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**The Analysis of challenges of credit risk
management in banking industry: Special case of
Azerbaijan**

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Baku, 2019

Acknowledgements

I might want to thank above all else giving us chance for examining in SABAH to the head of SABAH Center. Likewise for giving such stunning instruction conditions on account of Aida Dean.

Then, I would like to thank our supervisor Rovshan Jamalov who helped us to overcome many difficulties, and always lead us in the right direction.

The dearest thanks are coordinated to our families and companions, for giving us incredible help and help during these months. Special thanks to Aziz Aghayev for being patient and helpfull these months.

List of abbreviations

AR - Azerbaijan Republic

BCBS - Basel Committee on Banking Supervision

FSA - Financial Supervisory Authority

SSRN - Social Science Research Network

CBAR - Central Bank of Azerbaijan Republic

BIS- The bank for international settlement

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Introduction

Relevance. The world has encountered amazing quantities of banking and budgetary emergencies amid the most recent thirty years. Caprio and Klingebiel (1997) have distinguished 112 foundational banking crises in 93 nations since the late 1970s (Ibid.). Demirguc-Kunt and Detragiache (1998) have recognized 30 noteworthy financial emergencies that are experienced from mid 1980s and onwards. In spite of the fact that the vast majority of those were knowledgeable about the creating nations, the creators have noticed that three Nordic nations - Norway, Finland and Sweden - have likewise experienced comparative emergencies in the late 1980s and mid 1990s. Strikingly, most of the emergencies corresponded with the deregulatory measures that prompted too much fast credit augmentation. Over the long haul, persistent increments in resource costs made bubble. Sooner or later, the air pocket burst and the benefit markets encountered an emotional fall in resource costs combined with interruption. At last, boundless insolvencies joined by non-performing advances, credit misfortunes and intense financial emergencies were watched. All around as of late, the US subprime contract division has watched one of the most exceedingly awful monetary emergencies in 2007-2008. In this manner, the worldwide money related market is experiencing a fierce circumstance. This has required a nearby examination of the various issues identified with the activity of money related markets to recognize the base of the issue. Different issues, for example, the capital sufficiency levels in the financial framework, the job of rating organizations in money related guideline and the reasonable esteem evaluation of banking resources are the most discussed ones. In light of the financial emergencies, noteworthy reorganizations have been done in the banking administrative framework. The most significant ones are Basel Accord(s), Basel I and II, which allude to the financial supervision agrees

issued by Basel Committee on Banking Supervision (BCBS). Basel I, otherwise called 1988 Basel Accord, executed a structure for a base capital standard of 8% for banks. This was implemented by law in the G 104 nations in 1992. Basel I with spotlight using a loan chance thinks about the base capital prerequisite as the primary instrument to keep banks from going out on a limb. The principle reason was the conviction that a well-planned structure of motivations is more successful than basic controls. Basel I added to the budgetary soundness by making conditions for equivalent rivalries among banks crosswise over outskirts. Nonetheless, a few issues, for example, absence of hazard touchy proportions of the reliability and feeble motivators for banks to reinforce chance administration framework developed as inadequacies. These animated huge open doors for administrative exchange, for example, the expansion of wobbly sheet presentation. It was uncovered that Basel I was unfit to give a satisfactory reaction to the changing worldwide setting.

Thusly, Basel II became effective to more readily mirror banks' basic hazard and reaction to money related development like securitization. It was contended that Basel II improved hazard the board rehearses that were not obvious in Basel I5.

Amusingly, the recurrence of emergencies did not diminish in spite of the presentation of progressive changes. Why? There are many contributing components, principally, political and affordable conditions. It would thus be able to act naturally obvious that the improved hazard the board does not improve the financial business. In addition, Jean-Charles Rochet (2008) states that key variables to fruitful change are freedom and responsibility of banking managers. For whatever length of time that financial bosses speak to political and practical interests of their particular nations, it is preposterous to expect to execute worldwide guideline effectively.

The current worldwide money related emergency shows that chance administration of the monetary foundations isn't sufficiently satisfactory. This prompts the disappointment of the banks in very testing money related market. Moreover, the discourse of budgetary emergency in broad communications and among researchers makes reference to the hazard the executives as exclusions or disregard of hazard estimation signals. They express that progressively mindful members could stay away from the enormous effect of the budgetary meltdown⁶. Along these lines, Risk Management as an order is being paying attention to nowadays⁷. By the by, the monetary tempest shows a few key exercises which can help to improve the hazard the executives in future. Accordingly, hazard has turned into a difficult region of studies. This has propelled us to direct our theory on this region of intrigue.

Research object. challenges of credit risk management in banking industry in Azerbaijan.

Research goal. The main purpose of the research is to analyze how the credit risk management will influence the profitability of commercial banks in Azerbaijan.

The structure of thesis ;

This thesis paper is consist of 3 parts.

The first stage of paper is included overall theoretical background of credit risk managemet, origin of credit risk management, Basel accords, BIS and Central bank regulations.

The second stage of paper is aimed non-performing loans in Azerbaijan, importance and challanges of credit risk management.

And finally the third part of thesis provides conclusion and results obtained.

Methods and sources : The qualitative analysis and investigation of the main object is actualized by analyzing and synthesizing scientific literature and comparing the results obtained by previous researches in the same field. The fundamental sources utilized for subjective information gathering are Social Science Research Network(SSRN), Central Bank of Azerbaijan, Academia.edu, Wikipedia, Investopedia, Research gate. The research is fulfilled by using Microsoft 2010.

Keyword. Credit risk, credit risk management, Basel accords, Central Bank of Azerbaijan.

I. Theoretical background on the credit risk and credit risk management.

1.1. What is credit risk and credit risk management.

Credit risk is the one of the former risk in financial sector and credit risk management has created the core of banks' proficiency. The importance of credit risk and credit risk management are accelerated during time because of some reasons like economic stagnation and crises, bankruptcies of company, infraction of rules in accounting of company, growth of off-balance sheet derivatives, volatile and declining values of collateral, small firms' borrowing more easily, financial globalization and BIS risk-based requirements of capital.

Credit risk could be defined like the risk of losses caused by the default of borrowers. Default occurs when a borrower can not meet his financial obligations. Credit risk can alternatively be defined as the risk that a borrower deteriorates in credit quality. This definition also includes the default of the borrower as the most extreme deterioration in credit quality. Credit risk is managed at both the transaction and portfolio levels. But, banks increasingly measure and manage the credit risk on portfolio basis instead of on a loan-by-loan. In credit risk management banks use various methods such as credit limits, taking collateral, diversification, loan selling, syndicated loans, credit insurance, securitization and credit derivatives.

Credit risk the management in budgetary foundations has turned out to be urgent for the survival and development of these establishments (Afriyie and Akotey, 2012, p. 3). It is an organized methodology of vulnerability the board through hazard evaluation, advancement of procedures to oversee it and relief of hazard utilizing administrative assets (Afriyie and Akotey, 2012, p. 3). The systems of credit hazard the board includes exchanging hazard to different gatherings, keeping away from dangers, decreasing the negative

impact of hazard and tolerating a few or the majority of the outcomes of a specific hazard (Afriyie and Akotey, 2012, p. 3).

