [2006] conclude that capital account liberalization is not inevitably favorable for a country when its financial industry is weak and immature. Prasad et al. [2006] note in their study that even though an international capital flows have increased significantly over recent decades, advocating a more global financial world, the allocation of flows becomes more inefficient compared to economic theory expectations. Lucas [1990] argued that international flows from capital-reach to capital-poor economies were much smaller than the levels expected by the standard theory. Prasad et al. [2006] also stated that the paradox has deepened over time with capital flowing from developing to industrial economies, especially since the beginning of 20th century. The research states that the pattern is actually opposing, meaning that medium and high growth economies transfer substantial amounts of capital while low-growth economies obtain in huge amounts. This fact is referred as a "Lucas Paradox" among economists. The authors, however, admit that the foreign direct investment generally follow the predictions of the theory [Prasad et. al., 2006].

Boyd and Smith [1992] indicate that financial liberalization in countries with weak legal system and undeveloped financial institutions may actually stimulate a capital outflow to industrial countries, where the institutional quality is much higher. Another criticized study was conducted by Krugman [1993], which pointed out that financial integration cannot have a major driving influence on economic growth. The author argued that the IFI-growth linkage has no solid grounds in economic theory either. Joseph Stiglitz, nowadays one of

the most influential economists, closely linked amplified occurrence of currency crises with financial openness [Stiglitz, 2000]. According to his analysis, the liberalization of capital accounts in several East Asian countries was the most important reason that lead to the currency crisis in Asian during late 90s. John Williamson, the World Bank's former Chief Economist, argued that the only factor that explains the reasons of Asian currency crisis is the capital account liberalization [Wang, 2006]. Remarkably, all the currency (and financial) crisis that occurred in Asia, Russia and Latin America had very similar prerequisites: the liberalization of capital accounts and cross-border flows shortly prior to the beginning of the crisis. For example, several years before 1998, Malaysia unrestricted international transactions of its domestic currency in offshore markets. Portfolio capital flows (both inward and outward) were liberalized. The inflow of FDI was stimulated in Malaysia, while there were no considerable restrictions on FDI outflows [Wang, 2006]. Similarly, prior to currency crisis in Russia during late 90s, the government implemented relaxation policy on foreign portfolio investments in 1997. The portfolio flows in the Russian market during the first quarter of 1997 exceeded the amount for the whole 1996 by more than three times [Pinto and Ulatov, 2010].

As for the empirical studies, different methods were applied to investigate the relationship between financial integration and economic growth. For instance, Edison et. al. [2002] utilized variety statistical techniques to explore the IFI-growth relationship and also to evaluate whether this nexus depends on the level of financial, economic, legal system developments and other macroeconomic aspects. The authors used various measures of IFI using ordinary least squares (OLS) and Generalized-Method-of-Moments (GMM) estimators. The study covered 57 countries across the period 1980-2000 for the cross-sectional OLS method and 1976-2000 for the dynamic panel GMM method. The outcomes of the study revealed that the international financial integration does not stimulate economic development. Moreover, the authors concluded the same results even when controlling for specific political, institutional, economic and financial policies [Edison et. al., 2002].

Alfaro et. al. [2004] concentrated their study on the influence of foreign direct investment on economic development. The research concludes that the deficiency of financial development can limit the country's capability to efficiently use potential spillover benefits that are accompanying FDI inflows. Kose et. al. [2008] also underlined the significance of FDI. The authors state that, taking into account the degree of financial development in non-industrialized countries, the benefits of financial integration are most apparent when they receive capital inflows through FDI or portfolio equity investments.

Klein [2005] applied the cross-section OLS and IV statistical methods to investigate the integration-growth association. The research covered 71 countries, while the timeframe of 1984-1995 was utilized. The author concluded that a financial integration is positively correlated with economic growth during medium levels of institutional development.

Bonfiglioli [2008] conducted macro research on association of financial integration with total productivity growth. The empirical study covered the period of 1975-1999, using cross-country data. The results revealed a positive direct impact of financial integration on productivity growth.

The research study, conducted by European Bank for Reconstruction and Development (EBRD) in year 2010, attempted to understand whether integration-growth

relationship is different in emerging Europe. The study used industry-level data and analyzed several aspects that may explain integration-growth nexus, in particular: the trade integration, institutional quality, political integration, financial development and financial integration itself. The research found out that the positive consequences of financial integration are most apparent for the nations that are politically closest to the European Union, suggesting that the political integration can significantly surge the benefits of financial integration [Friedrich et.al., 2010].

Mahajan and Verma [2015] studied association between financial openness and economic development in India. Their research covered the period of 1981-2011. In order to investigate the integration-growth relationship, the authors employed co-integration model and Vector Error Correction Model (VECM). The research paper observes positive outcomes, which mean that more financial openness stimulates economic growth in India.

Badri and Sheshgelani [2016] studied the relationship between financial development, financial integration and economic growth. The research was conducted for 24 OIC countries applying panel data method. The analyzed timeframe included 2005-2013 years. According to the results of the study, financial development had positive impact on economic prosperity in selected countries, while the financial integration was negatively correlated with growth.

Furthermore, certain economists could not find any significant relationship between financial integration and economic development [Alesina et. al., 1994; Grilli and Milesi-Ferretti, 1995; Rodrik, 1998, Edison et. al., 2004]. According to study Rodrik and Subramanian [2008], it is progressively hard to find the benefits of financial integration on economic development, even when the financial crises are set apart. The authors stated that financial integration has not generated higher growth or reduced volatility in emerging markets. Moreover, they label arguments for financial globalization as speculative and unconvincing [Rodrik and Subramanian, 2008].

