AMERICAN UNIVERSITY OF ARMENIA

# The Indirect Effects of the Global Financial Crisis on the Armenian Economy

A MASTER ESSAY SUBMITTED TO

THE FACULTY OF GRADUATE SCHOOL OF

POLITICAL SCIENCE AND INTERNATIONAL AFFAIRS

FOR PARTIAL FULFILLEMENT OF THE DEGREE OF MASTERS OF ARTS

BY

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YEREVAN, ARMENIA

APRIL 2014

# Acknowledgements

To the greatest, I would like to express many thanks to my thesis advisor, Dr. Donald Fuller who kindly instructed me throughout the whole process of the study. Without his systematic support, guidance and knowledge the study would not be feasible. At the initial stage he has helped me with the focus of the research and later with the selection of proper sources and methods.

Besides, I would like to thank the faculty members, AUA Papazian library and the overall university staff. I appreciate their huge contribution in this research and my professional progress in general. Special thanks to the chair of the program, Dr. Shumavon for his constant guidance, support and encouragement. I would also like to thank Dr. Grigoryan who has provided with valuable comments and advice which I have used in this research. I am grateful to every professor who has a contribution in the accomplishment of my thesis and this wonderful educational experience.

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*Abstract*

*The Global Financial Crisis, which started in the autumn of 2008, is believed to be the worst in the world history since Great Depression of the 1930s. The collapse of the international financial market considerably affected the growth prospects in both developed and developing countries. Some economists even predicted that it was only the prelude and the worst was yet to come. This paper tackles the economic problems that resulted from the crisis. The main argument is that the Global Financial Crisis did not hit the Armenian economy through the financial networks. The paper develops to confirm the hypothesis that H1: The Global Financial Crisis had an effect upon the Armenian economy: not directly through the financial system, but through other economic sectors.*

## List of Abbreviations

| | |
|---|---|
| AIG | American International Group |
| CBO | Central Bank of Armenia |
| CDO | Collateralized Debt Obligation IMF |
| CIS | Commonwealth of Independent States |
| CLO | Collateralized Loan Obligation |
| CMO | Collateralized Mortgage Obligation |
| FDI | Foreign Direct Investments |
| Freddie Mac | Federal Home Loan Mortgage Corporation |
| GDP | Gross Domestic Product |
| GNI | General National Income |
| Ginnie Mae | Government National Mortgage Assosiation |
| Ginnie Mac | Federal Home Loan Mortgage Corporation |
| MBS | Mortgage backed Securities |
| MFA | Ministry of Finance of Armenia |
| NINJA | No Income, NO Job and No Assets |
| WTO | World Trade Organization |

## Introduction

With the collapse of the Soviet Union a new Armenian state emerged with no storage of experience and maturity in preparation for the complex challenges which faced a newly independent state. Armenia, together with other former Soviet republics, awakened in the reality of the globe in the last decade of the 20th century. The recovery of the post-Soviet transition economies began initially in Central Europe at the first half of the 1990s spreading gradually to the Baltic countries and later to Armenia and Georgia experiencing the slowest recovery. From 2000 till the Global Financial Crisis, the Armenian economy started to advance in double-digit growth rates. However, since 2008 the economy has started to face major challenges as the global financial crisis had a major impact on Armenia.

This paper develops answers to the following research questions: "Which were the transmission channels of Global Financial Crisis on the Armenian economy? Has the economy been hurt through the financial system or has the crisis penetrated into the country through other economic sectors? Was the economic slowdown caused by the decrease of exports or Foreign Direct Investments? Was it caused because the inflow of remittances sharply fell down?" The hypothesis of the paper is: "The Global Financial Crisis had an indirect affect on the Armenian economy not through the financial system, but through other economic sectors".

The research paper has a qualitative method. In order to test the hypothesis secondary data and document analysis will be used to compare the situation prior to the crisis and the developments during it. Content analysis of expert interviews will be used as a third research tool for the triangulation of the data. Discussions will be held with a number of representatives from financial and governmental institutions on specific topics. The paper is developed inductively. It

goes from general to the case: world economy in the mid 2000s and financially non-integrated Armenian economy. The research paper is comprised of three chapters. Chapter 1 includes the literature review which will describe the main preconditions of the downturn in the US, as the epicenter of the global financial crisis. It will develop to find the channels that brought the crisis to transition economies (including Armenia). It will also develop the main hypothesis, research questions and methodology of the paper.

Chapter 2 consists of the statistical data on three sectors of the Armenian economy: construction, export and remittances. Chapter 3 includes the analysis of the data and the conclusion based on evidence. The issues raised in the paper will be concluded either by supporting or rejecting the hypothesis. The conclusion will contribute to the current understanding of the economic developments, the influence of the crisis and the current possible opportunities for Armenia.

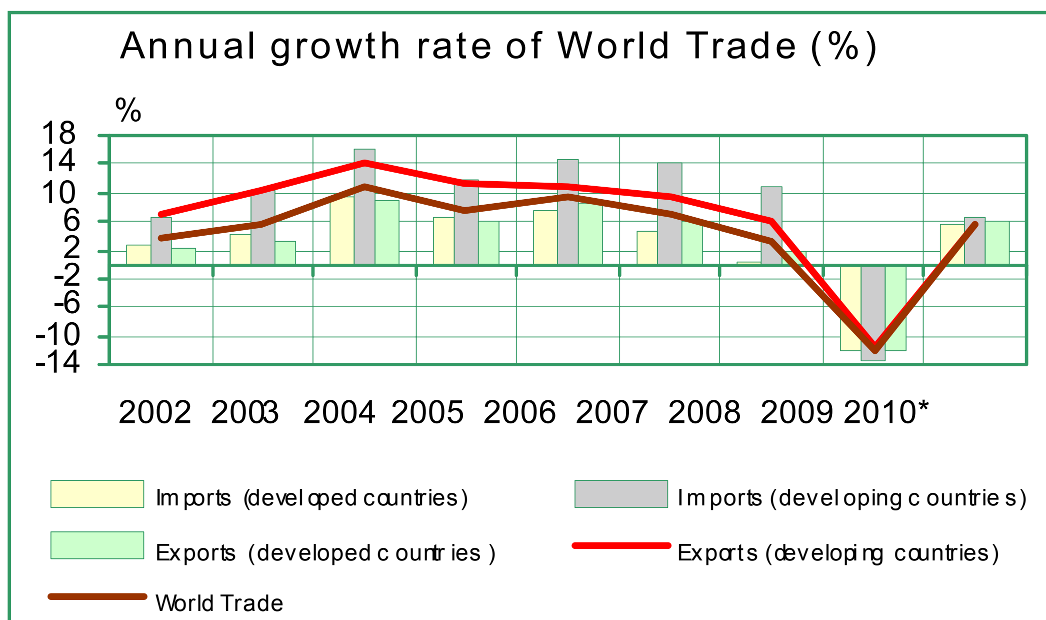
## Chapter 1

### Literature review

One of the most dominant tendencies of the development of the world economy in the recent decades has been the globalization of financial markets. Economic globalization as a concept is used to describe the changes in societies and the world economy that are the result of dramatically increased cross-border trade and investment exchange. In 2000, the International Monetary Fund (IMF) ascribed the following meaning to the economic "globalization". It is the increasing integration of economies around the world, particularly through trade and financial flows (www.imf.org 2000).

Since 2000 the world economy had started to expand at high rates. High economic growth was registered not only in advanced economies but also in developing countries[1]. High growth rates contributed to the decline of unemployment and poverty across the world. High demand from fast-growing developing and emerging markets resulted in high commodity prices that benefited economic growth in natural resource-rich countries. Constant growth, abundant liquidity and surplus savings in emerging economies[2] made economists and policymakers consider that the booming economies of Brazil, Russia, India and China would rely on domestic demand and would therefore not be affected by external shocks (Lin and Treichel 2012).

Figure 1.




Source: IMF

Finances became the main impetus for the globalization of the world economy. What many people associate with globalization is sharply increased private capital flows to developing countries. Although international trade still remains one of the key factors in the globalization process, international currency and financial relationships play a more dominant role in regard to

[1] "Developing countries" are commonly used to refer to countries that do not enjoy the same level of economic security, industrialization and growth as developed countries (www.investopedia.com).

[2] An economy, that is progressing toward becoming advanced (www.investopedia.com).

intensifying of the globalization process. As a result, liberalization of the international economy by means of capital flows became more peculiar for the world economy since the late twentieth century rather than by means of free trade of goods and services (International Monetary Fund 1999, Eichengreen 2001; Galindo 2010; Tashin and Tao 2012; OECD Economic Outlook 2011).

Capital account liberalization is a decision by a country's government to move from a closed capital account regime, where capital may not move freely in and out of the country, to an open capital account system. The flows of capital such as debt, direct and real estate investment and portfolio equity between one country and another are registered in the county's capital account of balance of payments. Outflows include the residents' purchases of foreign assets and repayment of foreign loans while inflows include foreigners' investments in the home country's financial markets (Henry 2006).

In general, financial globalization and financial integration are different concepts. Financial globalization is a concept that refers to increasing global linkages created through cross-border financial flows. Financial integration refers to an individual country's linkages to international capital markets. In fact, the concepts are closely associated. For instance, increasing financial globalization usually relates to increasing financial integration. Therefore, in this paper, the two terms are often used interchangeably.

The financial globalization was promoted by a number of factors: continuous liberalization of capital accounts and domestic stock markets, intensive privatization programs, increasing importance of institutional investors and the spread of depositary receipts (negotiable receipts that represent a company's publicly traded debt or equity). Liberalization of capital accounts and domestic stock markets led not only to a greater volume of flows among developed countries but also to a surge in flows from developed to developing countries. Foreign investors gained trust in the potential of the developing world which led to cross-border capital flows between developed and developing countries ( Cali et al. 2008).

However, throughout decades economists have been controversial about the financial sector's role in the economic growth. Lucas (1988), for example, did not consider finance as a stressed determinant of economic growth and according to Robinson (1952 p. 86) "where enterprise leads finance follows." In the quoted part the economist assumes that when the opportunities of an economy expand that seek for financing, the economy will develop the necessary infrastructure to finance these opportunities. From this perspective, finance responds to demands from the real (non-financial) sector: it does not cause economic growth (http://faculty.chicagobooth.edu 2001).

In recent literature reviews, however, there is a growing body of evidence indicating that the development of a country's financial sector greatly facilitates its growth suggesting that financial development and economic growth are in first-order relationship. In other words, well-functioning financial systems play an independent role in promoting long-run economic growth (King and Levine 1993, Levine 2005, Jayaratne and Strahan 1996, Demirguc-Kunt and Maksimovic 1998, Rajan and Zingales 1998). Countries with better-developed financial systems tend to grow faster over long periods of time (https://openknowledge.worldbank.org 2013).

Financial globalization commonly accepts that the financial market is one of the most essential elements of both developed and developing economies as it is the central institution which transforms savings into investments and thus creates economic growth in the long run. Thus, it can be assumed that financial integration of developing countries has a core function in the economic growth rate (Sandoyan et al. 2007). Although it is difficult for policy analysts and experts to find robust evidence supporting the statement that financial integration helps developing countries to improve growth rates, it does not necessarily propose that financial globalization has no benefits and carries only great risks. In fact, countries that have initiated financial integration go along this path despite temporary failures. This proves that the indirect benefits of the integration are very important. One example is Europe's efforts in 1990s to achieve monetary integration. The process turned into a deep crisis but later resulted in the

transition to the single currency in use. However, it is important to indicate that empirically good institutions, quality of governance and macroeconomic stability are preconditions for successful financial globalization process. Only in this case can developing countries reduce the risks and obtain the benefits of globalization (Prasad, et al. 2003).