As per Van Gestel and Baesens, credit chance is overseen in different ways. The most significant strategy begins with proper choice of the partners and items (Gestel and Baesens, 2008, p.43). What's more, great hazard evaluation model and qualified credit officers are key prerequisites for determination methodology (Gestel and Baesens, 2008, p.43). For partners with higher default hazard, banks may require progressively insurance to decrease chance. Also, the evaluating of item ought to be in accordance with the assessed hazard. Furthermore, impediment principle of credit hazard the board limits the introduction of bank to a given partner (Gestel and Baesens, 2008, p.43). It evades the circumstance that one misfortune or set number of misfortunes jeopardizes the bank's dissolvability (Gestel and Baesens, 2008, p.43). Bank's determinants on how much acknowledge a partner for a given hazard profile can take should be constrained. Thirdly, the designation procedure of banks gives a decent expansion of the dangers crosswise over various borrowers of various sorts, industry, and geologies (Gestel and Baesens, 2008, p.43). Accordingly, expansion technique spreads the credit chance along these lines maintains a strategic distance from a fixation using a credit card hazard issues. To wrap things up, banks can likewise purchase credit insurance in types of assurances through credit subordinate items (Gestel and Baesens, 2008, p.43). By the insurance, the credit nature of ensured resources has been upgraded. These methods are deciphered in the every day association by composed strategies and approaches which decide how partners are chosen, hazard profile advances are conceded or more which level a specialist assessment is required (Gestel and Baesens, 2008, p.43).

In synopsis, a solid credit chance administration dodges huge disadvantages like credit focuses, absence of credit discipline, forceful guaranteeing to high-hazard partners and items at deficient costs (Gestel&

Baesens, 2008, p.44). What's more, a viable credit chance administration is confirmed by inner hazard control and review which screen credit discipline, advance approaches, endorsement strategies, office chance introduction and portfolio level hazard (Van Gestel and Baesens, 2008, p. 44).

1.2. Origin and evolution of credit risk management.

The beginning and Evolution of Credit risk can be followed back a great many years prior. Credit is a lot more seasoned than composing. Krimsky and Plow (1988) follow the origin of risk mindfulness back to Ancient Mesopotamia, in view of the work by Covello and Mumpower (1985), as do Golding (1992) and Thompson, et al.(2005). As indicated by Covello and Mumpower (1985), a hopefully early dating of the act of hazard examination is that of the season of antiquated Mesopotamia, just as old Greece and Rome, the previous identifying with sacerdotal practice and the last to the historical backdrop of logic (Covello and Mumpower, 1985). The primary thought of Covello and Mumpower's announcements about the historical backdrop of risk are that they are nonexclusive.

Althaus (2005) follows an increasingly straight and nitty gritty proposed advancement through etymology of the term 'risk'. Despite the fact that the code which arranged legitimate reasoning from 4,000 years back in Mesopotamia (Hammurabi's Code) neglects to give essential guidelines of getting, it emphasized that inability to pay an obligation is a wrongdoing. The code intensely said that one who neglects to pay an obligation at the perfect time ought to be dealt with indistinguishably to robbery and extortion. Hammurabi's Code did not address ideas, for example, intrigue, guarantee and default as use by the present day financial foundations yet additionally set a few cutoff points to punishments for a defaulter (Aaron, 2004). Aaron (2004) said a defaulter could confront a punishment of been sold by his bank into

servitude, yet his significant other and youngsters must be sold for a three-year term.

Following the historical backdrop of most places, credit default was a crime and the defaulters were rebuffed. The discipline differs from spot to put. In certain territories defaulters of credit chance were deserving of death, mutilation, torment, detainment or subjugation. The disciplines could be visited upon indebted individuals and their wards. Now and again obligation could be exchange to relative or political elements. Taking a gander at the punishments include in credit and torments moneylenders looked in gathering their funds one must be shock why anybody obtained or loaned cash in antiquated occasions.

1.3. The bank for international settlement (BIS) and the Basel accords.

1.3.1. The bank for international settlement (BIS).

The Bank for International Settlements (or BIS) is a international association of national banks which exists to "encourage participation among national banks and different organizations in quest for money related and budgetary steadiness" (Wikipedia on the web, September 2011). BIS isn't responsible to any legislature. It brings out its work through subcommittees, the secretariats it has, and through its yearly General Meeting everything being equal. The BIS additionally gives banking administrations, yet just to national banks, or to universal associations such as itself.

Situated in Basel, Switzerland, the BIS was built up by the Hague understandings of 1930. As an association of central banks, the BIS look to make monetary policy increasingly unsurprising and straightforward among its 58 part central banks. While monetary approach is controlled by every

sovereign country, it is liable to focal and private financial examination and possibly to theory that influences remote trade rates and particularly the destiny of fare economies. Two parts of monetary policy have turned out to be especially touchy, and the BIS consequently has two explicit objectives: to control capital ampleness and make hold necessities straightforward. Capital adequacy policy applies to value and capital assets. These can be exaggerated much of the time. As needs be the BIS requires bank capital/resource proportion to be over a recommended least global standard, for the assurance of every single national bank included. The BIS' principle job is in setting capital sufficiency prerequisites. From a universal perspective, guaranteeing capital sufficiency is the most significant issue between national banks, as theoretical loaning dependent on deficient fundamental capital and broadly fluctuating risk rules causes monetary emergencies as "terrible cash drives out good"(Gresham's Law).

The BIS sets "requirements on two classes of capital, Tier 1 capital and Total capital. Level 1 capital is the book values of its stock in addition to held profit. Level 2 capital is loss reserves saves in addition to subjected obligation. All out capital is the total of Tier 1 and Tier 2 capital. Level 1 capital must be at any rate 4% of all out risk weighted resources. Absolute capital must be in any event 8% of complete risk weighted resources. At the point when a bank makes a store to subsidize an advance, its benefits and liabilities increment similarly, with no expansion in value. That makes its capital proportion drop. Consequently the capital requirement confines the aggregate sum of credit that a bank may issue. It is imperative to take note of that the capital requirement applies to assets while the bank hold necessity applies to liabilities.

1.3.2. Basel accords

Banks include organizations of going out on a limb. The administration of banking dangers has turned out to be increasingly essential to budgetary strength and monetary development in present day economies (Ferguson, 2003, p. 395). Also, under the condition that Latin American obligation emergency has hit the economy vigorously, the Basel Committee, upheld by the G10 Governors, "made plans to end the disintegration of capital norms in their financial frameworks and to progress in the direction of more noteworthy union in the estimation of capital amplenness. This brought about a wide accord on a weighted way to deal with the estimation of hazard, both on and off banks' accounting reports" (BCBS, 2013, p.2).

Basel I: The Basel Capital Accord

On December 1987, a capital estimation framework which alluded to the Basel Capital Accord (or the 1988 Accord) was endorsed by the G10 Governors and later discharged to banks in July 1988 (BCBS, 2013, p. 2). The Accord has two central jobs. The first is the advancement of soundness and solidness of the universal financial framework by urging worldwide financial associations to improve their capital positions. Also, the second one is to give reasonableness to rivalries among banks (Patricia, 1999, p. 1). It was marked by each of the 12 individuals from Basel Committee and prepared for a critical increment in the assets banks dedicate to gauge and overseeing dangers (Hull, 2012, p. 258).

The Accord required a base capital proportion of cash-flow to chance weighted resources of 8% to be executed before the finish of 1992 (Ferguson, 2003, p. 396). All the more explicitly, so as to decide the bank's hazard weighted resources, various kinds of advantages are weighted by the dimension of apparent dangers that each sort of benefit presents, and each shaky sheet introduction must be determined to its comparable measure of

benefits and weighted as that sort of benefit must be weighted (Ferguson, 2003, p. 396). In this Basel Accord, the hazard weighted-resources concern just with credit chance and tended to different dangers just certainly (Ferguson, 2003, p. 396). Another significant issue identified with the capital itself. The capital had two

parts, Tier 1 capital and Tier 2 capital. The members consented to worldwide capital gauges: Tier 1 capital was to be connected to every global bank similarly and Tier 2 capital was to be custom-made to every nation's exceptional residential financial framework (Maurice, 2004, p. 22).

