### THE MINISTRY OF EDUCATION OF THE REPUBLIC OF AZERBAIJAN

## **AZERBAIJAN STATE UNIVERSITY OF ECONOMICS**

## INTERNATIONAL GRADUATE AND DOCTORATE CENTER

### MASTER DISSERTATION

### **ON THE TOPIC**

# "THE ROLE OF FINANCIAL INTERMEDIARIES IN ECONOMIES: EVIDENCE FROM AZERBAIJAN"

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Elm andı

Mən, Adilli Nurtac Yalçın qızı and içirəm ki, "The Role Of Financial Intermediaries In Economies: Evidence From Azerbaijan" mövzusunda magistr dissertasiyasını elmi əxlaq normalarına və istinad qaydalarına tam riayət etməklə və istifadə etdiyim bütün mənbələri ədəbiyyat siyahısında əks etdirməklə yazmışam.

## "MALIYYƏ VASİTƏÇİLƏRİNİN İQTİSADİYYATDA ROLU: AZƏRBAYCANDAN SÜBUT"

#### XÜLASƏ

Tədqiqatın aktuallığı: Maliyyə vasitəçilərinin fəaliyyəti qeyri-neft ÜDM-inə təsir göstərir. Azərbaycanın büdcəsi daha çox neftlə əlaqəli sektorlardan asılıdır. Buna görə də bu fakt araşdırmanı aktuallaşdırır.

Tədqiqatın məqsədi: Tədqiqatın əsas məqsədi maliyyə vasitəçilərinin ümumi iqtisadiyyatda rolunu araşdırmaq, Azərbaycandakı vəziyyəti, mövcud vəziyyətin yaxşılaşdırılması yollarını təhlil etmək, maliyyə vasitəçilərinin rolu ilə bağlı problemlərə həll yollarını təqdim etmək və bunları açıqca izah etməkdir.

İstifadə olunmuş tədqiqat metodları: ARDLBT metodunun bir çox faydaları var, buna asan tətbiq olunması da daxildir.

Tədqiqatın informasiya bazası: Bu tədqiqatın əksər məlumatları etibarlı mənbələrdən əldə edilmişdir. İllərə görə statistik məlumatlar Azərbaycan Mərkəzi Bankının saytından götürülmüşdür. Bundan əlavə çox sayda ədəbiyyatdan istifadə edilmişdir.

Tədqiqatın məhdudiyyətləri: Etibarlı məlumat mənbəyini tapmaq üçün bəzi çətinliklər var. Ancaq çox ədəbiyyat oxumaq bu məhdudiyyəti azaldıb.

Tədqiqatın elmi yeniliyi və praktiki nəticələri: Tədqiqat nəticəsində məlum olub ki, bank olmayan təşkilatlar tərəfindən verilən kreditlərin təsiri, bank təşkilatlarının verdiyi kreditlərdən daha çox qeyrineft ÜDM-inə statistik olaraq əhəmiyyətli dərəcədə təsir göstərir.

Nəticələrin istifadə oluna biləcəyi sahələr: Araşdırmadan əldə olunan nəticələr maliyyə vasitəçilərinin iqtisadiyyatda rolunun artırılması, ən əsası, neftin Azərbaycan büdcəsindəki rolunun azaldılması və ölkənin xidmət sektorunun şaxələndirilməsi üçün istifadə edilə bilər.

Açar sözlər: Maliyyə vasitəçiləri, bank kreditləri, qeyri-bank kreditləri, Azərbaycan iqtisadiyyatı

### "THE ROLE OF FINANCIAL INTERMEDIARIES IN ECONOMIES: EVIDENCE FROM AZERBAIJAN"

#### SUMMARY

Actuality of research: Performance of financial intermediaries has an impact on non-oil GDP. The budget of Azerbaijan mostly depends on oil-related sectors. Therefore this fact makes research actual.

Purpose of research: The main purpose of the research is to examine the role of financial intermediaries in the overall economy, to analyze situation in Azerbaijan, the improvement ways of this existing situation, to introduce solutions to the problems related to the role of financial intermediaries and to explain them clearly.

Used research methods: The ARDLBT method has many benefits, including easy applicability in small samples using Ordinary Least Squares (OLS).

The information base of the research: Most of data of this research is obtained reliable sources. The statistic information according to years is taken from the site of Central Bank of Azerbaijan. Besides that a large number of the literature has been used.

**Restrictions of research: There has been some difficulties for finding source of reliable data. But reading a lot of literature has decreased limitation.** 

The novelty and practical results of investigation: The research found out that the impact of credits given by non-bank organizations has statisticially significant effect on non-oil GDP rather than credits given by bank organizations.

Scientific-practical significance of results: The results obtained from the research can be used for increasing the role of financial intermediaries in economy, most importantly, for decreasing the role of oil on the budget of Azerbaijan, and diversifying the service sector of the country.

Keyword: Financial intermediaries, bank credits, non-bank credits, Azerbaijan economy.

# ABBREVIATIONS

CBAR	Central Bank of Azerbaijan Republic
ETF	Exchange Traded Fund
IMF	International Monetary Fund
EU	European Union
ARDLBT	Autoregressive Distributed Lag Bound Testing model
TLS	Two-Stage Least Squares
OLS	Ordinary Least Squares
ARDL	Autoregressive Distributed Lag
GDP	Gross Domestic Product
NBCO	Non-Banking Credit Organization
VAR	Value at risk
ABA	The Association of Banks of Azerbaijan
SIC	Schwarz Information Criterion
ADF	Augmented Dickey-Fuller method

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# **INTRODUCTION**

**Relevance of the research topic:** The notion of the financial market is a newer concept than the other elements of the financial system and is interpreted differently in different literature. Its main role in the economy is to redistribute financial resources. Thus, the formation of financial resources, its more efficient distribution and targeted use are regularly managed by the financial market. Analyzing the financial intermediaries in Azerbaijan can improve the economy overall.

**Statement of the problem and learning level:** The problem is that the most of budget of Azerbaijan depends on the revenues coming from oil sectors. Therefore learning the structure of financial intermediaries at the national level can improve non-oil sectors in countr, especially service sectors.

**Purposes and objectives of the research**: The financial market is a form of market where financial resources act as commodities. In other words, the financial market is a market that distributes cash among economic entities. Its main purpose is to ensure efficient mobilization of funds and their transfer to those in need of financial resources. There is a special role of financial intermediaries in the implementation of financial and economic functions of the state. So to develop the performance of non-oil sectors and improving the role of financial intermediaries in economy and eventually improving non-oil GDP.

**Object and subject of the research:** The financial market is a financial institution that allows saving depositors to provide funds directly to borrowers. One of the key factors in the emergence of the financial market is the uneven distribution of financial resources. This is because during this division there is an excess of financial resources on the part of enterprises and the lack of financial resources on the other. At the same time, the financial market acts as an important form of securing the movement of financial resources from one enterprise to another. Thus, the financial market plays a role in facilitating the flow of funds to those in need.

**Research methods:** Augmented Dickey-Fuller is used for unit root test of measurable variables, Maximum lag order is set to 10, and optimal lag order (k) is selected based on the Schwarz Information Criterion (SIC) in the Augmented Dickey-Fuller test; \*\*\*, \*\*, and \* indicate the rejection of the null hypotheses at 1%, 5%, and 10% levels of significance, respectively. The critical values for the ADF are taken from MacKinnon (1996), whereas the ones for the Estimation period: 2000-2020

Research database: Both international and national literature has been used.

Research limitations: The reliability of information is hard to check.

**Scientific novelty of the research:** The conclusion from the research shown that the performance of financial intermediaries in the country is limited as the investment funds has not been developed very well. Therefore, financial sector must be improved.

**Scientific and practical significance of the results:** The conclusion of the research found out that the role of non-banking credit organizations must be increased.

## CHAPTER 1. THE ROLE OF FINANCIAL INTERMEDIARIES IN A MARKET ECONOMY

#### **1.1.The Historical Development of Financial Intermediaries**

The modern market economy is a complex system that combines many elements. Households, firms, resource and product markets, and government agencies that create connections between these entities perform specific functions to form a single economic system. In this economic system, some economic entities have free cash, while others need additional cash. Thus, part (large part) of the company's annual10 income is spent on consumer spending and the rest on savings (Arestis, P., & Demetriades, P. O., 1997).

Usually, those who have free money and those who need it are different. In this sense, the emergence of financial assets in the economy is due to the fact that the savings of citizens, firms and the government differ from the amount of their investments in real assets. Under such conditions, the normal development of the economy requires the mobilization of temporarily free funds of individuals and legal entities on a commercial basis and their redistribution between different sectors of the economy. In this regard, the existence of an improved financial market that creates a link between those who have free money and those who need such funds is important in ensuring the effective development of the economic system (Bakwena, M., Bodman, P., & Sandy, S., 2008).

The financial market is a mechanism that connects those who have free money with those who need it through financial instruments and with the participation of financial institutions. Its purpose is to distribute the collection among end users. That is, if there is an excess of financial resources in one area and a shortage in another area, the flow of funds from one area (entity) to another occurs. This flow is carried out through financial intermediation and financial markets

It should be noted that cash that is not used as capital, which serves the population, the cash desks of enterprises and organizations, as well as the purchase and sale of goods and services in bank accounts, is not included in financial capital (Mammadov Z.F., 2006).

If we look at the nature of financial markets on a global scale, it should be noted that financial institutions mobilize and accumulate money in the regions, countries and around the world, turning it into loan (debt) capital. This is distributed among regions and countries through the credit (investment) mechanism, thus creating conditions for equalization of profit norms on a large area and synchronization of the development cycle of the world economy.

If economic entities could save money and make investments, it would be possible to ensure economic development without financial markets. However, if there is the greater the difference between the investments of economic entities and their savings, then there is the greater the need for the existence of efficient financial markets for the distribution of savings in the country among end consumers. The existence of efficient financial markets is absolutely necessary to ensure the appropriate amount of free capital and economic growth of the state. The fact that businesses make as many as investments they can save them from giving up many investment projects. In this regard, the development of the financial market allows the implementation of large investment projects based on the mobilization of large amounts of funds.

In an economic system based on market relations, financial markets are an important tool for ensuring macroeconomic balance, especially financial stability. The formation of an efficient financial market in the country is one of the main conditions for mitigating the negative effects of global commodity and financial markets (Sadikhov H.B., 2003).

The emergence of financial structures in the economic system of the country is associated with the costs incurred by economic entities in obtaining information and carrying out transactions while attracting debt obligations.

The study of the current state of domestic financial intermediation and the correlation of the results obtained with the stages of economic development make it

possible to determine at what stage of development the domestic financial and banking sectors are, to outline approaches to overcome the lag behind world leaders. To understand the causes of negative phenomena in the economy, financial and banking sectors, it is necessary to find and substantiate the signs that characterize the level of development and forms of financial intermediation, to link them with the stages of economic development. Based on the study of the functions of financial intermediation institutions, the paper analyzes various aspects of the emergence and development of financial intermediaries, changes in their functions. The study of the phenomenon from the point of view of functions is most useful for financial intermediaries, since their functions are more stable in contrast to institutions that change under the influence of competition or financial innovation. The study of the main stages of economic development allows us to identify the periods of the emergence and development of financial intermediation and the corresponding expansion motives, when each stage of development has its own functions and forms of expansion. This allows us to understand the reasons for the weak involvement of domestic intermediaries in the value chain, finding them at the level of the exchange fund. Domestic intermediaries participate in the creation of new value only through simple intermediation in attracting customer funds survive mainly due to simple (primitive) exchange operations, not being able to accumulate their own resources, to engage in investment business. The theoretical prerequisites for the study of financial intermediaries outlined in the work make it possible to identify their essential features, highlight and systematize the main approaches to the study, and determine the sequence of formation of expansion motives for further research (Зверьков А.И. 2013).

Since ancient times, human and social needs have forced people to engage in various operations related to money, in particular, their circulation, storage and issue on a certain security. The world knows many ancient sources that have come down to us and that mention the Babylonian banks dating back to the 8th century BC. Babylonian bankers kept money for a fee, issued money (loans) on a certain security.

It is also known about the activities of banks in ancient Egypt, which were exclusively under the jurisdiction of the state. These banks carried out such operations as selling, exchanging or buying coins, accepting deposits, issuing funds on collateral, etc. The activity of banks in ancient Rome is also known: they accepted deposits, and through them it was possible to transfer money to another bank, etc. Even in ancient times, banks played a certain role in the country's economy. In the modern world, banks occupy one of the key positions in the country's market economy; everyone needs banks in the era of the dominance of the service sector in the economy.

There are many definitions of the term bank. Bank is a financial institution, the main activities of which are raising and placing funds, as well as making settlements. From an economic point of view, banks act as intermediaries in the money market between those who have free funds and those who need additional resources.

There are two types of building a banking system, depending on the functions that they perform:

1. One-tier (distributive, centralized) - typical for countries with undeveloped economic structures. All banks perform similar functions for credit and settlement services for the economy. In fact, credit resources are distributed from one center. The Central Bank acts as a single credit and settlement center.

2. A two-tier system is typical for countries with developed market economies. At the top level - the Central Bank, at the bottom - the rest of the banks.

The Central Bank performs the following functions:

- The function of monetary regulation - the conduct of monetary policy;

- Monopoly issue of banknotes;
- Bank of banks;
- Government Bank;
- Foreign economic function.

Commercial Banks perform the following functions:

- Accumulation of temporarily free funds;

- Financial intermediation function:

a) On credit;

b) In calculations;

c) On the securities market;

- Creation of means of payment.

