

# PRINCIPLES OF MONEY, BANKING AND FINANCIAL MARKETS

**Dr. Mounica Vallabhaneni  
Yelahanka Lokesh**



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## CHAPTER 1

### THE PRINCIPAL AGENT PROBLEM: MORAL HAZARD IN EQUITY CONTRACTS

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#### **ABSTRACT:**

In the fields of corporate governance and finance, the Principal Agent Problem more particularly, the problem of moral hazard in stock contracts raises serious questions. The separation of ownership and control in equity contracts creates a moral hazard that encourages agents to take unwarranted risks, which is examined in this essay as it explores the nature of the principal-agent problem. In this essay, moral hazard's sources and effects are examined, along with the numerous methods and mitigation techniques used. The ramifications for business decision-making and shareholder value are also covered. Stakeholders may create stronger governance structures and incentive systems to align the interests of principals and agents and minimize the negative consequences of moral hazard by understanding the dynamics of moral hazard in equity contracts.

#### **KEYWORDS:**

Corporate Governance, Equity Contracts, Incentives, Moral Hazard, Principal-Agent Problem.

#### **INTRODUCTION**

The separation of ownership and control in organizations creates a fundamental problem in corporate governance known as the principal-Agent Problem. There is a possible conflict of interest when shareholders (principals) provide decision-making power to managers (agents), since agents may put their personal interests ahead of the best interests of the shareholders. Equity contracts make this conflict of interest clearer since they give managers a share in the company's ownership via stock or stock options. The issue of moral hazard is one of the major issues that occur with equity transactions. Moral hazard arises when actors are enticed to take unwarranted risks or avoid their obligations when their personal responsibility is minimal. In other words, agents could be persuaded to take steps that would benefit them personally even though they will harm shareholder value.

Managers may be persuaded to act in ways that improve their own wealth at the cost of shareholders as a result of the separation of ownership and control. To exaggerate short-term success and stock prices, managers could, for instance, make hazardous investments, take part in empire-building activities, or falsify financial figures. Effective corporate governance and the protection of shareholder interests depend on finding a solution to the moral hazard issue in equity contracts. To match the interests of managers with those of shareholders, proper incentive structures and monitoring methods must be designed. Companies may make sure that managers work in the best interests of shareholders and make choices that maximize long-term shareholder value by aligning incentives [1]–[3].

The nature of the Principal-Agent Problem is examined in this essay, with an emphasis on the moral hazard problem in equity transactions. It explores the origins and effects of moral



hazard, evaluates the many strategies and processes used to lessen it, and addresses the implications for business judgment and overall organizational effectiveness. The mechanics of moral hazard in equity contracts may be better understood by stakeholders, who can then create effective measures to encourage ethical behavior, enhance corporate governance procedures, and protect shareholder wealth. The asymmetric information issue known as "moral hazard" arises when the seller of a security may have incentives to withhold information and engage in actions that are unfavorable for the asset's buyer. Moral hazard has significant effects on whether a company finds it simpler to borrow capital via debt than through stock contracts. Equity agreements, like common stock, are claims to a portion of a company's assets and income. The primary agent issue is a specific kind of moral hazard that affects equity transactions.

The shareholders who possess the majority of the business's equity (referred to as the principals) are not the same as the managers of the firm, who operate as the owners' representatives when managers own just a tiny portion of the company they work for. Because the managers have less incentive to maximize profits than the stockholder-owners, there is a moral hazard associated with this separation of ownership and control because the managers in control (the agents) may act in their own interest rather than the interest of the stockholder-owners (the principals). Consider that your buddy Steve wants you to join him as a silent partner in his ice cream shop to better understand the main agent dilemma. Steve only has \$1000, and setting up the business will cost \$10,000. Therefore, you spend \$9,000 to buy an equity investment (shares) that gives you 90% of the company's ownership while Steve owns just 10%. After all costs (including Steve's pay) are deducted, the business will produce \$50,000 in profits every year, of which Steve will get 10% (\$5000) and you will receive 90% (\$45000). This assumes that Steve works hard to manufacture delicious ice cream, maintains the store's cleanliness, smiles at every client, and hustles to have tables ready fast.

However, the shop won't turn a profit if Steve neglects to provide his clients prompt and courteous service, spends the \$50,000 in revenue on art for his office, or even goes away to the beach when he should be working. Steve will only be able to make the extra \$5,000 (his 10% share of the earnings) beyond his salary if he puts in a lot of effort and refrains from making wasteful purchases (like art for his workplace). Steve may conclude that the additional \$5,000 just isn't enough to motivate him to put in the work necessary to be a competent manager; instead, he may believe that it would only be worthwhile if he received an additional \$10,000. If Steve has this mindset, he will not have the motivation to be a successful manager and will wind up with a gorgeous office, a nice tan, and a shop that is not profitable. Steve's failure to act in your best interests will lose you \$45 000 (your 90% of the earnings if he had chosen to be a competent manager instead), which would result in the shop showing no profits.

If Steve wasn't entirely honest, the moral hazard brought on by the primary agent issue may be considerably worse. Steve has a motive to keep \$50,000 in cash in his possession while claiming that there were no earnings since his ice cream shop is a cash-only operation. He now receives a \$50,000 refund, while you get nothing. Recent corporate scandals at companies like Enron and Tyco International, where managers have been accused of diverting cash for personal use, provide more evidence that the primary agent issue caused by stock contracts may be serious. Managers may adopt business strategies (such as the purchase of other enterprises) that boost their personal authority but do not improve the profitability of the company in addition to their own personal interests. If a company's owners had comprehensive knowledge of the managers' activities and could stop fraud or excessive spending, the principle agent issue would not exist. A management, like Steve, only has more

knowledge about his operations than the shareholder has, creating asymmetric information, which leads to the principal agent dilemma, a moral hazard example. If Steve controlled the business alone, there would be no distinction between ownership and control, and the primary agent issue would also not exist. If so, Steve's diligent effort and avoidance of unprofitable investments would result in a profit (and additional income) of \$50,000, making it worthwhile for him to be a competent manager.

## DISCUSSION

### **Production of Information: Monitoring**

As you've seen, managers are more informed than investors about their operations and real earnings, which leads to the primary agent issue. One option for shareholders to lessen this moral hazard issue is for them to participate in a specific sort of information creation, the monitoring of the company's actions, which includes auditing the company periodically and examining what the management is doing. The moniker given to the monitoring process by economists, costly state verification, reflects the fact that it may be time- and money-consuming. The equity contract is less appealing since it requires expensive state verification, which also helps to explain why equity isn't a bigger component of our financial system.