In any case, the Accord has been reprimanded by its effortlessness and somewhat discretionary (Ferguson, 2003, p. 396). For instance, it has just appointed four hazard loads to various resource classes. In other words, advances that are allocated same hazard weighted could have distinctive credit characteristics (Ferguson, 2003, p. 396). For instance, all advances by a bank to an enterprise have a hazard weight of 100% and require a similar measure of capital. An advance to an AAA FICO score organization should require a similar measure of administrative capital as the advance to a BB FICO score enterprise. This sort of constrained separation showed that the determined capital proportions could be uninformative and may give deluding data about bank's actual capital sufficiency (Ferguson, 2003, p. 396). Besides, the constrained separation has made impetuses for banks to get into exchange exercises and exploit by selling, securitizing hazardous resources (Ferguson, 2003, p. 396 and 397). Banks along these lines can generally maintain a strategic distance from exposures for which required capital is higher than the market requires and seeks after those for which the capital necessity is lower than the market would apply to those advantages (Ferguson, 2003, p. 396 and 397). Subsequently, a few banks can hold excessively minimal capital for their dangerous resources despite the fact that they have met the 8% hazard weighted-resources necessity.

1996 Amendment

So as to address hazards other than credit chance, which is the primary focal point of Basel I (Basel Accord), the Basel advisory group issued a consultative archive to alter the Basel Accord. This ended up known as the "1996 Amendment", which ought to be produced results in any event toward the finish of 1997 (BCBS, 2013, p.2). The change includes keeping capital for the market dangers related with exchanging exercises including outside trade, exchanged obligation securities, values, products and choices (Hull, 2012, p.265). A significant part of this change is that banks are permitted to utilize interior esteem in danger models as a premise to ascertain the capital they have to keep to assimilate misfortunes came about because of market dangers, subject to both severe quantitative and subjective benchmarks (BCBS, 2013, p.3).

Basel II

There have been huge advancements in the hypothesis and routine with regards to estimating and overseeing dangers since the usage of Basel I. A ton of new monetary instruments, for example, credit subordinates, have improved banks' capacity to control and moderate dangers from exchanging exercises (Lind, 2005, p. 23&24). Moreover, there has been a fast advancement towards bigger and increasingly complex financial gatherings with more extensive tasks, from a worldwide point of view (Lind, 2005, p. 23&24). Accordingly, an altogether reexamined structure for capital prerequisites was fundamental. Another structure for bank capital was presented in 2004 and ought to be executed in 2007 and connected to "globally dynamic" banks. The Basel II is based on three columns:

1. Minimum Capital prerequisite
2. Supervisory Review

3. Market Discipline

Column 1 tends to the base capital prerequisite, that is, the standard which a bank figures its administrative capital. The base required capital proportion (8%) stayed unaltered under Basel II while the best approach to ascertain the hazard weighted-resources has been changed. Basel II rolled out broad improvements to the treatment of credit hazard. It determined three ways to deal with measure the credit chance: the institutionalized methodology for banks that are not advanced which is like Basel 1 however containing more hazard loads, the inner appraisals based (IRB) approach meaning the hazard loads and the capital necessities are mostly founded on the individual bank's inward gauges, the progressed IRB approach which a significantly bigger piece of the capital prerequisites is impacted by the banks' own figurings (Ferguson, 2003, p. 398; Lind, 2005, p.27&28).

With regards to the Pillar 2 of Basel II, it worries with the supervisory survey process and has been an enhancement to the base capital prerequisite. In this way, it requires a normal cooperation among banks and directors in the evaluation and arranging of capital sufficiency (Lind, 2005, p.30). The last column looks to supplement these exercises through a more grounded market discipline by exposure of bank's key data of hazard evaluation systems and capital sufficiency (Ferguson, 2003, p. 398). This, somewhat, could empower advertise members to evaluate the bank's hazard profile and dimension of capitalization.

Basel III

The exercise from the money related emergency which started in 2007 has helped controllers to remember the presence of good peril and patience in bank guideline (Feess and Hege, 2012, p.1043). Numerous banks fizzled amid

the emergency while numerous others, including probably the biggest banks on the planet, just made due by the substantive government "bailout" (Feess and Hege, 2012, p.1043). Therefore, the Basel Committee understood that the prudential guideline of banks has gone under restored examination and a noteworthy upgrade of Basel II was on the call. This prompted the new Basel III Accord with massively stricter capital necessities and new guidelines.

The Basel III system forces more tightly capital proportions and new criteria, yet significantly pursues the course received by the Basel II Accord. In any case, the capital prerequisites turned out to be progressively exact which subject to the genuine credit chancemanaged by every individual bank resource (Feess and Hege, 2012, p.1044). As indicated by Hull (2012), the last form of Basel III was distributed in 2009 and there are six sections in the guidelines:

1. Capital definition and prerequisites
2. Capital protection cushion
3. Countercyclical cushion
4. Leverage proportion
5. Liquidity proportion
6. Counterparty credit chance

The emergency exhibited that credit misfortunes and compose downs leave held income, which is a piece of banks' unmistakable normal value base (BCBS, 2011, p.2). Furthermore, the irregularity in the meaning of capital crosswise over wards and the absence of revelation that could have empowered the market to completely evaluate and analyze the nature of capital between organizations are different viewpoints that should be considered amid the emergency (BCBS, 2011, p.2). In this manner, the new Basel Accord necessitates that a bank's all out capital should comprise of Tier 1 value capital (in any event 4.5% of hazard weighted-resources consistently),

extra Tier 1 capital and Tier 2 capital. Level 1 capital incorporates share capital and held profit yet does not include generosity or conceded charge resources (Hull, 2012, p. 290). The extra level 1 capital at that point comprises of non-aggregate favored stocks which are beforehand level 1 capital yet are not basic value. Level 2 capital incorporates obligation that is subjected to contributors with a unique development of five years (Hull, 2012, p. 290).

Capital protection cradle is intended to guarantee that banks develop capital cushions outside times of pressure which can be utilized to assimilate misfortunes when things occur (BCBS, 2011, p.54). Countercyclical support plans to guarantee that banking segment capital prerequisites assess the large scale money related condition in which banks work (BCBS, 2011, p.57). Also, Basel III requires a non-hazard based influence proportion that is intended to go about as a trustworthy strengthening measure to the hazard based capital prerequisites (BCBS, 2011, p.61). Another real improvement of Basel III is that it presents a worldwide liquidity standard including two liquidity proportions that are intended to ensure banks can have adequate amazing fluid assets to get by under intense pressure situations. The two proportions are Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) (BCBS, 2011, p.9). The last piece of Basel III is the CVA, which is the normal misfortune because of the likelihood of a default by the counterparty. At that point the detailed benefit is diminished by the aggregate of the CVAs for all counterparties (Hull, 2012, p.295).

In the years prior to the Basle Accord, extensive banks in real nations appeared to hold inadequate capital with respect to the dangers they were taking, particularly in light of the forceful challenge for piece of the overall industry in the worldwide market (Federal Reserve Release, 2002). As indicated by the depiction of Basel Regulations, the advancement has demonstrated a significant job of credit hazard the executives in the banks' tasks. A proportion of credit hazard in many banks that major in business

loaning and related exercises turned into the establishment of the Basle Accord. Subsequently, capitals to ingest dangers are a standout amongst the most basic parts that banks need to consider. To orchestrate the various dimensions of ways to deal with capital among nations, capital proportions are acquainted with exhibit the quality of the hazard the executives. As a result, the motivation of the fundamental job of capital proportion has driven us to utilize markers to quantify the quality of credit hazard the board, which establishes the framework of our exploration.