Let's take a closer look at the structure of a two-tier banking system:

Universal CBs are financial structures that perform a wide range of lending operations for individuals and legal entities, as well as provide various types of services.

Specialized banks are credit and financial institutions with a narrow specialization: Mortgage - loans secured by land and real estate;

Investment - carry out lending for certain investment projects, act as a guarantor and participant in a syndicate for the issue of new shares, bonds and place them among investors;

Consumer loan banks - buy interbank loans and issue short-term loans for the purchase of expensive durable goods;

Savings banks - raise funds from the population at interest, purchase government loan bonds and provide loans to individuals (Məmmədov Z.F, 2002).

One of the main roles of banks in the economy is lending. A loan is a banking operation in which a bank provides a certain amount of money to an individual or legal entity, for a certain time and at a certain percentage specified in the agreement. For a bank, credit is the most important source of income. Also, the loan forms the bulk of the bank's net profit, which can be used to pay dividends to the bank's shareholders.

Credit operations, playing an important role in the development of banks and enterprises, determine the efficiency of the country's economy as a whole (Bagırov D., Hasanli M., 2011). There are several types of loans according to their purposes, form and term:

1. A consumer loan is a loan that is issued to individuals for the consumer needs of the borrower.

2. Mortgage loan - issued secured by real estate

3. Emergency loan. Payment on a bill of exchange may be secured in full or in part of the bill of exchange by means of an aval (bill of exchange). This collateral is given by a third party or even one of the signers of the bill.

4. Acceptance loan. It is used in foreign trade. It consists in lending to the importer through the bank's acceptance of drafts (bills of exchange) issued to him by the exporter.

5. Factoring. This is the collection of the accounts receivable of its customers and the receipt of payments due in their favor. In factoring transactions, invoices and payment requests are sold.

6. Forfaiting. This is a credit operation in which the exporter, having received bills of exchange (drafts) accepted by the importer from the importer, sells them at a discount to the bank. The advantages of forfeiting include: acceleration of capital turnover due to advance payments of buyers, exemption of exporters from currency risks of non-payment, increased liquidity of exporting enterprises by reducing accounts receivable and increasing the level of cash, the possibility of new capital investments.

7. Lombard loan - a loan secured by securities. In case of default, the securities become the property of the bank.

8. Leasing. The objects of leasing are machines, mechanisms and vehicles, and the subjects are equipment manufacturers, lessors, lessees and banks participating in leasing operations. The content of the leasing operation consists in the fact that the bank buys the appropriate equipment and transfers it to the user, who pays a fee through the operation of the purchased machines, mechanisms and vehicles (Фролова T.A., 2016).

It can be noted that in modern conditions the role of banking systems in the country's

economy is key.

At the present stage of the formation of the economy, the banking system is of great importance for the stability of the national economy and its development. The banking sector plays such a role in the development of the national economy through the implementation of monetary policy. In a market economy, monetary policy becomes a key element that leads to the development of the national economy. The banking sector, in turn, is the main center for maintaining credit relations and that is why it plays an important role for the development of the national economy. We can say that the banking sector is a connecting link in the country's financial system, the so-called blood vessels for the national economy.

Banks have a specific purpose and perform certain functions. As enterprises are regulating monetary relations, performing a variety of banking and other operations, banks are subject to economic laws, general and special legislative norms. Banks are able to adapt to their environment. Reacting to the changing needs of the market, adapting to modern life, taking into account new phenomena in the economy, politics, political structure of society, the banking provides an analysis of the technology that should be applied in specific economic situations, at the stages of crisis or recovery, in a stable or unstable environment (Лаврушин О., Валенцева Н. & Фетисов  $\Gamma$ ., 2013).

#### **1.2.Types of Financial Intermediaries in Contemporary Economies**

The function of redistributing temporarily free financial resources of individuals and legal entities, who are depositors or investors, to persons for whom these resources are necessary in order to carry out expanded reproduction, is performed by the financial market. The main participants in ensuring the effective functioning of the financial market and the redistribution of financial resources are financial intermediaries, the development of which is a necessary prerequisite for the formation of other sectors of the country's economy. Availability of promising financial intermediaries - banks, insurance companies, non-state pension funds, credit unions and other financial institutions contributes to the stable and predictable

development of all economic processes in society.

By accumulating significant amounts of funds, financial intermediaries are a powerful source of investment in the Russian economy. In connection with the above, it is advisable to consider the essence and role of financial intermediaries in the development of both the financial market and the financial system of the country as a whole (Abbasov A.H., 2003).

Financial intermediaries are organizations specializing in organizing the interaction of individuals and legal entities with temporarily free funds with persons in need of funds.

They can be divided into four groups:

Deposit-type financial institutions;

Contractual savings institutions;

Investment funds;

Other financial organizations

The most common financial intermediaries are deposit-type institutions. These include commercial banks, savings banks, credit unions, mutual credit societies. Banks are universal financial intermediaries. In accordance with the article of the Banking Code of the Republic of Belarus, they have the right to carry out the following banking operations:

Attracting funds from individuals and legal entities in deposits and deposits;

Placement of attracted funds on its own behalf and at its own expense on terms of repayment, payment and urgency;

Opening and maintaining bank accounts of individuals and legal entities;

Opening and maintaining accounts in precious metals;

Providing settlement and (or) cash services to individuals and legal entities, including correspondent banks;

Currency exchange operations;

Purchase and sale of precious metals and precious stones in cases established by the

legislation of the Republic of Belarus;

Attraction and placement of precious metals and precious stones in deposits (deposits);

Issuance of bank guarantees;

Trust management of funds, precious metals and precious stones;

Collection of cash, currency and other valuables, as well as payment documents (payment instructions);

Storage of precious metals and precious stones;

Issue of bank plastic cards into circulation;

Financing against the assignment of a monetary claim (factoring);

providing individuals and legal entities with special rooms or safes located in them for storing documents and valuables (cash, securities, precious metals and precious stones, etc.);

Surety for third parties, providing for the fulfillment of obligations in cash;

Acquisition of the right (claim) to fulfill obligations in cash from third parties;

Financial lease (leasing);

Consulting and information services;

issue, sale, purchase, accounting, storage of securities that perform the functions of a settlement document, and other operations with these securities, as well as with securities confirming the attraction of funds to deposits (deposits) and accounts;

Transportation of cash, currency and other valuables;

Protection of objects is belonging to the bank (funds and other property), as well as the protection of their staff members.

In accordance with the current legislation, banks have the right to carry out other activities, with the exception of insurance, production and trade (except for cases when this activity is carried out for their own needs) (Rajan, Raghuram G., and Luigi Zingales., 1998).

Savings banks in most countries were created on the initiative of the state or

individuals to attract small savings and use them in general interests (assistance to the state, local governments), without pursuing the goal of making a profit. Currently, savings banks have a special legal status, and their activities and benefits are regulated by special regulations that allow the population to take long-term loans for housing construction at low interest rates. Savings banks do not have large incomes and their profits are negligible. This is due to the fact that the main goal of savings banks is not to make a profit, but to provide services to the state and the population, and in all countries savings banks and savings banks attract a significant share of all deposits of the population (usually from one third to one half).

Credit unions are credit cooperatives organized by groups of individuals or small credit institutions. They are presented in two main types. Credit unions of the first type are organized by a group of individuals united on a professional or territorial basis. Credit unions of the second type are created in the form of voluntary associations of independent credit partnerships. The capital of credit unions is formed by paying for shares, periodic contributions of their members, as well as issuing loans. They carry out such operations as attraction of deposits, provision of loans secured to members of the union, accounting of bills, trade, intermediary and commission operations, consulting and audit services.

Mutual credit societies are a type of credit organizations that are similar in nature to commercial banks serving small and medium-sized businesses. Individuals and legal entities that form the capital of the company at the expense of entrance fees can be participants in mutual credit societies. When accepting a mutual credit company, the admissions committee assesses the applicant's creditworthiness, guarantees or presented to him, property security and determines the maximum allowable amount of the loan to be opened for him.

Upon joining, a member of a mutual credit society contributes a certain percentage of the loan opened to him as payment of a share contribution, undertakes to be liable for his debts, as well as for the company's operations in the amount of the loan opened to him. Upon retirement from a mutual credit company, its participant pays off the amount, the main debt, the part of the company's debts attributable to it, after which the entrance fee and the pledged property are returned to it.

Contractual savings institutions include insurance companies and pension funds. Insurance companies sell insurance policies, and the premiums received are then deposited in government and corporate securities and other earning assets. The regular inflow of contributions, interest income on bonds and dividends on shares owned by insurance companies ensures the accumulation of stable and large financial reserves.

Private pension funds are legally separate firms operated by insurance companies or trust departments of commercial banks. Their resources are formed on the basis of regular contributions from employees and deductions from firms that have formed a pension fund, as well as income from securities owned by the fund. Pension funds invest in the most profitable types of private securities, government bonds and real estate. They are the largest institutional shareholder, and the concentration of share control in them usually exceeds the concentration of shares in the same firm in investment and insurance companies. The share of investments in highly liquid assets (current deposits, treasury bills, etc.) is relatively small. Pension funds are distinguished by a stable financial position and a well-thought-out investment strategy.

The third type of financial intermediaries - investment funds - sell their securities (shares, investment units) to investors and use the funds received to buy direct financial obligations. They are characterized by high reliability and low par values of the securities traded.

The important advantages of investment companies that attract depositors are the wide opportunities for diversification of the securities portfolio, qualified management of stock assets, which ensures the distribution of risks and increases the liquidity of the funds being invested. Small and medium-sized investors are able to use a more balanced set of stock values that do not have significant free cash resources and, therefore, the ability to diversify their portfolio of securities, by

purchasing shares of investment companies.

The last group of financial intermediaries includes leasing, financial companies, etc. Financial companies specialize in lending for consumer goods sales in installments and consumer loans. The source of resources of financial companies is their own short-term liabilities placed on the market and bank loans. Leasing firms are those that carry out operations for which leasing is the main statutory purpose. By the nature of leasing activities, they are divided into specialized and universal. Specialized firms deal with one type of goods or with goods of one group of standard types (construction equipment, equipment for textile enterprises).

Universal leasing companies lease a wide variety of machinery and equipment. They provide the tenant with the right to choose the supplier of the equipment he needs, place an order and accept the object of the transaction. Leasing firms are usually subsidiaries or branches of industrial and trading firms, banks and insurance companies. Most often, leasing companies are created with the active financial participation of banks. The second category of firms engaged in leasing operations includes industrial and construction firms that use their own products for leasing. The third category of firms engaged in leasing transactions includes various intermediary and trading firms.

Financial intermediaries play an extremely important role in the country's financial system - they accumulate financial resources, provide access to them for business entities, and minimize credit and investment risks (H., Shin, Y. and Smith, R.J., 2001).

Considerable attention is paid to the study of the problem of the development of financial intermediaries, both among domestic and foreign scientists. Specialists of the World Bank such as Rosa Levina, Torstein Beka, Ashley Demirguk-Kunt, Solomon Tadesse and others are paying attention to the peculiarities of the development of financial intermediaries and their role in stimulating world economic development. In the works of scientists I. Blank, N. Parusimova, O. Donetskova, L. Molchanova, the peculiarities of the development of financial intermediaries in the Russian market are considered (2016). At the same time, in our

opinion, studies revealing the features of the classification of intermediaries require expansion in the study, taking into account their role and functions in the development of the country's financial market.

Financial enterprises or institutions perform one or more of the following services:

1. They deal with the exchange of financial assets. For example; commercial banks collect deposits; they give loans with the deposits they collect or invest in assets such as bonds, stocks and bonds issued by states or companies.

2. Customers change financial assets to their account and to their own accounts.

3. They develop new financial instruments for customers and sell these financial instruments to other market participants.

4. They provide investment advice to market participants.

5. They manage the investment portfolios of market participants.

6. They mediate the implementation of monetary policies.

7. They ensure credit distribution and welfare transfer.

8. They provide payment services such as check, EFT, credit card, Fedwire, Western Union.

9. They offer small investors the opportunity to obtain high returns and to spread the capital by providing the amount of tools they can invest.

In this section, financial institutions are introduced, which will be explained in more detail in the following sections, financial intermediation transactions, intermediary institutions, asset / debt management and current legal regulations are briefly discussed.

Financial intermediaries invest the funds obtained by market participants as loans or securities. These investments made by financial intermediaries are direct investments. Market participants make indirect investments by purchasing financial instruments from financial intermediaries; because the financial institution acts as an intermediary for the sale of financial instruments. For example; an investment company establishes a portfolio by investing directly in assets such as stocks, bonds

and bills. By purchasing an investment fund, you become a partner in this portfolio and earn a certain profit and make an indirect investment. Here, the investment company acts as an intermediary for your investment.

In summary, the financial intermediation transaction or the process of exchanging financial assets brings along four basic economic benefits:

1. Maturity brokerage: Investors are often reluctant to lend or deposit long-term deposits. Financial intermediaries solve this problem by converting long-term receivables into short-term debt. Thus, for example, short-term deposits deposited by investors in commercial banks can turn into long-term loans. Thanks to maturity, investors can receive funds from various maturities and give funds. In addition, long-term lenders are provided with higher interest earnings, thus paving the way for long-term investments.

2. Risk reduction through diversification: By investing in various tools, investment companies expand the investment alternatives that individual and small investors can make on a limited basis, and gain better profits. Financial intermediaries, according to the risk appetite of investors, by holding risk-free assets as well as risky assets.