The free-rider dilemma, like adverse selection, reduces the quantity of information that would otherwise be produced to lessen the moral hazard (primary actor) problem. The issue of free riders in this instance results in less surveillance. You may benefit for free from other shareholders' activity if you are aware that they are paying to keep an eye on the operations of the firm in which you own shares. After that, you may utilize the money you save by forgoing monitoring to take a Caribbean trip. Instruments to Assist in Solving the Principal Agent Problem Island. However, other investors can do the same if you can. Perhaps everyone who has shares will depart for the islands, and nobody will invest any time or money in keeping an eye on the business. Shares of common stock will then face a serious moral hazard problem, making it difficult for businesses to issue them in order to raise cash [4]–[6].

### **Government Regulation to Increase Information**

The government has an incentive to attempt to mitigate the moral hazard issue brought on by asymmetric knowledge, similar to how adverse selection has an incentive to try to do so. This gives another justification for why the financial sector is so extensively regulated. Governments all across the world have regulations requiring businesses to follow standardized accounting standards that facilitate profit verification. Additionally, rules are passed to enforce severe criminal penalties on those who steal and conceal gains. These precautions may only be partially successful, however. Catching this form of fraud is challenging because dishonest managers have an incentive to obstruct government agencies' efforts to investigate or establish fraud.

### **Financial Intermediation**

Another reason indirect finance is crucial is that financial intermediaries can prevent the free-rider issue even in the presence of moral hazard. The venture capital business is one kind of financial intermediary that aids in lowering the moral hazard brought on by the main agent dilemma. Venture capital companies combine their partners' resources to raise money for aspiring entrepreneurs to utilize to launch new enterprises. The firm gets an ownership stake in the new company in return for using the venture money. Venture capital firms typically insist on having several of their own people participate as members of the managing body of

the firm, the board of directors, in order to keep a close eye on the firm's operations because verification of earnings and profits is so crucial to removing moral hazard. When a venture capital business provides start-up financing, the company's stock cannot be sold to anybody other than the venture capital firm. As a result, additional investors are unable to benefit from the venture capital firm's vetting efforts for free. This approach allows the venture capital company to fully profit from its verification work and provides the right incentives to lessen the moral hazard issue. Venture capital businesses have played a significant role in the growth of the high-tech industry in both Canada and the US, which has led to the creation of jobs, economic expansion, and improved global competitiveness.

### **Debt Contracts**

An equity contract, which is a claim on profits in all circumstances, whether the company is earning or losing money, creates moral hazard. A contract would be more desirable than an equity contract if it could be designed such that moral hazard would only arise in certain circumstances. This would lessen the need to oversee management. Due to the borrower's contractual commitment to make periodic fixed-dollar payments to the lender, the debt contract has precisely these characteristics. When the company makes big profits, the lender is paid according to the contract and is not required to know the precise earnings of the company. The lender doesn't care if the management are concealing earnings or engaging in actions that are personally advantageous but don't boost profitability as long as these actions don't prevent the company from being able to pay its debts on time. Lenders are only required to check the firm's profitability when the company is in a state of default and unable to make its debt obligations. Lenders participating in debt arrangements only need to behave more like equity holders in this circumstance; they now need to be aware of the company's profits in order to get their fair portion. Debt contracts are utilised to acquire capital more often than equity contracts due to the less frequent requirement to monitor the business and therefore a lower cost of state verification.

### **Financial Structure in Debt Markets and Moral Hazard**

Despite the benefits already mentioned, moral hazard still exists in debt arrangements. Borrowers are encouraged to undertake investment projects that are riskier than the lenders would want since a loan contract compels them to pay a specified sum and allows them to retain any earnings beyond this amount. Consider the scenario where you decide against becoming an equity partner because you are worried about the difficulty of proving the revenues of Steve's ice cream shop. Instead, you agree to a debt arrangement that pays you 10% interest and allows you to loan Steve the \$9000 he needs to start his firm. There is a strong and consistent demand for ice cream in your neighborhood, so as far as you are concerned, this is an investment that will definitely pay off. But if you give Steve the money, he could use it differently than you expected. Steve believes he has a 1-in-10 chance of creating a diet ice cream that tastes just as wonderful as the premium brands but has no fat or calories, so instead of building the ice cream shop, he may use your \$9000 loan to buy chemical research equipment.

Clearly, this is an extremely hazardous venture, but Steve will become a multimillionaire if he succeeds. He has a strong motive to utilize your money to make the riskier venture since the rewards would be substantial for him. If Steve utilised your loan for the riskier venture, you would obviously be quite angry because if he failed, which is very probable, you would lose most or all of the money you lent him. And since the principal and interest payments are predetermined, even if he was successful, you wouldn't benefit from it because you would still only get a 10% return on the loan. Even if an ice cream shop in the neighborhood is a

smart investment that would benefit everyone, you probably wouldn't give Steve a loan because of the possible moral hazard (that Steve would use your money to support a very dangerous business).

## **TOOLS FOR ADDRESSING MORAL HAZARD IN DEBT CONTRACTS**

### **Net Worth and Collateral**

The risk of moral hazard the temptation to act in a way that lenders find objectionable is greatly reduced when borrowers have a lot to lose because their net worth (the difference between their assets and liabilities) or the collateral they have pledged to the lender is high. Now let's go back to Steve and his ice cream shop. Let's say that instead of costing \$10,000 to setup, it costs \$100,000 to put up the ice cream shop or the research equipment. Therefore, in addition to the \$9000 provided by your loan, Steve must invest \$91 000 of his own money in the company (instead of \$1,000). Steve has a lot to lose if his no-calorie, nonfat ice cream invention fails, including his \$91 000 net worth (which is calculated by deducting the loan you gave him from his \$100,000 in assets). He will be hesitant to make the riskier investment and is more inclined to put money into the ice cream shop, which is a safer bet.

Therefore, you are more likely to grant Steve the loan if he has invested a larger portion of his own money (net worth) in the company. Similar to the last example, if you have put your home up as collateral, you are less inclined to travel to Las Vegas that month and gambling away all of your money for fear that you won't be able to make your mortgage payments and might end up losing your home. To put it another way, the high net worth and collateral give a solution to the moral hazard issue by making the loan contract incentive-compatible, or aligning the motivations of the borrower and the lender. The bigger the borrower's net worth and the value of the pledged collateral, the greater the borrower's motivation to perform as the lender expects and wishes, the lower the moral hazard issue in the loan contract, and the simpler it is for the business or family to get credit. In contrast, the moral hazard issue is worse and borrowing is more difficult when the borrower's net worth and collateral are smaller [7]–[10].