1.4. The Central Bank acts as the organizer of events related to banking risk management

The banking and financial sector is considered as the main artery of the country's economy. That's why the bank has learned more about risk management and has made more changes here. Certainly, the role of the CBA's policy in risk management in the country is indispensable. In 2004, the Central Bank approved the rules for "applying corporate governance standards in banks" and on its basis Risk Management Departments were established in the banks. The created legal framework has stimulated the creation of more perfect systems in banks. The Central Bank is continuously making progressive reforms based on the recommendations of international financial institutions, including the Basel Committee on Banking Supervision. The main purpose of these reforms is to achieve a robust and rapid development of the banking system.

Azerbaijan is among the most dynamically developing countries. Even in the last global financial crisis, Azerbaijan has maintained its stability. All of this is explained by the state-minded economic reforms, the implementation of the correct economic policy. But that does not mean that businesses are insured from all risks and potential problems are exception. There are risks in all forms of business and, of course, these risks are still

governed in certain directions. However, as the country's economy develops, as relations in the financial sector deepen and the financial instruments become more complicated, businesses are required to form a more perfect and more modern management process.

Since the development of the banking sector is relatively early in Azerbaijan, the focus on risk management is driven by the impact of external factors rather than on the inside. These outside effects in the banking sector in the country are reflected in the expectations and demands of the central regulator (formed through relevant corporate standards) on the one hand and on the other side of the "stakeholders" of the banks (rating agencies, financial institutions and donors). Therefore, the risk management process and the risk management division (champion) are often formal in banks and sometimes have very little impact on the risk management process.

In modern conditions, all banks in Azerbaijan have a risk management division, and the governing bodies of these banks consider risk management as the most important element of overall governance.

This is already a major breakthrough. In other sectors, certain work is being carried out in this direction. Of course, the scope and the features of the works are different. The global financial crisis in the world has also updated the gaps in this field in Azerbaijan.

The financial crisis, which became even more aggravated by the bankruptcy of Lehman Brothers on September 17, 2008, has also started to have its impact on the real sector in 2009. Globalization has also been felt in all countries around the world, including Azerbaijan. Crisis has been severely limited to a number of people, while others have relatively poor influence. Azerbaijan is among the least affected countries in terms of the negative impacts of the crisis. This can be found in the reports of international rating companies. All of this is characterized by relatively weak development of the country's financial markets, low dependence on external debt, non-investment

in crisis-driven financial instruments, and relatively low level of integration of local banks into international markets. Nevertheless, although some banks faced a short-term liquidity crisis, this problem was quickly eradicated, and the banking system could maintain its stability and volumes.

Risk management is an integral part of corporate governance standards, and since 2004 banks have been actively involved in applying these standards approved by the Central Bank. These requirements are very high and require a fairly large amount of institutional, technological, human and financial resources from banks.

However, an important part of the road is already over, and progress towards the road is considerable. Most importantly, as noted earlier, banks' managers have to accept this need and take serious action.

It is on the agenda as the risk management and corporate governance in the banks, the priority in the finance and the charity sector. The financial crisis seriously damaged many financial institutions and reduced their profitability.

Under current conditions, risk management is also the main function of each financial institution, optimizing revenues for accepted risk. In order to eliminate existing gaps in this area, ARPA Consulting has been established under the Association of Risk Professionals of Azerbaijan. Azerbaijan Risk Professionals Association (ARPA) is the leading risk management organization in Azerbaijan. ARPA, which is one of the leading providers of education, information and consultant services and distinguished by its invaluable experience within the following areas, works (but not limited to), has a reputation and has hundreds of members: risk management and evaluation; corporate and public finance and accounting; competency enhancement and training; management and control analysis; business strategies; planning and development of developments and processes; corporate governance and evaluation; banking and credit operations; legal expertise and advice; internal audit and auditing of related fields. Thanks to

our outstanding multidisciplinary focus and experience, we have gained great authority in Azerbaijan by providing cutting-edge technology tools and trainings through conferences, seminars, membership programs and publications. ARPA also provides a forum for the development of knowledge and ideas, the development of experiences and concepts, and the creation of conditions for "practical experience". The organization brings together diverse scales and areas professionals and young talents, creates bridges for sharing experiences and information, and promotes their future development by incorporating and participating in local and international projects through educational programs. Azerbaijan Risk Professionals Association is constantly exploring the world market and exploring new cutting-edge solutions. ARPA creates valuable "now-how", special tools and technologies for knowledge and information when analyzing its work, divisions and components.

The high level of risk management culture and experience is fully implemented and constantly improved in the activities of the Central Bank. At present, the Central Bank is implementing a large-scale project to improve the risk management system, and the project has also been involved in international consulting services.

The basis of any bank's credit activity is its special funds. In the conditions of deterioration of the economic situation of economic partnerships and financial institutions, the importance of special funds as a source of funds is increasing. An analysis of the condition of the Bank's specific resources is based on a special capital concept. Share capital and share capital, other funds and resources as well as profits are included in equity.

However, losses, remittances and receivables that are held to participate in economic activities of other entities reduce the size of the capital. Thus, the

bank's capital incorporates the actual cash flows. The comparison between the bank's capital and the charter fund indicates the actual situation.

Often, these two concepts are mixed up in practice. A number of economists split special funds into brutto and netto funds. Special funds (brutto), actual balance of special funds (netto) and distributed, capitalized (mobilized) special funds. Funds disbursed to the mobilized funds are retained by the funds transferred to participate in economic activities of other entities, transferred to securities and transferred on factoring funds, funds disbursed to inter-company settlements and receivables.

Special funds include, first of all, a Spare fund created to cover the damages arising from active operations. Today, the banking legislation of the Republic of Azerbaijan is being amended to meet the recommendations of the Basel Committee. At present, opportunities for expanding the charter capital are available through increased funding. According to the Law on Banks and Banking Activity in the Republic of Azerbaijan, the funds attracted to formation of charter funds can not be used.

In recent years, the Central Bank has developed stress testing models based on the top-down approach to measure the stability of the banking system's external and internal shocks. Various stress tests have been carried out. Nevertheless, a new stress test model has been set up at the World Bank's FIRST program and with the technical support of Booz Allen Hamilton, USA, in order to improve and expand stress-testing practice on the basis of global crisis practices.

The model is expected to be used by the Central Bank for prudential control purposes. At the same time, banks need to conduct stress-tests based on their "bottom-up" approach and evaluate the sustainability of the bank against external and internal shocks. However, the practice of stress testing in banks is still not sufficient.

By examining international practice to develop stress-testing practices in Azerbaijani banks, drafting the Central Bank's regulations on stress testing in banks has been prepared and is expected to be implemented in the near future. In this regard, the Central Bank provides methodological support to banks for setting up stress testing architecture. At the same time, when the banks of Azerbaijan form stress-test are expected to face certain problems. This can be explained by the following factors:

- Low or no experience of banks regarding stress testing;
- Shortage of qualified specialists in the banks to build stress testing models;
- The weakness of the full statistical database in banks, as well as functional information information systems;
- The risk that senior management of banks will not be actively involved in stress-testing processes.

In spite of the problems mentioned above, the establishment of effective stress-testing practices and integration of existing risk management systems to the existing system remains one of the priorities of the banks and the Central Bank in the upcoming period.