Additionally, some studies conducted on examination of IFI-growth relationship derived mixed outcomes. For example, Arteta et al. [2001] analyzed the impact of capital account liberalization on economic development for 61 countries across 1973-1992 periods. The results revealed that financial integration can as likely to help as to hurt economic growth. Similarly, mixed effects were exposed in number of other research papers [Kraay, 1998; Edwards, 2001; Durham, 2004].

As it can be observed from the literature above, there is no clear and unambiguous answer on whether there is positive correlation between financial globalization and economic prosperity. The conducted theoretical and empirical studies appear to have mixed results, depending on the specifications of particular research.

Chapter four of the paper is based on the empiricalal research, using the regression model that analysed the relationship between financial integration and economic development. This is a very complex and sensitive process, depending on the studied countries, their economic, political, legal, social, geographical and other characteristics. It is interesting to determine this interrelation in time on Georgia's example. It should be noted that it has already been over two decades that Georgia began the integration process into the financial markets of the world and during this period its economy and banking sector are constantly developing. The country has suffered from the recession process several times

since the Russian-Georgian war in 2008 and then in 2015-2016 - during the currency devaluation. Hence, it would be especially interesting to understand whether financial integration promotes the economic development in Georgia or not.

Empirical Model:

Our empirical strategy is to elucidate the tendency in economic growth and its changes across time in the Republic of Georgia. For this reason, it should be tested if tendencies in economic development are connected with trends in financial integration. Therefore, in our analyses we have to ensure that our estimates of Georgia's economic deepening capture the influence of the exogenous component of financial integration.

The general equation to be estimated is:

$$\mathrm{Y}t = \alpha + \mathrm{X}t\beta + \varepsilon t$$

where *yt* is a dependent variable, *xt* is a vector of independent variables, ***εt*** is error term, and *t* indexes time measured in years. We treat all terms as exogenous. Since in most of the cases time-series data doesn't suffer for heteroskedasticity (it is mostly a cross-country phenomena), we don't incorporate analysis for heteroskedasticity in our model.

Our empirical model aims to analyze the economic growth of Georgia, covering 22 time periods. The commonly accepted method is to employ data at an annual basis for the estimation purposes. Using annual data in our analyses has a weakness, because it disregards the probability that annual data might not represent long-run equilibrium values in any given year. The reason for this is the slow modification to fluctuations in the parameters. In order to avoid this issue we need to design a model that will allow the possibility of partial adjustment. We derive a log-linear equation for economic development.[2] Hence, an empirical formula has the following illustration:

$$(GDPG)_t = \alpha + \beta 1(LnGDPPCC) + \beta 2(LnExport)_{t-1} + \beta 3(LnGovCons)_{t-1} + \beta 4(LnCredit)_{t-1} + \\ + \beta 5(LnCapFlow)_{t-1} + \beta 6(LnDeflator)_{t-1} + \varepsilon t$$

Where GDPG stands for gross domestic product growth; GDPPCC is a gross domestic product per capita based on constant 2010 U.S. dollar prices; Export is a total value of exported goods and services; GovCons represents general government final consumption expenditures; Credit is a domestic credit to private sector by banking sector; CapFlow is a gross capital flows, represents the proxy for financial integration; Deflator represents an inflation parameter; εt is error term. All explanatory variables [except GDPPCC] are expressed as one-period lagged values.

Data, measurement and sources

[2] Some observations, for example on financial development may not represent long-run equilibrium values in any given year, because of slow adjustment to changes in other variables. Financial development indicators that are asset based are likely to display considerable persistence: the size of the banking system in any given year is history dependent. To allow for the possibility of partial adjustment, we specify a log-linear equation.

In our research of financial integration and economic growth, we estimate standard growth equation using a dataset over the period of 1995-2016. Data are obtained from various sources. Financial integration measure is obtained and derived from National Bank of Georgia (NBG) sources. GDP growth, GDP per capita, private credit, government spending, exports and inflation are obtained from World Development Indicators (WDI) database.

Economic growth is calculated by the real GDP growth rate. Indicators that we employ as control terms that may explain economic growth include the following: financial integration, GDP per capita, exports, government spending, inflation and private credit.

According to one of the definitions, financial integration is a phenomenon in which financial markets of various countries are closely integrated to each other, forming global financial markets. The degree and form of financial integration differs from country to country. Unlike developing economies, developed countries are expected to have relatively high financial integration parameter. The form of financial integration may include various interrelations between financial institutions, such as: sharing of know-how and best practices, technologies, cross-border capital flows, participation in foreign financial markets etc. The economists suggest various ways of measuring the level of financial integration of a country. For example, some theories are based on de jure measurements of financial integration, which are based on dummy variables. One of the most well-known and commonly accepted de jure proxies for financial integration is the Chinn-Ito index (KAOPEN). This index initially was adopted by Chinn and Ito in 2006. KAOPEN is stated in the IMF's Annual Report on Exchange Arrangements and Exchange Restrictions (AREAER). The index is constructed via binary dummy variables that categorize the restrictions on cross-border financial flows. Unlike de jure parameters of financial integration, which usually capture a degree at which a country enforces policy constraints on cross-border capital transactions, de facto measures are more quantity-based and capture actual level of global financial integration of a country. Perhaps there are two most widely used de facto measures of financial integration. The first (TOTAL) index proposed by Lane and Milesi-Ferretti [2007]. The authors of this index suggest that one of the ways to assess a country's level of international financial integration is to understand the movements in external assets and liabilities, so-called international investment positions (IIP). Consequently, the TOTAL index is derived as a country's total assets plus total liabilities as a percentage of GDP. The second approach attempts to use apparent phenomena of augmented capital mobility, such as the gross capital flows [Quinn et al., 2011]. If we take into consideration the growing trend of international capital flows across the globe during the recent decades, this proposition sounds particularly viable. For instance, the capital flow approach was one of the ways to measure financial integration in the study conducted by Asian Development Bank [Estrada et al., 2015]. Furthermore, various traditional literature on financial globalization actively advocate a capital flow index as a proxy for measuring the degree of financial globalization. In our analysis we also use annual data on gross capital flows, as a corresponding measure of financial integration of Georgia. In order to calculate this indicator, we employ financial account data from the balance of payments of Georgia (source National Bank of Georgia, NBG). In particular, we derive financial integration parameter by summing year-end absolute values of inflows and

