INTRODUCTION

Not more than three decades have passed since the occurrence of financial crises and consequently the emergence of CG theory as a progressive and advanced economic theory. However, its performance in financial institutes and particularly banks is such that, on the one hand, it shows the unbelievable and undeniable success of this theory and on the other the position it has gained in firms so that they consider their lives dependent on the implementation of its rules and regulations. However, the comprehensive economic progress and development of countries have disrupted the global financial equilibrium and the effect of the banking system has grown rapidly commensurate with the economic growth of countries so that the main routes of the economy are controlled by the banking system. Thus, the fault in a given country banking system is considered as the disruption to its economic system that may even end in its disintegration. CG has left positive effects on businesses given its mechanisms so that these effects while enhancing the performance of banks have saved them from destruction. One of the mechanisms CG has presented concerning the banks is managing the risks that banks face throughout their activities. In the general sense, risk means the fluctuation in any future earnings that may lead to profit or loss. As the Achilles heel of a country, this title is more important in the banks. Indeed, given the specific nature of the bank concerning the number of stakeholders and the multitude of its operations, identifying, monitoring and analyzing risks are of more significance. One of the effects of CG through risk management is the legal effect that has occurred in various forms in banks. Indeed, one way of risk management is the legal methods that CG presents in form of risk management so that the bank can show better and more favorable performance in face of risks by using them and prevent their occurrence or expansion. This paper has tried to examine CG legal solutions in risk management.

Paragraph 1: The causes of banking risk from CG Perspective

Banking risks come up with various causes and make banks vulnerable to unstable. According to CG, banking risk pathology is the first task of bank managers and supervisors and activists. In other words, CG believes that facing risks depends on tracking risk causes and understanding the relationship between risk and bank performance. In doing so, we examine the causes of banking risks in this section:

A: Management of banks’ asset

One of the most significant and complex duties of banks, whether public or private, is the proper management of the assets that banks acquire through various contractual and non-contractual ways. Asset management is the decisions and consequently the actions, through which the banks spend their assets so that while enhancing their value, leading to a profit increase for all stakeholders, they start to reduce or control it by identifying and analyzing the risks involved in the activity. However, on the contrary, incorrect management of bank assets would lead to the loss of the bank assets and the various risks that would endanger the bank life. Indeed, as bank resources are limited, the bank should be cautious about using these resources and, in other words, consider the ratio between resources and costs. Hence, the banks will get stuck in various traps if they pay more facilities than their assets or invest their assets in the affairs that are highly unlikely to be repaid.

B: Gap, ambiguity or brevity of laws

According to CG theory and with a glance over Basel Committee regulations, one finds out that one of the causes of banking risk is the absence of applied laws and the existence of defective and corrupt laws that have affected the banking system. A glance at the existing rules in the Iranian banking system shows that the weaknesses and gaps in the banking legal system and consequently the exploitation of lenders by these weaknesses put banks at different risks. Indeed, a review of the existing laws and regulations shows that some of the rules in this regard suffer from some kind of inconsistency and sometimes conflict. In fact, one of the disadvantages of the banking system that leads to various risks is the inclusion of laws whose main purpose is to resolve problems in other areas, yet it has affected the form and contents of banking operations. The following can be cited in this regard:

1: Paragraph 1 of single article of the law on “Non-obligation of mortgage bond to banks” approved in 2001 and Paragraph (D) of Article 10 of the law on “Removing some barriers to industrial production and investment,” approved in 2008 have imposed regulations like bailout of plan in one place, considering technical and economic justification of the projects unnecessary to give facilities elsewhere and considering the whole project as collateral for lending by banks by supporting facility recipient for easy and quick access to those receiving bank facilities.

2: The law “Facilitating the granting of bank credit and reducing project costs and accelerating the implementation of production plans and increasing bank finances and efficiency,” approved in 2007, in its Article 1 has prohibited taking collateral outside the value of the asset and future revenue of the project. Whereas in granting facilities based on articles like Article 8 of “Usury-free banking operations” and Article 31 of
"Regulations of the usury-free (without interest) banking operations," in accordance with the nature of Islamic banking, and the specific conditions of the country's economy, the banks have to act by evaluating the facilities recipient and the plan under which one of the provisions of the law will have to be paid for the implementation of those facilities. If the project has the technical, economic, and financial justifications, the bank should grant the facilities and the collateral shall be accepted when granting facilities.