II. Empirical research methodology of credit risk and credit risk management.

2.1. Credit risk in banking sector.

Loans are the most noteworthy wellspring of the income of the banks. Notwithstanding this issue, they comprise the biggest piece of the advantages of these banks. In addition, giving advances is the fundamental capacity of the banks. Be that as it may, it very well may be said that this circumstance incorporates some risk for the banks. The primary risk in this situation is the likelihood that clients can't pay back this credit add up to the banks. This risk is likewise named as the credit risk of the bank (Heffernan, 2005). Mandaci (2003) and Graham and Coyle (2000) likewise characterized acknowledge chance as the normal instability in the estimation of the net benefit and capital of the banks because of the late installment and delinquency of the obligations by the clients. Besides, Sinkey (1983) clarified the acknowledge risk as the money related loss of the banks in light of the disappointment of the clients to agree to authoritative arrangements.

As it tends to be comprehended from the definitions above, credit hazard is for the most part identified with non-performing advances of the banks. It causes numerous issues for the banks. Most importantly, when clients can't pay their obligation to the banks, these banks begin to have liquidity issue since they don't have their money streams on schedule (Neal, 1996). Notwithstanding this issue, high credit hazard decays the net benefit of the banks since non-performing advances allude to the costs (Altman et. al., 1998). In addition, it prompts decline the picture of the banks in the market since financial specialists don't care for the manages an account with low benefit. While taking into the thought of these perspectives, it tends to be

comprehended that high credit hazard is basic for the banks and it might even reason the chapter 11 of these banks (Jarrow and Turnbull, 2000).

Since credit is chance indispensable for the banks, estimating this hazard is likewise noteworthy. Subsequently, there are some various techniques in order to quantify this danger of the banks. Moreover, it was additionally observed that the nature of the techniques has been expanded throughout the years. Standard strategy is the most established and least difficult model of estimating credit hazard. It relies upon the free FICO score. As indicated by this strategy, chance loads of the credits are characterized correspondingly for all manages an account as for the client gatherings (Teker et. al., 2005). For instance, the heaviness of the credits given to open establishments is 0%. Then again, if the client isn't assessed by a free FICO score establishment, this weight will be 100%. Also, when there is a home loan as guarantee of a credit, the heaviness of the credit will be 35%. In this technique, national expert figured out which free FICO score organization will assess the clients (Karabulut, 2003).

Inside rating technique is more broad methodology than standard strategy. As indicated by this technique, banks assess their credit hazard inside. In other words, bank work force, who are master to credit assessment, ascertain the credit hazard. As it very well may be comprehended from the definition, it relies upon the emotional assessment. While making this count, the measure of default, the likelihood, misfortune sum and the development of the credit are taken into the thought (Teker et. al., 2005). The subtleties of this assessment are given underneath.

Credit Risk = The Amount of Default*(Probability of Default, Loss Given Default, Maturity)

It was acknowledged by numerous analysts that accessible techniques are not sufficient to quantify the credit danger of the banks (Gray et. al., 2007; Neal, 1996; Wei and Chen, 2009). Attributable to this circumstance, new

credit chance estimating techniques were created. They expect to compute credit danger of the banks all the more precisely. The most significant new strategies are Merton-based model and RAROC model (Zhang and Wu, 2016; Bluhm et. al., 2016). Uniquely in contrast to different strategies, they compute credit hazard by considering a wide range of elements that may influence this hazard.

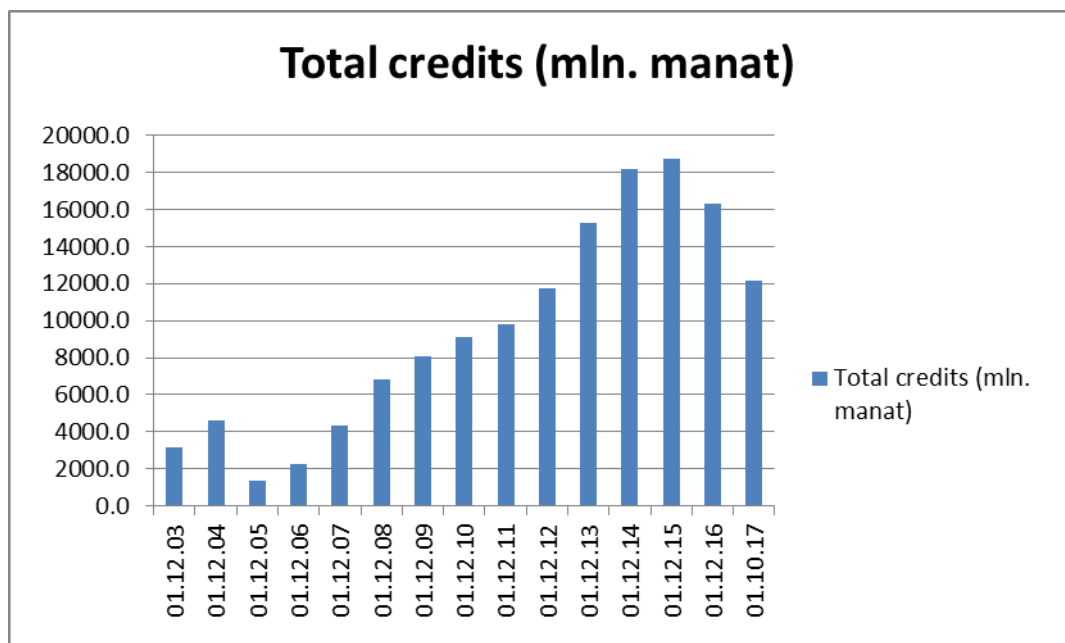
2.2. Non-performing loans in Azerbaijani banking sector.

After 2008 worldwide financial crisis, the subjects of hazard the board and reviewing in banking segment turned out to be increasingly significant. Inside this unique circumstance, the financial part in Azerbaijan has entered rebuilding process for hazard the board with the assistance of criteria created by the Central Bank of Azerbaijan. As per the investigations identified with this subject, it was comprehended that last guidelines in banking concentrated on the execution, hazard the executives, productive supervision and review of this part (Çağıl and Mukhtarov, 2014). Shockingly, until a years ago, assessment of hazard the executives framework happened as the appraisal of the execution of bank chiefs as per CAMELS approach. Notwithstanding this circumstance, the consistence of the corporate administration principals was additionally assessed (Mammadov and Mukhtarov, 2014).

Basel II criteria were executed altogether in Azerbaijan banking division. It very well may be said that works identified with the second and third column were finished and the main column was executed somewhat. The main capital necessity for credit chance is determined in spite of the fact that the capital prerequisite for market and operational hazard was additionally requested in the principal column. The works so as to ascertain this necessity for operational hazard are going on.

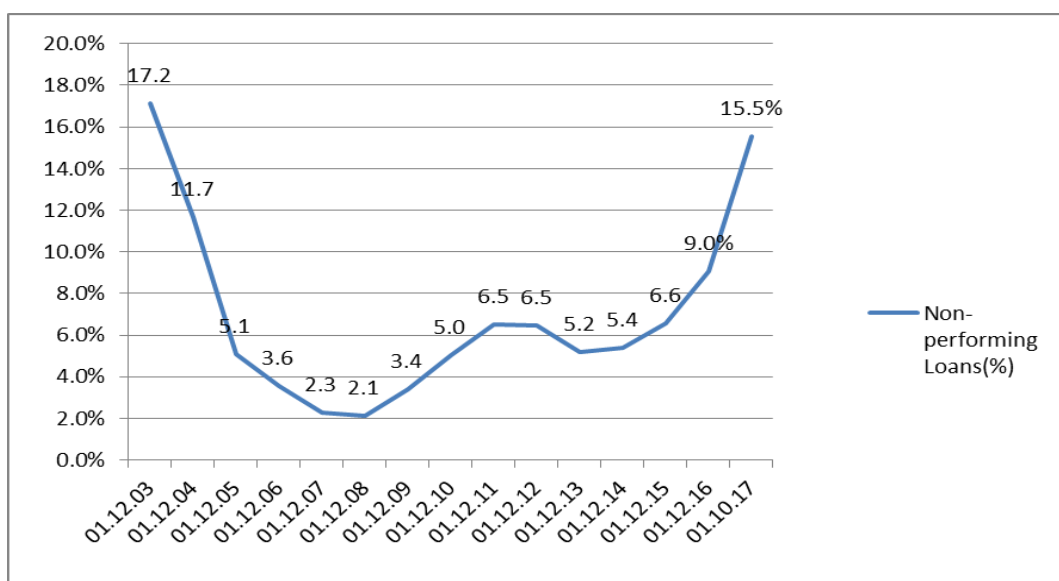
In addition, non-improvement of the securities in Azerbaijan prompted decline in the measure of business arrangement of the banks. This circumstance spared the banks against market hazard impressively. The usage of the tied down swapping scale routine and high measure of outside trade saves limited cash danger of the banks. The measure of the credits in Azerbaijan throughout the years was underscored on Graph 1.