outflows (assets and liabilities) of direct investment (DI), portfolio investment (PI), financial derivatives (FD), and other investment (OI). Then we express these data as percentages of respective yearly GDP. The reason why we use absolute values of flows is that the gross flows are preferred over net, because they provide more accurate picture of integration [Estrada et al., 2015]. Majority of research papers conducted on IFI-growth interconnection conclude positive results between these two variables. The economists name several important factors, through which non-restricted cross-border capital flows facilitate economic growth: risk-diversification, capital allocation, transfer of technology and know-how, enhanced competition level, improved functioning of financial industry etc. [Obstfeld, 1994; Acemoglu and Zilibotti, 1997; Klein and Olivei, 2000; Levin, 2001]. Joseph Stiglitz in his study [Stiglitz, 2000] also highlights the importance of cross-border capital transactions for economic growth, but he admits that the full capital account liberalization is harmful and respective regulations are essential in order to reap positive results. For instance, a country can benefit from long term foreign direct investments, which transfer technological achievements, managerial experience and are oriented on productivity growth. On the other hand, there is a high risk that short term capital flows can be damaging, especially for developing countries that have less sound financial sector. The author claims that short-term capital flow movements can result in small shocking effects on a country's economy, because the risks outweigh the benefits from short-term transactions [Stiglitz, 2000].

In this paper we expect capital flow parameter to have a positive impact on economic growth, because according to the balance of payments of Georgia, on average the yearly FDI comprise more than 50% of total capital flows of Georgia. Such high FDI flows and accompanying benefits should indeed positively correlate with economic development. Nevertheless, some historical facts suggest that the international financial integration can have negative consequences during currency crisis and general economic stagnation. There are several such real case scenarios, when financial openness had negative influence on a regional level during Latin America, Asian and Russian currency crises in 90s. It is important to note that Georgia experienced quiet severe currency fluctuations during 2015-2016 years, when the exchange rate between local currency (GEL) and US dollars has depreciated more than 40%. This fact could negatively influence IFI-growth relationship. Therefore, we decided to test this hypothesis and consequently divided our analysis into two sample periods: 1) full sample size that covers period of 1995-2016, which entails two years of currency devaluation in 2015-2016; 2) sub-sample size, covering a time-frame of 1995-2014, which does not incorporate the periods of currency devaluation. According to our estimations and relevant literature review, we expect to have a non-positive linkage for the full sample and a positive relationship for the sub-sample sizes.

We also include initial per capita real income on the right-hand side because higher incomes are likely to correlate with more economic activity. This variable is incorporated in the empirical model to capture the convergence effect across countries. The yearly figures on real GDP per capita are collected from the World Development Indicators (WDI). We continue to treat GDP per capita as exogenous. The expected sign of the parameter of the initial level of economic development variable is positive.

The next variable used in our research as a determinant of economic growth is exports. As a measure of exports, we use the exports of goods and services in relation to GDP. According to traditional Keynesian theory, export is one of the main aspects that can promote economic progression. Empirical researches conducted by Vohra in 2001 and Marin in 1992 have confirmed, that export positively impacts economic growth. The expected sign of the coefficient is positive.

Numerous studies [King and Levine, 1993; Levine and Zervos, 1998; Beck and Levine, 2004] have proved that better developed financial system positively shapes economic growth. We employ banking sector development, particularly private credit issued by banks as a representative variable of the financial development. The variable is presented as percentage of GDP. The figures are gathered from the WDI dataset. It is commonly established among economists that the private credit variable is a vital banking development pointer, for the reason that it illustrates the level to which new firms have opportunities to get bank finance. According to Rajan and Zingales [2003], private credit measures the easiness to obtain finance for a sound project. Levine et al. [2000] states that this variable separates the credit issued to the private sector, as opposed to credit issued to governments, government agencies and public enterprises. Furthermore, it does not count credit provided by the central bank. As a consequence, we interpret higher points of this parameter as a demonstration of increased credit accessibility and overall financial development. This is our preferred measure of financial progression, because it is the most straightforward measure of financial availability to the private sector. In general, economists expect positive impact of financial development on economic growth. However, there are numerous research papers that conclude different outcomes, especially for the developing and transition economies, where the financial institutions are still at the early stages of development. Djalilov and Piesse [2011] conducted study on financial development-growth nexus for the 27 former Soviet republics and Eastern European countries. Their results show that credit provided to private sector has no significant effect on economic progress. Additionally, two other variables of financial development were used: 1) financial index proposed by EBRD, which consists from different financial arguments; 2) the difference between interest rates on credit and deposit, which is a proxy for competition level in banking industry. These two variables of financial development appeared to have negative influence on growth. The authors explain such results by less developed institutional degree of financial sector in these countries. They admit that least developed financial institutions in these countries hamper economic development, as the financial resource-allocation process is not conducted on the bases of economic efficiency. Moreover, such important aspects as asymmetric information and high transaction costs are typical for developing countries, which negatively affect financial transactions and growth [Djalilov and Piesse, 2011]. Levine and Zervos [1998] also highlight the importance of institutional development. The research suggests that not necessarily the degree of savings and investments lead to economic progression, but rather the more efficient resource allocation and productivity, which are capabilities of institutionally strong economies. Halil Aric [2014] analyzed the relationship between financial development and economic growth in European Union for the period of 2004-2012. The domestic credit to private sector as a % of GDP was employed as a proxy for financial development variable. The paper revealed negative finance-growth