They set up portfolios with different degrees of diversification.

3. Reduction of contract costs and the process of obtaining information: Since they employ experts within the body of intermediary institutions, they can easily prepare standard contracts and complete complex transactions more quickly. Although some investors have free time to do these transactions, it is very important for professional and institutional investors to reduce contract costs. In addition, the process of getting information about financial assets is very easy thanks to these intermediaries.

4. Formation of payment mechanisms: Many transactions such as credit cards, checks, EFT are submitted to the system by banks and other intermediaries.

World growth lost momentum due to the decline in global trade and investments in 2019. In an environment of increasing uncertainty in trade policies and rising geopolitical tensions, the world economy continues its moderate recovery. A

slowdown in productivity growth is observed in developed, emerging and developing economies. Economic activity declined to the lowest levels since the financial crisis.

The World Bank published its Global Economic Outlook report for January and revised its global growth figures downwards. The World Bank has reduced its global growth projections for 2020 and 2021, by 0.2 points for both years, to 2.5 percent for 2020 and 2.6 percent for 2021, according to its previous estimates. The highest downward revision was in the group of emerging markets and emerging economies, with 0.5 points. The revision in developed economies, on the other hand, is downward and at the level of 0.1 points.

The World Bank, while Turkey has improved its growth forecast. Turkey's 2019 growth forecast was raised to the realization of zero percent with 1 point improvement. Banks in Turkey 2020 and 3.0 and 4.0 percent respectively, while their growth forecasts for the year 2021, remained negative despite the global view (https://www.sbb.gov.tr/ekonomik-gelismeler/, 2019).

#### **1.3. Review Of Studies On Transmission Channels**

The problem of analysis and forecasting of financial markets has been studied in various ways in the works of the classics of economics and many prominent scientists of foreign countries.

The connection among credits and financial development on account of various nations has been researched by countless researchers in economic writing.

With regards to credits and economic development, Babalola and Akpansung (2011) assessed the bank credit impact on financial development on account of Nigeria, utilizing Two-Stage Least Squares (TLS) to the information ranging from 1970 to 2008. The outcomes show a positive effect of private area credit on financial development. Iqbal et al. (2012) examined the effect of private saving and private credits on monetary development in Pakistan using ARDL method to the information spanning from 1993 to 2007. They tracked down a positive and measurably huge impact of credits on financial development. The connection

between bank credits and monetary development was likewise researched by G. Gozgor and K. Gozgor (2013) for twenty Latin American nations. They utilized board co-combination method for observational investigation. The outcomes affirmed the presence of a since quite a while ago run connection between factors. Also, the utilized board causality test closed unidirectional causality running from homegrown credits to monetary development.

Ben et al. (2014) contemplated the connection between homegrown credits and financial development in Tunisia utilizing Autoregressive Distributed Lag model (ADRL) technique. They uncovered a positive and huge impact of bank credit on monetary development. Their outcomes presumed that a 1% expansion in the private credit brought about a 3.36% increment in genuine GDP per capita.

These days, the effect of credits on financial development is one of the interesting issues. The few hypothetical and exact examinations committed to the investigation of the effect of credits on the financial development are being researched nowadays. These related examinations are looked into and it was recognized that while a portion of the investigations show a positive connection between monetary development and credits in certain nations, there are a few nations where there is even negative or no huge nexus between the demonstrated factors.

Concerning the investigations which tracked down a positive connection between previously mentioned monetary markers, Osman (2014) examined the effect of credits on the financial development in Saudi Arabia, utilizing information covering the time of 1974-2012 by utilizing the ARDL model. It was recognized that there is a connection between bank credits and financial development in long haul. Then again, the effect of credits on the financial development was examined by Shan and Qi (2006) utilizing the VAR model for China. They tracked down that the monetary development influences the financial development. On account of Azerbaijan, Mukhtarov et al.(2019) analyzed the impact of the bank advances on the non-oil GDP by utilizing CCR, DOLS, FMOLS strategies to the information crossing from 2005 to 2019. The aftereffects of study uncovered that the bank credits and the swapping scale altogether affect the non-oil GDP in the long haul for Azerbaijan. Another exploration was committed to the effect of credits on the GDP in Brazil''s economy. Patricia and Benjamin (2008) led VECM model to the month to month information going from January 1995 to July 2007. They tracked down that monetary improvement has a critical part in financial development. Also, Tutar and Unluleblebiji (2014) led research on the connection between financial development and the credits conceded too little and medium organizations in Turkey by utilizing month to month information time of December 2006 – June 2011. The Granger causality and Johansen tests were utilized in the exploration. The consequence of the examination reasoned that the credits conceded too little and medium business have constructive outcome on monetary development in Turkey.

Notwithstanding, a few investigations found that negative or no huge nexus among credits and financial development. One guide to this could be Leitao"s study (2012) on the nexus of monetary development and bank credit in EU - 27. This investigation showed that homegrown credits have negative relationship with monetary development. Be that as it may, another examination done by Cristea (2010) explored the connection between these two factors in Romania. In light of the outcomes, it was acquired that monetary development can't be raised with the assistance of private credits, in view of no huge relationship.

As can be seen from previously mentioned explores, regardless of whether there are a few examinations which break down the nexus among credit and monetary development somewhat, there is no investigation which has been led to research the connection between explicitly NBCOs credits and non-oil GDP in Azerbaijan. Subsequently, the principle motivation behind this article is to fill in this hole by utilizing diverse cointegration strategies to notice the drawn out impact of NBCOs credits on non-oil GDP. The consequences of this article will propose to scientists and strategy producers to comprehend the part of NBCOs credits in monetary development to accomplish reasonable advancement in Azerbaijan and other creating oil-rich nations. Utilizing the bank credit as a proportion of monetary turn of events, Bongini et al. (2017) investigated the effect of bank credits on the monetary development for Central, Eastern and South-Eastern European nations. The investigation utilized the GMM technique for the time arrangement information of 1995–2014. The assessment results showed that bank credit increments monetary development.

Aljebrin (2018) examined the effect of private area's bank credits on the monetary development in Saudi Arabia by applying the FMOLS technique for the time of 1990 2016. The investigation closed a positive and critical long haul effect of homegrown bank credit on the financial development. Choong (2012) additionally acquired positive and genuinely huge effect of credit on monetary development for 95 created and creating economies.

Corresponding to previously mentioned contemplates, a positive connection among credits and monetary development are acquired by Banu (2013) for Romania, by Önder and Özyıldırım (2013) for Turkey, by Timsina (2014) for Nepal, by Osman (2014) for Saudi Arabia, by Yakubu and Affoi (2014) for Nigeria, by Samargandi et al. (2014) for Saudi Arabia, by Korkmaz (2015) for 10 European nations, by Pistoresi and Venturelli (2015) for Germany, Italy, and Spain, by Mahish (2016) for Saudi Arabia, by Ananzeh (2016) for Jordan, by Puatwoe and Piabuo (2017) for Cameroon, by Paul (2017) for Nigeria.

Then again, Al-Zubi et al. (2006) examined the connection between monetary advancement as proxy by the private credit and financial development for eleven Arab nations. For this reason, they utilized pooled OLS method, arbitrary impact model and fixed impact model. The investigation finished up a negative and measurably huge impact of private credits on the monetary development. Mahran (2012) likewise dissected the connection between monetary turn of events and genuine GDP utilizing the ARDL model for Saudi Arabia. The investigation closed a negative and genuinely huge private credit sway on genuine GDP, either in the long-or short-run period.

Iheanacho (2016) assessed the connection between monetary area advancement and

financial development for Nigeria applying the ARDL technique for the time of 1981–2011. The outcomes uncovered that the credits as intermediary of monetary advancement adversely affect financial development, while transient altogether adverse consequence.

Also, various examinations directed by Cevik and Rahmati (2013), Samargandi et al.(2014), by Anyanwu (2014), Quixina and Almeida (2014), Adeniyi et al. (2015), and Nwani and Orie (2016) tracked down a powerless or negative connection among credits and financial development.

On account of Azerbaijan, earlier examination directed by Hasanov and Huseynov (2013) inspected the bank credits impact on non-oil monetary development utilizing ARDL Bounds Testing approach, Johansen's methodology, and EngleGranger procedure. Creators tracked down a positive effect of bank credits on non-oil financial development. Koivu and Sutela (2005) assessed the connection between monetary area improvement and financial development for 25 change economies (counting Azerbaijan) utilizing fixed impact model and discovered monetary advancement as proxied by credit expanding financial development. Mukhtarov et al. (2018) assessed the relationship among energy utilization, monetary development and monetary improvement in Azerbaijan. Diverse co-mix strategies, specifically, Autoregressive Distributed Lags Bounds co-combination test, Gregory-Hansen co mix test and Johansen co reconciliation test are applied to see since a long time ago run relationship among the factors. The outcomes endorse the presence of long haul connection between monetary improvement as proxied by bank credit, energy utilization and financial development. Mukhtarov et al. (2016a, 2016b), Muxtarov and Mikayilov (2016) additionally found that bank credits are a significant transmission channel of money related approach to influence total yield in Azerbaijan.

In the results of the previously mentioned studies, there are a couple of studies identified with the effect of bank credits on monetary development in Azerbaijan. Generally speaking, Azerbaijan is a novel case to inspect the impact of bank credits

on the private area, an intermediary for monetary advancement on the financial development of non-oil areas. Hence, the primary reason for this article is to fill in this hole by utilizing distinctive co combination tests to notice the drawn out connection between bank credits and monetary development. The consequences of this article will recommend to scientists and strategy creators to fathom the part of bank credits in financial development for macroeconomic soundness and reasonable advancement objectives in Azerbaijan and other creating oil-rich nations.

Among these scientists it is necessary to mention the names of K.C. Arow, I.T. Balabanov, G.A. Birman, V.V. Bulatov, A.S. Kovalevoy, N.V. Kolchinoy, A.A. Kilyachkov, R. Levin, R.S. Merton, A.S. Shapkin and others. Among the economists of Azerbaijan there are A.Kh.Nuriyev, A.B. Abbasov, Sh.A. Akhundov, T.N.Aliyev, G.N.Manafov, V.M.Niftullayev, K.R.Pashayev, K.A.Shahbazov, A.S.Samadov and others conducted valuable researches on the economic problems of the country's economy, including business and published important monographs (2004-2015). Although the concept of the financial market is not specifically studied by classical economists, there have been many approaches and concepts about the various elements of the financial market.

"Financial intermediaries and the efficiency of monetary management" (1963) American economist, president of the American Economic Association, Nobel laureate James Tobin limited the scope of the financial equilibrium model to the financial market and the capital market, dividing these market segments. And only in the 1970s, the phrase acquired a modern sound and began to be actively used even in the titles of publications.

Examples here are the books by Roland E. Robinson and Duane Wrightsman, Financial Markets: Accumulation and Distribution of Wealth and James S. Van Horn, Prices and Flows of the Financial Market. In the first book, the term "financial market" was used as a combination of the money market and the capital market, and in the second, an institutional and instrumental approach was used, according to which financial markets include "all institutions and procedures for attracting and combining buyers and sellers of financial instruments, regardless of the nature of financial instruments".

The short history of using the term, the relatively narrow specialization of financiers with the versatility of the financial market is sufficient reasons to justify the identification by some modern financial managers of such concepts as "financial market" and "capital market". However, in scientific circles, the structural and positional conversion of the interpretation of the term "financial market" faded into the background. Today, scientists practically do not discuss the topic of the limits of the financial market segment, but there was no unity in the definition of the term. Today, there are three main approaches to defining the financial market: semantic, technological and institutional.

In accordance with the first approach (essential), the financial market is a set of relations arising in the process of circulation of financial instruments. Such relationships are not limited to asset purchase and sale operations and in most cases are based on the interaction of more than two people. Market relations are of an economic nature and can be considered as an element in the overall chain of production, exchange and consumption of goods. The emphasis on relationships, which are the leading characteristic of the market, is made by M.V. Gridchina , S.M. Esch , J. Marshal.

Methods and techniques of the financial market functioning, which form its mechanisms, underlie the technological approach. Moreover, for completeness of the characteristics, the mechanisms themselves should be supplemented with tasks and goals, for the solution or achievement of which innovative tools and mechanisms are used. Supporters of this approach are V.Yu and L.V. Presnyakovs, who consider the transformation of "idle funds into loan capital" to be the main function of the market; Yuri, who defines the minimization of costs and maximization of the reliability of the conclusion of transactions as the main tasks of the market infrastructure, A.Yu. Smolyanskaya and O.D. Vasilik see the purpose of the financial mechanism in the redistribution of financial resources, L.N. Pavlova,

identifying the financial market and the capital market, the functionality of the mechanism limits the "management of the flows of monetary resources, means of payment that generate income".

This list can be supplemented by scientists who, when defining the market, do not use the word "mechanism", but highlight the forms of its manifestation (V.V. Kovalev - the system of trading in financial instruments, A. Blank - the purchase and sale of financial instruments) or the results of its functioning (L.V. Tokun - capital turnover, VM Oparin and FM-G. Topsakhalova - Turnover of financial resources). The institutional approach in the interpretation of the financial market is consistent with the typical definitions of the market as a set of buyers and sellers, through the actual or potential interactions of which the price of goods is determined.