However, there are risks in financial integration which should not be underestimated. Enlarged financial integration can increase economic growth rates of developing countries, but may also feasibly accelerate the speed and the number of channels through which financial crises may spread across the developing world. In a globalized economy the financial crisis may extend beyond its initial epicenters and affect other advanced economies, emerging and developing markets. Actually, cross-border capital flows between developed and developing countries are sensitive to macroeconomic and financial conditions not only in developing economies but also in mature markets. Besides, the transmission of shocks through the financial channels is much quicker than through real channels because in the first case it is linked to the economic activity of the country through stock market fluctuations ( Cali et al. 2008). As Raghuram Rajan, the current Governor of the Reserve Bank of India and former chief economist of the International Monetary fund, in his book titled "*Fault Lines*" described: "Like geological fault lines, the fissures in the world economic system are more hidden and widespread than many realize, he says. And they are potentially more destructive than other, more obvious culprits, like greedy bankers, sleepy regulators and irresponsible borrowers" (Koehn 2010).

Foreign banks can be seen as a source of stabilization and revival of the domestic financial system. However, Eastern Europe, and in particular Hungary provide us with another recent example of its bad effect. When Hungary, as many other developing countries, sold its banks to foreigners, the project proved to be successful for a while. However, with the emergence of the Global Financial Crisis foreign banks began to shrink the landings to their Hungarian subsidiaries. In this way, the shock was transmitted to Hungary easily through spill-over affect and infected the country's economy. The increased uncertainty and the demand for short-term

financing put banks' liquidity under pressure and made fewer resources available for cross-border bank lending. Local banks ran out of money due to bad loans because Hungarian firms and households took out their hard currency loans worth 90 percent of mortgages and 20 percent of the GDP, increasing the bank's chances for bankruptcy and financial collapse as the parent banks in the Euro area refused to send them more cash (Cali, et al. 2008).

In fact, the Global Financial Crisis started in the US with the collapse of the mortgage market and the end of a housing boom. With easy credit opportunities and a rising housing market there was a boom in house prices from 2000 to 2006, and a period of high growth in credit and leveraged loans followed it (Stoeckel 2009). The overheated housing market of the US economy got out of control, people took out mortgages they could not afford and eventually defaulted on them. Having been securitized those mortgages went on to infect the global financial system. Soon the global financial crisis turned into global economic crisis proving that the risks of the financial innovations were not fully recognized and there were huge gaps in the unregulated financial system.

In order to understand the risks of recent innovations for the crisis and the channels through which the crisis spread to emerging and developing countries it's important to understand what new financial instruments were used in the system. Several decades ago banks making home loans followed this procedure: a homeowner applied for a mortgage and the bank lent the money and collected the payments on the principal and interest. The transaction was strictly between the homeowner and the bank that originated the mortgage. Financial innovation altered this process.

The Government National Mortgage Assosiation (known as Ginnie Mae) made up the first mortgage backed securities (MBS). It pooled mortgages it had originated, then issued bonds on the basis of that pool. Hence, rather than waiting thirty years, Ginnie Mae could get the sum immediately from the purchases of the bonds and investors buying these new bonds, could receive a certain portion of the revenue from the homeowners paying off their mortgages

(Roubini 2010). Ginnie Mae is a government-owned corporation that guarantees bonds backed by home mortgages that have been guaranteed by a government agency.

The Federal National Mortgage Association, better known as Fannie Mae, is a company established in 1938 as part of President Franklin Delano Roosevelt's New Deal legislation. Just like the recent financial crisis, the Great Depression saw a spike in mortgage defaults. Roosevelt had a strong belief that housing is a public good and an effective government will do what it can to make home ownership possible for as many people as possible and if it increased liquidity (cash flow) in the mortgage market by buying loans from banks, the economy would quickly boost (http://www.intellectualtakeout.org 2014). Similarly, the Federal Home Loan Mortgage Corporation, Freddie Mac was created as a government-sponsored entity. Like Fannie Mae, Freddie Mac was created to increase liquidity in the mortgage market. Unlike Ginnie Mae, Fannie and Freddie guarantee bonds backed by mortgages that have no government guarantee. Although Fannie and Freddie were set up by the government, they are not owned or explicitly backed by the government, they are publicly traded companies owned by their shareholders. However, Fannie Mae and Freddie Mac, as two largest mortgage companies of the US, dominated the market because of the belief that loans backed by Freddie and Fannie carry a complete government guarantee: the companies are so large that the government will never allow them to fail. New government agencies like Freddie Mac and Fannie Mae, together with investment banks and brokerages, joined the securitization business. In contrast with commercial banks,which took deposits and made loans, investment banks underwrote, bought and sold securities. These were called mortgage-backed securities (MBS). These securities had different names: collaterized mortgage obligation (CMOs), collaterized debt obligations (CDOs) and collaterized loan obligation (CLOs) ( Roubini 2010).

Another innovation of the financial system was the surprime mortgage lending. A subprime mortgage is a type of loan granted to individuals with poor credit histories, who, as a result of their deficient credit ratings, would not be able to qualify for conventional mortgages. Because

subprime borrowers present a higher risk for lenders, subprime mortgages charge interest rates above the prime lending rate. As Alan Greenspan put it "The mortgage-backed securities helped to create a national and even an international market for mortgages" while the subprime mortgage lending was "a constructive innovation that is both responsive to market demand and beneficial to consumers, as credits became available to the vast majority of households" (Greenspan 2005).

The financial crisis was triggered by a complex interaction of policies that stimulated home ownership. The political response to rising inequality in the US was to increase lending to low-income households where the U.S. financial sector was the critical link between an overconsuming America and the rest of the world. In June 2009 the Brookings Institution reported that U.S. consumption accounted for more than a third of the growth in global consumption between 2000 and 2007. "The US economy has been spending too much and borrowing too much for years and the rest of the world depended on the U.S. consumer as a source of global demand." (Baily and Elliott 2009).

At the same time of the housing boom in the US, there was a surplus of savings in China, Japan, Germany and a number of emerging countries and they all had the incentive to make investments somewhere. Ultimately, all those savings went into the purchase of the US debt. But as federal government's short-term and long-term debt promised low rates of return the investers prefered to purchase the debt of Freenie Mae and Freddie Mac along with the mortgage back securitee guarantees. Furthermore, European private creditors of the US bought almost "50 percent of the US securitized products generated by the American financial institutions" (Roubini 2010, p. 70).

In fact, each party of the transaction got what it wanted: the homeowner got a loan,the mortgage lender made his/her profit without waiting thirty years, the mortgage broker and the estimator were paid their fees and the investors who had bought the securities got their revenue when homeowners paid off their loans (Pickert 2008). Rating agenicies might have sounded the alarm but relying on them was unreasonable because they had all the incentive to give high ratings to

these securities. They were getting a nice fee from the entities they were evaluating and prior to the crisis these agencies made large profits from handing out undeserved AAA ratings to mortgage-backed securities (Roubini 2010). Securitization gradually became so widespread, that liar loans were overlooked by investment banks, appraisers, mortgage brokers and even governmental agencies like Freddie Mac and Fannie Mae. The most infamous were the so called NINJA loans, when there was no declaration of income and job (NO Income, No Job and no Assets) by the borrower who got the loan (Lin and Treichel 2012).

In fact, moral hazard[3] played a significant role in the recent crisis because in the securitization food chain a mortgage broker who knowingly brought a liar loan to a bank got compensated for his job and was never punished for the consequences of his decision. Moral hazard is especially common in the financial services industry because of the way these firms provide compensation to their employees. Instead of paying them salaries, the firms rewarded the performance of traders and bankers working in the financial services through a system of annual bonuses. This meant that many loans were underwritten without a clear measure of the borrowers' ability to repay. In addition, lenders eased underwriting standards, offering loans requiring little or no downpayment or income documentation. In case of later problems the company/bank bore full responsibility for the risks, because even if the employees were terminated, they would keep whatever they had accrued over the years. The moral hazard problem shed light upon another principal-agent problem.

Financial sector moral hazard went parallel with political moral hazard in this crisis. Their cooperation promoted the unrestrained credit growth which created central prerequisites for the crisis. The financial industry, with encouragement from the government, responded to the demand of credit by supplying home-equity loans and subprime mortgages. Consequently, when the crisis erupted, the government hastily took steps to soften the deficiencies of the financial sector. In a democratic state, the government or central bank cannot allow ordinary people to

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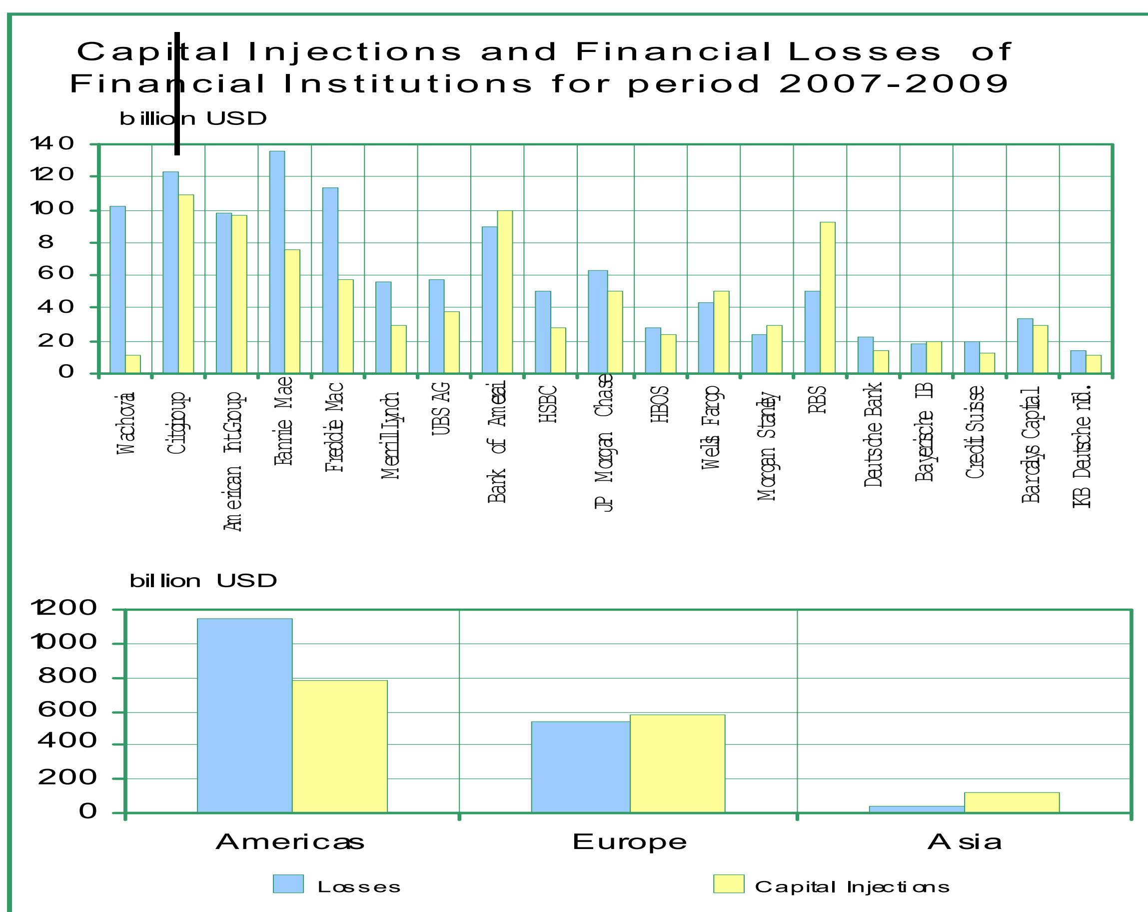
[3] The case when agents know more about what is going on in the companythan the principals and they use that information to their private benefit (http://www.jchs.harvard.edu ).

suffer collateral damage. The modern sophisticated financial system was aware of this and took advantage of it seeking all the possible ways to exploit government (Rajan 2010).