As it very well may be seen from the Graph 1, there was a critical increment in credits for the time of 2003-2015. The primary explanation for this circumstance is the monetary development in Azerbaijan amid this period. For the 2015-2017 time length the relative lessening can be seen in credits. This diminishing can be clarified with fast abatement in oil costs since the second quarter of 2014 prompted a significant decrease in remote trade incomes and attributable to this issue, GDP development went down for the proper time interims. Diagram 2 gives data about non-performing credits in Azerbaijani financial segment.



Graph 1. Total Credits of Azerbaijan (2003-2017)

Sources: The Central Bank of Republic of Azerbaijan



Graph 2. Non-performing Loans in Azerbaijan Banking Sector (2003-2017)

Sources: The Central Bank of Republic of Azerbaijan

As it very well may be seen from Graph 2, there was a diminishing in the measure of non-performing advances disregarding the expansion in credit sum for the time of 2003-2008. The principle purpose behind this diminishing is the basic improvement in Azerbaijan amid this period, for example, increasingly viable hazard the board and examining suggestions. Attributable to this issues, there was a diminishing in non-performing credits proportion despite the fact that there is an expansion in the complete advances sum. This circumstance gives data that Azerbaijani banks can oversee credit hazards sensibly. Anyway after the budgetary emergency which started in 2008 the measure of non-performing advances has been edging up consistently. The explanation for this circumstance was worldwide oil cost falling which prompted critical GDP setbacks in Azerbaijan. The impacts of the abatement in oil costs on its turn declined the financial circumstance of the Azerbaijani populace and their salary. Then again after the sharp decrease of oil costs national money of Azerbaijan twice endured degrading in 2015. The point of depreciation was to remunerate the misfortunes from the oil value falls,

however the wages of Azerbaijan family units have twofold declined. A significant piece of advances acquired from banks were customer advances and over 55% of advances tumble to the offer of family units. A critical decrease in families incomes cause advance reimbursement issues which prompted an expansion in NLP.

2.3. Importance of credit risk management.

Risk is constantly connected with the financial activities, and going out risk is the significant piece of any financial activity, there is not really any financial task without the risk. The vast majority of the investors are said to be sound when they have a reasonable diagram of what is the measure of risk associated with the present exchange and they ensure that a portion of the mostly income are in this way kept for these risk. The conceding of any type of credit is the regular structure for any bank and this risk is normal and this is the wellspring of dangers the banks are constantly presented to. (Anderson et al, 2001).

By being presented to credit chance banks have been looked with a great deal of issues. The banks couple of years back understood that credit chance is significant and the banks need to screen, recognize, control and measure it is huge. Because of this the viable administration of credit chance has turned into a basic segment of moving toward risk the executives. This methodology will be particularly significant regarding the long haul achievement of any bank. Banks currently guarantee that they have vast measure of capital against any type of credit hazards so they can be in a situation to satisfactorily handle any dangers which will be brought about. (Bank for International Settlement, 1999)

The credit risk is in the whole arrangement of any bank and furthermore the risk which is related in individual credits or some other exchanges must

be overseen sufficiently. It is dependably a learned that the connection between the credit risk and different types of dangers need be to viewed as all around truly in to account, so as to

- Increase shareholder value through value creation, value preservation and value optimization
- Increase confidence in the market place
- Alleviate regulatory constraints and distortions (Amitabh Bhargava ICICI, 2000)

The Basel II Accord determines that banks must have new techniques for estimating against credit risks. The advantages of Credit risk management include:

- Credit risk management allows predicting and forecasting and also measuring the potential risk factor in any transaction.
- The banks management can also make use of certain credit models which can act as a valuable tool which can be used to determine the level of lending measuring the risk.
- It is always better to have some alternative techniques and strategies for transferring credit, pricing and hedging options.

The disadvantages of Credit risk management include:

- Deciding on how good a risk you are cannot be entirely scientific, so the bank must also use judgments.
- Cost and Control associated with operating a credit scoring system.
- With the existence of different models, its hard to decide which to use, more often than not, companies will take a one model fits all approach to credit risk, which can result in wrong decisions.

2.4. Challenges of credit risk management.

With the worldwide budgetary emergency still later, credit chance administration is as yet the focal point of extreme administrative investigation. While stricter acknowledge necessities as a "top-down"

approach has alleviated some monetary hazard, it has left numerous organizations attempting to update their way to deal with credit chance evaluation.

In the scramble to execute chance systems to improve in general execution and secure an upper hand, an organization must beat huge credit chance administration challenges, for example,

1. Wasteful Data Management

Credit hazard the executives arrangements require the capacity to safely store, sort and inquiry information dependent on an assortment of criteria. Any database should be refreshed continuously to evade conceivably obsolete data, just as be watchword enhanced to guarantee simple area of data.

2. Restricted Group-Wide Risk Modeling Infrastructure

Some of the time it's insufficient to look at the hazard characteristics presented by a solitary element—an expansive, complete perspective on all hazard measures as observed from above is vital to understanding the hazard presented by another borrower to the gathering. Powerful pressure testing capacities and model administration that traverses the whole displaying life cycle is critical to guaranteeing precise hazard evaluation.

3. Lacking Risk Tools

Recognizing portfolio fixations or re-grade portfolios is basic to guaranteeing you're seeing the master plan. A complete hazard evaluation scorecard ought to have the capacity to rapidly and plainly recognize qualities and shortcomings related with a credit.

4. Not exactly instinctive Reporting and Visualization

Disregard awkward spreadsheet-based procedures—to gather the most profitable bits of knowledge, information and investigation must be displayed in a natural, clean and obviously pictured way. Stripping ceaselessly superfluous information that overburdens investigators and IT can help focus in on the most appropriate data.

The credit hazard the board programming offered by GDS Link is best in class and gives the most precise evaluation of hazard conceivable. Get in touch with us today to discover how we can add esteem and security to your speculations.

III. Empirical research methodology results of the credit risk and credit risk management.

An organizational structure overseeing the risk management function at the bank level (market risk: interest rate risk, currency risk, capital risk commodity risk) may have a negative impact on the bank's capital and unexpected events preventing the possibility of implementing business goals as well as minimizing the risks arising from the Bank, ie at the individual transactional level (Credit Risk, Operating Risk, Penetration Risk, Strategic Risk, Liquidity Risk).

Credit risk is the possibility of a loss of the borrower's financial position (including non-balance events), which results in loss of value or value of the asset. The purpose of credit risk management is to eliminate such credit events, keep the risk of credit risk within acceptable limits, maintain the health of the bank's assets, and ensure that losses are incurred. Banks should manage the risk of the entire loan portfolio as well as the risks inherent in separate loans or transactions.