The financial market differs from other market segments, which affects the peculiarities of its interpretation. H. Gregory Mankiw defined financial markets as "a set of financial institutions that allow a person who wants to save money to provide their resources to the direct borrower". A.G. Zagorodny and G.L. Voznyuk: their version of the definition differs from the previous one only in the format of specifying the main function of financial institutions, which is to direct cash flows from the owners of savings to the borrowers.

Financial intermediaries play a vital role in mobilizing savings, managing risks, evaluating projects, facilitating transactions, and collaborating with companies to take advantage of economies of scale. The operation of the financial market significantly affects the performance of an economy. This influence will depend on your ability to identify profitable investments, mobilize capital to finance those activities, monitor borrowing units, and facilitate asset sharing. Regarding the last point, the role of financial intermediaries in generating improvements in information about investment opportunities that reduce the costs of establishing and enforcing contracts is essential.

One wonders if the need to have a development bank is the same in the different economies. Will it be less necessary in developed economies? Or on the contrary, does it still play an important role in these cases? In recent years, the role and functions of development banks in different countries have been reformed with particular intensity, leading to different orientations. For example, in some cases drastic processes of merger and liquidation of entities are observed, which in the extreme have culminated in a strong reduction in the presence of development banking in national financial systems (eg Peru); In other countries, the reform has been aimed at improving the conditions in which development banks operate, through financial consolidation and asset strengthening actions, modifications in their regulatory and organizational aspects, and changes in their operational strategies in terms of fund-raising and placement of resources (eg Brazil).

This paper attempts to expose the role currently played by development banking through a comparative analysis. The objective is to review the role it plays in different economies, taking into account some of the different features and reform processes they are going through, in particular, reference is made to the situation of development banks in Argentina, Peru, Brazil, El Salvador, Venezuela, Italy, Korea and Mexico, the country to which most of this research is devoted. A third objective is to consider some proposals to improve the performance of development banks in our country. For this purpose, its content considers three chapters. The first addresses the issue of the importance of development banking and the role it plays in an economy. It argues that development banks are institutional arrangements that can generate favorable incentives to promote the participation of agents in the market, mitigating some of the failures that occur in the financial, factor and product markets, particularly in terms of which refers to information problems, distortions, externalities, segmented markets, coordination failures and costs of business transaction. At the same time, it recognizes the difficulty of achieving a good institutional design that allows improving the functioning of the system and warns about those cases in which the intervention of the development bank may be excessive and damage the incentives of the agents (applicants support staff and bank operators) for the correct use of resources.

Usually, those who have free money and those who need it are different. In this sense, the emergence of financial assets in the economy is due to the fact that the savings of citizens, firms and the government differ from the amount of their investments in real assets. Under such conditions, the normal development of the economy requires the mobilization of temporarily free funds of individuals and legal entities on a commercial basis and their redistribution and redistribution between different sectors of the economy. In this regard, the existence of an improved financial market that creates a link between those who have free cash and those who need such funds is important in ensuring the effective development of the economic system.

The financial market is a mechanism that connects those who have free money with those who need it through financial instruments and with the participation of financial institutions. Its purpose is to distribute the collection among end users. That is, if there is an excess of funds in one area, a shortage in another area, the flow of funds from one area (entity) to another. This flow is carried out through financial intermediation and financial markets. It should be noted that cash that is not used as capital, which serves the population, the cash desks of enterprises and organizations, as well as the purchase and sale of goods and services in bank accounts, is not included in financial capital.

If we look at the nature of financial markets on a global scale, it should be noted that financial institutions mobilize and accumulate money in the regions, countries and around the world, turning it into loan (debt) capital. This is distributed between regions and countries through the credit (investment) mechanism, thus creating conditions for equalization of profit norms on a large area and synchronization of the development cycle of the world economy (Beck, T., 2009).

# CHAPTER 2. THE ROLE OF FINANCIAL INTERMEDIARIES IN AZERBAIJAN

#### 2.1. Historical Development

When the case of Azerbaijan is discussed the former president of the republic of Azerbaijan, Heydar Aliyev and his statements should be mentioned: "A state with a strong economy is capable of anything." The Association of Banks of Azerbaijan (ABA) was established in 1990 by 10 private banks and was registered as the "Association of Commercial and Cooperative Banks of Azerbaijan". It has been operating under the name "Azerbaijan Banks Association" since 1999. At present, 25 banks and 3 non-bank credit organizations, as well as Azericard Limited Liability Company are members of ABA.

The main purpose of the ABA was to more actively protect the corporate interests of member organizations in the legislative, executive and judicial bodies of the state, public organizations and international organizations, to help meet their needs for various types of business services and to coordinate their activities.

During its existence, the ABA has established close cooperation with the abovementioned institutions, worked hard to improve banking legislation, as well as international relations of banks, formation of banking infrastructure, support of reforms implemented by the Government and the Central Bank by the banking sector.

The Azerbaijan Bank Training Center (ABTC) was established by ABA in 2000 with the financial and technical support of the European Union's TACIS Program to improve the professionalism of bank employees. In 2001, the ABA established a Jury to resolve disputes between its members out of court. ABA Bank established the Information Technology Center in 2003 to support reforms to improve payment systems, as well as to provide consulting services to its members on the application of new information technologies. In 1999, the ABA founded the Banks and Business newspaper, and in 2003, the magazine of the same name (Hasanov F., Huseynov F., 2013).

Taking into account the importance of international experience for the effective organization of its activities, the ABA has strengthened cooperation with financial and banking institutions of the CIS and Europe, and over the past period signed cooperation agreements with the Association of Banks of 13 countries and one regional banking association. In addition, the ABA became a member of the International Coordination Council (ICC) of banking associations of the CIS, Central and Eastern Europe on 6 September 2007 and an associate member of the European Banking Federation (EBF) in February 2008.

ABA and GUAM countries initiated the establishment of the Coordinating Council of Banking Associations and the relevant Agreement was signed in 2007. At another initiative of the ABA, an Agreement on the Establishment of the Central Eurasian Banking Federation was signed in Istanbul in 2009 and registered with the Ministry of Justice of the Republic of Azerbaijan in 2010.

Although the ABA operates in the field of training, mainly through the ABTC, the Association has supported and participated in other educational initiatives within its mandate. "Bilasuvar school-lyceum complex" (now "Bilasuvar kindergarten-school-lyceum complex") named after the National Hero of Azerbaijan Mubariz Agakerim oglu Ibrahimov was established in Bilasuvar together with the Central Bank under the ABA. ABA has provided and will continue to provide technical and financial support to the lyceum.

Economy plays an important role in the development of the country. In case of Azerbaijan, most of the budget depends on oil sector. Therefore improving non-oil sector is significant. Following sections are types of non-oil sector:

- Agriculture
- Construction
- Trade
- Transportation
- Tourism
- Information and communication

#### • Social and other services

The modern market economy is a complex system that combines many elements. Households, firms, resource and product markets, and government agencies that create connections between these entities perform specific functions to form a single economic system. In this economic system, some economic entities have free cash, while others need additional cash. Thus, part (large part) of the company's annual income is spent on consumer spending, and the rest on savings.

The history of the Azerbaijani banking sector dates back to the second half of the 19th century. In the same years, a number of private banks, national branches of foreign banks and mutual credit organizations operated. In the early days of Azerbaijan, which was dependent on Tsarist Russia, a large amount of capital was required for the development of the oil industry and agriculture. The development of the industrial and agricultural sectors and the increase in foreign investment has made the existence of banks and financial institutions inevitable. The weakness of financial institutions has increased the importance of customers. In 1860-1870, the interest rate applied by users in Baku reached 36% per annum. In rural areas, this ratio was 60% per year.

The growing demand for low-cost loans has contributed to the rapid development of financial institutions in Azerbaijan. Azerbaijan's financial system has developed in two directions:

- Establishment of branches of commercial banks, mutual credit organizations and pawnshops in Azerbaijan,
- Opening of branches in Azerbaijan

The most common transaction in banks in the 1900s was lending against collateral. In general, the goods were shown as collateral. The growth of such loans has led to rapid economic growth.

The main task assigned to the Ministry of Finance is to regulate the management of money from circulation during the First World War in a short period of time. For this purpose, three directions were applied:

- To increase government revenues and reduce expenditures,
- Remove money and credit turnover from control,
- Renewal of the financial law of the state.

In addition, the lending department of the Ministry of Finance prepared a draft law on the National Bank of Azerbaijan and submitted it to the parliament on September 16, 1919, and the National Bank was officially opened. The establishment of the National Bank of Azerbaijan has made a significant contribution to the organization of monetary and credit policy. However, on April 28, 1920, with the occupation of the Red Army, Azerbaijan's economic and political independence came to an end (https://aba.az/wp-content/uploads/2016/03/TOPLU-2007-Az.doc.pdf, 2016).

After the collapse of the Azerbaijan Democratic Republic on April 28, 1920, the Soviet Socialist Republic joined the USSR. Thus, Azerbaijan has entered a new era. According to the Law on the Nationalization of Banks of June 9, 1920, the banking sector of Azerbaijan became a part of the banking system of the USSR and remained in state power. Private, foreign, commercial and public banks and mutual credit organizations in the country were merged under the name of the People's Bank of Azerbaijan (PBA).

With Garbachev's rise to power in 1986, the USSR entered a new era, and Garbachev's Perestroika reform, which led to the disintegration of the USSR, also affected the country's financial system. Prior to January 1, 1988, the Soviet Banking System had management functions rather than economic functions. In this context, the reforms related to the banking sector were as follows:

- Reconstruction of the National Bank
- Establishment of private banks
- Establishment of commercial banks

The first serious reforms in the credit system of the Soviet Union were carried out in 1987-1988. As a result of the reform, 5 state specialized banks were established in the country. Agroprombank, Promstroybank, Sberbank, Zhilsotsbank, Vnesheconombank. These newly established banks had responsibilities such as the use of short-term loans, verifying that these loans were used for their intended purpose, and auditing financial documents.

Agroprombank was established to finance agricultural enterprises in Azerbaijan.

Promstroybank was generally used for the development of the industrial and construction sectors, to finance investments.

Sberbank was established to collect citizens' deposits, individual deposits and bring them to the economy.

Zhilsotsbank is responsible for financing housing, infrastructure and similar municipal services.

Vnesheconombank was established to organize foreign exchange transactions, conduct foreign exchange transactions and cooperate with international financial institutions on credit, including international issues. Many western companies and banks had correspondent relations with this bank.

In 1991, they began operating in commercial banks in Azerbaijan, which were subject to approval and inspection by Gsobank. The most important banks in this area are Azbank and Ilkbank. These banks also had the right to conduct foreign exchange transactions (Hüseynov M., 2007).

Since the economy of Azerbaijan was part of the economy of the USSR during the USSR, the mechanism of organization and operation of the economy of Azerbaijan was formed in accordance with the economic strategy of the USSR. In general, the specialization of the Azerbaijani economy was determined in accordance with the needs of the USSR. Within this structure, some sources were returned to Azerbaijan after being removed from the country and processed. This structure is on the agenda today as the most important economic problem since the declaration of independence.

The banking system is the most important element of the financial system of the state. Today, banks outperform other financial intermediaries in terms of assets, as well as capital.

The main development of the banking sector is aimed at stronger competition among market players in all areas of the bank and further improvement of the quality and reliability of services provided to customers.

Although the development of the banking system of Azerbaijan began in the second half of the XIX century, the legal establishment of the banking system began immediately after gaining state independence on October 18, 1991. In 1992, with the adoption of the laws "On Banks and Banking in the Republic of Azerbaijan" and "National Bank of the Republic of Azerbaijan", the foundation of the legal and regulatory framework of the banking system was laid. The financial sector of the Republic of Azerbaijan consists of banks, microfinance institutions and small credit unions, insurance companies and several leasing companies (European Commission, 2005). The banking system is the most important element of the financial system in the Republic of Azerbaijan.

After the collapse of the Soviet Union in 1991, Azerbaijan became an independent country. The USSR State Bank was also destroyed. For the countries of the former Soviet Union, especially Azerbaijan, the first decade of the transition period saw strong progress in the financial and banking sectors. Significant progress has been made in privatization, the restriction of state-owned banks, the creation and development of new local and foreign financial institutions, and in the legal, supervisory, and regulatory frameworks. On May 25, 1991, Azerbaijan established its own banking system and issued its first national currency, the Manat (AZN). After gaining independence, the Republic of Azerbaijan felt the need to change the socio-political and socio-economic systems. Unfortunately, the long-running military conflict with the Republic of Armenia over Nagorno-Karabakh and the government formed at that time affected the country, and Azerbaijan began to experience economic crises.

In addition to these laws, the Law on the Central Bank and the Law on Banks and Banks were approved by the Milli Majlis in June 1996 (CBAR Annual Report, 2007). The legislation of the Republic of Azerbaijan states: "A bank is a legal entity that attracts deposits or other repayable funds from legal entities and individuals, provides loans to its own account, as well as generally performs settlement and cash transfer and transfer procedures on behalf of buyers."

The Law on Banks governs the activities of the banking system in the Republic of Azerbaijan. According to the law, a two-tier banking system based on market principles has been developed in the country. Unlike commercial banks, it does not serve customers directly. Credit institutions are foreign banks and local branches of non-bank organizations.