3: Article 7 of the Law on "Facilitating granting bank facilities and reduction of project costs and accelerating the implementation of production projects and increasing banks' financing and their efficiency" by applying the rules governing business documents regarding the non-obligation to indemnify for damages when applying for bank contracts, they have taken a significant and essential step to safeguard the interests of the banks when they are compelled to collect claims. However, on the other hand, the amendment to Article 34 of the "Registration" law and the new procedures established based on "New regulation of the official and stringent documents" approved on September 10, 1999, has created new problems for the banks. When the executed property is put up for auction and no buyers are found, these rules have provided that the property should be transferred to the bank at an expert price and retrieving at all the costs, the cost which may sometimes be several times the bank's demand and this process leads to the blocking of a large portion of banks' liquidity regardless of the problems and conflicts these properties have.

4: Concerning the Note 1 of the single article of the law "Rationalizing earnings rates," approved in 2006 about non-determination of the rate of interest in the participatory contracts and the non-payment of collateral by the recipients of the facilities, which is due to the fact that proposals like those stated in Note 1 of this law stems from the government being a major part of the country's banking system and lacking the necessary sensitivity to profitability or leveraging banks' performance.

C: Inadequacy of capital
Capital is directly associated with the creation, development and financial soundness of the institutions active in business and financial spheres. However, its function varies between financial and non-financial institutions. That is why CG and Basel Committee emphasize having sufficient capital and consider its absence as a factor for various risks. Investments in non-financial corporations like the companies active in the manufacturing and service industries are a tool for investing in fixed assets like land and buildings, as well as purchasing and building facilities and equipment necessary for the production and service delivery. However, in financial and credit institutions, the main function of the capital is to cover the cases that lead to operational and market credit risks. This means that banks will actively suffer various risks in their business process. As stated, banking risks will weaken the banks and cause them to collapse if they cannot properly manage them. The risks that make the banks face serious problems are usually the ones that deal with the bank's current capital and assets so that if the assets and capital are inadequate, the banks face different risks that end in irreparable losses. Studies have shown that the catastrophic aspects of banking crises were more restrictive for banks with better capitalization as a bank with sufficient capital has more time to study the problems and deal properly with them. Thus, the lack of proper and adequate capital, as well as failure to maintain a proper ratio between capital and risk in assets, is the most significant condition for the inconstancy and instability of the banking system and consequently the source of banking risks.

E: Operations of the banking system
Various operations and services that banks offer to their customers are a context for growing bank risk. In other words, banking operations are the most significant and common causes that banks face different risks depending on the type of service they provide. Banking operations, in general, are any type of legal transaction that a bank conducts daily depending on its concentration and size. In other words, banking operations are any activities that involve the acquisition, management, and maintenance of the funds and assets of individuals (real or legal) in cash and using them in economic activities, and may vary according to the time requirements. However, it is one of the most important and challenging resources that expose banks to different risk levels. According to CG Theory, as one of the key actors in CG, supervisors have the critical role of checking and controlling banking operations to prevent risky banking practices for proper implementation of CG rules and regulations. These operations, referred to as resource allocation and equipment operations in various economic systems, involve various risks depending on the type and nature of operations and whether they are observing traditional or modern banking. For instance, if banking operations are traditional, areas like depository agreements and granting loans are risk-averse; whereas in modern banking operations like insurance, pension fund, financing companies, and bank brokerage are of the risks sources that make banks face difficulties.