relationship. The author explains this by fact that the credit provided to private sector is not utilized in growth-oriented areas. In case of Georgia, the country's financial sector has been developing steadily and significantly throughout the last decade (often exceeding 20% growth). However, the allocation of financial resources is not efficient, because the entire growth of Georgian banking sector is largely due to extremely high number of private/household borrowers from commercial banks. According to Financial Access Survey (FAS) that is proposed on the yearly bases by International Monetary Fund (IMF), the number of borrowers in Georgia per 1000 adults was 723 in year 2016. Such high level of commercial banks' lending automatically questions the efficient allocation of financial resources and this might indicate on high risk that most of such borrowings are not growth-oriented. Therefore, we expect that financial development should have negative impact on economic growth of Georgia.

One more control term in our hypothesis formula is government expenditures. The government spending plays an imperative role in establishment of sufficient atmosphere for development of private sector. Yet, numerous empirical and theoretical papers suggest negative interrelation between large government consumption and financial system development in a country. Generally, it is established among economists that investments' efficiency declines during excessive government expenditures, because investment decisions are influenced by societal and political aspects [Webb et. al., 2002]. The government consumption is especially important in case of Georgia, because government played an active role in promoting GDP growth of the country. For instance, after "Rose Revolution" in 2003 and change of the government of the country, one of the priorities of new government was social and healthcare system. The government provided full or partial funding for health insurance of big part of the population. Another example could be a partnership fund, which was formed by Georgian officials in 2011. The fund's main objective is to provide finance to sound projects and execute exit option once the business becomes sustainable. We measure government expenditure as a ratio of general government expenditures to GDP. We expect negative link between government expenditures and economic growth.

The last control variable is inflation. Inflation is widely utilized among economists as an important determinant of economic growth. In general, it is agreed that inflation has negative correlation to economic development as it may adversely affect those sections of the population whose earnings are not indexed to prices (usually poor and below average population segment). Additionally, inflation may alter relative prices, lead to exchange rate fluctuations and create general instability in a country [Prasanna and Gopakumar, 2011]. Nevertheless, various theoretical and empirical studies show that the inflation-economic growth nexus may vary due to various reasons. For instance, in the short run, the linkage between inflation and growth is usually positive, while on the long run, there is a negative and significant correlation. Another interesting point relates to the country categories and a threshold levels of inflation. Khan and Senhadji [2001] investigated the inflation-growth correlation for developing and industrial countries separately. The authors found out that the impact of inflation on economic development differs across these two country segments. In particular, their results disclose the presence of a threshold beyond which inflation adversely influences growth. Inflation rates, which are below the threshold levels of

inflation, have no or even positive consequence on economic development. On the other hand, inflation levels beyond the threshold play negative role on inflation-growth relationship. The authors proposed that the threshold boundary is lower for industrialized economies compared to developing countries. The respective threshold levels appeared to be 1-3 and 11-12 percent for industrial and developing economies. Numerous studies concluded that on average the threshold is about 8-12%, beyond which the inflation has significant and negative impact on growth, while below this threshold there is no negative influence [Mubarik, 2005; Khan and Senhadji, 2001; Sarel, 1995]. In our regression model we expect inflation variable to have a positive sign, because Georgia is still a developing country and its inflation levels are usually below 10% during analyzed time-frame.

Table 4 presents the descriptive statistics for all the variables used in the regression. Given table shows the means, standard deviation, and minimum and maximum values of each parameter.

Table 4: Descriptive Statistics: Economic development dataset of the Republic of Georgia, annual data 1995–2016

Descriptive Statistics					
Variable	Obs	Mean	Std. Dev. Min	Min	Max
GDPG	22	5.585373	3.900385	-3.650101	12.344
GDPPCC	22	2389.714	1005.454	1010.251	4083.998
Export	22	30.52406	9.334406	13.32629	44.73796
GovCons	22	15.16971	5.315925	7.698666	25.87842
Credit	22	21.91759	16.84243	3.30373	56.80942
CapFlow	22	0.1561886	.0734297	.0547132	0.2930368
Deflator	22	14.66224	34.16555	-2.136432	162.7251

Source: Own calculations via STATA

As indicated in Table 4, all the indicators display substantial variations. For example, Private Credit, GDP growth, GDP per capita and Deflator measures demonstrate broad variations between maximum and minimum values, as well as the range of standard deviation measures. The negative values in GDP growth and Deflator variables took place in year 2009, which are linked to recession period in Georgia due to global financial crisis and Russian-Georgian war in 2008. The lowest GDP per capita level was 1010.251 in 1995, when Georgia had very difficult socio-economic condition, recovering after collapse of Soviet Union.