It is possible to divide the stage of development of the banking system in AR into three parts;

1. Establishment of the Central Bank (then National Bank) system in 1990-1992,

2. Progress of the banking system in the conditions of variable and at the same time hyperinflation during 1992-1994,

3. Macroeconomic after 1994 the stage when the banking system begins to develop under conditions of stability.

After 1991, an international accounting system was established in the existing banks in the country. Financial market intermediaries and banking services were not well developed in Azerbaijan. To compete with foreign banks, local investment banks have sought to improve service and quality. The growth of the number of banks in the Republic of Azerbaijan continued until 1995. After 1996, their number began to decline. The lack of initial capital of banks, mainly in the early stages of independence, allowed the number of banks to increase. Along with the subsequent bankruptcies, the Central Bank's gradual increase in the amount of initial capital resulted in a gradual decrease in the number of banks.

In 1997, the initial capital for banks was set at \$ 800,000. As a result, existing small banks ceased operations.1 On January 2000, it was decided to increase the minimum capital of banks to \$ 2 million and the initial capital of newly established banks to \$ 5 million to strengthen the banking system. In July 2002, the authorized capital of banks was increased to \$ 2.5 million. As a result, the merger of some commercial

banks and the closure of some banks reduced the number of previously relatively large banks.

In 2002, the licenses of 8 banks that did not increase their authorized capital to \$ 2.5 million were revoked. In 2003, the process of increasing the authorized capital of banks continued. The Central Bank has decided to increase the authorized capital of private banks from \$ 2.5 million to \$ 3 million. This has led to the closure of banks that do not have the required authorized capital, as in the recent past.

At the end of 1995, there were 180 banks, four of which were state-owned. Stateowned banks accounted for a very large share of assets - 80.2 percent.

Efforts to ensure the institutional development of the banking system continued in 2008. By the Presidential Decree of March 1, 2005, the International Bank of Azerbaijan and Kapital Bank were privatized. Kapital Bank was completely privatized in 2008 (CBAR, 2008).

At the end of 2008, 46 banks operated under the license of the National Bank of Azerbaijan. At the end of 2008, there was only one state-owned bank. Azerbaijan's banking system was completely privatized. The growing role of medium-sized banks is a key trend in the development of the financial and banking system in 2008. The share of such banks in total bank assets increased from 21 to 23.7%, and the share of deposits increased from 22.9% to 26.5%. The share of large banks in total bank assets was 62.7%. Despite the financial crisis, foreign investment in the Azerbaijani banking system was financed by additional insects from entrepreneurs and new investors, increased by 57% to 159 billion manat (CBAR, 2008).

In 2010, the assets of banks in Azerbaijan amounted to only 13,290.81 million manat. The level of concentration in the country's banking system was equal to 60.7. That is, the assets of 5 banks (International Bank of Azerbaijan, Kapital Bank, Standard Bank, Xalq Bank and Pasha Bank) accounted for only 60.7% of the assets of all banks.

In 2012, the initial capital capacity of banks was increased to 50 million manat. Since 2001, 50 banks have been shut down due to decisions to increase initial capital in

the banking sector. Thus, while 204 banks were active in credit institutions in 1990, this number was 59 at the beginning of 2001 and 42 at the beginning of 2013. Two of these banks were state-owned and 40 were private. It should be noted that the tight monetary policy has had a significant impact on the reduction of the number of banks. At the end of 2013, the total authorized capital of banks increased by 41.3% compared to the previous year and amounted to 17 billion manat. All changes in the existing banking system in the country can be systematized as follows:

• Reforms in the banking system have significantly increased the rights and obligations of commercial and state banks and strengthened their regulatory mechanism;

• There was a coup and a serious guarantee in the mobilization of free funds owned by the population and various structures by banks;

• The role and management functions of banks in the proper regulation of money circulation have increased;

• Preference was given to the establishment of joint banks in the Republic of Azerbaijan with the ability to compete with other banks of the republic.

• The ability of banks to be interested in new activities and to conduct transactions with documents has increased. In other words, in the course of their activities, banks included cash, material and commodity prices as well as securities in the bank's valuable resources;

• The participation of all types of banks in the organization of the securities market in the country has been activated, and the German model has been given more priority in this area, etc.

Along with Turkish banks established in Azerbaijan, there are branches of some foreign banks. A bank with foreign capital in Azerbaijan can be established both as a 100% foreign investment and a joint venture. The share of foreign investment in banks is limited to 30%. The share of foreign banks in the sector is high compared to many countries. The weakness of local banks in their capital makes them weak in competition with foreign banks. In addition, local and foreign banks carry out

material transactions in many countries of the world through "correspondent" banking relations (Mammadzade F. H., 2019).

#### 2.2. Performance of Banking sector before-and-after Devaluation

Most types of financial intermediation are created in developed countries. Although each type of financial intermediaries has its own scope and scope of service, there is fierce competition between them. The role of financial intermediaries in the country's economy and fund flow is both absolute, but also varies considerably in a relative sense. Banks that are already historically ancient financial intermediaries, gives their money to other financial institutions. Pension funds and interactions within financial assets the share of funds is growing. This process is mainly related to the process of disinfection. Banks is increasingly being pushed out of the capital market by investment institutions.

The banking system is organized in two stages. The center of the country's banking system acts as a "Bank of Banks" and has many economic functions. First of all, the Central Bank is the last resort. To him by law regulates the banking system using the right granted to them by the economy indirectly determines the acceptance of loans and deposits. Central Banks cash in circulation is the issuer of money and the money in the hands of the monetary base that forms the basis of money supply to the economy defines policy with tools.

The most basic and widespread form of credit and financial institutions, including banks deposit institutions. Commercial banks with the institution of deposit in almost all countries are the main source of financing for the economy. Banks receive loans from individuals, companies, government agencies.

The banking system of the Azerbaijan Republic consists of the financial market supervisory authority, the Central Bank of the Azerbaijan Republic (hereinafter referred to as the text and credit organizations. The Central Bank is the central bank of the state and its activity is regulated by the Constitution of the Azerbaijan Republic, "Law of the Azerbaijan Republic". This Law and other normative legal acts adopted in accordance with them, as well as international agreements to which the Republic of Azerbaijan is a party, regulate the activities of credit institutions in the Republic of Azerbaijan. Laws of the Republic of Azerbaijan "On Organizations" and "On Credit Unions", other normative legal acts of the Republic of Azerbaijan, financial market supervisory authority and normative acts of the Central Bank adopted in accordance with them, as well as international agreements to which the Republic of Azerbaijan is a party. Relations in the field of banking in the Alat free economic zone are regulated in accordance with the requirements of the Law of the Republic of Azerbaijan "On the Alat free economic zone". Credit institutions are independent of state authorities and municipalities in making decisions related to current banking activities and may not interfere in the activities of credit institutions. Credit institutions may not be compelled by law to carry out activities that do not relate to their activities. In all other cases, credit institutions are not responsible for the obligations of the state, and the state is not responsible for the obligations of credit institutions, except in cases where credit institutions and the state have appropriate obligations. Banks and non-bank credit institutions in the territory of the Republic of Azerbaijan may carry out banking activities on the basis of a special agreement (license) issued by the financial market supervisory authority. Deposit operations may be carried out only by the national operator of banks and postal services. It does not apply to credit unions and other non-bank credit organizations licensed and regulated in accordance with the laws and other legislation of the Republic of Azerbaijan. "Licensing of non-bank credit organizations and non-bank credit organizations" specified in Article 3.3 of this Law.

Taking into account the need to ensure reliable and prudent management of banks and local branches of foreign banks, a banking license is issued in accordance with this Law only if the following conditions are met:

the initial authorized capital of the bank or the means equal to the initial authorized capital of the local branch of the foreign bank shall not be less than the amount determined at the time of approval of the initial application by the financial market supervisory authority;

It is not known whether the influence of one or more of the founders holding significant stakes in the bank would jeopardize its sound and prudent management;

The relationship between the bank and a foreign bank or foreign bank holding company with a significant shareholding will not prevent the financial market supervisory authority and the Central Bank from exercising supervisory functions in the country where the founding bank or the bank holding company is located. , as well as the country's banking regulatory and supervisory authorities will co-operate with the financial market supervisory authority;

If the heads of the executive bodies of individuals and legal entities who are holders of significant participation shares are persons of acceptable and necessary qualities; The internal management and control procedures of the bank or the local branch of a foreign bank are adequate;

The business plan of the bank or local branch of a foreign bank, including financial forecasts, is adequate;

A local subsidiary bank is not a subsidiary of a foreign legal entity (except for a foreign bank or bank holding company);

if the bank is a subsidiary of a foreign bank or a foreign bank holding company, the foreign bank or foreign bank holding company guarantees the future obligations of the subsidiary bank in cases stipulated by the Civil Code of the Azerbaijan Republic; The future liabilities of the local branch of the foreign bank in a timely and appropriate manner guarantee that it will be paid;

If the bank is a subsidiary of a foreign bank or foreign bank holding company, the banking regulatory and supervisory authority of the country where the founding foreign bank or foreign bank holding company is located has authorized the establishment of the subsidiary bank and supervised the financial markets. The bank or a foreign bank holding company and their subsidiaries (foreign and local) will be subject to the necessary supervision by this body on a consolidated basis;

The banking regulatory and supervisory authority of the country where the founder's foreign bank's office is located has authorized the opening of a local branch and exercises the necessary control over the bank's activities;

If the bank is a member of a group of companies, such membership shall not impede the exercise of supervisory functions by the financial market supervisory authority and the Central Bank;

The financial condition of the founders or a foreign bank opening a local branch, confirmed by the relevant documents, is satisfactory;

Documents submitted by a bank or a local branch of a foreign bank for licensing complies with the requirements of the legislation of the Republic of Azerbaijan.

## Table 1: The structure of credit investments in the economy by credit organizations (at the end of the period)

	Total	State bank	S			Commercia	al banks			Non-bank o	redit organizations
Year, month					Tota	I	Banks with fo	preign capital	Banks with 10 capit	•	
monur	cedits	mln. manat	percent, %	mln. manat	percent, %	mln. manat	percent, %	mln. manat	percent, %	mln. manat	percent, %
2005	1441.0	748.3	51.9	653.1	45.3	263.5	18.3	25.9	1.8	39.6	2.7
2006	2362.7	1068.3	45.2	1229.7	52.0	545.8	23.1	55.8	2.4	64.7	2.7
2007	4681.8	1990.7	42.5	2563.0	54.7	1437.6	30.7	216.2	4.6	128.1	2.7
2008	7191.3	3027.5	42.1	3989.0	55.5	2024.9	28.2	379.9	5.3	174.8	2.4
2009	8407.5	3911.7	46.5	4318.7	51.4	2074.4	24.7	386.6	4.6	177.0	2.1
2010	9163.4	3901.9	42.6	5069.9	55.3	2306.3	25.2	464.2	5.1	191.6	2.1
2011	9850.3	3300.0	33.5	6298.8	63.9	3002.0	30.5	586.2	6.0	251.5	2.6
2012	12243,7	4137,1	33,8	7785,5	63,6	3394,0	27,7	759,3	6,2	321,1	2,6
2013	15422,9	5300,4	34,4	9689,4	62,8	4612,5	29,9	1034,7	6,7	433,1	2,8
2014	18542,6	6143,8	33,1	11873,6	64,0	5580,1	30,1	1388,6	7,5	525,2	2,8
2015	21730,4	7289,3	33,6	13875,2	63,8	6394,1	29,4	1564,5	7,2	566,0	2,6
2016	16444,6	5749,2	35,0	10222,0	62,2	4328,8	26,3	1248,8	7,6	473,4	2,9
2017	11757,8	1916,2	16,3	9421,4	80,1	3456,3	29,4	1063,6	9,0	420,2	3,6
2018	13020,3	2098,4	16,1	10529,8	80,9	3349,5	25,7	1071,3	8,2	392,0	3,0
2019	15298,2	2561,5	16,7	12339,4	80,7	3655,8	23,9	1107,4	7,2	397,2	2,6
2020	14530,4	2776,5	19,1	11380,5	78,3	3112,3	21,4	968,2	6,7	373,4	2,6

\*The reduction in credit investments is related to the revoked banks.

Note: Indicators are calculated according to the International Monetary Fund's "Money and Financial Statistics" methodology.

Source: Central Bank of the Republic of Azerbaijan, <u>www.cbar.az</u> (31.12.2020)

According to Table 1, this is a table about market participants. As you seen from the figure the number of state banks was same from 2018 to 2019. The number of commercial banks has decreased from 28 to 24. As it is mentioned, the reduction observed in bank indicators is related to revoke of licenses of banks.

In 2012 credits by state banks was 33,8 %, in numbers 4137,1 mln azn; credits by commercial banks was 63,6%; credits by non-banks institutions was 2.6%. In 2013 credits by state banks was 34.4 %; credits by commercial banks was 62.8%; credits by non-banks institutions was 2.8%. In 2014 credits by state banks was 33.1 %; credits by commercial banks was 64%; credits by non-banks institutions was 2.8%. In 2015 credits by state banks was 33.6 %; credits by commercial banks was 63.8%; credits by non-banks institutions was 2.6%. In 2016 credits by state banks was 35 %; credits by commercial banks was 62.2%; credits by non-banks institutions was 2.9%. There is not a big difference among these years. But as you have seen every next year credits by non-banks institutions have increased a little bit. In 2017 credits by state banks was 16.3 %; credits by commercial banks was 80.1%; credits by nonbanks institutions was 3.6%. In 2017 credits given by state banks have dramatically decreased to 16.1. In contrast the credits by non-banks institutions have historical growth. In addition the credits given by commercial banks have increased in a huge percent. In 2018 credits by state banks was 16.1 %; credits by commercial banks was 80.9%; credits by non-banks institutions was 3.0%. In 2019 credits by state banks was 16.7 %; credits by commercial banks was 80.7%; credits by non-banks institutions was 2.6%. In 2020 credits by state banks was 19.1 %; credits by commercial banks was 78.3%; credits by non-banks institutions was 2.6%. The 2020 is the year with pandemic illness. So a lot of people died from the virus COVID 19. In this year all people from all over the world have spent a huge amount of money to hospitals. Therefore people needed more credits.