Figure 2.




In 2006 home construction declined over 7 percent, followed by 18 percent in 2007, 21 percent in 2008 and there was a decline of over 38 percent in the first quarter of 2009 at an annual rate (Baily and Elliott 2009). Already in the second quarter of 2007 house prices in the US began going down. As the downturn in house prices intensified, it pushed more and more borrowers with adjustable-rate mortgages to default. Delinquencies and defaults accelerated, thus endangering the condition of banks and other financial institutions that had collected subprime loans securitized through CDOs (Lin and Treichel 2012). Demand for securities backed by

subprime mortgages dried up so fast and so completely that investors were forced to sell them at a loss. Some companies were forced to default and lenders had to take many assets back onto their books (Roubini and Mihm 2010).

In September 2008, the crisis erupted with full force, when two prominent securities firm Merrill Lynch and Lehman Brothers and the American International Group (AIG), a multinational insurance corporation, filed for bankruptcy. Lehman Brothers, one of the five major investment banks of the US, came under serious pressure as counterparties refused to provide short-term funding to the investment bank, even on a secured basis and on September 15 filed for bankruptcy (http://www.federalreserve.gov 2008). Lehman Brothers' collapse was the largest bankruptcy in U.S. history. Lehman's fall led to a complete halt of credit between financial institutions, as the uncertainty of their balance sheet positions made lending between them too risky (Sorkin 2008).

"Innovative" products from the financial sector and the high levels of consumer spending and borrowing reinforced each other in the boom, but once the downturn started the two sectors started pulling each other down (Baily and Elliott 2009). This kind of financial innovations were transfering the credit risk throughout the world. In the net result they messed the financial system with complex and illiquid instruments and made the system mature for a major shock. The easy foreign money, merged with weak monetary policy, unreasonable financial innovations, the problems of moral hazard and poor corporate governance, caused the eruption of the global financial disaster. In June the stock prices of the two government-sponsored enterprises Fannie Mae and Freddie Mac began to decline significantly which marked that the investors now believed that the likelihood of the defaulting on their debt obligations was high. On September 7, the Treasury and the Federal Housing Finance Agency announced that Fannie Mae and Freddie Mac had been placed into conservatorship. The Treasury announced plans to establish a backstop lending facility for both enterprises and to initiate a program to purchase

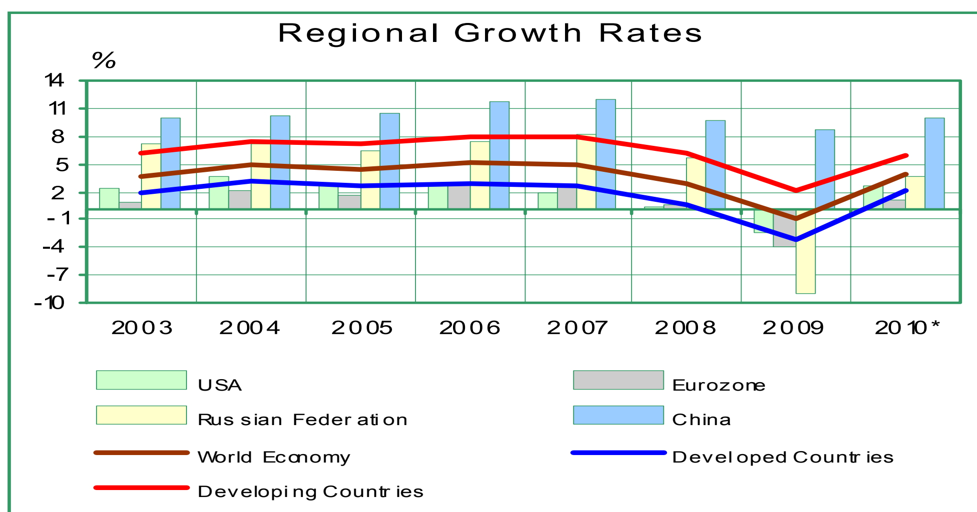
agency MBS. Nevertheless, other financial institutions continued to face difficulties in obtaining liquidity and capital as investors remained anxious about their solvency.

As the housing boom had led to a state of overindebtedness in the mortgage service, the financial agents had insufficient cash flow to implement their liabilities. In these circumstances, the lenders of the last resort are always central banks who provide high level of liquidity for the financial institutions and investment banks. Both the Federal Reserve and the central banks all around the world took the mission to rescue the ailing banks and firms (Roubini 2010, p.68). The immediate halt of intra-bank lending created a liquidity crisis. The U.S. government responded by a $700 billion bank bailout to rescue the financial sector from total collapse as the financial institutions (banks, insurance companies and pension funds) faced bankruptcy (Lin and Treichel 2012).

In the autumn of 2008 the stock markets in both developed and developing countries were suffering 50-75% decline from their recent peaks. In 2008 the USA lost equities worth $16.2 trillion. Investment banks collapsed while major banks were rescued with government sponsored packages worth more than one trillion US dollars. On 8 October, like a coordinated response to the crisis, the interest rates were cut around the world. The crisis affected not only the financial economy but also the real economy (the production). The IMF analysts predicted the slowdown of the world trade growth from 9.3% in 2006 to 2.1% in 2009 ( Cali et al. 2008). World trade in 2009 was around 65 percent lower than in the previous year. Demand fell across all sectors, but the decline was bigger for goods than for services. Equity markets collapsed. Unemployment around the world rose sharply. Companies that had expansion plans could not raise the capital required to finance it. The lending for new projects became too risky. The demand in automotive industry sharply fell, which resulted in considerable job losses. In May and June 2009 Chrysler and General Motors filed for bankruptcy respectively and the U.S. Treasury rescued the companies by becoming equity shareholders, as part of the $787 billion fiscal stimulus package put in place by the U.S. government (Lin and Treichel 2012).

The crisis showed the extent to which the financial services system had become global. In such a situation the crisis emerged by the lack of regulations among the network of derivatives. As a result the crisis spread through US investment and commercial banks with a spillover effect to Europe, Asia and to the rest of the world. All of this led to the universal freezing of the interbank lending market. In response, funding from parent banks to their subsidiaries terminated and that was why the Federal Reserve as well as central banks of many countries reacted by flooding the financial markets with liquidity (Bordo 2008).

Figure 3.



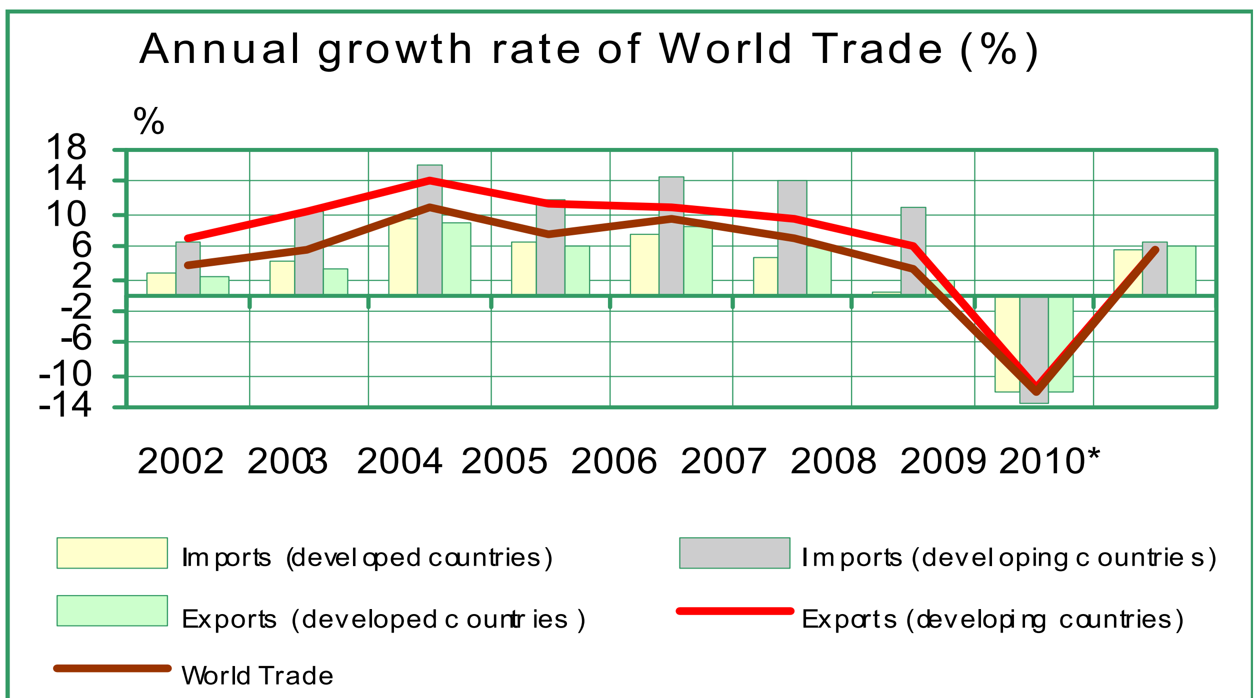

Source: IMF

The collapse of the stock markets in the world finance centers sent financial shocks to emerging countries: Brazil, Russia, India, China and South Africa and this chain was extended to the developing counties. In fact, developing countries turned into the most seriously affected victims of the financial contagion while "the causes of the global financial crisis are to be found in the financial and economic policies of the developed countries, primarily the United States" stated Martin Khor, the Director of the South Centre in Geneva (Gurtner 2010).

Private capital flows to the developing world experienced their sharpest slump ever, with net flows turning negative (a more than $700 billion drop in 2009 from the peak in 2007). Many low-income countries were also affected by the private credit crunch (An economic condition in which investment capital is difficult to obtain. Banks and investors become wary of lending

funds to corporations, which drives up the price of debt products for borrowers). Hence, private flows to these countries that had amounted in recent years are now falling. But these countries were expected to be hit particularly hard in 2009 by a second round of impacts: the global recession and declining world trade. World gross domestic product (GDP) was projected to fall in 2009 for the first time since World War II and world trade was projected to register its largest decline in the post-war period (ibid. p.1).

Figure 4.




Source: IMF

At the time of the financial crisis in September 2008 there was much publicity given to the shortage of trade credit as banks stopped lending. Marc Auboin, Counselor in the Economic Research and Statistics Division of the World Trade Organisation, and a member of the WTO Task Force on the Finance Crisis and Trade, indicated a $25 billion deficit in trade credit in November 2008. A shortage of trade credit would impact on world trade on the supply side but it also seems that much of the reduction was a collapse on the demand side, as orders were cancelled once business realized they were holding excess inventories (McKibbin and Stoeckel 2009).

All major advanced economies entered into recession, while activity in emerging and developing economies slowed down. Decreased leveraging by the financial sector and dramatic declines in consumer and business trust caused a sharp downturn in domestic demand across the world. Trade and industrial activity fell sharply, while labor markets were weakening at a rapid pace, particularly in the United States. The euro area and Japan have been hit by the decline in external demand, while uncertainty about the course of the economy was seriously affecting consumption and business investment in the United States. The fall in commodity prices provided some support to commodity importers, while at the same time the fall harms growth in commodity exporters. For countries in central and Eastern Europe and the Commonwealth of Independent States (CIS) the most concerning and particularly hard issues became falling commodity prices and reversals of capital flows (http://www.imf.org 2009).