### **Monitoring and Enforcement of Restrictive Covenants**

It would be worthwhile for you to extend Steve the loan if you could ensure that he doesn't invest in anything riskier than his ice-cream shop, as shown by the example of Steve and his ice-cream shop. By adding clauses (restrictive covenants) to the loan contract that limit Steve's company's operations, you may make sure that he utilises your money for the purposes you want. You may prevent Steve from taking on risks at your cost by keeping an eye on his actions to see if he is abiding by the restrictive covenants and enforcing the covenants if he is not. By forbidding undesirable conduct or promoting good behaviour, restrictive covenants aim to reduce moral hazard. Restrictive covenants may accomplish this goal in four different ways:

1. Agreements to prevent unfavourable behaviours. By preventing the borrower from participating in the undesired conduct of making hazardous investment projects, covenants may be created to reduce moral hazard. Some loan covenants demand that a loan may only be used to fund specified purposes, such the purchase of specific inventory or equipment. Others prevent the borrowing company from participating in certain hazardous business ventures, such acquiring rival companies.
2. Agreements to support positive conduct. Restrictive covenants might motivate the borrower to take actions that will increase the likelihood that the loan will be repaid. One such restrictive covenant is that the household's primary provider have life

insurance that will settle the mortgage in the event of their death. The goal of these kinds of restrictive covenants for companies is to encourage the borrowing company to maintain a high net worth since doing so lowers moral hazard and lowers the likelihood that the lender would sustain losses. These restrictive covenants often require the company to maintain minimum holdings of certain assets in proportion to the company's size.

3. Agreements to maintain the value of the collateral. Restrictive covenants might urge the borrower to maintain the collateral in excellent shape and ensure that it remains in the borrower's ownership since collateral is a crucial safeguard for the lender. The covenant that is most often encountered by regular people is this one. Automobile loan agreements, for instance, forbid the sale of the vehicle until the loan is repaid and mandate that the owner maintain a certain level of accident and theft insurance. Similar to this, the person who receives a mortgage on a home must insure it adequately and pay off the loan when the house is sold.
4. Additionally, restrictive covenants mandate that a borrowing company provide quarterly financial accounts detailing its operations so that the lender may more easily keep track of it and lessen moral hazard. This form of covenant can also let the lender to audit and examine the company's records at any time.

### **Financial Intermediation**

Restrictive covenants do not totally solve the moral hazard issue, but they do assist to mitigate it. It is almost hard to create covenants that forbid every potentially dangerous behaviour. Additionally, borrowers may be cunning enough to locate exceptions to restrictive covenants that render them useless. Restrictive covenants must be monitored and upheld, which is another issue. A restrictive covenant is useless if the borrower knows they can break it without the lender finding out or paying for legal action. The free rider issue occurs in the debt securities (bond) market, just as it does in the stock market, as a result of the high costs associated with monitoring and enforcing restrictive covenants. You may benefit from other bondholders' monitoring and enforcement of the restrictive covenants if you are aware of it. However, because other bondholders have the same option, it is probable that insufficient resources will be allocated to monitoring and enforcing the restrictive covenants. Therefore, moral hazard still poses a serious issue for marketable debt. Financial intermediaries, in particular banks, may escape the free-rider issue as long as they focus solely on making private loans, as we have already observed. No one else can benefit from the intermediary's monitoring and execution of the restrictive covenants as private loans are not traded. In this way, the intermediary providing private loans benefits from oversight and enforcement and will seek to reduce the moral hazard issue present in debt contracts.

### **Financial Progress and Economic Development**

Recent studies have revealed that underdeveloped financial systems in many developing nations and former communist states like Russia, which are classified as transition countries and experience very low rates of growth, are a significant factor in this phenomenon. An undeveloped financial system contributes to a low level of economic development and economic growth, which is explained by the economic analysis of financial structure. Several challenges prevent the financial systems of emerging and transitioning nations from functioning effectively. As we've seen, collateral and restrictive covenants are two crucial strategies used to assist tackle adverse selection and moral hazard concerns in lending markets. It is difficult to apply these two techniques effectively in many developing nations because the system of property rights (the rule of law, restrictions on government expropriation, lack of corruption) is ineffective.



These nations often have excessively drawn-out and delayed bankruptcy proceedings. For instance, in many nations, creditors (holders of debt) must first sue the defaulting debtor for payment, which might take years, and then the creditor must sue once again to get title to the collateral after obtaining a favourable decision. The procedure might take more than five years, and by the time the lender obtains the collateral, it can have lost value due to neglect. Additionally, governments often prevent lenders from foreclosing on debtors in politically important industries like agriculture. The adverse selection issue will be greater in cases where the market is unable to utilise collateral successfully since the lender will require more knowledge about the borrower's character to distinguish between good and poor loans. As a consequence, it will be more difficult for lenders to direct money to borrowers who have the best investment prospects.

Less profitable investment will result in a slower rate of economic expansion. Similar to the above, lenders may find it very challenging to enforce restrictive covenants in the event that the judicial system is underdeveloped or corrupt. They may thus be far less able to minimise borrowers' moral hazard, which will make them less eager to lend. Once again, the result will be less fruitful investment and a slower pace of economic expansion. The significance of a strong legal system in fostering economic development shows that attorneys contribute to the economy in more beneficial ways than we give them credit for. Governments in developing and transitional nations frequently use their financial systems to channel credit to themselves or to favoured economic sectors by artificially lowering interest rates for certain loan types, setting up so-called development finance institutions to make certain loan types, or instructing already-existing institutions to lend to particular entities.

As we've shown, lending to borrowers who provide the best investment possibilities and addressing issues with moral hazard and adverse selection are incentives for private institutions. Governments may not direct money via their directed credit programmes to industries that would result in significant economic development since they lack the profit motive.

As a result, governments have less motivation to do so. Once again, the conclusion is likely to lead to slower development and less effective investment. In many emerging and transitional nations, the governments also own the banks. These state-owned banks have little motivation to direct their funds towards the most profitable applications once again due to the lack of the profit motive. It should come as no surprise that the government, which often does not spend the cash properly, is the principal loan client of these state-owned banks.

## CONCLUSION

By causing an imbalance of incentives, the principal-Agent Problem, also known as moral hazard in equity transactions, puts corporate governance and finance at risk. Due to their minimal personal accountability, agents could take unnecessary risks, which might result in poor decision-making, decreased shareholder value, and significant financial hardship. Several approaches and tactics have been used to reduce moral hazard, including pay plans that balance agent interests with shareholder interests, performance-based incentives, supervision and monitoring, transparency, and disclosure procedures. To reduce the detrimental effects of moral hazard and increase long-term shareholder value, a multifaceted strategy combining stakeholder involvement is required.

## REFERENCES

- [1] N. Williams, "A solvable continuous time dynamic principal-agent model," *J. Econ. Theory*, 2015, doi: 10.1016/j.jet.2015.07.006.