According to years the credits to real sector were different. As it is seen from the table, in 2013 the most of credits have been given to households (6214.7 mln manat). In 2014 there is a big different in including the construction of real estate and to purchase (including mortgage loan). The number increased by 328.3 mln azn. In

2015 the credits to transportation have increased by appromixately two times (from 736.0 to 1465.6 mln azn ). In 2016 the credits to most of sectors (transportation and communication sector, households) have decreased. This is related to the effects of devalvasion which happened in 2015. In 2017 the loans to public organizations have increased by more than two times (from 25.6 to 54.4 mln azn ). In contrast to 2017 in 2018 the loans to public organizations have decreased by more than five times (from 54.4 to 10.1 mln azn ). Recently there is not a huge different between the credits to real sectors in 2019 and 2020.

There are different approaches to the stages of economic development in Azerbaijan. According to recent research, the stages of economic development are taken in this way: Before oil boom, during oil boom, after oil boom (Aliyev, K., & Gasimov, I., 2018; Aliyev, K., 2014; Dehning, B., Aliyev, K., & Nadirov, O., 2016).

#### **BEFORE 2005**

Since 2002, an important phase of the restructuring of the banking system has begun. As a logical consequence of a successful oil strategy, a new development strategy covering 2002-2005 was developed, taking into account the inflow of large oil revenues into the country and the readiness of banks to effectively transfer financial resources to strategic goals. The main goal of the strategy is to effectively and securely transform oil revenues into the non-oil sector, develop access to banking services for the population and regions and develop financial intermediation to reduce poverty, strengthen the sustainability and reliability of the banking system, free and healthy competition in the banking services market. In order to achieve the set strategic goals, specific tasks have been set and implemented, such as improving the legal framework of banking and bringing it into line with international standards, increasing the reliability and soundness of the banking system, expanding access to banking services, increasing transparency and strengthening market discipline. As a result of radical reforms and institutional development in all areas of the banking system, profound quantitative and qualitative changes have taken place in the sector. The most common result of the reforms is the formation of a banking system that

fully complies with international standards in terms of financial stability, risk management practices and the range of services. In order to stimulate deposits in the sector and increase public confidence in the sector, a deposit insurance system was established in 2007, and in 2009 the amount of deposits protected by the Deposit Insurance Fund was increased 6 times to 30,000 manat.

The banking and financial sector has not lost its balance in the face of the global crisis since 2008 as a result of successful development and modernization strategies, as well as pre-crisis management and "financial immunization" measures. During the aggravation of the crisis, as a result of additional measures taken, the further strengthening of this preparation created conditions for the reliable protection of financial stability in the country. Thus, the Azerbaijani banking system met the global crisis with a high level of capitalization, financial prudence and liquidity. Unlike most countries in the world, Azerbaijan's banking sector has not experienced any bankruptcy or special tensions, and the sector has maintained its size and stability.

In order to increase the population's access to financial banking services in the regions, Azerpocht LLC, which has more than 1,200 regional post offices and branches, was restructured to provide financial services in addition to traditional postal services, and a relevant license was issued to provide financial services.

Today, banks provide a wide range of services and retail banking services are developing rapidly. Banking products are now offered to customers using the latest technology, such as internet banking, mobile banking and automated banking kiosks.

#### 2005-2015

The regional network of the banking system and access to financial services are also expanding rapidly, and banks are becoming more active in international financial markets. Thus, as of April 1, 2010, the number of structures of banks operating abroad reached 9. In addition, 3 representative offices of the world's leading financial institutions are allowed to operate in the country, which will allow the application of the world's most advanced banking technologies in Azerbaijan. As of April 1, 2010, 47 banks and 631 bank branches operate in Azerbaijan. At present, 1

of the banks has been established with the participation of state capital and 23 with the participation of foreign capital. As of April 1, 2010, 98 non-bank credit organizations operate in the country along with banks. The growth of real incomes, the development of confidence in the banking system, the improvement of the legal framework for the protection of the interests of creditors and depositors, in particular, the launch of the "Deposit Insurance Fund" were among the factors contributing to the rapid growth of deposits. As of April 1, 2010, the population's deposits in banks amounted to 2.4 billion manat. Manat of which 33.3% falls on long-term deposits (more than 1 year). Along with the population, corporate customers' deposits in banks are growing. As of April 1, 2010, corporate customers' deposits in banks amounted to 2.1 billion manat. The dynamic development of the volume of special and borrowed funds of banks has created favorable conditions for the expansion of active operations. As a result, the volume of bank assets showed a steady increase and as of April 1, 2010 amounted to 12 billion. Credit investments have a special weight in the structure of bank assets. As of April 1, 2010, banks' loans to customers amounted to 8.5 billion manat. Manat of which is 70.5% of the bank's assets. The share of the private sector in the structure of credit investments is 82% (7 billion manat).

#### After 2015

On February 21, 2015, an event took place that will affect the financial sector of Azerbaijan for a long time with its consequences. Until now, a term known only to economists has become synonymous. "Devaluation" - a term that is engraved in the memory of everyone in the country, regardless of profession, what economic event does it mean?

"Devaluation" is the devaluation of a country's national currency against other foreign currencies. To put it simply, the devaluation is the depreciation of the manat against foreign currencies (against the dollar). So why is the depreciation against the dollar so inflated? Because a large part of the export potential of our country falls on oil and oil products. These products are bought and sold on the world market in dollars. As a result, the country's foreign exchange reserves are kept in dollars. For this reason, most people in Azerbaijan view the devaluation as a "appreciation of the dollar." In fact, this is the depreciation of the manat against the dollar, as well as other currencies against the dollar. Note that after the first devaluation, the manat depreciated by 34% against the dollar and the exchange rate changed from "1 USD = 0.78 AZN" to "1 USD = 1.05 AZN".

Ten months after the first devaluation, ie on December 21, 2015, the manat could not withstand the pressure and was subjected to a second depreciation. At this time the reduction rate was even higher - 47%. The new exchange rate was set at "1 USD = 1.55 AZN" and the Central Bank of the Republic of Azerbaijan announced its decision to switch to a "floating exchange rate" system. In subsequent periods, the USD AZN exchange rate fluctuated several times, and in some cases even reached the level of 1.9 - 2 AZN per 1 USD. Currently, this rate has been stabilized for a long time and is set at "1 USD = 1.70 AZN".

The banking sector is the most affected by devaluations. Due to the long-term stability of the current exchange rate (0.78) before the devaluation, banks almost did not take this factor into account when calculating and forecasting currency and credit risks. Some banks provided loans from foreign countries in dollars at a lower interest rate in the currency they were attracted to, and some in manat on the basis of these funds. Participants in both positions suffered heavy losses. Thus banks lending in dollars faced serious problems with the repayment of loans against the background of increasing loan repayments. The quality of the loan portfolio fell sharply, and the allocation of required reserves led to a shortage of capital in banks. Banks, which disbursed loans in manats at the expense of funds raised in dollars, suffered serious losses due to the sharp deterioration of the currency position. Another problem was related to deposits. As mentioned earlier, banks that did not take into account currency risks attracted manat and dollar deposits at almost the same interest rates. This factor made it difficult for banks to pay interest on dollar deposits, which at one time attracted high interest rates. After the devaluations, the population began to withdraw their manat deposits from banks due to lack of confidence in the national currency, and at best to convert them into dollars. This process, called

"dollarization", in turn, had a negative impact on the financial condition of banks. It is no coincidence that before the devaluation, the number of private banks, which numbered more than 40, decreased to 30. Of these 30 banks, 28 are local banks or subsidiaries. The two operating banks are local branches of foreign banks.

Besides that, in 2019 Azerbaijan faced a great danger-pandemic situation. Covid 19 also affected on the bank sector. In the period of pandemia the poverty increased, the unemployment rate went up, so unemployed people spent much than saving. As a result credit levels increased after 2019 (bakuresearchinstitute.org.az, 2019).

## 2.3. Performance of Non-bank Financial Intermediaries before-and-after Devaluation

When we say credit policy, it means measuring risk, including managing it, including creating conditions for growth. Credit policy usually includes these.

- Development of evaluation models
- Use of credit risks effectively
- The process of expectation
- Amendments and agreement process

Credit policy in banks is developed under the direction of management. With the implementation of the policy, the loan is calculated and the necessary work is done. During the loan, the necessary attention is paid to setting interest rates. Functional risk, which is an important part of the risks, refers to the stage of product development. Functional risk can be unambiguously related to the bank's activities. This risk process usually arises when the necessary information on financial issues is not collected and resolved. The banking sector is the main branch of the country's economy. That is why the processes of managing these risks are practiced. It should be noted that the role of the Central Bank in risk management in our country is undeniable. The Central Bank has also established a Risk Management Department, which has begun to show even more important results. The purpose is to carry out

rehabilitation processes.

Azerbaijan occupies a special place among the dynamically developing countries. Azerbaijan has managed to maintain its stability during the recent financial crisis. This, in turn, has occurred as a result of well-thought-out reforms. It has to be considered that all this is insured against risks. In all forms, risk is inevitable and managed under certain conditions. As the economy develops and financial instruments become more difficult, a new phase of management is required. Businesses must maintain a balance in management decision-making. Risks must be approached more carefully. The Central Bank investigates potential risks. Appropriate action is taken to address any deficiencies.

The focus on risk management is usually external, not internal. External influences arise as banks' external requirements. That is why risk management is formal. Banks operating in Azerbaijan continue to operate under the name of risk management. Work in other emerging sectors It should be noted that the work done differs from each other. The global financial crisis has filled the gaps in our country. This process, as felt in many countries, has affected Azerbaijan. It should be noted that the effects of the crisis in Azerbaijan do not go unnoticed. Although the banks faced a short-term crisis, this situation was resolved quickly. All this is an integral part of management standards. The development of these standards by the Central Bank has begun positively. The crisis has damaged many financial institutions. At present, risk management and revenue generation are important issues. ARPA has been established to fill the gaps in the country. Important projects in the field of risk management have been completed over the past two years.

Non-bank credit organization - (hereinafter, NBCI) is a specialized credit organization that provides loans on the basis of a special agreement (license) and carries out the activities provided for in the Law of the Republic of Azerbaijan on NBCIs.

NBCI can issue secured and unsecured loans on the basis of a license obtained from the Central Bank. Loans issued by NBCI can be secured by movable and immovable property collateral, mortgage deposit, guarantee, surety and other methods provided by law (<u>http://www.e-qanun.az/framework/19197</u>, 2019).

NBCIs are one of the non-bank financial institutions (organizations). One of the main roles of these organizations in the financial system is to support socioeconomic development. Thus, research on the economy and financial system of some countries gives grounds to say so.

Loans issued by NBCI can be secured by movable and immovable property, guarantee, surety, mortgage deposit. And it can also be provided by other methods in accordance with the legislation (Law of the Republic of Azerbaijan "On Non-Bank Credit Institutions", 2018,).

NBCIs that have placed a collateral deposit in their accounts may not lend or provide other financial services at the expense of those funds. According to the Rules of Prudential Regulation of NBCIs, the minimum requirements for the authorized capital of these organizations are as follows:

- For commercial NBCIs - 300 (three hundred) thousand manats;

- For non-commercial NBCIs - 30 (thirty) thousand manats.

According to the summary indicators of the banking sector as of 2018, there are 104 NBCIs in the country. Of these, 47 are non-bank credit organizations and 57 are credit unions. One of the non-bank credit organizations is the state NBCI. State NBCI "Agrarkredit" Closed Joint-Stock Company is a non-bank credit organization. Also, 8 are NBCIs with foreign capital.

NBCIs are prohibited from attracting deposits from legal entities and individuals. NBCIs use their authorized capital and revenues, loans, grants, donations and grants from individuals and legal entities, grants from foreign governments, international organizations and other donors, etc. to finance their activities may be at the expense of sources. The organizational structure of NBCIs should include at least positions such as manager, head of accounting service, loan officer, internal auditor.

NBCIs offer fewer products to customers than banks. These organizations are engaged in lending in Azerbaijan. NBCIs mainly offer consumer and business loans

and leasing. In addition, there are NBCIs in Azerbaijan that offer mortgages, agro loans and pawn loans.

And as can be seen, the share of NBCIs in lending to the economy is much smaller than that of banks. NBCIs are more active in small and medium business lending. And they also have certain advantages over banks. Unlike banks, NBCIs are smaller and more flexible. Another advantage of NBCIs is that they have an easy management system. This avoids their additional costs and simplifies the process. It is also the lack of rules and regulations for these organizations, unlike banks. In general, in the world practice, according to these organizations, control is either formal or completely out of control. One of the main advantages is the easy access to NBCI resources. Thus, NBCIs operate in more regions of the country than banks. They work especially in the areas close to the frontline. This gives them an advantage over banks in small business lending, especially in microcredit. Microloans are small loans, mostly short-term. And those who use this loan are small businesses or start-ups. The presence of NBCIs in the regions and remote areas, as well as the high demand for credit in these areas, stimulates the development of both organizations and small businesses.