An economy is being hit by the crisis through financial and trade channels. The financial and trade links shape the transmission of the shock from the advanced economies to the emerging or developing economies. No region was immune to the crisis, while the emerging market countries were the first to feel the impact of the financial contagion, given their heavier reliance on private capital flows. The poor developing countries were especially vulnerable, as they had much less cushion to withstand the events. For emerging markets, the financial channel exceeds the trade channel. For developing countries the trade channel is the first that matters. The results of the research conducted by the International Monetary Fund, a major financial institution, indicate that the transmission of shocks to countries which have lower financial integration in the world, tend to occur predominantly through trade, while the financial channel is more relevant for countries with close financial ties to the advanced economies, where the crisis originated (www.imf.org 2009).

The impact of the crisis on developing countries differed depending on their direct and indirect trade links to crisis affected developed countries. The degree of trade openness of a country was not decisive while the trade composition did make a significant difference. According to IMF

2009 report, countries exporting more advanced manufacturing goods were more affected than those exporting food as the global recession caused a sharp decline in advanced economies' demand. The economies of Latin America which clearly featured higher food product shares in their export composition were able to demonstrate relative resistance to the crisis, given that the primary goods maintained their prices relatively well (IMF 2009, p. 7). Hence, exporters of manufacturing goods appeared to have suffered a sharp decline in the demand for their exports than those of primary products.

The reduced global demand for trade was the first effect of the crisis for transition economies; the second was reduced share of aid and remittances from crisis affected countries. Since the 1990s remittances had increased at a double-digit annual rate at the world level (The World Bank 2006). The IMF experts in 2008 predicted that low-income countries would be affected not only through reductions in export volumes and low commodity prices but also remittances and FDIs. These cuts in turn would put further pressure on public expenditure programs.

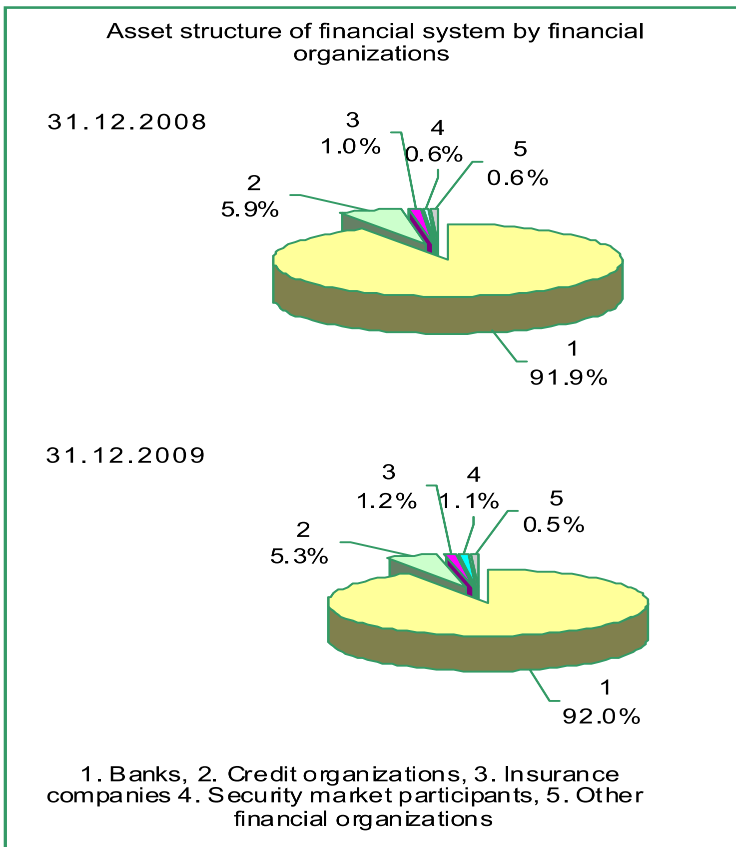
## Chapter 2

As it was stated above, the integration of financial markets is taken as the most effective way to overcome the problems of financial sector development in transition economies. However, it is worth mentioning that there are a number of problems Armenia has encountered as it moves toward a mature integration of its financial markets. The former minister of Finance and Economics of RA, professor of economic sciences Edward Sandoyan finds that in Armenia the actual problems impeding the market's development are the following: institutional problems, an underdeveloped monopolized market, poor legislation of corporate law and shareholder protection rights and overall unattractive business climate. The financial market of Armenia (along with a number of other post Soviet countries) still remains underdeveloped. Although Armenia in comparison with other post Soviet countries has a relatively high level of GNI per

capita, in order to develop financial sector of the economy, it needs a number of systematic changes: implementing legislative, monetary and technological improvements (Sandoyan et al. 2007 ).

Armenia's financial system faces many of the same challenges as their post-Soviet counterparties elsewhere. Expanding financial intermediation since the beginning of 2000 helped the country follow a unique development path. Economic growth has been repressed by serious geopolitical risks, a trade embargo and a desperate shortage of energy. These factors hindered Armenia's integration into the world economy – and the international financial markets as well. The Armenian banking system now comprises 92 percent of the whole financial system assets and this means that banks carry most of the risks in case of a financial collapse in the country while insurance companies, security markets and other financial institutions are rather small to have a possible impact on the financial stability.

Figure 5.



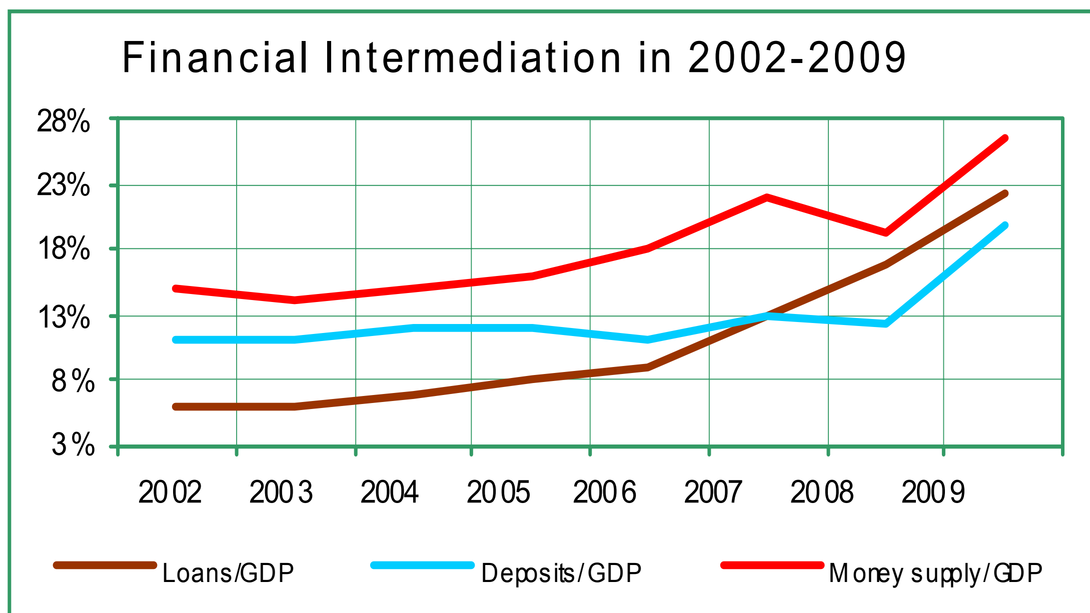

Source: CBA

Comparisons with CIS and CEEC countries indicate that Armenia has little financial integration, arising from being a small economy dependent largely on foreign remittances. International banks in the country are also executing conservative policies. For instance, the largest foreign-based bank in Armenia, Hong Kong and Shanghai Banking Corporation (HSBC) lends a little percent of its liabilities to the private businesses while in other countries it lends from 60 to 70 percent of the liabilities (Mitra et al. 2007).

In comparison with Eastern European and a number of CIS countries, during the Global Financial Crisis capital adequacy and profitability of the Armenian banking system was high enough to absorb risks with its own resources. Moreover, Armenian and foreign bank investors with the purpose to resist economic crisis in the country even replenished their capital by the end of 2009. Even during the crisis Armenian banks kept sufficient solvency level which was mainly conditioned by the high level of capital prior to the crisis. However, as compared with previous years, profitability of the banking system decreased. In 2009 out of twenty-two banks, fourteen

recorded profits and only eight banks recorded loss. The main reason of the profit loss was conditioned by credit and foreign exchange risks (Financial Stability report 2009).

Figure 6.




Source: CBA

The International Monetary Fund classifies Armenia as a low-income country (LIC) (according to the GNI per capita $1,025 or less) (The World Bank 2012). The IMF analysts concluded that the financial systems of "the low-income countries have so far not been strongly affected by the global financial crisis. Their banks have little, if any, exposure to complex financial instruments" (IMF 2009, p.9). The IMF financial experts predicted that the recession would result in a negative impact on the economies of LICs as they were heavily dependent on trade (IMF 2009). In addition, in the Global Monitoring Report (2009) the staff of the World Bank and the International Monetary Fund projected that the financial systems in low-income countries, even when relatively protected from the international financial contagion (because they are less exposed to global financial markets) might be hit by second-round effects, as decline of the economy increases problem loans and limits the availability of domestic financing to businesses (www.imf.org 2009).

This projection was also realistic for Armenia. Over the last quarter of 2008 the banks tightened their lending policies to Small and Medium Enterprises (SMEs) and larger businesses. The banks were prone to more cautious and prudent lending in a conservative manner of borrower selection. Loss of confidence pushed banks to become unwilling to lend at the same rates as before. Though in 2009 some credit easing tendencies were observed, on the whole, the banks were primarily trying to manage risks in the uncertainties of the further developments of the Global Financial Crisis (Financial Stability Report 2009).

However, the Armenian government initiated active steps towards an anti-crisis program for SME protection and development. In response to the crisis, the government was provided with 500$ million loan agreement by Russia for infrastructure projects and on lending to small and medium-sized enterprises (www.imf.org 2009)., the European Parliament and the Council also approved a Macro Financial Assistance operation to Armenia consisting of a grant of EUR 35 million and a loan of EUR 65 million in November 2009 (Decision No 890/2009/EU). With the mentioned foreign assistance the government set its anti-crisis program with provision of financial resources for small and medium-size enterprise lending.

As stated in the country report of the European Investment Bank, Armenia's regulatory and supervisory framework was strong, with what IMF labels "well-resourced and skilled" CBA covering the whole financial sector. The report stated that the Armenian banking sector weathered the financial crisis well with shareholder injections and government provided AMD 60 billion in guarantees for lending to SMEs oriented towards exports or production for the domestic market (www.eib.europa.eu 2013).