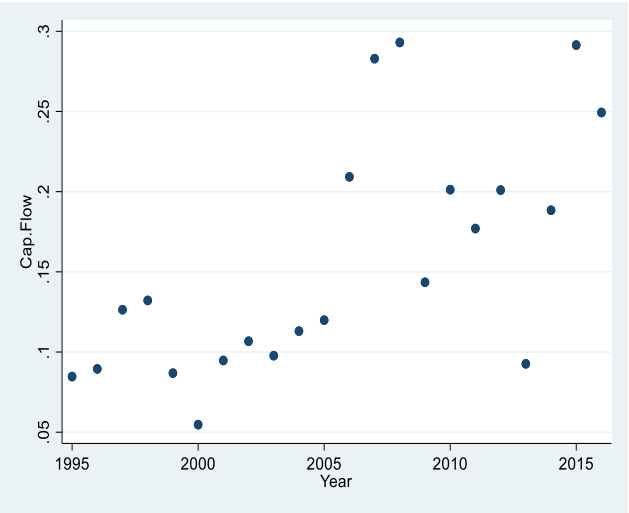
Non-stationarity and transformation of the time series data

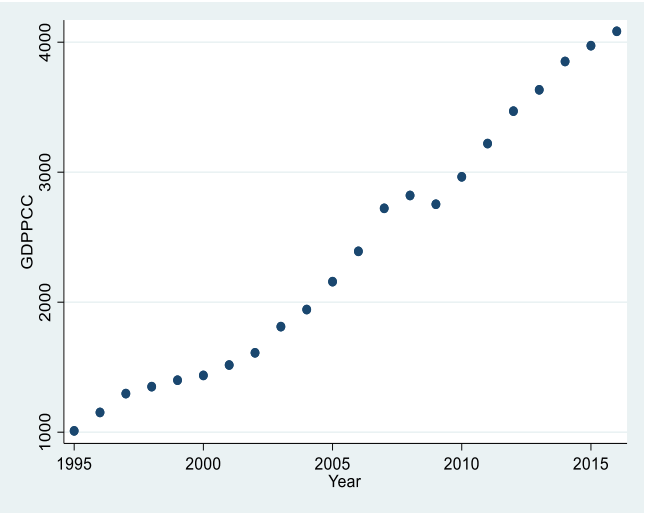
In order to conduct a valid statistical inference, we must make key assumption in time-series analysis. We have to assume that our time-series model is covariance-stationary. A stationary process is a stochastic process whose joint probability distribution does not change when shifted in time. Thus, properties such as the mean and variance, if they are present, also do not change over time and do not follow any trends. Stationarity is

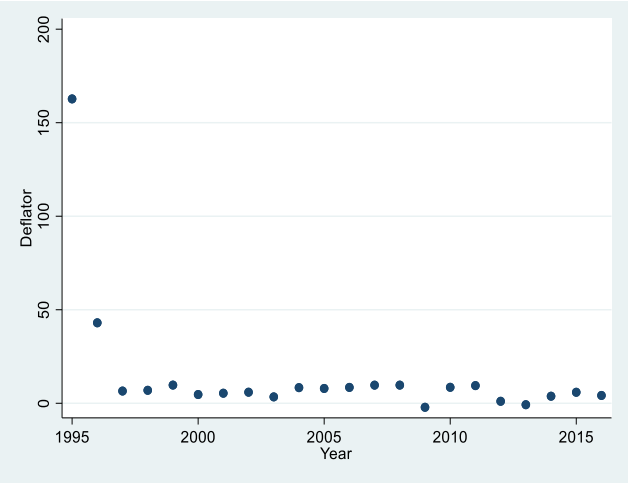
used as a tool in time series analysis, where the raw data is often transformed to become stationary. Using non-stationary time series data in economic models produces untrustworthy and spurious consequences and leads to poor understanding and forecasting. In particular, β will be biased, and any hypothesis testing will be invalid.

We can check if our initial data is stationary by looking at a plot of the time series (see Graphs 4-10). If the graph shows almost the same mean and variance through time without significant seasonality, then we can assume that the time series is covariance-stationary. As it is visible from the plots in Graphs 4-10, some of the variables are non-stationary. The time series appear to grow (or decline) steadily through time and as a result have a mean that is non-constant, which entail that they are non-stationary. We can observe from the graphs that the time series of Government Consumption, Export, Credit, Capital Flow and GDP per capita variables clearly show the mean increasing as the time passes. All these variables demonstrate growth of mean values over time. Thus, these variables are not covariance-stationary. Other variables in the model (GDP growth and Deflator) seem to illustrate relatively stable mean values with periods of steady increase and decline over different pieces of the time period.

Graphs 4-10







The solution to the problem of non-stationarity is to transform the time series data so that it becomes stationary. One way used by analysts to transform the non-stationary process into stationary process is to employ logarithm transformation method. Through this technique we create a new time series, where each value is expressed as a logarithm of its own observation. This method is widely utilized by economists in their research papers, and as a rule, it should enable us to eliminate the non-stationarity data. This means that our parameters became stationary after logarithm transformation has been applied.