F: Intention to CG theory in bank management
Banks and non-bank financial institutions active in the financial market are exposed to different risks given their economic activity and the nature of their activities. CG, emerging as one of the most important economic theories in recent decades both internationally and domestically, is a tool for preventing and controlling the identified risks that make financial institutions face many risks. CG is like a guardian that precisely monitors and controls the performance and actions of bank components, members, and structures, such as the lack of a proper portfolio of assets and operating liabilities in terms of volume, maturity, and interest rates. Moreover, the increase in the internal and operating expenses and the decrease in cash flow and lack of proper system for risk control as well as inefficiency of managers and banks' low capital to debt ratio leading to risk inflation into the banking system are identified and some solutions are suggested to recover it in case of risks. According to the above, the definitive result of management inattention to CG theory is exposing the bank or financial institution to various risks escaping which depends on paying high expenses that sometimes lead to the collapse of a financial institution.

Paragraph 2: Types of banking risks in the light of CG
Before the emergence of CG, the world of risks was essentially a fundamentally unknown world in terms of the type, manner, and extent of the effect on the life of financial institutions, especially banks. The managers and supervisors' inability in explaining the status and position of risks has made the banks engage in this fatal poison, which besides affecting the banking system, has targeted a country's economic system. Proposing CG theory revolutionized the risk system, meaning that CG has classified all of them into a precise classification, giving countries the necessary warnings for control and oversight. According to the rules and regulations of Basel Committees in implementing CG to classify risks, they have classified the risks from one perspective to the following:

A: Credit risk
Credit risk is one of the oldest and greatest risks that threaten the banks and is one of the biggest management risks and the most significant cause of bank bankruptcy up to now. This is the most significant risk for banks in terms of resource allocation contracts. The significance and the role of this risk in the big banks of the world are such that they tend to allocate about half of their economic capital to this risk. However, credit risk is conceivable in two ways. The first is for the purpose of granting facilities and sales so that the recipient of the facility cannot pay its principal or sub-facility or obligation under the terms of the contract. Secondly, the probability of the loss resulting from the trade in terms of the quantity of the goods traded items, the reliability and the credibility of the parties of the trade. In other words, the risk is that the repayments are either delayed or not paid at all so that this can cause problems for the bank's cash flow.
A: Operational
Operational risks are mostly because of a wide range of errors and deficiencies in a particular business or financial operation. This risk is usually considered a risk in financial and banking institutions not directly related to credit and market risks. This risk is due to the failure of personnel (human force), its computers and programs, errors due to decision-making and losses due to the types of embezzlement, failure of security measures, controls, and technology. losses due to lack of awareness or inaccuracy of information, communications, contractual and regulatory risk, and trust and credit risk. The key point regarding operational risks is the specific complexity of the concept so that it is usually the subject of operational risks other than uncertainty and risk to the firm.

B: Liquidity
This risk is one of the significant and misleading issues, to whose management many financial institutions devote a great deal of resources. Maintaining an optimal level of liquidity is of the main duties of banks and inattention to it increases the bank's liquidity risk. Banking liquidity is essentially the ability to lift banking regulations as expected, and the liquidity risk is the bank's inability to meet the needs of the depositors or the debtors. This risk can be examined in two respects: a) Customer visit to the bank and its inability to fulfill its obligations. This occurs in a situation where, for instance, negative news about bank-specific events, such as a bank demotion, may lead to a lack of market confidence in the bank that adversely affects the bank's liquidity. b) The bank shall provide facilities such that it cannot meet the maturity of its assets and liabilities. This mismatch shows that the bank has a shortage of cash in the future or a surplus of liquidity. For instance, if the bank facilities are higher than its deposits, the bank needs cash that must be repaid by attracting deposits at market rates. If the deposits are more than the facilities, the bank should grant the cash surplus available to the facilities market rate.

A: Market
Market risk refers to the likelihood of an investor’s experiencing losses because of factors that affect the performance of the entire financial market. Market risk, also called “systematic risk”, cannot be eliminated through diversification, although a cover can be created against it. The risk that will cause the natural disaster index market to fall is an example of market risk. Other sources of market risks are recessions, political turmoil, interest rate changes, terrorist attacks, and war.