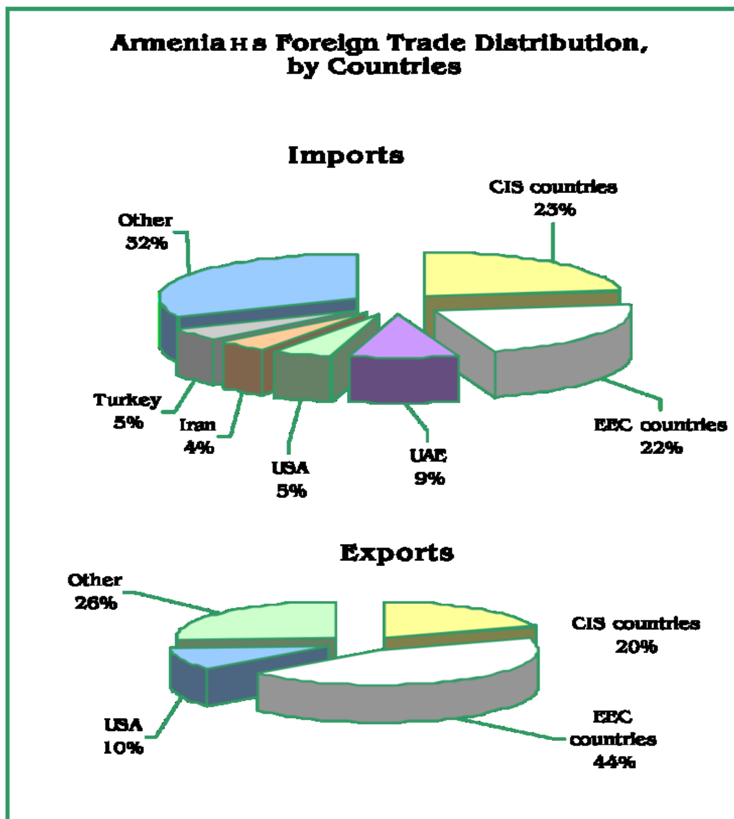
On the other hand, the financial crisis made households and businesses to reconsider their risks. As households view the future being more risky, they discount their future earnings and that affects their saving and spending decisions. Similarly, countries become reluctant to lend to other countries. Such changes in current account balances affect the trade balances and hence exports

and imports (Lin and Treichel 2012). As stated above, the impact of the crisis on developing countries varied depending on their trade relations with the crisis affected countries. Most LICs exported to advanced economies. The negative impacts of the 2008-2009 global economic crises on trade were reflected also in the Armenian foreign trade developments. As an open economy Armenia could not remain immune to influences of the developments that took place in the neighboring and partner countries. Under circumstances of world price reduction and declining demand for some export commodities drastic fall of Armenian exports was observed. In 2009 the export decreased by 34.0 percent. Reduction was registered in all commodity groups mainly provoked by the drop of external demand of partner countries. Reduction of demand for export commodities and non-favorable price environment deepened trade deficit (Financial Stability Report 2009).

Five of Armenia's export partners made up about 70% of total Armenia's exports. The geographic distribution of Armenian foreign trade is rather concentrated. The high level of geographical concentration of Armenian exports is explained by Armenia's landlocked geographical position and closed borders in the east and west with Azerbaijan and Turkey. Besides, among other factors, the country faces a number of significant challenges to its foreign trade development and contestability in international markets: two of its four borders are closed, which raises transport costs and reduces its attractiveness.

The two major foreign trade partners of Armenia are the Russian Federation and the EU. According to the National Statistical Service of Armenia, 85 percent of total exports go to 5 major trading partners: Russia, European Union (particularly Switzerland, Germany, the Netherlands, Belgium and Bulgaria) and then come US, Iran and Georgia and others (http://armstat.am 2008).

Figure 7 .



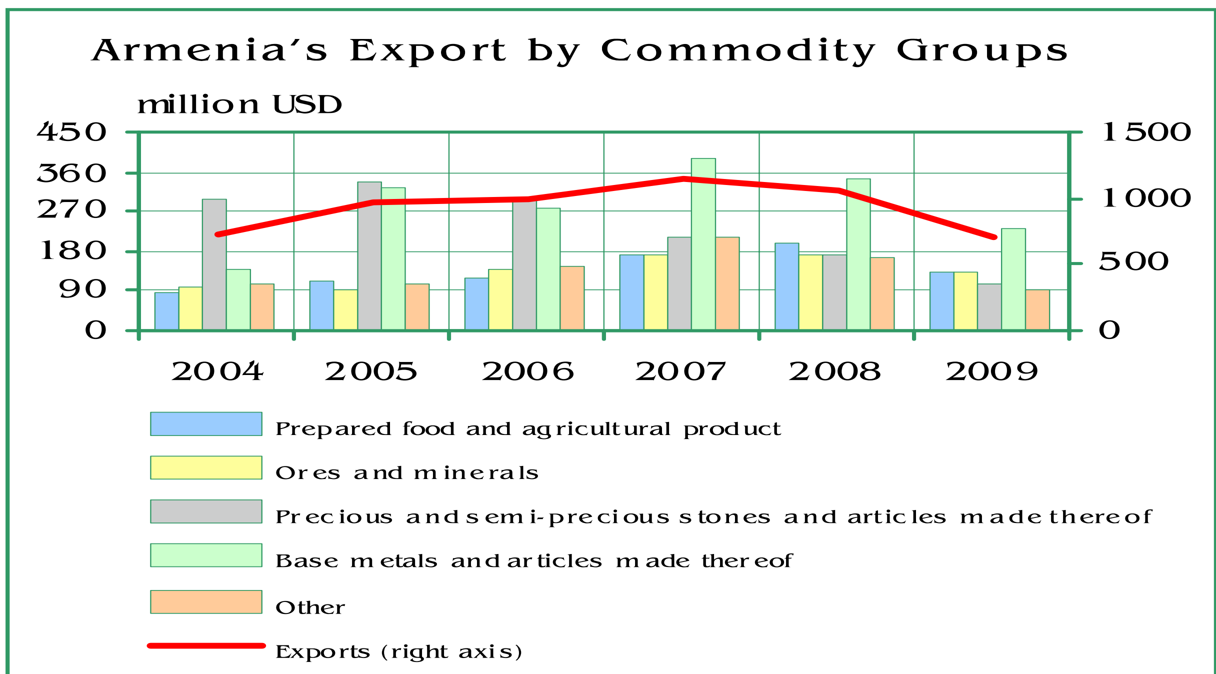

*Source: RA NSS*

The EU was Armenia’s major foreign trade partner in the period before 2008. Almost half of all Armenia’s export in 2006 (47.8%) was directed to the EU. The exports to the EU provided a stable growth over the last decade having grown by 7.6 times since 1997. The ten largest commodity groups exported to EU comprised of precious or semi-precious and non-precious stones, base metals and mineral products, beverages and spirits, cements, rubber and textiles.

Due to economic recessions in these countries the imports propensity [4] dropped which had a negative impact on the Armenian exports. As a consequence, the exports to the Russian Federation and to the EU countries dropped by 20 percent, while the import structure remained unchanged (Financial Stability Report 2009).

Figure 8.

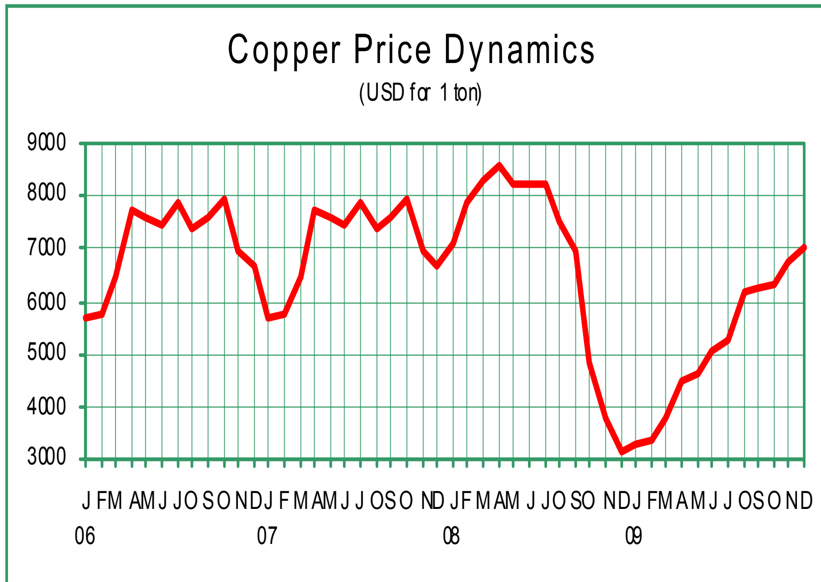
[4] It is the change in imports induced by a change in income. An economy with a positive marginal propensity to consume is likely to have a positive marginal propensity to import because a portion of goods consumed is likely to be imported (www.investopedia.com).

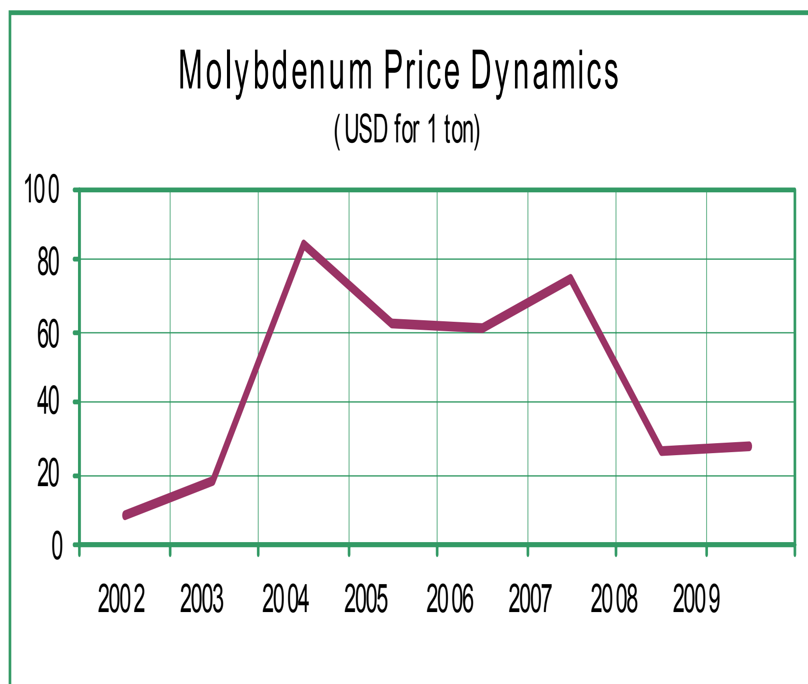


Source: RA NSS

The analysis of the Armenian export composition indicates that the international demand for these commodities (mainly metals and minerals) was prone to fall down. The Armenian mining industry was hit by the fall in global metal prices as Armenia exports mainly ores, metals, particularly copper and molybdenum. Demand reduction, due to economic recession, resulted in copper and molybdenum price cuts and domestic producers reduced the production volumes and some mining enterprises were even on the verge of close-down (Avagyan 2009). Only in the last two quarters of 2009 the production volumes grew again. However, the annual production volume was less than in the previous year (Financial Stability Report).

Figure 9.