- [2] A. P. J. Su, “Information Acquisition and the Equilibrium Incentive Problem,” *J. Econ. Manag. Strateg.*, 2017, doi: 10.1111/jems.12175.
- [3] B. Hébert, “Moral hazard and the optimality of debt,” *Rev. Econ. Stud.*, 2018, doi: 10.1093/restud/rdx080.
- [4] N. Pavoni, “On optimal unemployment compensation,” *J. Monet. Econ.*, 2007, doi: 10.1016/j.jmoneco.2006.06.006.
- [5] C. Zhou, J. Peng, Z. Liu, and B. Dong, “Optimal incentive contracts under loss aversion and inequity aversion,” *Fuzzy Optim. Decis. Mak.*, 2019, doi: 10.1007/s10700-018-9288-1.
- [6] T. Flannery and S. Roberts, “The use of non-monotonic contracts in a single period game: An experimental investigation,” *J. Behav. Exp. Econ.*, 2018, doi: 10.1016/j.socec.2018.10.002.
- [7] C. Opitz and K. H. Hofmann, “Adverse Selection and Moral Hazard in Equity Partnerships: Evidence from Hollywood’s Slate Financing Agreements,” *J. Econ. Manag. Strateg.*, 2014, doi: 10.1111/jems.12069.
- [8] S. M. Bromberg and G. Roger, “Leverage and Risk Taking Leverage and Risk Taking,” *SSRN Electron. J.*, 2015.
- [9] I. M. Fowlie, “New Essays On Contract Theory,” *Philos. Books*, 1978, doi: 10.1111/j.1468-0149.1978.tb01766.x.
- [10] B. Datta, “Essays on Innovation,” 2018.

## CHAPTER 2

### CORRUPTION OF INTERESTS IN FINANCIAL MARKET

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#### **ABSTRACT:**

In the fields of corporate governance and finance, the Principal-Agent Problem more particularly, the problem of moral hazard in stock contracts raises serious questions. The separation of ownership and control in equity contracts creates a moral hazard that encourages agents to take unwarranted risks, which is examined in this essay as it explores the nature of the principal-agent problem. In this essay, moral hazard's sources and effects are examined, along with the numerous methods and mitigation techniques used. The ramifications for business decision-making and shareholder value are also covered. Stakeholders may create stronger governance structures and incentive systems to align the interests of principals and agents and minimize the negative consequences of moral hazard by understanding the dynamics of moral hazard in equity contracts.

#### **KEYWORDS:**

Corporate Governance, Equity Contracts, Incentives, Moral Hazard, Principal-Agent Problem, Risk Management.

#### **INTRODUCTION**

The separation of ownership and control inside organisations leads to the well-known corporate governance issue known as the Principal-Agent Problem. There is a potential conflict of interest when shareholders (principals) provide decision-making power to managers (agents), since agents may act in their own self-interest rather than maximising shareholder wealth. In equity contracts, where managers have a share in the company's ownership via stock or stock options, this conflict is especially obvious. The problem of moral hazard is one of the major issues that occur with equity transactions. Moral hazard occurs when agents are enticed to take on excessive risk or avoid their obligations since their personal culpability is minimal. To put it another way, managers could be motivated to take steps that will benefit them personally even if they will be bad for the interests of the shareholders in the long run.

Managers may put their personal wealth gain ahead of the interests of shareholders due to the separation of ownership and control. They could make hazardous investments, focus on short-term profits at the price of sustainability over the long term, or act selfishly in ways that reduce shareholder value. For efficient corporate governance and the defence of shareholder interests, the issue of moral hazard in equity contracts must be addressed. To match the interests of managers with those of shareholders, proper incentive structures and monitoring methods must be designed. Companies may encourage managers to operate in the best interests of shareholders, make educated choices, and practise responsible risk management through aligning incentives [1]–[3].

The nature of the Principal-Agent Problem is examined in this essay, with an emphasis on the problem of moral hazard in equity contracts. It explores the sources and effects of moral hazard, considers the difficulties it poses for corporate performance and decision-making, and



discusses different tactics and procedures that might be used to lessen moral hazard. The mechanics of moral hazard in equity contracts may be better understood by stakeholders, who can then create strategies that effectively encourage ethical conduct, strengthen corporate governance procedures, and increase long-term shareholder value. Financial organisations may take advantage of economies of scale by gathering, creating, and disseminating this information, which they can then utilise as much as they want. By offering their clients a variety of financial services, such as bank loans or the sale of their bonds, they can also achieve economies of scope, which reduces the cost of information production for each service by utilising a single information resource for a variety of services. When a bank lends money to a company, for instance, it may assess the company's creditworthiness, which helps the bank determine if it would be simple to sell the company's bonds to the general public.

Additionally, financial institutions build deeper and more lasting ties with businesses by offering a variety of financial services to their clients. These connections further boost economies of scope and lower the cost of creating information. Even though economies of scope may significantly assist financial organisations, they also run the risk of incurring expenses due to conflicts of interest. When a person or organisation has various aims (interests) and, as a consequence, conflicts between those objectives, conflicts of interest, a sort of moral hazard issue, occur. The likelihood of conflicts of interest increases when a financial institution offers a variety of services. Due to the possible conflicting interests of such services, a person or business may withhold information or spread false information.

## DISCUSSION

### **Research and Underwriting in Investment Banking**

Researching firms that are issuing securities and underwriting those securities by offering them for sale to the public on behalf of the issuing company are the two jobs that investment banks conduct. Because information synergies are possible that is, information created for one activity may also be beneficial in another task investment banks often mix these many financial services. Because the banks are seeking to concurrently serve two customer groups the security-issuing corporations and the security-buying investors a conflict of interest emerges between the brokerage and underwriting services. These clientele groups need various types of information. Positive research is advantageous to issuers, whilst investors want objective research. To take advantage of scope economies, the identical information will be provided for both groups. The bank will have a strong incentive to change the information presented to investors to favour the requirements of the issuing company if it doesn't want to risk losing the firm's business to other investment banks when the prospective income from underwriting significantly outweighs the brokerage fees from selling. Our goal is to adopt a policy that is fully understood by the entire company, including the Research Department, that we do not make negative or controversial comments about our clients as a matter of good business practice, for instance, according to a Morgan Stanley internal memo that was excerpted in the Wall Street Journal on July 14, 1992. Investment bank analysts may falsify their research to appease issuers as a result of mandates like this one, and it seems that this occurred during the 1990s stock market tech boom.

Such activities reduce the accuracy of the data that investors rely on to make their financial choices, which reduces the effectiveness of the securities markets. Spinning is yet another practise that takes use of conflicts of interest. When an investment bank distributes hot but underpriced initial public offerings (IPOs), that is, shares of recently issued stock to executives of other firms in exchange for their companies' future business with the investment bank, this is known as spinning. Spinning is a kind of kickback intended to

convince executives to employ that investment bank since hot IPOs generally increase in value right away when they are first bought. The investment bank that distributes the popular IPO shares, rather than the one that would get the greatest price for the business's securities, will likely be approached by the executive's company when it prepares to issue its own shares. This practice may increase the firm's capital costs, reducing the capital market's effectiveness.