B: Penal dealing with banking offenses
Nowadays, banking activities have moved beyond the borders of countries and turned international given the development of economic relations between countries all over the world. In doing so, international banks' obligations have expanded as well. Thus, it is important that the non-compliance with these obligations should be guaranteed by law and order in the form of criminal offenses and penalties. Hence, governments are obliged to strictly enforce their criminal sanctions according to CG theory and the requirement of Basel Committees. For this purpose, in 1977 Basel Committee published the "Essential principles for effective banking supervision," which included a complete set of general guidelines for the control and supervision of various banking systems. Of the 25 principles of this document, principle 15 is about money laundering. Moreover, in 1988, the Basel Committee issued a statement banning the use of the banking system for money laundering. This report states the policies and regulations that financial institutions managers must adhere to in a money laundering fight. The report stated that criminals may use the banking network as an intermediary for criminal purposes. Thus, the managers’ awareness and precision prevent criminals from misusing the banking system for money laundering. They were adoption of domestic laws like “Anti-money laundering law” adopted by the Islamic Consultative Assembly in 2007, “Implementing anti-money laundering law” adopted by the Cabinet of Ministers in 2008, rules on the prevention of money laundering in financial institutions adopted at the 987th Meeting on November 9, 2002, by Money and Credit, Central Bank circulars like Circular 88/210068 entitled "Notification of the implementing anti-money laundering law" and the implementing circulars of the articles of this regulation on December 29, 2009, as well as the guidelines and standards available between international resources like “FATF Recommendations” on combating money laundering and financing of terrorism, whose first recommendations were published in 1990 in the form of 40 recommendations and then in 1996, and these 40 recommendations were revised. In 2004, besides being fully revised, 9 additional recommendations were added, which are examples of these obligations.

D) The system of security contracts
Banks acquire their assets and funds through different ways from clients and transfer them to other applicants through various contracts. In both assumptions, the bank may face the risk of such actions. In other words, by receiving cash from individuals, the banks commit to returning the money of the investors and if the investors do not respond to the investors demanding their capital, they will face liquidity risk. On the other hand, the capital applicants may not fulfill their obligations to the bank in respect of the principal and interest in the assets that the bank has provided in the form of credit exposures that put the bank at risk. Before the CG theory, the bank often held accountability through its own assets and funds. However, the emergence of CG theory and presenting solutions that offered risk management mechanisms to firms like banks, if the banks could not fulfill their obligations regarding the customers or vice versa - previously banks were responsible for offsetting liabilities – this responsibility was dropped from the banks and placed this responsibility on insurance and securing credits such as securing collateral for others or property.

E: Money laundering
This risk stems from a weakness in identifying and understanding customers and a weakness in the internal audit system. Understanding customers, especially key customers, and strengthening the auditors’ infrastructure for reviewing, inspecting, and controlling electronic banking data is essential. However, this inspection and control should not mean access to confidential customer information. Thus, the level of access to electronic information should be defined besides strengthening the internal audit electronic infrastructure. Moreover, failure to comply with this will increase the risk of the bank’s reputation.

Paragraph 3: Coping with banking risks through CG
CG has taken several steps for rescuing financial firms using different tools. The first step here was to contain the crisis and then to present its mechanisms to control and prevent the recurrence of those crises. Risk management tools were among the tools and mechanisms CG used to control and prevent financial crisis. Risk management is the process by which organizations systematically identify the risks associated with their activities, and while redefining them, analyze the risks, so that they can present the proper strategies to cope with them. This mechanism transformed the risks effect by presenting some strategies. The approaches CG presents through risk management can be examined from different views. One of these views is legal: the strategies that affected and transformed risk with the emergence of CG.
confidence of the majority of the community in the bank and the banking system of the countries. Thus, it has received special attention, both in the domestic legal system and in the international legal system. In order to strengthen CG, Basel Committee 1 has obliged the banks to pass laws on capital adequacy ratio. In the introduction of “Basel Document 2,” the purpose of revising Basel Agreement 1 was stated to formulate an appropriate framework to further enhance the soundness of the international banking system and to apply a coordinated approach by all countries to bank capital adequacy. “Paragraph 50 of Basel Document 2” has mostly focused on improving the quality of capital in the calculation of capital adequacy ratios and with a more cautious approach, it is tried to strengthen the cash flow of shareholders (who are more likely to absorb losses in times of financial crises) in case of cutting the ratio of capital adequacy so that its minimum share increases from 5% to 4.5%. Furthermore, by introducing two capital protection shields called the precautionary shield (two and a half percent) and the anti-recurring super capital (two and a half percent), it has actually raised the capital adequacy ratio from 8% to 13%.