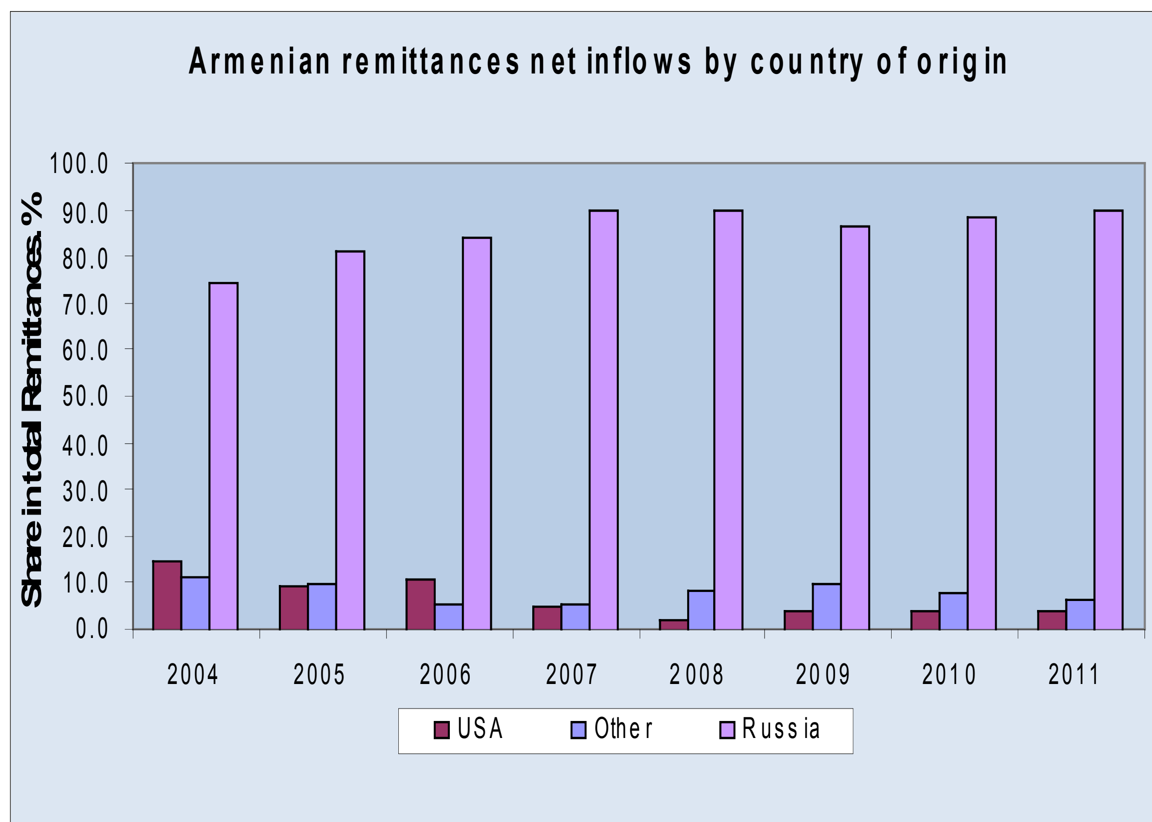



Source: Bloomberg

Armenia is a lower middle-income country. Remittances from migrant workers play an important role in the economy of the country. According to the OSCE nationwide survey in 2008, in the period from January 2002 to December 2007, 20 percent of Armenians were involved in migration. However, the crisis, which originated in the US and seriously affected the Russian economy, had a direct impact on the fall of remittances to Armenia because about 90% of the remittances come from these two countries, most part of them coming from Russia (Saribekyan 2010).

Figure 10.



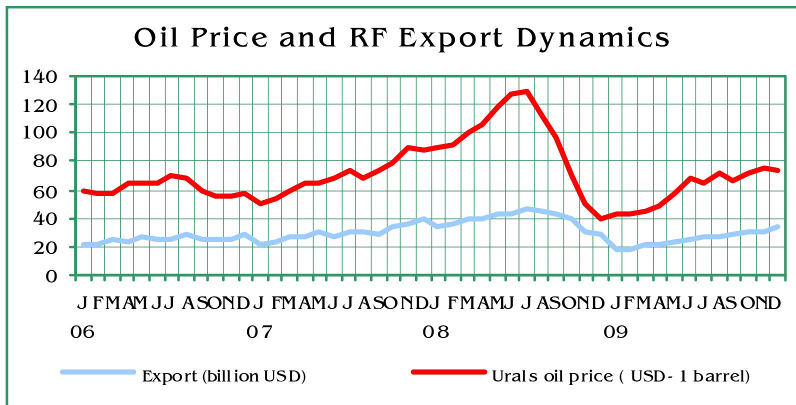

According to the IMF analysis, developments in Russia are an important factor contributing to the economic slowdown in the Caucasus and Central Asian (CCA) countries. Russia's economic condition is of essential importance for the Armenian economy because of the following factors: Russia is considered one of major trade partners of Armenia, Russian investments in different sectors of the Armenian economy are the largest. Russia is also a leading investment partner of

Armenia with investments directed in such key sectors as energy, gas, telecommunications and air transportation sectors. And what is more important: Russia has a large Armenian Diaspora and a lot of seasonal workers making notable remittances to Armenia (Financial stability Report). According to the IMF expert assessments, the Russian economy promotes growth in CIS countries through the channel of private remittances. Among the CIS countries the ratio of remittances to GDP is especially high in Tajikistan, Kyrgyzstan, Moldova and Armenia (Karapetyan and Harutyunyan 2013).

Prior to 2008 the real GDP of Russia grew strongly, driven by trade gains and rising capital inflows. This strong growth provided ample employment opportunities for migrants and remittance flows from Russia to the CCA region. In Tajikistan, for example, remittances accounted for about 50 percent of GDP in 2008, with most Tajik migrants reportedly working in Russia. However, the sharp fall in oil prices and the sudden reversal of capital flows, caused by the global financial crisis, hit the economy hard and resulted in a sharp economic slowdown. Out of the members of the 20 advancing countries of the world (G-20) Russia suffered the deepest crisis (Aganbegyan 2012).

According to the academician of the Russian Academy of Sciences Abel Aganbegyan, there are five channels through which the Global Financial Crisis penetrated into Russia. The first channel was through the stock market crash. As a result, Russian stock market shrank by five times as compared with the stock markets of advanced countries which suffered only 1.5 times. The second channel was through tighter credit conditions to Russian banks, enterprises and organizations which led to a liquidity crisis, pushing a number of Russian banks and companies to bankruptcy. All these factors triggered fall in investments as the investment projects became frozen and postponed for future. Though there had been an unprecedented 21% growth in FDI to Russia in 2007, it was twice less in 2008. The third channel of the crisis to Russia was felt through drastic fall in oil prices (from peak 145$ per barrel to 35$ at the beginning of December, considerable decrease of prices of natural gas, metals and other kinds of raw materials.

Figure 11.




Source: Ministry of Economic Development of RF

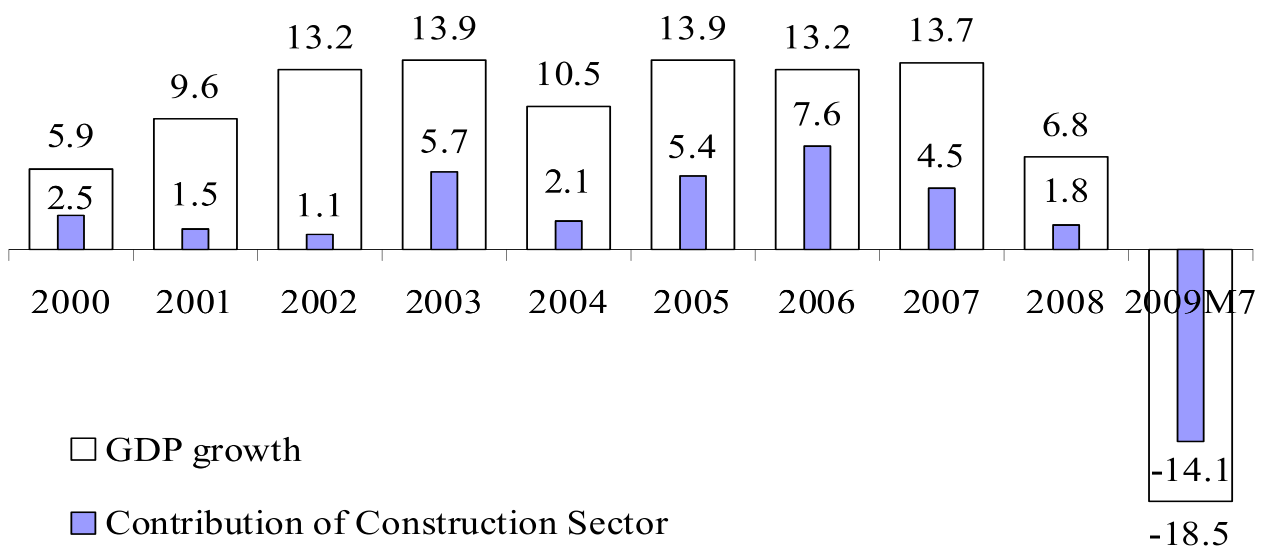
All the above mentioned comprises 85 percent of total exports of which 40 percent of oil products, 20 percent natural gas and 15 percent metals. The fourth channel was through the fall of demand of Russian exported products which consequently led to the shrinking of the industrial production. The last channel through which the crisis became severe in the country was rise of dollar and depreciation of the Russian ruble. The national currency depreciated by about 30 percent against the U.S. dollar since July 2008. As a consequence, domestic shocks exacerbated the pressure in the labor market through lower demand of migrant labor force (Aganbegyan 2012).

The above mentioned economic developments in Russia had a direct impact on the socio-economic developments of Armenia in particular. Armenia heavily depends on remittances, which effectively transfers external shocks to domestic markets (Bagrakyan and Grigoryan 2012). According to the OSCE (2008) survey administered in Armenia, almost 90 percent of the migrants were men working in the construction sector in Russia. Every fifth Armenian household was a remittance recipient during this period (Minasyan et al. 2008). Households in Armenia received remittances measured as the 20 percent of GDP. Remittances from Russia contributed to the growth of private consumption and at the same time the inflows were associated with real estate purchases prior to 2008.

For seven successive years the construction boom was the key driver of double digit growth of Armenia's GDP. During 2001- 2007, Armenia recorded double-digit growth rates each year, on

average by 12.5 percent. More than 30 percent of this growth was directly due to construction. The construction output of real estate reached its peak between 2004 and 2008, with the share of the overall construction sector in GDP increasing from 10 percent in 2000 to 25 percent in 2008. Besides, construction contributed GDP through spillover effects into other industries (e.g., quarrying). Armenia's construction boom was the largest in the world in terms of the share that the construction sector had in the economy. Armenia's boom was mostly foreign financed, concentrated in the capital city and apartment buildings, the finances were directed largely on renovations and development of the real estate. However, with the developments of 2008-2009 Armenia's double digit growth turned into double digit decline (Stepanyan et al. 2010).

Figure 12.

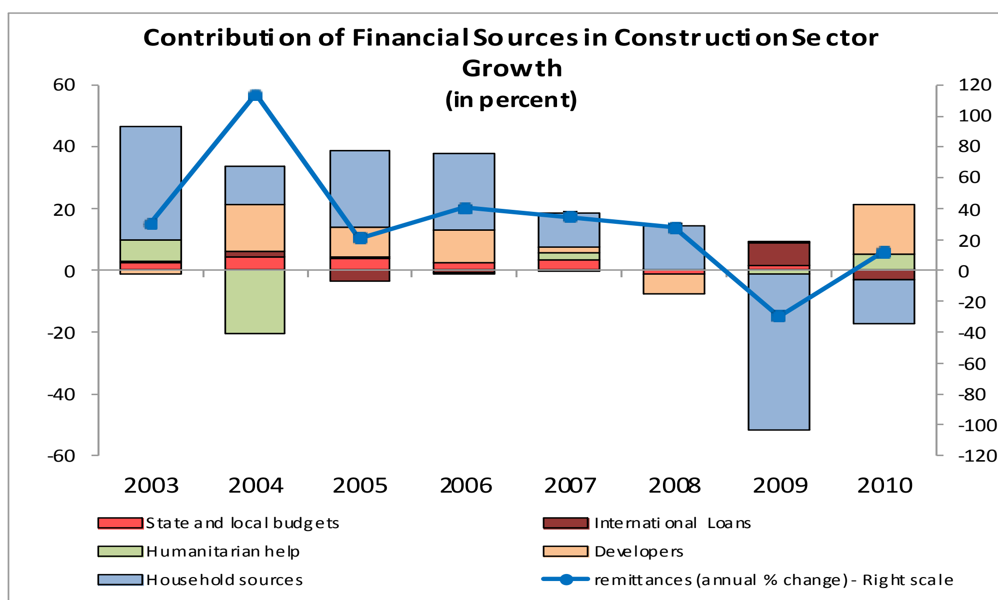



Prior to this period, the Armenian housing stock was limited and poorly maintained. After the collapse of the Soviet Union there came a need to expand the housing stock. Therefore, resident Armenians started to improve both the quality and the quantity of the housing stock. At the same time, the large Armenian diaspora got interested in the emergence and development of real estate to purchase houses and apartments for vacations or as a base in their home country. Social capital formation itself served as a distinct motive for sending remittances, as suggested by Gerber and Torosyan (2013) (Grigoryan 2014).