### **Auditing and Consulting In Accounting Firms**

In order to lessen the inescapable information asymmetry between the firm's management and its shareholders, auditors traditionally review the accounts of businesses and keep an eye on the accuracy of the information they provide. In auditing, a number of possible conflicts of interest pose a danger to accurate reporting. The situation when an accounting firm offers its customer both auditing services and non-audit consulting services, such as guidance on taxes, accounting, management information systems, and corporate strategy, is the conflict of interest that has drawn the most attention in the media. Offering a variety of services to customers enables scale and scope economies, but it also presents two possible sources of conflicts of interest.

First, auditors can be eager to inflate their assessments and views in order to get advisory work from these same clients. Second, auditors may not want to criticize the systems or recommendations since they are inspecting information systems or tax and financial strategies implemented by their non-audit colleagues inside the company. Both kinds of conflicts have the potential to result in biased audits, which would make financial markets less dependable and make it more difficult for investors to allocate money effectively. When an auditor performs an excessively favourable audit in order to attract or keep audit clients, a conflict-of-interest results. This could be the most hazardous conflict of interest, as seen by the terrible collapse of Arthur Andersen, previously among the top five accounting firms in the US.

### **Credit Evaluation and Consulting in Ratings Agencies**

To assess the creditworthiness of certain debt instruments, investors employ credit ratings that represent the likelihood of default. Therefore, the price of debt instruments and the regulatory procedure both heavily rely on debt ratings. When numerous users with different interests (at least in the near term) rely on the credit ratings, conflicts of interest may occur. Investors and regulators want a thorough, unbiased evaluation of the credit quality; the issuer requires a good rating. The issuers of securities pay a rating agency, such as Standard & Poor's or Moody's, to grade their securities in the credit-rating business. Investors and regulators are concerned that the credit-rating agency may skew its ratings higher to entice more business from the issuer since it is the issuers who pay the agency. When credit-rating companies also provide auxiliary counselling services, a different kind of conflict of interest may occur [4]–[6].

Debt issuers often request advice from rating agencies on the best ways to arrange their debt issues, generally in an effort to get a good rating. The credit rating agencies would be assessing their own work in this scenario and would encounter a conflict of interest akin to that present in accounting companies that provide both auditing and advisory services. Additionally, good ratings from credit rating organizations may attract new customers for the related consultancy company. Financial markets may become more asymmetrical as a result of the potential reduction in the quality of credit ratings provided by rating agencies, which would reduce their capacity to distribute credit. Due to the credit-rating agencies' tarnished reputations during the subprime financial crisis beginning in 2007, such conflicts of interest

came to light. The Sarbanes-Oxley Act and the Global Legal Settlement are two significant legislative initiatives that were put into place in the US to address conflicts of interest.

### **Sarbanes-Oxley Act of 2002**

The Public Accounting Reform and Investor Protection Act, sometimes known as the Sarbanes-Oxley Act after its two main congressional writers, was passed in 2002 as a result of the public outrage over business and accounting scandals in the United States. This law strengthened supervisory control over employees to track and stop conflicts of interest: It created the Public Company Accounting Oversight Board (PCAOB), under the SEC's supervision, to monitor accounting firms and guarantee the independence and quality control of audits. It enhanced funding for the SEC to oversee the securities markets. Conflicts of interest were also significantly reduced by Sarbanes-Oxley, which made it unlawful for a registered public accounting firm to provide a client any nonaudit service concurrently with an illegal audit (as judged by the PCAOB). Investment banks have incentives thanks to Sarbanes-Oxley to avoid abusing conflicts of interest: Criminal charges for white-collar crime and obstructing government investigations were strengthened.

Sarbanes-Oxley also included measures to enhance the quality of information in the financial markets, including Section 404's requirement that a corporation's CEO, CFO, and auditors certify the accuracy of the company's periodic financial statements and disclosures, particularly with regard to off-balance-sheet transactions. It mandated that members of the audit committee, a subcommittee of the board of directors responsible for overseeing the company's audit, be independent, meaning they couldn't work as managers for the business or be paid a consulting or advising fee by it.

### **Global Legal Settlement of 2002**

The second significant policy change resulted from a lawsuit that the ten largest investment banks (Bear Stearns, Credit Suisse First Boston, Deutsche Bank, Goldman Sachs, J.P. Morgan, Lehman Brothers, Merrill Lynch, Morgan Stanley, Salomon Smith Barney, and UBS Warburg) were named in by New York Attorney General Eliot Spitzer. On December 20, 2002, the SEC, the New York Attorney General, NASD, NASAA, NYSE, and state authorities agreed a worldwide settlement with these investment firms. Similar to Sarbanes-Oxley, this agreement minimized conflicts of interest directly: Investment banks have to cut the linkages tying research and securities underwriting together. They outlawed spinning. Investment banks had incentives under the Global Legal Settlement to avoid abusing conflicts of interest: The penalties levied against the accused investment institutions totaled US\$1.4 billion. The worldwide settlement included the following initiatives to improve the quality of market information: Investment banks were obligated to disclose the analyst recommendations. Investment banks were obliged to get into agreements with at least three independent research companies over a five-year period in order to give its brokerage clients with research.

### **Control Attestation in Canada**

In response to the challenges brought up by the corporate and accounting scandals in the United States, a significant number of regulatory efforts with regard to corporate governance have also captured the public's attention in Canada in recent years. For instance, in reaction to the significant changes occurring in the United States, the Ontario government adopted Bill 198 in October 2002. Similar to the Sarbanes-Oxley Act, Bill 198 proposed a number of changes to Ontario's securities rules, including increased penalties for unlawful activity, speedier public disclosure, independent auditors, and CEO and CFO responsibility for

financial reporting. Additionally, the Internal Control Instrument and the Certification Instrument, two proposed instruments that essentially duplicate the standards of the Sarbanes-Oxley Act in the United States, were issued for discussion by the Canadian Securities Administrators in February 2005.

### **The Subprime Financial Crisis and Credit-Rating Organizations**

For their part in the U.S. subprime financial crisis, credit-rating agencies have faced harsh criticism. The structuring of complicated financial instruments that distributed cash flows from subprime mortgages was advocated to customers by credit rating agencies. They were assessing these similar things at the same time, which raised the possibility of serious conflicts of interest.

They specifically lacked adequate incentives to ensure the accuracy of their ratings due to the high fees they received for advising customers on how to build the products they were evaluating. It became abundantly evident that the rating agencies had done a poor job of evaluating the risk in the subprime products they had helped to develop when house values started to drop and subprime mortgages started to fail. Numerous AAA-rated items had to be repeatedly reduced until they acquired trash status.