The Risk Management Department should perform the following functions in credit risk management:

1. Control over the counterparty's compliance with the terms of the loan agreement;
2. Regularly arrange meetings with him to evaluate changes in his / her client's performance;
3. Continuously check the use of the loan only for the purposes specified in the loan agreement;
4. Monitor the financial position of the customer and its guarantors through all available information (including media outlets);
5. Use, if necessary, appropriate procedures for overdue loans.

The following criteria may be used to identify credit risk:

Early risk of risk: This risk is the risk that the customer or the counterparty will be unable to repay the loan. In this case, the size of the loss depends on the current market rates. The risk of prepayment should be measured on the basis of the credit equivalency principle and reflect some of the many estimates of the entity's future potential risk as a result of changes in the market's current recoverable amount.

Current risk is the type of damage that the counterparty may not be able to repay today and is equivalent to a reclassification of the current market condition.

Potential risk risk: An estimate of the future recoverable value of an operation that reflects what will be lost if the other party fails to repay the loan in the future. According to excellent practice, this value should be achieved through simulation and market risk for exposure to risk by taking into account market volatility, portfolio impact, substitution agreements, collateral and other credit facilities (guarantees, letters of credit, etc.) must be similar to the simulation. According to a relatively complicated alternative experience, assessments can be used reliably to estimate the potential risk.

The expected loss reflects the level of probable losses that the Bank will face in the light of available information. This is a probable probability of future potential risk that the counterparty may not be able to repay the loan and the aggregate rate of accumulation. The expected credit losses used as the value of the credit risk applied to the revenues are a means to protect the bank from long-term borrowings.

An unexpected loss reflects the likelihood that the actual loss will be higher or lower than the expected loss. The level of unexpected loss is estimated by measuring the worst credit loss within the level of reliability. An unexpected loss measure with the allocation of sufficient risk capital to generate unexpected losses within a specified reliability level is a tool that

protects the bank against short-term losses which are significantly higher than expected loan losses.

Settlement risk: the expected unpaid amounts of counterparty, where the value has already been sent to the counterparty. For example, the risk of settlement may arise in foreign currency transactions or during the freely provision of securities (prepayment before payment). Where spot foreign currency transactions occur, the difference in the time zone of this risk is likely to arise due to the time differences between the payment of the currency and the transfer to the beneficiary's account.

The risk of liquidity is the risk that the bank will not be able to finance its growth and can not fulfill its obligations on a timely basis. There are three types of liquidity risk that may affect the banks:

1. Failure to maintain sufficient cash and securities to meet short-term cash flow requirements;
2. Failure to obtain additional funding;
3. Failure to close or cancel the market position.

In order to identify future financing requirements, the Risk Management Department should evaluate and control the cash flows of each currency. Alternative strategies to meet the liquidity needs arising from the loss of market or market liquidity need to be included in the liquidity planning process of the Bank's unexpected situations.

Liquidity risk in the markets in which the Bank operates should be assessed on a regular basis. Where appropriate, market liquidity risk should be included in the Value-at-Risk Model, reflecting the estimated time to close the market position.

The liquidity gap risk (the difference between the cash flows and the cash flows forecasted for different periods of time) should be taken into account separately in the future by considering the discounted cash flow value and the appropriate interest rate fluctuations.

The Bank should establish a liquidity management process that covers, at least, the following aspects of management and control of its various activities:

Asset Management:

1. monitoring of balances in correspondent accounts;
2. monitoring of lending volume;
3. monitoring of loan portfolio quality;
4. interest rate monitoring on loans;
5. monitoring of the bank's securities portfolio;
6. monitoring of securities purchased under repurchase agreements;
7. monitoring of assets that can be used as collateral;
8. Monitoring of basic and other non-liquid assets to be liquidity adequate.

Commitments Management:

1. recent trends, seasonal factors, interest rates monitoring of the amount of funds attracted by the bank, taking into account the sensitivity to change and other macroeconomic factors;
2. deposit volume monitoring (including deposits of banks and other legal entities, "overnight" operations);
3. monitoring of deposit maturity and other liabilities;
4. Constant monitoring of the bank's principal liabilities and creditors' relationships;
5. monitoring of concentration on sources of obligation, taking into account the type of liability, liability for the creditor and the area of its location;
6. monitoring of balance-sheet liabilities.

Operational risk is the risk of loss resulting from inadequate or unsuccessful internal processes, people or systems, or external events. The following categories of operational risk are available:

1. risk of human resources is the risk that the bank's employees will be exposed to losses (losses) related to the violation of the requirements set out in the normative-legal documents related to banking activities, as well as internal regulations;

2. system risk is the risk that costs (losses) arising from problems arising from any faults in existing systems or technologies in the bank. Losses in systems or technologies of any kind should be classified as human resource risk or outsourced risk.

3. Risks of risk - are the risk that the rules and procedure gaps or the absence of rules covering various types of operations and activities.

4. External risks are the risk of expense (loss) on the part of a third party or nature.

In addition, risk management, such as Reputation Risk and Strategic Risk, is also important in banking. The risk of penetration is the risk of a loss of confidence in the bank and the expense (loss) arising from a negative public opinion.

Strategic risk is the risk that the bank faces as a result of improper selection of strategic goals.

Thus, adequate risk management for each type of bank, its type, volume, nature and environment, complexity and the risks it faces system should be created.

When setting up a risk management system, the following should be considered:

1. Bank's mission, strategic and tactical targets;
2. types of operations and activities of the bank;
3. management and operational processes of the bank;

4. intrabank organizational structure;
5. internal, external and regulatory environment;
6. Interdisciplinary relationships and their impact on each other;
7. Bank support measures in crisis situations.

The risk management system should be regularly assessed by the internal audit department of the bank and the results should be reported to the Audit Committee of the bank. A Credit Committee, a Liquidity and Market Risk Management Asset and Liability Management Committee is established to manage the Bank's credit risk effectively in order to manage existing risks. If necessary, the Information Technology Committee and other committees may be created to ensure the Bank's information technology systems are efficient and secure, as well as to manage the other risks facing the Bank. Authorities of internal committees are regulated by the Central Bank of the Republic of Azerbaijan (hereinafter referred to as the Central Bank) normative acts, corporate governance standards and internal documents of the bank.

When creating an organizational structure that implements risk management in banks, the following should be provided:

1. Effective communication and information among all levels of organizational structure flow;
2. absence of conflict of interests;
3. accurate definition of responsibilities and powers;
4. an independent and transparent decision-making process;
5. Informing bank management and structural divisions about the risks that may be exposed by the bank;
6. Formation of intrinsic risk culture.

The risk management structure comprises the following:

Supervisory board. The Supervisory Board should understand all risks that may be exposed by the Bank's activities, provide full information about them, identify adequate levels of all risks and manage them, and ensure the

establishment of an effective risk management system that accurately identifies, evaluates and controls risks. In the risk management process, the Bank's Supervisory Board's duties and powers include: the bank's risk management policy, its organizational structure, powers and responsibilities, internal rules and procedures for various operations and activities, various methodologies used in risk management, to approve limits; to give instructions to the internal audit division on verifying the effectiveness and effectiveness of the risk management system; determine the level of risk that the bank will accept; Ensure adequate risk management guidelines; To determine quantitative and qualitative requirements for the bank's capital taking into account the requirements of the Central Bank; to advise the board of directors on risk management; To request periodic reports from the Risk Management Committee (RIC); Appoint a RCC head.