Economic conditions in Russia continued to improve with increases of oil prices, making it possible for an ever larger share of diasporans and guest workers to jump into the real estate market. Improved country and regional economic stability in the early 2000's attracted a large increase of inflows associated with the purchase of real estate. Moreover, it was becoming obvious that the economic situation in Armenia had stabilized, and prospects for growth had considerably improved compared to the 1990s. The sharp increase in demand triggered a large increase in prices and in construction activity (Stepanyan et al.2010).

However, the construction boom was unleveraged (mostly foreign financed) and consequently the bust did not affect the banking system. Banks did not intermediate foreign flows into real estate construction, and in contrast with most housing booms, lending was not at the center of financing in Armenia. Households did not use mortgages. Mortgages represented only 2.3 percent of GDP at the peak, compared to 40 percent of GDP in Latvia or 94 of GDP in the U.S. Developers accounted for 22 percent of total construction and financed themselves by the way of presales with postponed payments). Therefore, the housing bust was not associated with major stress in the banking system (Stepanyan et al. 2010).

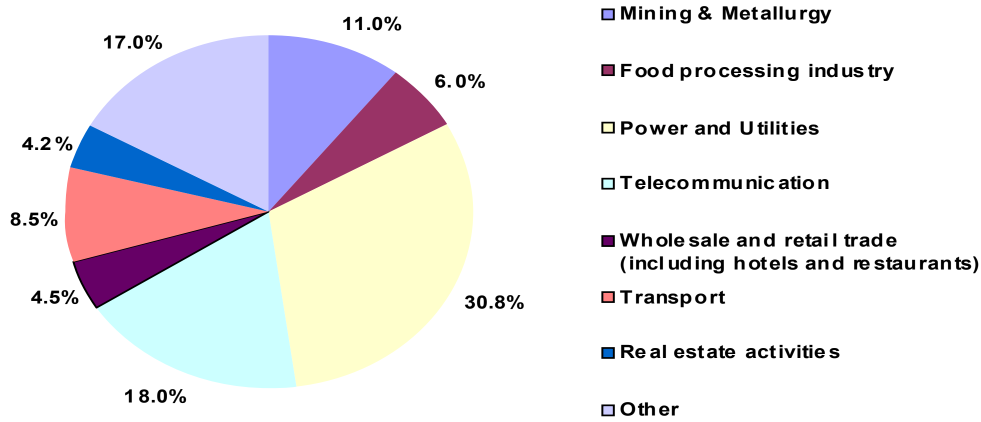
Figure 13.



As stated in the first chapter, we assume that the reduction of Foreign Direct Investments is the third channel of the impact on the Armenian economy. This paper relies on the definition of the foreign direct investments provided by OECD Factbook (2013), according to which FDI is a cross-border investment by a resident entity in one economy with the objective of obtaining a lasting interest in an enterprise resident in another economy. Entities making direct investments typically have a significant degree of influence and control over the company into which the investment is made. Ownership of at least 10% of the voting power, representing the influence by the investor, is the basic criterion used. Open economies with skilled workforces and good growth prospects tend to attract larger amounts of foreign direct investment than closed, highly regulated economies.

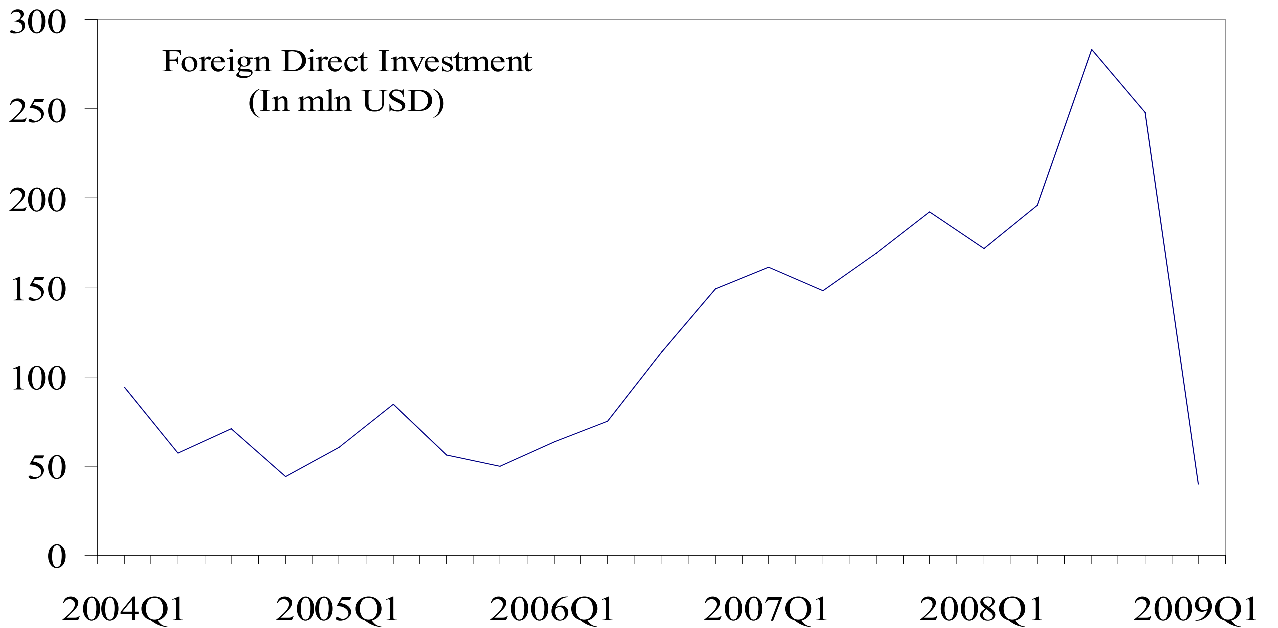
Armenia is consistently rated as having one of the most open economies among the former Soviet states, and it is praised for its positive trade and investment policies as well as its lack of restrictions on capital (www.bti-project.org 2014). However, Armenia presents a particularly challenging and unique development context because of its geopolitical constraints and unresolved conflict with Azerbaijan, its energy dependency and Russia's dominance in major sectors. Hence, the objective of the Government policy in this respect is to provide incentives for the foreign investments aiming to increase the country's exports and stimulate employment. The reforms related to economy and infrastructure, macroeconomic stabilization and economic growth have contributed to the development and implementation of the country's foreign investment policy. According to the National Statistical Service (NSS) Armenia has attracted foreign investments mainly in the following sectors; mining and metallurgy, telecommunication and transportation, power and Utilities and food industry.

Figure 14.




Source: National Statistics Service

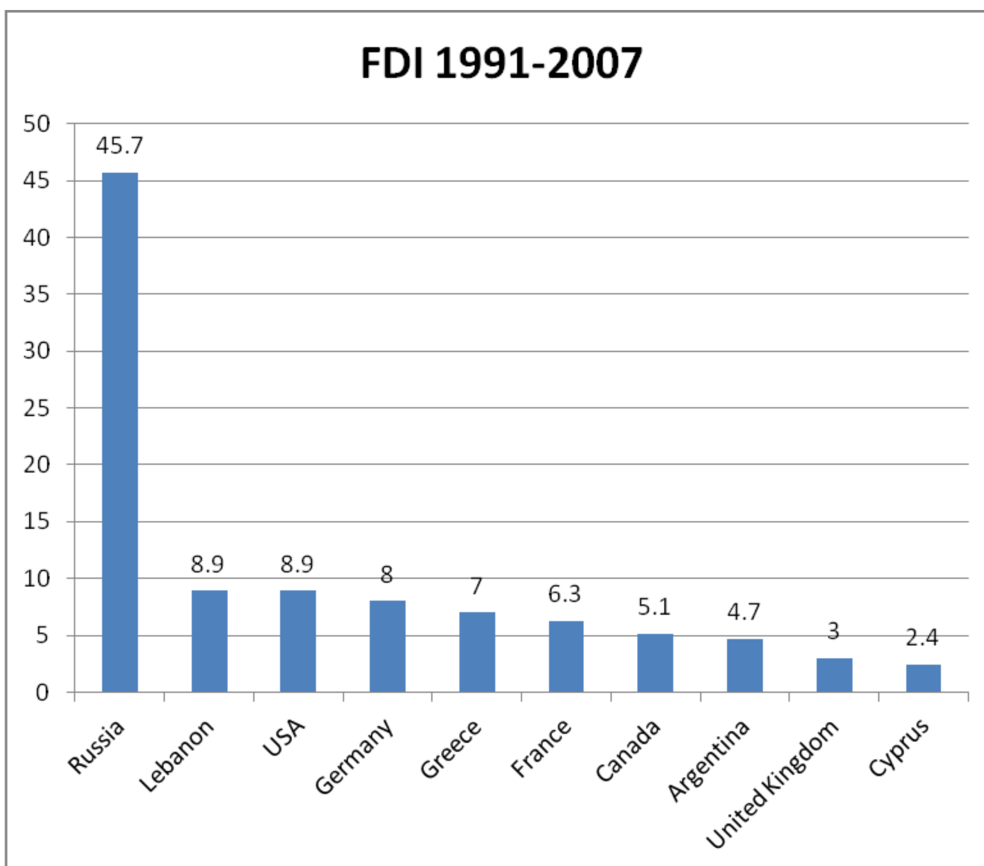
Figure 15.




Source: International Monetary Fund, Balance of Payments Database

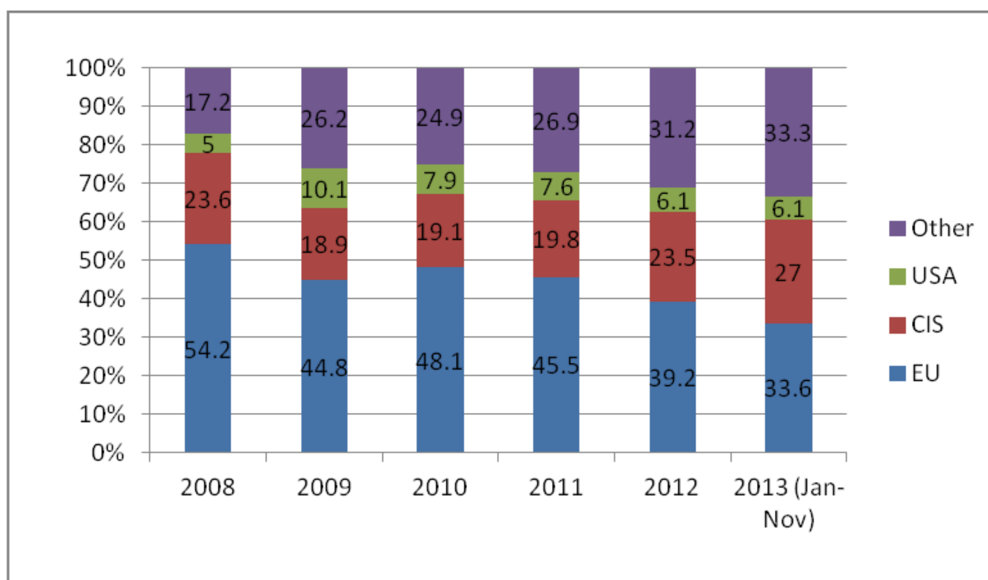
The tables below illustrate the Foreign Direct Investments to Armenia by countries from 2008 to 2013. Though there is not much decline in the percentage of investments during the 2008-2009, we see a new trend in the share of investor countries. The two graphs show that before the crisis (a long time-frame is taken because of the limitations of the provided data) Russian investments significantly prevailed, while after the crisis the EU investments were far ahead. While the EU's investments dominated in the early years before the crisis, Russia's stake in different spheres of the economy is gaining more speed. There are, certainly, political reasons for this, taking into account that Armenia is going to join the Russian-led Custom's Union by May 2014 after making a U-Turn from the Association Agreement with the EU, which took more than three years to negotiate and was signed at the Vilnius Eastern Partnership Summit.