One of the reasons why so many financial institutions holding these assets fell into problems, with utterly terrible results for the economy, was the ensuing large losses on those assets. In 2008, the U.S. Securities and Exchange Commission (SEC) proposed extensive changes in response to complaints about the credit-rating agencies. The SEC came to the conclusion that the models used by credit rating firms to grade subprime goods were incomplete, and that conflicts of interest may have contributed to the creation of incorrect ratings. To avoid conflicts of interest, the SEC forbade bond issuers from giving gifts to rating agencies in excess of \$25 and forbade credit rating agencies from structuring the products they rate. It also forbade anyone involved in the process from negotiating the price the issuer pays for a credit rating. The SEC's new guidelines also mandated greater transparency of how credit-rating companies establish ratings in order to hold them more responsible. For instance, credit-rating agencies were required to disclose historical ratings performance, including the dates of downgrades and upgrades, details on the underlying assets of a product that were used to rate a product, and the type of research that was conducted to determine the rating. Additionally, the SEC mandated that the rating companies distinguish between the ratings given to bonds and structured instruments. It is anticipated that these improvements would boost the ratings process' openness and lessen the conflicts of interest that so significantly contributed to the subprime crisis [7]–[10].

### **Reasons for Financial Crises**

A functional financial system finds solutions to asymmetric information issues to distribute money to its most profitable uses. A financial crisis occurs when the increase in asymmetric information brought on by a financial system disruption result in severe moral hazard and adverse selection issues, which prevent financial markets from efficiently channeling funds from savers to households and businesses with profitable investment opportunities. Economic activity falls down significantly when financial markets are not functioning properly. We must look at the contributing causes to financial crises in order to comprehend why they occur and, more specifically, how they result in declines in economic activity.

Financial crises are heavily influenced by six types of causes, including the impact of the asset market on balance sheets, the state of financial institutions' balance sheets, banking crises, surges in uncertainty and interest rates, and government fiscal imbalances. The effects

of each of these variables on lending, investment, and economic activity will be examined. Complex situations like financial crises may have negative effects on economies and communities. Financial crises may develop for a number of different reasons, each of which may have its own particular causes and features. The following are some of the main causes of financial crises:

1. **Asset price bubbles:** Speculative bubbles may result in inflated valuations and unsustainable price levels in asset markets like the stock or real estate markets. When these bubbles pop, asset values may drop dramatically, resulting in financial instability.
2. **Excessive leverage and debt accumulation:** In the financial system, high levels of debt and leverage may aggravate the effects of market downturns. Borrowers who are unable to pay their debts may default, experience financial hardship, and this may have a domino impact on other financial institutions.
3. **Inadequate risk management and regulation:** Weak risk management procedures, loose rules, and inadequate monitoring of financial institutions may all lead to the development of systemic problems. Vulnerabilities may build up as a result of insufficient capital buffers, subpar risk analysis, and inadequate financial activity monitoring.
4. **Contagion and connectivity:** Financial systems are very integrated, and the collapse of one market or institution may quickly spread to others. When there is a disruption in one industry or nation, it might spread to others, causing a wider financial crisis.
5. **Economic imbalances:** The financial system may become vulnerable if there are ongoing economic imbalances, such as significant trade deficits, budgetary deficits, or excessive private sector debt. A financial crisis may be brought on by the unwinding or correction of these imbalances.
6. **Liquidity crunch:** A sudden lack of liquidity in the financial system, sometimes brought on by a decline in confidence or fear among market players, may make a financial crisis worse. Lack of capital may result in credit restrictions, fire sales, and other serious economic disruptions.
7. Government policy blunders or inadequate responses may increase the severity or length of a financial crisis. Government policy failures. This may include procrastinating on critical activities, making improper interventions, or implementing conflicting policy measures.

It is important to remember that financial crises often emerge from a number of reasons, and their causes might be intricately linked. Understanding these causes might assist market players and regulators in spotting vulnerabilities and putting precautionary measures in place to lessen the possibility and effects of future financial crises.

## CONCLUSION

By causing an imbalance of incentives, the Principal-Agent Problem, also known as moral hazard in equity transactions, puts corporate governance and finance at risk.

Due to their minimal personal accountability, agents could take unnecessary risks, which might result in poor decision-making, decreased shareholder value, and significant financial hardship. Several approaches and tactics have been used to reduce moral hazard, including pay plans that balance agent interests with shareholder interests, performance-based incentives, supervision and monitoring, transparency, and disclosure procedures. To reduce the detrimental effects of moral hazard and increase long-term shareholder value, a multifaceted strategy combining stakeholder involvement is required.



**REFERENCES**

- [1] H. W. Kamran, S. B. B. M. Arshad, and A. Omran, "Country governance, market concentration and financial market dynamics for banks stability in Pakistan," *Res. World Econ.*, 2019, doi: 10.5430/rwe.v10n2p136.
- [2] H. Smaoui and M. Khawaja, "The Determinants of Sukuk Market Development," *Emerg. Mark. Financ. Trade*, 2017, doi: 10.1080/1540496X.2016.1224175.
- [3] M. Jeremiah Barasa Kabeyi, "Corporate Governance in Manufacturing and Management with Analysis of Governance Failures at Enron and Volkswagen Corporations," *Am. J. Oper. Manag. Inf. Syst.*, 2019, doi: 10.11648/j.ajomis.20190404.11.
- [4] A. Skoczylas-Tworek, "Disclosure of non-financial information in the field of counteracting corruption and bribery in economic practice," *Pr. Nauk. Uniw. Ekon. we Wrocławiu*, 2020, doi: 10.15611/pn.2020.4.14.
- [5] I. R. Susilawati and R. Hidayat, "Society and Taxes: An Exploratory Study of Fiscal Psychology," *Digit. Press Soc. Sci. Humanit.*, 2020, doi: 10.29037/digitalpress.45339.
- [6] R. Aggarwal and J. W. Goodell, "Financial markets versus institutions in European countries: Influence of culture and other national characteristics," *Int. Bus. Rev.*, 2010, doi: 10.1016/j.ibusrev.2009.07.010.
- [7] J. T. Jalles, "A new theory of innovation and growth: the role of banking intermediation and corruption," *Stud. Econ. Financ.*, 2016, doi: 10.1108/SEF-01-2016-0017.
- [8] P. J. A. Robson, J. Kickul, and A. L. Carsrud, "Government Bureaucracy, Transactional Impediments, and Entrepreneurial Intentions," *Int. Small Bus. J.*, 2009, doi: 10.1177/0266242609338752.
- [9] H. H. Hoang and D. H. Bui, "Determinants of foreign direct investment in ASEAN: A panel approach," *Manag. Sci. Lett.*, 2015, doi: 10.5267/j.msl.2014.12.015.
- [10] H. Ayaydin and N. Baltacı, "Corruption, banking sector, and stock market development: A panel data analysis," *Eur. J. Res. Educ. Hum. Resour. Manag.*, 2013.