E: Derivative contracts

Among the other legal solutions that can be utilized by relying on CG to reduce and control risks is using legal contracts that lead to risk distribution and ultimately control or mitigation. These contracts, known as derivative contracts, are powerful legal instruments in preventing and controlling different risks like credit, liquidity, market, interest rate, and so on. In Iran, the use of these contracts has reached an operational stage with the adoption of “Futures Trading Guidelines” in 2007 as the most important derivative instruments. These types of contracts are a type of financial legal contract primarily based on or derived from an underlying asset. In other words, their value derives from the value of another’s property. Assets that can be used as the underlying asset in these instruments are stocks, commodities, interest rates, the construction industry or any other asset. These contracts include futures contracts, futures treaties, options contracts, and swap contracts. The performances of contracts that can manage bank risk are as follows:

1: Option contracts

An option contract is a contract between a buyer and a seller, so that the buyer buys from the seller the option (the right to buy or sell an asset) at a specified price, without committing to exercise that right. Here, like other contracts, each party assigns a concession to the other party. The buyer pays the seller an amount called the option fee or the option price which is the transaction price, and the seller gives the buyer the right to buy or sell the asset at a specified price. This legal tool is one of the tools that can be utilized to manage commodity price risk. For instance, if a bank concludes a futures contract with a person in accordance with Article 1 of “Banking Facility and Instructions Regulations,” as the bank is exposed to the risk of the price of the commodity delivered in this contract, it can prevent this risk by concluding an option contract of trade in the contract. This means that by concluding an option contract, the bank may refuse to sell the product at the market price or to release the contract at the discretion of the contractor at the contract price. Here, if the free market price is higher than the price stated in the contract, it sells the goods on the free market. However, if the price set in the contract is higher than the free market price, it transfers the goods to the option contract.

2: Swap contracts

As one of the derivative legal instruments, a swap contract means a contract between two persons (natural or legal) for the exchange of future cash flows with two various payment types of debt or assets. The contract specifies the payment date and how the cash flow is to be calculated. In its legal sense, a fixed-price contract is exchanged for a floating-rate contract or a physical and cash surrender. Swaps are generally used to cover risk and reduce the risk of market changes. There are various market risks in financial markets like interest rate risk, currency risk and commodity price risk that can be covered using swaps. Hence, swaps are divided into currency swaps, interest rate swaps, and commodity price swaps depending on the types of risks. In doing so, we will examine the types of swaps and how they cover bank risk.

2-1: Credit default swap

Among the legal contracts used to reduce or control the risk of non-payment of installments or in other words, the credit risk of the banks as lending institutions are legal and modern credit default swaps. Under this legal instrument, the bank, as a swap buyer, undertakes to pay a specified amount to the swap seller on predetermined terms, which is usually an insurance company. In contrast, the swap seller undertakes to compensate customers if they do not pay the agreed installments.

2-2: Currency swap contract

Currency swap contracts are another type of swap contracts that can be considered as the most common type of swap and legal tools to prevent bank risk from happening. This legal agreement is a bilateral agreement to exchange two different currencies. In simpler words, in this legal mechanism, the exchange of principal and sub-payments in one currency happens in exchange for the principal and sub-payments in the other currency. We show the mechanism of risk coverage by this type of contract with an example. Imagine the Central Bank of the Islamic Republic of Iran received a three-year foreign currency loan in the amount of $1 million from a bank in London in 2016. Given the exchange rate fluctuations in Iran, the repayment of this loan for the central bank has been difficult and has caused the credit risk of default on the bank. Additionally, the bank in Panama has adopted $1 million in oil imports from Iran in 2016, which must repay the loan within three years. Now, according to the fluctuations in the equity of the dollar and the riyal of the bank in question, the risk of currency fluctuations has not been ignored. If the central bank had entered a three-year currency swap deal in 2016, it could have controlled or covered the risk of currency fluctuations. Thus, the Central Bank of the Islamic Republic of Iran enters into a swap currency deal with the Panamanian Bank. According to this contract, Central Bank pledges $1 million in cash to Panamanian Bank on specified dates, and Panama Bank pledges to pay cash to Iran on set dates. Indeed, Central Bank of the Islamic Republic of Iran and Panamanian Bank of exchange their currency flows, and both banks can cover the risk of currency fluctuations and the resulting risks.