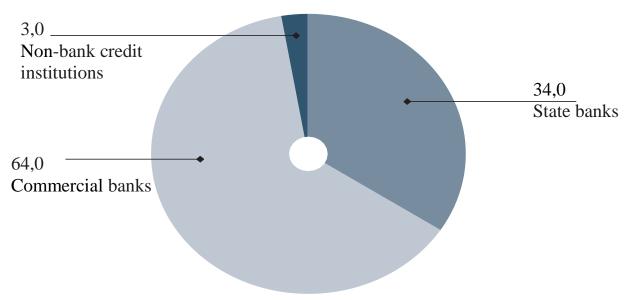


Figure 1: Structure of credit investment by credit organizations, in percent (31.12.2015)

Source: Central Bank of the Republic of Azerbaijan, <u>www.cbar.az</u> (31.12.2015)

In addition, the capital and assets of NBCIs are relatively small compared to banks. Figure shows some of the NBCI statistics for 2003-2015. Thus, the total capital of NBCIs as of 2014 amounted to 89.03 mln. manat and assets 650.6 mln. manat. As of that date, compared to banks, NBCIs have about 2.6% of the bank's capital and 2.1% of their assets. In 2015, there was a significant increase in the assets of NBCIs. The reason for this was the strengthening of the IBA. Thus, due to the measures of the IBA restructuring plan, the bank's troubled assets were transferred to the management of "Agrarkredit" NBCI CJSC.

Year	Total credits	Non-bank credit institutions				
	i otal cicults	mln. manat	percent, %			
2005	1441.0	39.6	2.7			
2006	2362.7	64.7	2.7			
2007	4681.8	128.1	2.7			
2008	7191.3	174.8	2.4			
2009	8407.5	177.0	2.1			
2010	9163.4	191.6	2.1			
2011	9850.3	251.5	2.6			
2012	12243.7	321.1	2.6			
2013	15422.9	433.1	2.8			
2014	18542.6	525.2	2.8			
2015	21730.4	566.0	2.6			
2016	16444.6	473.4	2.9			
2017	11757.8	420.2	3.6			
2018	13020.3	392.0	3.0			

I able 2. Dialibrich of 1 ton Dank Ci call montations	Table 2: Statisti	cs of Non-bank	credit institutions
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**Source**: Central Bank of the Republic of Azerbaijan (https://www.cbar.az/page-40/statistics-bulletin)

NBCI can provide secured and unsecured loans. NBCIs licensed to issue loans can also carry out the following activities: leasing, insurance agent services, promissory note registration, guarantee issuance, factoring, forfeiting, technical and management services to borrowers, as well as financial advisory services ("Non-bank Law of the Republic of Azerbaijan "On credit organizations" 2018).

NBCIs are prohibited from attracting deposits from legal entities and individuals. NBCIs use their authorized capital and revenues, loans, grants, donations and grants from individuals and legal entities, grants from foreign governments, international organizations and other donors, etc. to finance their activities at the expense of sources. The organizational structure of NBCIs should include at least positions such as manager, head of accounting service, loan officer and internal auditor.

The number of non-bank credit organizations is 160. 113 of them are credit unions, 46 are credit organizations financed by international humanitarian organizations, and 1 is other types of credit organizations. According to recent reports, the licenses of 4 credit unions have been revoked, including regional organizations such as Astanli Credit Union, Mikhligovag Credit Union, Financial Credit Union LLC and Nofel Credit Union.

Banks lead in terms of the number of branch networks. Although there are 44 commercial banks, the number of bank branches has reached 743. Although the number of NBCIs has reached 160, the number of branches is many times lower than that of banks and stands at 221. Note that credit unions do not have any branches. Thus, on average, there is 1 bank branch for every 12,000 people and 1 NBCI branch for every 42,000 people.

The total volume of bank assets is 38 times more than the assets of non-bank credit organizations. As of the third quarter of 2014, the assets of banks amounted to 23.5 billion manat, while the assets of NBCIs amounted to 614 million manat. The main

reason for this is that the sources of funding for NBCIs are quite limited, which in itself limits the placement of funds.

The sources of financing of NBCIs are authorized capital, incomes, attracted loans, donations of individuals and legal entities, etc.

## CHAPTER 3. THE IMPACT OF FINANCIAL INTERMEDIARIES OVER NON-OIL SECTOR IN AZERBAIJAN: EMPRICAL ANALYSES

#### 3.1. Data and methodology

#### 3.1.1 Variables and descriptive statistics

All the data available herein are yearly-based and cover the period 2000–2020, totaling overall to 21 observations. Basic definitions of variables are given below:

*Non-Oil Real GDP* (*gdp*) is the dependent variable, measured in million *AZN*, demonstrates the sum of value added produced in the non-oil economy. We have the data from the monthly Statistical Bulletins (SB), compiled and issued by the Central Bank of Azerbaijan (CBAR), and converted them to the yearly basis.

*Credits by Banks (bank\_credit)* is the first main independent variable, measured in million *AZN*, credit is a customer's right to purchase products or services before making a deposit, depending on the expectation the payment will be made later. In terms of credits by banks, we only consider credits given by banks and the related data is taken from yearly Statistical Bulletins (SB), compiled and issued by the Central Bank of Azerbaijan (CBAR).

*Credits by Non-bank organizations (non\_bank\_credit)* is the second main independent variable, measured in million AZN, a non-banking financial institution (NBFI) or non-bank financial corporation (NBFC) is a financial institution that does not hold a full banking license and is not controlled by a national or international banking regulator. In terms of credits by non-banks, the related data is taken from yearly Statistical Bulletins (SB), compiled and issued by the Central Bank of Azerbaijan (CBAR).

*Budget expenditures (BE),* measured in million *AZN*, a budget is a microeconomic idea that shows the trade-off made when one product is exchanged for another. In terms of end result of this trade-off—a surplus budget means profits are anticipated, a balanced budget means revenues are expected to equal expenses, and a deficit budget means expenses will exceed revenues. We have the data from the yearly

Statistical Bulletins (SB), compiled and issued by the Central Bank of Azerbaijan (CBAR).

Graphical analyses of measured variables are given below.

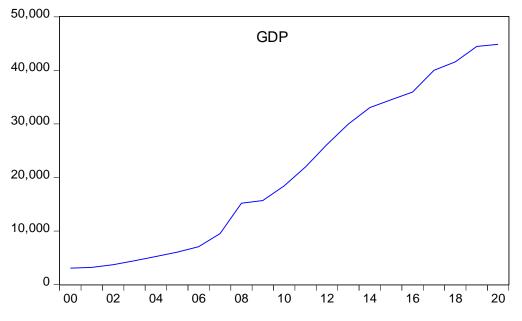


Table 3: Trend analysis of GDP

Source: E-views estimation output

Trend of GDP is increasing as years changes.

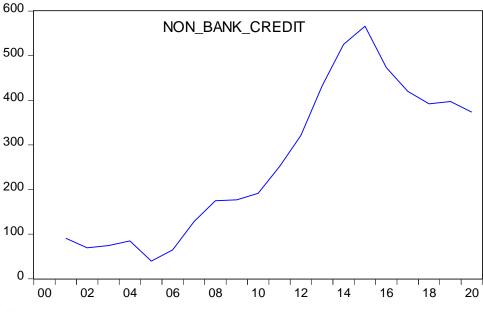


Table 4: Trend analysis of Credits by Non-bank Organizations

In this graph as it is seen there is a break. This is related to devaluation which happened in 2015.

Source: E-views estimation output

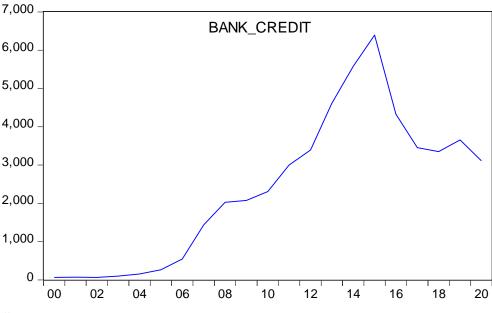
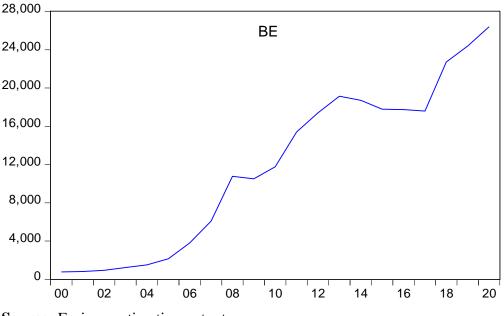


Table 5: Trend analysis of Credits by Bank Organizations

Source: E-views estimation output

Mostly there is increasing trend in this graph and there is a break as well. This is also related to devaluation which led to closing of banks in 2015.





Source: E-views estimation output

Trend analysis of budget expenses shows increasing temp.

The most important statistic indicators of distribution are given following:

	GDP	BE	BANK_CREDIT	NON_BANK_CREDIT
Mean	21151.16	11791.46	2380.271	262.4150
Median	18442.70	11765.90	2306.300	221.5500
Maximum	44862.10	26417.10	6394.100	566.0000
Minimum	3055.800	763.8000	63.30000	39.60000
Std. Dev.	15235.02	8700.188	1949.437	173.3532
Skewness	0.224083	0.015596	0.312214	0.241002
Kurtosis	1.536602	1.613757	2.108642	1.622333
Observations	21	21	21	20

Table 7: Statistic indicators of measured variables

Source: E-views estimation output

# **3.1.2.** Empirical methodology: Autoregressive Distributed Lag Bounds Testing (ARDLBT) Approach

This method is defined as an alternative to co-integration by Pesaran et al. (2001). In contrast to alternatives, the ARDLBT method has many benefits, including easy applicability in small samples using Ordinary Least Squares (OLS), no endogeneity problem with both I(1) and I(0) series or a mixture of them, and simultaneous estimation of long-run and short-run coefficients (Pesaran et al. 2001, Oteng et al. 2006, Sulaiman et al. 2010). Because of the small number of findings and the ADF unit test effects, this method is also more appropriate for this study. The implementation of the ARDLBT method (Pesaran et al. 2001) is divided into the following stages:

1. Construction of an Unrestricted ECM.

$$\Delta y_t = c_0 + \theta y_{t-1} + \theta_{yxx} x_{t-1} + \sum_{i=1}^n \overline{\omega}_i \Delta y_{t-i} + \sum_{i=0}^n \varphi_i \Delta x_{t-i} + u_t$$
(1)

The dependent variable is y, and the independent variable is x, and u represents white noise errors. The drift coefficient is denoted by  $C_0$ , where  $\theta$ i stands for long-run coefficients,  $\omega$ i and  $\varphi$ i stand for short-run coefficients.

2. Testing existence of co-integrating relationship by using Wald-test (or the F-Test) on  $\theta$ i the coefficients.

We should test for the null hypothesis of "no integration," which is described as H0:  $\theta 1 = \theta 2 = ... = \theta n = 0$ , while the alternative hypothesis is the opposite expression.

It's worth noting that if the measured F-statistic from the sample is greater than the maximum level of the critical value under a given significance level, we should deny the null hypothesis. We will fail to refute the null hypothesis if the value is less than the lowest level of the critical level corresponding to a level of importance. If the measured F-statistic value from the sample falls between the lowest and highest bands of the critical value, the test results would be inconclusive.

In contrast to normal F-statistics, F-statistics in the ARDLBT co-integration test have a non-standard distribution. As a result, instead of using the traditional critical values of F-distribution, researchers can use the critical values of F-distribution determined by Pesaran and Pesaran (see Pesaran et al., 1997 or Pesaran et al., 2001).

3. If the variables have a co-integrating relationship, we will estimate/calculate the long-run coefficients.

These coefficients can be determined from equation (1) using the Bewley transformation (Bewley 1979), which involves manually setting to zero finding y as:

$$y = -\frac{c_0}{\theta} - \frac{\theta_{yxx}}{\theta} x + u \tag{2}$$

4. Testing stability of the co-integration relationship.

We will quantify long-run residuals from equation (2) and use them in equation (1) when eliminating level variables and associated coefficients to measure the consistency of the co-integration relationship:

$$\Delta y_{t} = c_{0} + \sum_{i=1}^{n} \varpi_{i} \Delta y_{t-i} + \sum_{i=0}^{n} \varphi_{i} \Delta x_{t-i} + \gamma \ ecm_{t-1} + u_{t}$$
(3)

If the value of is between -1 and zero and is statistically important, so the conclusion favors the co-integration relationship's stability. To put it another way, stability

 $(\mathbf{n})$ 

refers to the temporality of short-run deviations from the long-run equilibrium direction that right to the above.

#### **Small Sample Bias Correction in ARDLBT Approach**

Different perspectives on the significance of essential values of the F-distribution in small and large samples can be found in the literature. Despite the fact that Pesaran and Pesaran (1997) calculated the upper and lower critical values of the F-distribution using sample sizes of 500 and 1000, as well as 20 000 and 40 000 replications, these values are questioned to be applicable for small sample sizes in Narayan (2005). Critical values proposed by Pesaran and Pesaran (1997) are not appropriate for small sample sizes, according to Narayan (2004, 2005). To back up his claim, Narayan compared his own critical values on the findings to the critical values in Pesaran et al. (2001), using four regressors and a 5% degree of significance. The findings backed up Narayan's claim. As a result, crucial values from Narayan (2005) will be included in our ARDLBT co-integration test to prevent problems caused by the limited sample size.