## CHAPTER 3

### EFFECTS OF ASSET MARKETS ON BALANCE SHEETS IN FINANCIAL MARKET

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#### **ABSTRACT:**

The impact of asset markets on balance sheets is key in determining how the financial market environment will develop. This essay explores the interactions between asset markets and balance sheets, focusing on how they affect financial institutions, businesses, and individuals. It looks at the impact of market and asset price fluctuations on balance sheet positions, asset values, and long-term financial stability. The transmission routes through which these impacts spread across the economy are also examined in this research. For policymakers, regulators, and market players to make informed choices and put effective risk management methods into practice, they must have a thorough understanding of the dynamics of asset markets on balance sheets. Stakeholders are better able to foresee and react to possible dangers and opportunities that present themselves in the financial market by understanding the connections between asset markets and balance sheets.

#### **KEYWORDS:**

Asset Markets, Balance Sheets, Financial Institutions, Financial Stability, Fluctuations, Risk Management.

#### **INTRODUCTION**

On the balance sheets of financial institutions, businesses, and families, the operation of the asset markets has a substantial bearing, which affects the overall dynamics of the financial market. The value of the assets and obligations owned by different market players is mostly determined by asset markets, such as the stock, bond, and real estate markets. Asset valuations, balance sheet situations, and financial stability may all be significantly impacted by changes in market circumstances and asset prices. A snapshot of a company's financial situation is provided by the balance sheet, which shows its assets, liabilities, and equity. Asset markets have a direct impact on how market players value their holdings of assets. Assets like loans, securities, and derivatives are important elements of the balance sheets of financial firms.

Changes in these assets' values may have a big effect on their risk profile, liquidity, and capital adequacy. The value of a company's investments, real estate holdings, and other assets also has an effect on its balance sheets. Values associated with houses, investment portfolios, and other financial assets are reflected in household balance sheets. There are several avenues via which the impacts of asset markets on balance sheets are communicated. When asset prices rise, market players' holdings gain value, which strengthens their balance sheets. As a result, borrowing capacity may be increased, consumer spending may increase, and investment activity may be encouraged. On the other hand, falling asset prices may lower balance sheet values, reducing borrowing capacity, eroding customer trust, and perhaps putting a company in financial difficulties [1]–[3].

Policymakers, regulators, and market players must comprehend the connection between asset markets and balance sheets. They may use it to detect possible systemic risks, evaluate the vulnerabilities and dangers brought on by changes in the asset market, and put sensible risk management plans into action. Stakeholders may make informed choices, reduce their exposure to market volatility, and advance financial stability by keeping an eye on how asset markets affect balance sheets. It investigates the ways in which changes in asset values and market circumstances affect the balance sheets of businesses, consumers, and financial institutions. It also takes into account the effects on risk management, economic development, and financial stability. Understanding these dynamics will help stakeholders negotiate the possibilities and risks that come with asset market changes, promoting a robust and sustainable financial market environment.

### **Sloping Stock Market**

One issue that might seriously deteriorate the balance sheets of borrowing firms is a sudden drop in the stock market. In turn, this degradation may exacerbate moral hazard and adverse selection issues in financial markets and lead to a financial catastrophe. Because share prices represent the appraisal of a corporation's net worth, a downturn in the stock market indicates a reduction in the net worth of businesses. Because, as we've seen, a company's net worth functions similarly to collateral, a fall in net worth makes lenders less eager to give loans. Losses on loans are expected to be greater as the value of collateral drops since it offers less protection to lenders. Lenders reduce their loans because they are now less shielded from the effects of adverse selection, which lowers investment and overall production. Additionally, the drop in corporate net worth brought on by a drop in the stock market encourages borrowing companies to make riskier bets since they stand to lose less money if their investments don't work out. Another reason why a drop in the stock market and the ensuing drop in net worth results in lower lending and economic activity is because the consequent rise in moral hazard makes lending less desirable.

### **An unplanned drop in the price level**

Many loan contracts with fixed interest rates often have a reasonably lengthy lifespan (ten years or more) in economies with modest inflation, which are characteristic of most industrialized nations. Unexpected drops in the overall price level in an institutional setting also lower businesses' net value. Due to the contractual requirement that debt payments be fixed in nominal terms, an unexpected drop in the price level increases the borrowing firm's obligations in real terms (increasing the burden of their debt), but not the real worth of the firm's assets. The gap between assets and obligations in real terms, or net worth, decreases as a consequence. Therefore, a sudden reduction in the price level results in a significant fall in the actual net worth of borrowing companies as well as an uptick in the moral hazard and adverse selection issues that lenders face. Thus, a sudden reduction in the level of the total price causes a fall in lending and business activity.

### **Unexpected Depreciation of the Domestic Currency**

Many non-financial firms, banks, and governments in developing countries find it simpler to issue debt denominated in foreign currencies rather than their own currency because of the uncertainty surrounding the future value of the domestic currency in developing countries (and in some industrialized countries). Similar to an unexpected drop in the price level, this might cause a financial catastrophe. When there is an unexpected decrease in the value of the local currency due to debt contracts denominated in foreign currency, the debt burden of domestic enterprises increases. Due to the fact that assets are frequently denominated in local currency, there is a degradation in business balance sheets and a decrease in net worth, which



subsequently intensifies adverse selection and moral hazard issues along the lines previously mentioned. Investment and economic activity decrease when asymmetric information issues multiply. Decreases in asset prices also result in write-downs of the value of the assets side of financial institutions' balance sheets. As the following element shows, this deterioration in their balance sheets may also result in a decrease in lending.

## DISCUSSION

### **Decline in Financial Institutions' Balance Sheets**

Banks in particular, who are in a good position to provide information that facilitates profitable investment for the economy, play a significant role in the financial markets. Lending is significantly impacted by the health of the balance sheets of banks and other financial intermediaries. Imagine that financial institutions' balance sheets deteriorate, causing a significant reduction in their capital. Lending will decrease since they will have less money to lend. The decrease in investment expenditure that follows the drop in credit ultimately affects economic growth.

### **Banking Crises**

The balance sheets of financial institutions will start to deteriorate if it gets bad enough. Even robust institutions might collapse as a result of fear spreading from one to the next. In particular, banks are vulnerable to this kind of contagion since they have deposits that may be withdrawn very fast. A bank panic happens when many banks collapse at once. Asymmetric information is the cause of the contagion. Depositors withdraw their money in a panic, worried about the security of their money (in the absence of or with insufficient deposit protection), unsure of the calibre of the banks' loan portfolios, to the point where the banks go out of business. A loss of information creation in the financial markets and a direct loss of bank financial intermediation occur when several banks collapse in a short period of time. When bank lending declines during a financial crisis, there are less funds available to borrowers, which raises interest rates. A rise in moral hazard and adverse selection issues in loan markets is a consequence of bank panics. These issues result in an even more severe reduction in financing to support profitable projects, which worsens the recession of economic activity [4]–[6].