2-3: Interest rate swap

Interest rate swap is called the par rate swap, a legal tool by which the parties undertake to pay interest payments depending on the type of deposit for a predetermined period of time and swap each other, which may be three months, six months, one year or more. Indeed, the interest rate swap is a contract between the parties to the contract where each party is primarily committed to covering interest rate risks, paying fixed and variable interest rate cash flows for the period under the agreement and based on a specified capital and they are based on the exchange of the principle of debt. In other words, one of the parties agrees to pay constant or variable cash flow and to receive variable cash flow according to interest rates such as LIBOR. Consider the following example for more clarification:

Imagine Resalat Bank pledged to pay interest at a fixed rate of 15% in 2015 by accepting deposits of $1 million from its customers with a five-year maturity. In 2015, Resalat Bank opened a five-year, $5 million foreign currency deposit facility to manage liquidity at one of its foreign banks, receiving interest at variable rate LIBOR. Moreover, in 2015, to participate in international commercial projects, Tejarat Bank accepts five-year deposits of merchants and investors in the amount of $1 million and pays them interest at a variable rate of LIBOR. The projects in question have a return on equity of 15% in a fixed currency based on the bank’s participation rate of $1 million for the bank from the beginning. Now, given the severe exchange rate fluctuations in Iran, Tejarat and Resalat banks face some problems in paying interest rates to their clients like exchange rate risk, consequences such as reputation and credit risk, liquidity risk, and so on for them. If Resalat Bank had
entered into a 5-year interest rate swap contract in 2015 and the other party was a bank with the terms of Tejarat Bank (in the swap contract, the financial intermediary of the two banks are bound by appropriate terms), the contract description would be as follows. Resalat Bank pledges to pay variable interest at LIBOR according to a $1 million mortgage loan to Tejarat Bank and receives a 15% fixed interest rate loan from Tejarat Bank on a $1 million mortgage. In this case, both banks can cover the risk of exchange rate fluctuations for their institutions with an interest rate swap contract.

CONCLUSION
CG and its management tools - risk management - are two familiar concepts for countries, institutions and financial firms, especially banks in the last century. Indeed, after the financial crises, these two concepts have become so prevalent among the new managerial and financial titles that many countries, even developed ones, essentially consider their economic viability in observing the regulations and requirements associated with these two concepts. These two concepts have become more important in the case of the banks, which have a direct bearing on the economic system because of their specific characteristics. If we consider the rules and regulations of Basel Committee in supporting CG in banks from another perspective, we have to note that these rules and regulations are a warning to countries regarding the banks regarding the risks and control to be at the forefront of planning and policymaking, so that lack of effective, proper, and timely action in this regard causes widespread financial instability for business and financial institutions and consequently the economic system of countries. Additionally, CG has had a significant effect on the financial and economic system, which is exposed to various risks by redefining the risk management mechanism. Risk management is like the savior of the firms at the time of financial crises and distress due to risks. By presenting various solutions, this mechanism tries to prevent and avoid the occurrence of banking risks due to bank mismanagement, vacuum, ambiguity or law brevity, internal structure of Iran banking system, inadequacy of capital, and diversified banking system operations that are the start of the disruption of firms. However, one of the effects of CG that has emerged in risk management is the legal effect addressed in bank risk management. Examining risk management from the perspective of supervising and controlling the legal structure of banks through the application of legal and judicial issues like amending, enforcing laws and regulations that lead to the prevention or control of banking risks. Indeed, CG has tried to control existing banking risks by presenting legal solutions to risk management like requiring countries to criminalize some criminal activities like law enforcement and, consequently, penalties for money laundering using different contracts like derivative contracts, and covering damage through deposit insurance and credit guarantees.

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