Figure 15.




Source: MFA

Figure 16.




The analysis of the scientific and economic literature indicates that the global financial crisis did not hit the Armenian economy directly because of the country's low integration to international financial markets. Due to the very low level of external financing the impact was moderate as compared with other CIS countries. Armenian banks entered the crisis with a high level of liquidity and capitalization. They had full control over the losses and deposit outflows. During the crisis the banks became more conservative in the management of currency risks (Porter and Schwab 2008).

Since 2006 the Central Bank of Armenia has been independent from the Ministry of Finance and has adopted the function of the only regulator and supervisor of all the actors in the financial system (www.bti-project.org 2014). According to the Head of the Financial System Policy and Financial Stability Department of the CBA Vahe Vardanyan the financial field in that period was not mature enough for financial securities such as banknotes and bonds or any kind of derivatives (Yeranosyan 2009). There were no investments in foreign securities, including structured instruments. The decline of real-estate prices and the consequences of the economic recession, significantly decreased the profitability of banks, but it did not create serious problems

for the system. There was a very low dependence on external financing of both banking sector and corporations, external liabilities were long term and mostly from the international organizations and affiliated companies. The CBA managed to maintain a flexible exchange rate regime ensuring the banking system from a possible collapse (as was the case in Kazakhstan or Ukraine). The Armenian experience proves that the quality of a policy for the financial sector matters more than the country's economic level of development.

## Chapter 3

## Expert Interviews: Content Analysis Results

As previously described the expert interviews were used as a third research tool for the triangulation of the data collected from secondary sources and documents. The interview subject areas were divided into categories and subcategories in which all responses were given equal weight. The first expert interview was conducted with the Deputy Chairman of the Central Bank from 2008 to 2010 and later the Finance Minister of the RA and a professor on Public Administration at the American University of Armenia Vache Gabrielyan. The second interview was conducted with the chief expert of the *Financial System Stability and Development Department of the Central Bank of Armenia.* The third was the senior specialist of the Strategy and Risk Management Department of ArmEconom bank. The fourth interviewee was the senior economist of the CBA in 2008-2012 and current professor at AUA Aleksandr Grigoryan. The last expert was the Development Director at Ameriabank.

There is an important note as to the frequencies from the above interviews. The initial conversations with all the interviewees were summarizations and explanations of the crisis. The information communicated was a direct restatement of the secondary data details described in the second chapter. This initial part of the interview was not used for frequency counts. After the opening discussion the questions testing the expert's considerations of the developments of 2008-2009 were given. The frequencies of the following categories were counted. Under *remittance reduction* as a crisis impact there were three subcategories: construction, and dependency on Russia. The focus on three subcategories is explained by the fact that as discussed in the second chapter the remittances were the main drivers of consumption and construction and they were highly dependent on Russian economic developments. According to the overall counts of the three indicators of the remittance category consumption, construction and dependency counted 50, 35 and 45 mentions respectively applied in all the five discussions.

In the *export* category, there were the following subcategories: mining industry, fall in export volumes and fall in commodity prices. The selection is based on the assumption that as mentioned by the experts mining industry represents the largest and the main share in the export composition and the exports suffered both from the fall in global commodity prices and the fall in export volumes conditioned by the low demand from the crisis affected countries. In the category *Foreign Direct Investments* the three categories or reasons of this sector's role in the transmission of the crisis were liquidity crisis in the home countries, lack of trust towards domestic business (given the uncertainties of the crisis developments) and limited sectors for investors. Besides emphasis on the certain categories other areas of impact were also mentioned but as the current paper focuses on the three categories as transmission channels, the main focus is kept on them. The table below represents the above discussed categories and subcategories.

| Category 1 | Remittances | | |
|---|---|---|---|
| Subcategory | Construction | Consumption | Dependency on Russia |
| Score | 50 | 35 | 45 |
| Category 2 | **Export** | | |
| Subcategory | Mining Industry | Reduction in Commodity Prices | Reduction in Volumes |
| Score | 30 | 30 | 25 |
| Category 3 | **Foreign Direct Investments** | | |
| Score | 20 | 10 | 5 |

The counts within each category were explained. It is also obvious from the table that higher numbers are registered in the remittance and export categories (remittance number being higher than the export) than in the FDI category. This explains that the experts perceive remittances as being the first channel of the transmission of the crisis, the second in terms of its significance is export and only then the FDI category follows. As specified by them, the impact of FDI is not resonant in the economy of the country, while foreign trade and exports play a far more dominant role in the economic activity of the country. The category of foreign transfers/ remittances was of particular significance because of its direct effect on the economic activity of the citizens. This category with its three subcategories was the most frequently mentioned.

The experts explained the main factor of the “success” of the financial system being the non-application of the complex financial instruments which were widely used in the US and European countries and the strict regulation of the system by the CBA. They claimed that the banks were affected by the fall of loan demands, but overall, they did not suffer liquidity crisis like the banks in the rest of the post Soviet space.

However, as opposed to the non-integrated financial system, the real sector was integrated to the world economy and was hit severely. Decreasing remittances, exports (both in volumes and commodity prices) and FDIs were the channels that made the crisis critical in the country.

All the experts were unanimous that the remittances were the main driver of the consumption and the GDP since Independence. As GDP is the sum of consumption (C), investment (I), government expenditure (G) and net exports (X – M), given that government expenditures are moderate, investments and savings in Armenia have a low rate and the trade balance is desperately negative (according to the European Commission estimations the trade ratio is 1:4), GDP is a rough gauge of aggregate consumer power. Given that Russia and the US, which together constitute more than 70% of the Armenian Diasporan population worldwide, are the two remittances sending countries, this makes the Armenian economy extremely vulnerable to external shocks.

The remittance category overall recorded one hundred and thirty mentions while in the separate subcategories *construction* and *dependency on Russia* there were forty- five and fifty counts respectively which means that the balance across subcategories characterizes the holistic approach necessary for the true estimation of the remittance category. The experts confirmed that the remittances were directed to the purchase of real estate, therefore, the housing boom was not associated with major resonance in the banking system: it was not mortgage-based. And the house price boom, they mentioned, as in many other countries in that period, was speculative: prices were conditioned not by real demand but they were artificially set by the developers in the housing market.

The second area of impact suggested in the research, that is, *export category* recorded sixty-five counts, which makes it the second most equal with remittance counts. This illustrates a relatively balanced application of the two main category-areas of the impact theory. While the third *FDI category* remains with the least number of thirty-five counts. As explained by the experts Armenia generally registers low rate of foreign investments because of the limited natural resources and the unattractive legislation and business climate for foreign investors, hence, the world economic crisis was not a major reason for it.

**Conclusion**

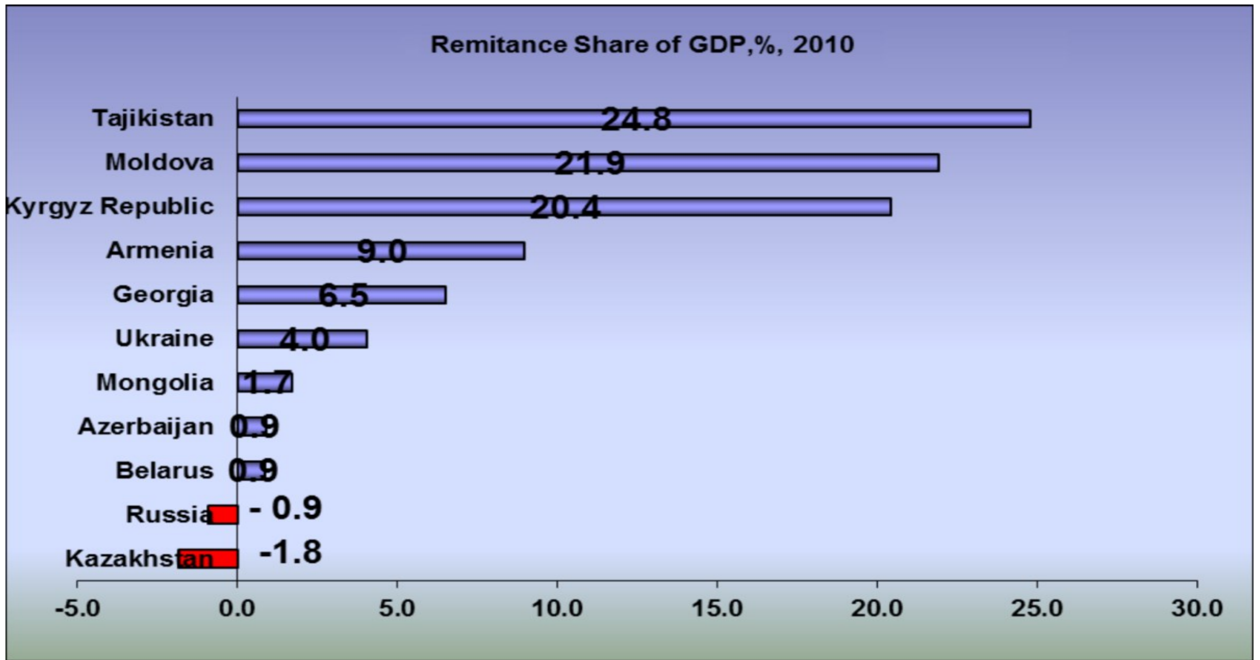
The secondary data analysis of IMF and World Bank working papers revealed that the hypothesis of the paper can be accepted. The impact of the crisis was indirect because Armenia is less exposed to global financial markets. At the peak of the crisis Armenia suffered from a drastic reduction of remittances, export volumes and FDIs. The research questions raised in the paper were thoroughly proved and explained. The content analysis of semi-structured interviews with key informants during the crisis concludes that the impact of the crisis was indeed indirect. The content analysis on the three suffered sectors of the economy: construction, export and FDIs concluded that the most frequently mentioned channel of the crisis is by remittances. The experts were unanimous that the key channel of the impact was remittances and only then the two other channels: export and foreign investments mattered. Taking into account that the remittances contribute to the households directly, their impact on the households' consumption and investment, consequently, the economic activity is the most significant. In the case when two-thirds (six million) of Armenians live abroad and almost half of the local population seeks employment in Russia and this result in net migration. The Diaspora, certainly, has a dominant influence on Armenia's development and greatly contributes to the domestic socio-economic processes. On the other hand, Armenian economy's high dependence on migrant worker

remittances for growth remains a major weak spot and leaves the economy at the mercy of Russian economic cycles.

**Appendix**

This is the framework suggested by Vache Gabrielyan.

## "Second- hand Dutch Disease"


Remitance Share of GDP,%, 2010
Tajikistan
Moldova
Kyrgyz Republic
Armenia
Georgia
Ukraine
Mongolia
Azerbaijan
Belarus
Russia
Kazakhstan
24.8
21.9
20.4
9.0
6.5
4.0
1.7
0.9
0.9
- 0.9
-1.8
-5.0
0.0
5.0
10.0
15.0
20.0
25.0
30.0

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