Here, I have employed ARDL estimation tool in E-Views 10 software. Therefore, above mentioned stages are automatically happened in background while calculating the estimation outputs.

#### 3.1.3. Unit root tests

In this research paper ADF (denote the Augmented Dickey-Fuller) will be used. An augmented Dickey–Fuller test (ADF) in statistics and econometrics measures the null hypothesis that a unit root exists in a time series study. Depending on which variant of the test is used, the alternate hypothesis is usually stationary or trend-stationary. For a wider and more complex range of time series models, it is an enhanced variation of the Dickey–Fuller test.

The augmented Dickey–Fuller (ADF) statistic, used in the test, is a negative number. The more negative it is, the stronger the rejection of the hypothesis there is a unit root at some level of confidence.

#### **3.2. Empirical results**

#### **3.2.1.** Unit root test results

Table 8 reports ADF unit root tests results with-and-without trend. All variables are tested both on trend and intercept and on trend. All variables are not stationary at Level. But at First difference all variables are stationary. Therefore all variables are I (1). Because ARDLBT approach can be estimated by using combination of I (0) and I(1) variables, we can proceed the analysis to the next estimation stage.

	Variable	Level I(0)	k	First difference <i>I</i> (1)	k
	GDP	0.9902	0	-3.3969**	0
	BE	0.3479	0	-2.1238***	0
Intercept	Bank_Credit	-1.2101	0	-0.8365**	0
1	Non_Bank_credit	-1.6599	1	-2.1673***	1
	GDP	-2.8048	0	-3.2881*	0
<i>Trend</i> and	BE	-3.5279	0	-3.4806**	0
	Bank_Credit	-2.8285	0	-2.8958***	0
Intercept	Non_Bank_credit	-3.1640	1	-3.1479***	1

#### **Table 8: Unit Root Tests Results**

*Notes:* ADF denote the Augmented Dickey-Fuller, Maximum lag order is set to 10, and optimal lag order (k) is selected based on the Schwarz Information Criterion (SIC) in the ADF test; \*\*\*, \*\*, and \* indicate the rejection of the null hypotheses at 1%, 5%, and 10% levels of significance, respectively. The critical values for the ADF are taken from MacKinnon (1996), whereas the ones for the Estimation period: 2000-2020

**Source:** E-views estimation output

#### **3.2.2. ARDLBT Outputs**

In this research, we have four independent variables. Note that we coded non-oil GDP, credits by banks, credits by non-banks and budget expenditures as GDP, Bank\_Credit, Non-Bank\_credit and BE respectively.

ARDL Long Run Form and Bounds Test

Dependent Variable: DLOG(GDP)

Selected Model: ARDL(2, 0, 2, 1)

Case 2: Restricted Constant and No Trend

Date: 04/18/21 Time: 14:12

Sample: 2000 2020

Included observations: 19

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	1.352822	0.278437	4.858628	0.0007
LOG(GDP(-1))*	-0.484395	0.091129	-5.315471	0.0003
LOG(BANK_CRED) T)**	-0.026348	0.039642	-0.664635	0.5213
LOG(BE(-1))	0.254368	0.091129	2.791306	0.0191
LOG(NON_BANK_C REDIT(-1))	C 0.244100	0.054893	4.446803	0.0012
DLOG(GDP(-1))	-0.280918	0.165752	-1.694809	0.1210
DLOG(BE)	0.546347	0.098051	5.572086	0.0002
DLOG(BE(-1))	0.153755	0.107668	1.428045	0.1838
DLOG(NON_BANK_ CREDIT)	0.056607	0.047956	1.180397	0.2652

\* p-value incompatible with t-Bounds distribution.

\*\* Variable interpreted as Z = Z(-1) + D(Z).

**Source:** E-views estimation output

#### **Table 10: Levels Equation**

Variable	Coefficient	Std. Error	t-Statistic	Prob.		
LOG(BANK_CREDI	[					
T)	-0.054393	0.078298	-0.694688	0.5031		
LOG(BE)	0.525125	0.121158	4.334224	0.0015		
LOG(NON_BANK_C	2					
REDIT)	0.503926	0.112547	4.477472	0.0012		
С	2.792807	0.397416	7.027416	0.0000		
$EC = LOG(GDP) - (-0.0544*LOG(BANK_CREDIT) + 0.5251*LOG(PE) + 0.5020*LOG(NON_PANK_CPEDIT) + 0.5$						

**Case 2: Restricted Constant and No Trend** 

 $0.5251*LOG(BE) + 0.5039*LOG(NON_BANK_CREDIT) + 2.7928)$ 

F-Bounds Test		Null Hypothesis: No levels relationship			
Test Statistic	Value	Signif.	I(0)	I(1)	
		•	mptotic: =1000		
F-statistic	9.275552	10%	2.37	3.2	
k	3	5%	2.79	3.67	
		2.5%	3.15	4.08	
		1%	3.65	4.66	
Actual Sample Size	19	S	Finite ample: n=35		

#### **Source:** E-views estimation output

These are estimated ARDLBT results. The most important thing is to check if there is any cointegration relationship. The value of F-test (9.275552) is greater than upper bound I(1), we reject the null hypothesis. It means there is cointegration relationship in this model. Therefore we can interpret this long-run equation:

## LOG(GDP)=2.793 - 0.054\*LOG(BANK\_CREDIT) + 0.525\*LOG(BE) + 0.504 \*LOG(NON\_BANK\_CREDIT)

The probability of bank credits over non-oil GDP (**0.5031**) is greater than 10% so we fail to reject the null hypothesis. It means that there is no significant long-run impact of bank credits over non-oil GDP. Regarding the probability of non-bank credits (**0.0012**) which is less than 1% means that the long-run relationship between non-bank credits and non-oil GDP is positive and statistically significant. The coefficient of probability of control variable (BE) is also positive and statistically significant (**0.0015**). The result is the impact of credits of banks is not significant although the coefficient is negative. Therefore the credits by banks do not play important role in the development of non-oil GDP. The reason for this is that the most of credits in the structure of banks is consumer credits. On the other hand the impact of credits of non-banks is positive and statistically significant. This is an important fact and can be used in planning of economic development.

#### 3.3. Robustness check

In robustness check we test reliability of the model. Here we have used Breusch-Godfrey Serial Correlation LM Test, Heteroskedasticity Test: Breusch-Pagan-Godfrey, Heteroskedasticity Test: ARCH to check robustness. In addition, the distribution of our model has been demostrated at the end.

F-statistic	2.780085	Prob. F(2,8)	0.1211
Obs*R-squared	7.790701	Prob. Chi-Square(2)	0.0203

Test Equation: Dependent Variable: RESID Method: ARDL Date: 04/18/21 Time: 14:27 Sample: 2002 2020

#### Included observations: 19

Presample	missing	value	lagged	residuals	set to zero.
	0				

Variable	Coefficient	Std. Error	t-Statistic	Prob.
LOG(GDP(-1))	0.170676	0.246838	0.691448	0.5088
LOG(GDP(-2))	-0.085838	0.196742	-0.436298	0.6742
LOG(BANK_CREDIT)	0.024440	0.036138	0.676294	0.5179
LOG(BE)	-0.012888	0.086838	-0.148411	0.8857
LOG(BE(-1))	-0.073068	0.152777	-0.478264	0.6453
LOG(BE(-2))	0.033742	0.105179	0.320805	0.7566
LOG(NON_BANK_CRE DIT)	-0.056194	0.049756	-1.129385	0.2915
LOG(NON_BANK_CRE DIT(-1))	-0.005872	0.053110	-0.110554	0.9147
С	-0.202615	0.267013	-0.758821	0.4697
RESID(-1)	-0.923201	0.398905	-2.314337	0.0494
RESID(-2)	-0.508944	0.411500	-1.236803	0.2512
R-squared	0.410037	Mean depe	ndent var	8.29E-16
Adjusted R-squared	-0.327417	S.D. depen	dent var	0.031072
S.E. of regression	0.035799	Akaike info	o criterion	-3.528887
Sum squared resid	0.010253	Schwarz cr	iterion	-2.982106
Log likelihood	44.52442	Hannan-Qu	inn criter.	-3.436350
F-statistic	0.556017	Durbin-Wa	itson stat	2.287687
Prob(F-statistic)	0.810402			

**Source:** E-views estimation output

The table 11 demostrates Breusch-Godfrey Serial Correlation LM Test. The p-value (0.1211) is greater than 10%, so we fail to reject null hypothesis. It means there is no serial correlation problem in our model.

#### Table 12: Heteroskedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.291347	Prob. F(8,10)	0.9532
Obs*R-squared	3.591396	Prob. Chi-Square(8)	0.8920
Scaled explained SS	1.386092	Prob. Chi-Square(8)	0.9944

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 04/18/21 Time: 14:31

Sample: 2002 2020

Included observations: 19

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	0.000499	0.012659	0.039434	0.9693
LOG(GDP(-1))	-0.002942	0.009780	-0.300836	0.7697
LOG(GDP(-2))	0.003429	0.007536	0.454995	0.6588
LOG(BANK_CREDIT)	-0.000125	0.001802	-0.069289	0.9461
LOG(BE)	-0.000309	0.004458	-0.069270	0.9461
LOG(BE(-1))	0.001046	0.006727	0.155497	0.8795
LOG(BE(-2))	-0.002177	0.004895	-0.444660	0.6660
LOG(NON_BANK_CREDIT)	0.000394	0.002180	0.180909	0.8601
LOG(NON_BANK_CREDIT(-1))	0.001425	0.002798	0.509281	0.6216
R-squared	0.189021	Mean depende	nt var	0.000915
Adjusted R-squared	-0.459762	S.D. dependent var		0.001569
S.E. of regression	0.001895	Akaike info criterion		-9.393392
Sum squared resid	3.59E-05	Schwarz criterion		-8.946026
Log likelihood	98.23722	Hannan-Quinn criter.		-9.317680
F-statistic	0.291347	Durbin-Watson stat		1.946474
Prob(F-statistic)	0.953243			

#### **Source:** E-views estimation output

The table 12 shows Heteroskedasticity Test: Breusch-Pagan-Godfrey. According to

Heteroskedasticity test the probability (0.9532) is more than 10 %, therefore there is no Heteroskedasticity problem in the model.

Table 13: Heteroskedasticity Test: ARCH

F-statistic	0.216229	Prob. F(1,16)	0.6482
Obs*R-squared	0.240014	Prob. Chi-Square(1)	0.6242

Test Equation:

Dependent Variable: RESID^2

Method: Least Squares

Date: 04/18/21 Time: 14:32

Sample (adjusted): 2003 2020

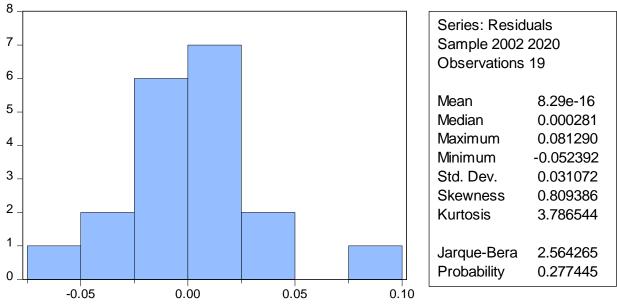
Included observations: 18 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	0.000706	0.000439	1.608022	0.1274
RESID^2(-1)	0.111637	0.240078	0.465004	0.6482
R-squared	0.013334	Mean deper	ndent var	0.000813
Adjusted R-squared	-0.048333	S.D. dependent var		0.001548
S.E. of regression	0.001585	Akaike info	criterion	-9.951577
Sum squared resid	4.02E-05	Schwarz cri	terion	-9.852647
Log likelihood	91.56419	Hannan-Qu	inn criter.	-9.937936
F-statistic	0.216229	Durbin-Wa	tson stat	1.895398
Prob(F-statistic)	0.648194			

Source: E-views estimation output

According to Heteroskedasticity Test (ARCH) the probability (0.6482) is more than 10 %, therefore there is no Heteroskedasticity problem in the model.

 Table 14: Normal distribution



**Source:** E-views estimation output

From table 14 the probability (0.2774) is greater than 10%, so the model is normally distributed.

### CONCLUSION AND RECOMMENDATIONS

Studying the problems of development and improvement of banks' activity in the context of market relations is always relevant. In line with the requirements of the new economic environment, the continous economic reforms require further improvement of banking activities and their establishment on the basis of new principles. The reforms will create effective conditions for ensuring the stability and dynamic development of the banking system. As shown in the strategic roadmap for the development of financial services, the efficient operation of banks is essential to the stability of the banking system (Hasanov, F., 2011)

Experience shows that international experience in the development of both the financial system as a whole and the financial market can help to overcome many problems in this area:

- There is a great need for the activity of investment banks in our republic. Investment banks are a key player in the developed financial markets, as they play an important role between the investor and the issuer, thus helping the investor achieve maximum returns. At the initial stage, it is possible to transfer this position to commercial banks in the country, and if successful, it will be possible to create separate investment banks.

- Regional coverage of financial intermediation services and access to such services should be expanded.

- It is advisable to take measures to ensure the transparency of financial reporting, which is the main information base in the financial market, with special emphasis on training in this area.

- Performance of non-bank institions must be increased as the impact of credits by non-banks on non-oil GDP is greater than the impact of credits by banks. This difference is connected to the fact that most of credits given by non-bank organizations are investment-related rather than consumption-related. Banks are restoring both consumer and business lending. However, it is no longer a blind lending process, as it used to be. Public confidence in banks has also been restored, and they have begun to deposit their funds in banks again.

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