Empirical results

The major findings of the paper are reported in tables 5-8, which illustrate the results of both full and sub-sample sizes. To begin with, it is essential to observe from Tables 5 and 7 that F-tests expose to be significant at 5% level, meaning that both models are good fit for hypothesis of interest. In addition, R2 and adjusted R2 for both sample sizes also demonstrate that the models are nicely fitted. Based on Durbin-Watson statistics there is no statistical evidence that the error terms are negatively autocorrelated, however the test is incounclusive in case of positive autocorrelation.

Table 5: Financial integration and Economic growth, model summary and F-test, period covered 1995-2016

Model	Sum of Squares	df	F	Sig.	R Square	Adjusted R Square	Durbin-Watson
Regression	229.2135	6	5.77	0.0049[b]	0.7427	0.6140	1.578565
Residual	79.4131	12					
Total	308.6266	18					

Source: Own calculations via STATA

Table 6: Financial integration and Economic growth, dependent variable: logarithm of GDP, period covered 1995-2016

Model	Coef.	Std. Err.	t	P > l t l
(Constant)	-169.5945	50.0990	-3.39	0.005
LnGDPPCC	21.8994	7.4841	2.93	0.013
LnExport_01	12.4080	4.5029	2.76	0.017
LnGovCons_01	-0.9672	4.7286	-0.20	0.841
LnCredit_01	-13.2542	3.8367	-3.45	0.005
LnCapFlow_01	-1.4573	3.1856	-0.46	0.656
LnDeflator_01	3.0545	0.8093	3.77	0.003

Source: Own calculations via STATA

Table 7: Financial integration and Economic growth, model summary and F-test, period covered 1995-2014

Model	Sum of Squares	df	F	Sig.	R Square	Adjusted R Square	Durbin-Watson
Regression	240.7973	6	8.17	0.0022[b]	0.8306	0.7289	2.085301
Residual	49.1137	10					
Total	289.9110	16					

Source: Own calculations via STATA

Table 8: Financial integration and Economic growth, dependent variable: logarithm of GDP, period covered 1995-2014

Model	Coef.	Std. Err.	t	P > l t l

(Constant)	-167.6156	43.2197	-3.88	0.003
LnGDPPCC	22.5469	6.4881	3.48	0.006
LnExport_01	12.4418	3.9422	3.16	0.010
LnGovCons_01	-8.9396	5.2073	-1.72	0.117
LnCredit_01	-10.5314	3.4861	-3.02	0.013
LnCapFlow_01	1.0011	3.0479	0.33	0.749
LnDeflator_01	3.4838	0.7185	4.85	0.001

Source: Own calculations via STATA

The signs of the estimated coefficients are consistent with theory, although, some coefficients appear to be non-significant. Particularly, when the data incorporate periods with significant currency fluctuations (i.e. full sample size, covering years 1995-2016), the sign of the capital flow appears to be negative. Similar conclusions were derived by previous studies that concentrated on relationship of financial integration and currency crisis during 90s in Latin America, Asia and Russia [Stiglitz, 2000; Wang, 2006; Pinto and Ulatov, 2010]. While, on the other hand, when the data incorporate only 1995-2014 periods (i.e. excluding significant currency fluctuations during 2015-2016), the sign of the financial integration variable happens to be positive, as supported by various previous studies on openness theory [Lucas, 1990; Klein and Olivei, 2000; Levine, 2001; Bonfiglioli, 2008; Mahajan and Verma, 2015]. Even though the outcome of this study does not confirm the significance, it is important to note the main tendency – financial integration parameter is negative during the period of currency fluctuations and positive during relatively stable currency periods.

The results of other independent coefficients reveal that the level of GDP per capita and Exports matter for economic growth and are significant at 5% level; additionally, inflation appears to be also in a positive and significant (at 5%) relationship with GDP growth of Georgia. On the other hand, private credit and government consumption are adversely correlated to GDP growth, as projected by theory. Negative interrelation of GDP growth and private credit is in line with previous findings by Zhao [2016], Halil Aric [2014] and Djalilov and Piesse [2011]. Government expenditures are not significant, but they are consistent with our theory and support prior researches in this area.

As it stands, statistical significance of integration-growth relationship is not confirmed. Analyses show that financial integration has a negative influence on economic growth during the period of currency fluctuations and positive influence when such fluctuations are absent. The marginal consequences of GDP per capita, exports and inflation are empirically important indicators of GDP growth. In addition, it seems private credit and government expenditures to be negatively related to the degree of economic growth in Georgia.

Conclusions

The main results of the research, important issues and proposals for improvement will be presented in the final part of the study. Taking into consideration the specifics of the research topic, special attention will be paid to the results of financial integration and financial (banking) sector parameters. Different aspects of consideration for achieving long-term growth and economic development of Georgia will be outlined as well.

As the results of the survey show the history of Georgian economy has passed hard periods. Positive and growing tendency of major macroeconomic indicators of Georgia give us optimistic expectations on the country's future. Clearly, the Georgian economy has achieved some stability, but it does not mean that the country has no weak areas, which should be considered in the future.

The Georgian economy reacts to the events developed in the region or the world markets. The clear example of this was devaluation of GEL in 2014-2016 towards the US dollar on the background of currency crisis developed in the region. According to the above mentioned fact and other issues discussed in the paper, we think that Georgia's integration level into the global financial system is quite high but still under development.

If we take into consideration the globalization processes taking place globally, the further economic progress of Georgia to a certain extent depends on the right and optimal strategic (long-term) plan that will be elaborated by the governmental authorities on the one hand, and on how the country manages to avoid adverse results, caused by external factors and globalization (as a whole) on the other.