Board of Directors. The Board creates an organization that is responsible for the Risks Management Board approved by the Supervisory Board and ensures that all risk management procedures and procedures are prepared. The Management Board should understand the risks associated with its activities, establish a perfect and reliable supervisory environment for the Bank to operate effectively and in compliance with the legislation, to safeguard this environment, hierarchy of powers, responsibilities and responsibilities, including determination of authority and decision-making procedures, professional risk management and risk management personnel and their continuing knowledge and professionalism. The Management Board shall appoint a member of the Management Board responsible for the risk management division. In the risk management process, the powers and responsibilities of the Board of Directors of the Bank are at least the following:

1. Determine the distribution of responsibilities and powers of the risk management function;

2. attract a large number of experienced and professional staff to the risk management system;
3. apply risk management policy and regularly review it;
4. Evaluate the risk management division;
5. giving assignments to risk management.

Risk Management Committee. The Bank should establish an adequate risk management system for the types, volumes, performance and nature of its operations, its complexity and the risks it faces. The risk management system should identify, assess, and report on risks inherent to the Bank's operations, identify and control reasonable risk limits and minimize risks. The Bank's internal risk management policies, regulations, organizational and reporting systems, as well as the minimum requirements for risk identification, assessment, management, monitoring and reporting are regulated by relevant regulatory acts of the Central Bank.

The Supervisory Board should set up a Risk Management Committee (RIC) that is independent of the Board and can make independent risk management decisions. This committee should be created with the involvement of several members of the Management Board, who are responsible for risk management in the bank, as well as with the Bank's managers. Meetings of the RIC shall be held no less than once a month and the results shall be reported to the Supervisory Board of the Bank. The RCC chairman is appointed by the Supervisory Board of the Bank. The chairman of the RCC should be a member of other internal committees and have the right of veto, and should take part in the decision making on all transactions with a total capital of more than 1% of the total capital.

The duties and powers of the RIC are set out in the relevant regulations approved by the Supervisory Board. The RCC's responsibilities and powers include:

1. Determine the minimum tiers of each stage of the risk management process;
2. assign assignments to risk management and regular reports from it to require;
3. identify and set the limits on various risks to the Supervisory Board;
4. to report to the Supervisory Board on the regularity of the bank's risks, the adequacy of the risk management system and the effectiveness of the risk management process;
5. Identify and revise the risk management policy, the functions and powers of the internal risk management function, the procedures and procedures for various operations and activities, the various risk management techniques, and submit proposals to the Supervisory Board.

Risk Management Division The Risks Management Department's goal is to provide operational support to the RIC daily. Risk management is provided regularly by the RIC. The head of risk management should have at least 3 years of banking experience. The head of risk management is appointed by the Board of Directors and approved by the Supervisory Board. Access to any database of risk management should be ensured.

The responsibilities and responsibilities of the risk management division are as follows are:

1. identification and minimization of risks in all procedures and regulations relating to each type of operation and direction of the bank;
2. control over the implementation of the Bank's activities within the limits of risk limits and internal rules approved by the Supervisory Board;
3. identifying, identifying, and identifying all the specific risks facing each operation unit, checking the procedures and procedures;
4. identifying, measuring, managing, and the risks to the RIC and to the Board of Directors of the Bank regular reports submission;

5. Monitoring compliance with the quantitative and qualitative indicators of capital, capital adequacy requirements.

Credit risk management stages:

1. Correct evaluation of credit applications.

1.1 Credit Application - A request from the bank for a client's credit.

1.2 Appraisal Assessment - Evaluating the Client's credit compliance with loan terms by a Credit Specialist.

1.3 Customer Analysis - Analyzing customer's financial performance, credit repayment capabilities by a credit specialist.

1.4 Decision-making - Approval and approval by the Branch or the General Manager, as soon as possible, depending on the type and amount of the loan.

2. Classification of Assets and Creation of Reserves.

2.1 According to available information, the operating system automatically classifies assets according to the NBMB's regulatory acts and creates appropriate resources.

3. Diversification of loan portfolio.

3.1 Taking into account the risk factors, the loan products have economic sectors, geographical areas, currency types, duration and profitability of the loan, various customer groups, etc. classified by categories.

4. Regular analysis of loans.

4.1 Existing system, customer relationship, sales, delays, payments, etc. Loans are kept under control over specific reporting reflections. Also, the Credit Control and Monitoring departments under the Risk Management Department are regularly monitored for the spending of loans, on-site checks are carried out to analyze the financial position of the borrower, and reports on management are reported on a monthly basis.

5. Controlling troubled loans.

5.1. Daily troubles with troubled loans are implemented with special software and reporting. Software and accountability trends relevant to problem loans indicators.

5.2. The Department for Problems with Problems prepares and reports to the Credit Committee on monthly basis. Discussion of problem loans is carried out by the Credit Committee.

5.3. There are three levels of troubled loans within the Bank:

5.3.1. Controlled by the service organization - Regulates timely execution of payments by establishing contacts with the customer. When the customer refuses to perform its obligations within a reasonable time, documents and information related to the existing customer are transferred to the Problem Loan Department.

5.3.2. Department for problem loans - Problem loans are being collected. In case of impossibility of collection of problem loans, appropriate documents are collected and submitted to the Legal Department for judicial procedures.

5.3.3. Legal Department - represents the interests of the Bank in the court and carries out all procedures for the full repayment of the loan in accordance with the legislation.

6. Considering the risk of off-balance sheet risk.

6.1 In order to minimize off-balance sheet risks, claims relating to off-balance sheet liabilities are thoroughly analyzed and decisions are made by the Credit Committee or other unit. The Bank prefers the performance of off-balance sheet commitments.

7. Accountability system.

7.1 In order to effectively and efficiently manage risks, quarterly and monthly reports are submitted to the Supervisory Board and the Management Board. Reports also include minimum risk management requirements, compliance with limits, system adequacy, process efficiency, risk trends.

8. Keeping the Guarantees.

8.1 The guarantees are always analyzed and, in the case of changes, are reassessed by the bank expert or the valuation company depending on the type of guarantee.

9. Determining the portion of the debt or part of the debt (principal and interest amount) under the terms of the loan agreement, as the debt is impaired.

9.1 In the event that all three levels of control over the problem loans are repaid within the Bank, but the loan loss is not settled, the borrowing price is determined to be impaired and the off-balance sheet accounts are registered.

10. Determination of separate loan limits.

Credit limits are defined by the relevant structural subdivision of the bank and loans are issued only within the limits set. The Bank regularly monitors credit policy and, if necessary, implements the following: division of powers, system its competency, internal rules. The Bank does not provide loans to projects that are harmful to people's health, society's morality and the environment, taking into account their social and moral responsibility when implementing credit policy. The Bank does not allow money laundering in every way.

Conclusion

Bank system is most significant piece of Azerbaijan Economy. Any issue that may emerge in the banks can prompt an crises for the nation's economy. Banks ought to intently pursue the clients both when giving credit and when subsequent to giving credit. The financial framework's wrong task will harm the nation's economy sooner or later. So the banks should be regulated by the administration. Appropriate execution of banks' risk approaches is significant both for the financial framework and for the fate of the nation's economy. Both the borrowers and bank specialists must be knowledgeable about credit risk and credit repayment. With the progression of innovation, the banking system will have a significant spot in everybody's life. So the banking system must be in great condition.

The Basel III changes have been made and countries are attempting to build up the new segments into the old form by 2027. In the past form, there were three columns and this application decided the framework for the banks to deal with the hazard that happened in their exercises. With the new form, the liquidity issue began to be considered by experts to take out the liquidity issues at the bank level. With the worldwide emergencies that began in 2007, all the market members saw the insolvency of vast banks in created nations. With the new Basel III application, BIS began to consider the liquidity and different issues to increment the wellbeing of the nations' financial industry. This paper demonstrates the significance of having admirably working financial system with the Basel applications.

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