To summarize, we can distinguish the main positive impact factors on economy, associated to financial integration:

1. Decrease of cost of capital. International financial integration enables funds from wealthy countries to be transfered to the countries with relatively less resources, which in turn affects the cost of capital and reduces it.
2. Increase access to capital. Business is a living organism and requires constant change/development. For this purpose, additional resources and funds are needed, which become available during the financial integration.
3. Sharing of the so-called "know-how" and international experience from developed economies to developing ones.
4. Promotes the general investment climate and risis international investors (including international donors) in the country.
5. Sophistication of monitoring and management. Financial liberalization simplifies and makes the monitoring and supervision of companies more efficient.
6. Inflow of modern and advanced technologies. Together with financial globalization, the volume of long-term foreign investments in the country is also increasing that is associated with the introduction of respective high technologies.
7. Distribution of national risks. The higher the integration level of the country into the international financial system is, the more diversified the risks are.
8. Effective capital distribution. Financial integration facilitates the transparency of the ongoing processes in the country and the effective distribution of capital among population.

9. Support of the country's internal financial sector. Financial integration positively affects on development of the financial industry.
10. Development of other sectors/industries. Financial globalization undoubtadly stimulates coordination of various fields within the country and raises their efficiency.
11. Increase in competition level. During financial integration, the efficiency of domestic national firms also increases, as they develope competing directly with foreign companies.

As for the competition, financial integration does not intend one of the players of the market to gain dominant position in the market. To avoid such adverse circumstances, there should be permanent dialogue between market regulatory bodies and all players of the market. The financial market also requires constant, almost real-time monitoring from supervisory authorities. An important goal of financial integration is to provide equal and fair space for each participant of financial market, regardless of their influence or volume of their financial resources.

Along with advanatages, international financial integration also has disadvantages. Though, these negative factors depend on different aspects (including characteristics of the specific country), we will try to develop key negative features:

a) Independence of the country in making decisions. In the course of financial globalization, the country may occasionally face such conditions when it is forced to make decisions based on the processes occurring in the region/world.
b) Global financial crises. Periodic international crises dispute about feasibility of financial liberalization, since global crises hinder the economies of various countries rather quickly and significantly, improvement and rehabilitation of which then requires much more time. The most evident example of this was the world financial crisis in year 2008.
c) Possible regional currency fluctuations. During financial integration the possibility that currency crisis developed in one country may move to the neighbouring countries or become of regional nature is rather high. This conclusion is confirmed by the results of our regression model. Such examples have occurred many times in the world history (eg. the Asian currency crisis in the 90s). The similar fact was reported in case of the Georgian GEL when devaluation of the Russian Ruble in 2015-2016 towards dollar, was followed by the drop in the exchange rate of all currencies in the region.
d) Increasing speculation with short-term capital. Together with financial integration, the inflow of speculative, short-term funds may increase in the country. Economists agree that movement of short-term capital flow has negative impact on long-term economic progress. Consequently, such funds should be minimized to avoid a sudden outflow of money that will result in micro shocks in the economy. One of the most effective methods of short-term capital regulation and prevention is the establishment of appropriate payment barriers. Payment barriers may be set in case of short-term capital inflows, as well as in case of their outflows, to make capital flows more stable. Herewith, it should be noted that payment barriers set on short-term capital will not hinder inflow of long-term foreign direct investments into the country.
e) Meeting the minimum necessary conditions. Pursuant to many researches, for the financial integration to be profitable for the country's economy, this country shall meet

certain prerequisites. These prerequisites include stable macroeconomic policy, healthy fiscal policy, optimal bank regulations, developed institutional level and protection of property rights. Economists mainly support the following sequence of financial integration: promotion of foreign direct investment, liberalization of domestic capital markets and acceptance of free capital outflow only after the country has an effective and developed domestic capital market and regulatory systems. Herewith, the developing market economy should have reliable currency both for the domestic and international investors' viewpoint, in order to obtain from financial integration such advantages as increased liquidity, investment activity, and accelerated economic growth. If the country has unlimited access to foreign capital markets but lacks reliable currency, it may become vulnerable towards the speculative movement of funds that can lead to serious economic and social expenditures.

f) Risk of improper distribution of capital. The capital inflow may be innefectively distributed, since the inflow of capital in terms of financial integration (except the foreign direct investments that are directed to certain project by a specific company) is mainly governed by the financial institutions. This means that financial/banking institutions are likely to have some impact on the direction and management of capital flows.

As for the bank lending rate for private sector in our regression model, we have received negative attitude between financial integration and GDP growth. The obtained result is statistically 95% confirmed, which means that the large number of credits issued by the bank sector negatively affects the country's long-term economic progress. At first sight, this can be an absolute paradox, as the liberalization of bank lending and access to additional funds should positively affect the economy. However, along with the growth of the economy, it is important to understand the causes of growth, breakdown various branches/industries and analyze how healthy the economic growth is. One of the most important components of our country's GDP growth is the annual growth of banking sector (often over 20%). And here is the question: how reasonable is such highly growing banking sector and increased lending to the population? According to the researches conducted by the IMF, as per 2016 data, more than 70% of the Georgian population has debt obligations towards financial institutions, which is, of course, an alarming indicator. The majority of the population has a large debt burden, which can not be good for economics in the long run. The second important issue of concern is how financing institutions reasonably manage credits and effectively redistribute financial resources, which is the main task for financial sector. Individuals get credits from banking sector on a large scale. While the number of business and profit-oriented loans are relatively small. For example, during 2013-2016, the total number of loans issued to individuals in foreign currency increased by 80% (approximately $890 million USD). Herewith, the number of denominated in foreing currency loans issued to local businesses was 5.5 times less (increased only by $163 million USD) compared to loans issued to individuals[3]. The mentioned circumstances indicate that majour part of credits (finances) is not aimed at creating a new product, economic wealth. In our opinion, governmental authorities should pay particular attention to

[3] https://bpn.ge/finansebi/34590-qsaqarthvelos-bankebi-momgebianobith-msoflios-atheulshiaq.html?lang=ka-GE

banking sector, lending rules, minimum and maximum interest rates, relevant legislative bases and regulations. Apart from the banking sector, separate analysis should be made on the activities of other financial institutions (microfinance organisations, online loans, etc.).

It should also be noted that in recent years an activation of domestic capital market is actively discussed, which will undoubtedly improve the financial sector of Georgia and contribute to the country's economic growth. The presence of a flexible capital market and transition to an active phase is a source of additional funds for business, since nowadays business in Georgia is mostly funded with bank loans, which is not the most efficient way to attract financial resources. The developed capital market will enable businesses to actively issue their bonds or place their shares on stock exchanges and attract additional funds. Various experts suggest that the development of the capital market in Georgia is hindered artificially by various stakeholders, including large players of banking sector. It should also be noted that the development of capital market will further deepen the level of Georgia's financial integration in the world financial system and have positive impact on the economy. In our opinion, the Georgian Government should focus on the rapid and efficient development of the capital market, as in spite of the predicted progress, practical steps have not been taken in this direction over the last 5-10 years.

Given the fact that the capital market in Georgia is still underdeveloped, the economic progress of the country largely depends on external sources of independent financing, especially on the volume of foreign investments. For the country to achieve economic progress for the long term period, it is necessary to provide the country with long-term foreign investments. If we look through Georgia's balance of payment, we will see that more than 50% of the financial account (average) is made up of foreign direct investments. The inflow of foreign direct investments is related to various positive factors and is less associated with currency or financial crises. This is the reason that according to the analysis of our research on 1995-2014 period, Georgia's financial integration and economic growth are positively interconnected to each other. This could be explained by the fact that Georgia's financial integration rate largely consists of the volume of foreign direct investments, while the latter impacts the economy through various indirect methods (eg. technologies, knowledge-sharing experience, etc.).

One of the biggest challenges for our country's economy is the existence of negative trade balance, which the state authorities should pay a particular attention for improvement. Negative balance can be adjusted through the reduction of import and increase of export. Georgia does not belong to those states distinguished by large scale production and large quantity of export. There may be many factors triggering the above processes, but in our opinion, one of the most important factors can be the paucity of population (about 3.7 million people). According to the Economies of Scale concept existing in economics, business will be more interested in local production if the products produced are sold in the mass market. This issue once again underlines the importance of export to Georgia because due to the effect of the economies of scale, the production costs on one product will be reduced when placing products in export markets, the sales and the net profit will be increased, which will eventually contribute to the development of local production. We believe that because of the paucity of Georgian population, the state should encourage local production by other means, such as by creating more attractive tax/taxation

environment. In the end, these circumstances will lead to the elimination of negative net exports and negative trade balance.

The country's economy is a very fregile and sensitive phenomenon that requires a complex approach for smooth functioning. Therefore, we think that close relations and harmonization with other important branches of economy should be ensured, which means that much of the amount of money obtaind due to financial integration should be spent on leading branches with great potential (tourism, logistics, agriculture, etc.). Though, this does not mean that attention should not be paid on less popular sectors. One of the main objectives of financial integration is to finance economically profitable and viable projects, develop local production, increase efficiency indicators and achieve the existance of such legislative base in national financial sector that is compatible with international standarts, which will further ensure country's financial integration and economic stability.

In conclusion, we can say that the level of financial integration of Georgia into the global financial system is rather high, but still under development. One of the main explanatory factors may be the fact that the country is relatively new, and basic development of this sector has begun since the "Rose Revolution" (2003). Before the revolution, the financial sector was very small and unpopular among the Georgian population, regional investors and international institutions.

The outcomes of these researches show that further deepening of financial integration will contribute to the economic growth in Georgia. However, currency fluctuations in 2015-2016 showed that financial integration may have negative impact. Therefore, in order to only take advantage of and avoid negative consequences of financial liberalization, it is vital for relevant governmental and non-governmental organizations to introduce and develop reasonable policies in different directions and support institutional development in our country.

The results obtained in the dissertation paper are reflected in the following scientific articles:

1. Beka Phutkaradze, “Impact of Financial Integration on the Changes of Main Macroeconomic Indicators of Georgia", Tbilisi, Journal „Economics“, №1 2017, p. 67-85.

2. Beka Phutkaradze, „Financial Integration: Opinions and Evidences“, Tbilisi, Journal „Economics“, №1 2017, p. 107-122.

3. Beka Phutkaradze, „Financial Globalization and Currency Crisis: Interconnection and Analysis of Results“, Tbilisi, Journal „Economics“, №2 2017, p.141-151.

4. Beka Phutkaradze, “Financial globalization and economic development” Vienna, European Journal of Economics and Management Sciences, №1, ISSN 2310-5690, p.26-34

5. Beka Phutkaradze, Financial Integration and Economic Growth: Empirical Evidence from the Republic of Georgia”, Italy, European Journal of Sustainable Development, 2019

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