### **Growth in Uncertainty**

Lenders find it challenging to distinguish between good and poor credit risks when there is a sharp rise in market uncertainty, say as a result of the bankruptcy of a well-known financial or nonfinancial firm, a recession, or a stock market crash. Lenders become less eager to lend as a consequence of their failure to resolve the adverse selection issue, which lowers lending, investment, and overall economic activity.

### **Interest rate increases**

Good credit risks are less likely to want to borrow but poor credit risks are still keen to borrow if increasing credit demand or a decrease in the money supply raise interest rates significantly. Lenders will stop wanting to issue loans as a consequence of the rise in adverse selection. A significant decrease in investment and overall economic activity will follow the sharp decline in loans. Increases in interest rates can contribute to the emergence of a financial crisis by impacting cash flow, which is the difference between cash inflows and outflows. A company with enough cash flow may fund its own initiatives, and because it is aware of the quality of its own initiatives, there is no asymmetry of knowledge.

In fact, almost two thirds of investments made by corporations in Canada and the US are financed internally. A rise in interest rates results in higher interest payments for households and businesses, which reduces their cash flow. Less cash flow means the company has less internal resources and must get funding from an outside source, like a bank, which may not be as familiar with the company as its owners or management. The bank may decide not to lend even to companies that are excellent risks and wish to make potentially lucrative investments due to heightened adverse selection and moral hazard. As a consequence, adverse selection and moral hazard issues worsen when cash flow declines as a result of a rise in interest rates, reducing lending, investment, and economic activity once again.

### **Government Fiscal Imbalances**

Government fiscal imbalances in emerging market nations (Argentina, Brazil, Ecuador, Russia, and Turkey are recent examples) may inspire worries of default on public debt. As a consequence, the demand for government bonds from ordinary investors may decline, forcing the government to compel financial institutions to buy them. If a government default is probable, the price of the debt will drop, which will cause financial institutions' balance sheets to deteriorate and their lending to decrease for the reasons previously mentioned. Fears of a government debt default may also lead to a foreign exchange crisis, in which investors withdraw their capital and the value of the native currency plummets. The balance sheets of companies with significant foreign debt will be destroyed as a result of the drop in the value of the home currency. These balance sheet issues result in a rise in moral hazard and adverse selection issues, a decrease in lending, and a loss of economic activity.

### **Past Canadian Financial Crises' Dynamics**

In the nineteenth and twentieth centuries, Canada had many banking and financial crises in the years 1866, 1879, 1923, and 1930–1933. We can understand why these crises occurred and why they had such a negative impact on the Canadian economy by looking at the elements that contribute to financial crises. We will now look at patterns in previous Canadian crises and gain understanding of current issues along the way. In Canada, financial crises have moved through two and sometimes three phases.

### **Mismanagement of Financial Innovation and Liberalization**

When nations engage in financial liberalisation, the removal of constraints on financial markets and institutions, or when significant financial innovations are brought to the market, as happened recently with subprime residential mortgages, the seeds of a financial catastrophe are often sowed. Which results in a more effective financial system that can better distribute resources. However, there is a downside to financial liberalisation or innovation: if handled poorly, it may push financial firms to take on too much risk. Financial institutions regularly engage in a lending binge, also known as a credit boom, when they rapidly increase their lending once limits are loosened or new financial products are launched. Unfortunately, it's possible that the management of these financial institutions lack the knowledge necessary to effectively manage risk in these new business areas.

Even if the necessary management skills are initially present, it is possible that the quick expansion of credit will exceed the information resources available to these institutions, resulting to excessively hazardous lending. Most governments attempt to stop bank panics and encourage banks to continue lending during difficult times by offering a government safety net. If depositors and other funders to banks are safeguarded against losses, they will continue to send cash to banks so that banks can keep lending and won't collapse. But there's a problem: Market discipline for the bank is weakened by the government safety net.

Depositors are certain they won't lose anything if a bank collapses when there is a safety net in place. So, even if the bank takes on too much risk, it may still raise money. Therefore, the government safety net increases the moral hazard incentive for banks to take on more risk than they otherwise would because, if their risky, high-interest loans succeed, the banks make a lot of money; if they fail, taxpayers foot the majority of the bill for the safety net that protects the banks depositors.

In other words, banks are allowed to play the heads I win, tails you lose game. To avoid excessive risk-taking, the existence of a government safety net necessitates regulation and oversight of the financial sector. The resources of the government's regulatory bodies are nonetheless being strained by new business lines and a fast increase in credit. Financial supervisors are now lacking the knowledge and the resources necessary to properly oversee the new lending activity. Risk-taking may soar without this oversight. This recklessness will eventually come back to haunt you. As loan losses accumulate and the value of loans (on the asset side of the balance sheet) declines compared to liabilities, banks and other financial institutions' net worth (capital) is reduced.

Deleveraging is the process through which these financial institutions reduce their lending as a result of having less capital. Banks and other financial institutions grow riskier when they have less capital, which discourages depositors and other prospective lenders from lending to them. Having less money results in fewer loans and a credit freeze. A loan slump follows the lending boom. As we've seen, because of their expertise in gathering data on companies and sectors, banks and other financial intermediaries are essential in the financial markets. These institutions can therefore discern between good and poor loan chances thanks to this skill. Nobody else can step in to gather this data and provide these loans when financial intermediaries deleverage and reduce their lending. Thus, the financial system's capacity to deal with adverse selection and moral hazard asymmetric information issues is severely constrained. Companies are no longer able to finance their alluring investment prospects as loans become harder to come by; as a result, they cut down on their spending, which causes the economy to collapse.

### **Boom and Bust in Asset Prices**

Investor psychology (also known as irrational exuberance, as coined by Alan Greenspan when serving as Chairman of the U.S. Federal Reserve) has the potential to push asset prices, including those in the stock market and real estate, considerably beyond their underlying economic values. Credit booms are another common cause of asset-price bubbles; during these periods, a significant rise in credit is utilized to finance the acquisition of assets, which raises the price of those assets.

The decline in net worth that results when the bubble bursts and asset prices return to basic economic values increases asymmetry of information making borrowers less creditworthy and leading to a decrease in lending and spending along the lines we discussed in the previous section. As we've seen, the asset-price slump may also result in financial institutions' balance sheets being worse, which makes them deleverage and further dampens economic activity.

### **Interest rate increases**

Increases in interest rates were a major contributor to several Canadian financial crises, whether they occurred as a result of interest rate spikes in the United States or as a result of bank panics that caused a rush for liquidity in Canada and rapid increases in interest rates. An increase in adverse selection and moral hazard increases with higher interest rates, which

causes a decrease in economic activity. Higher interest rates also cause declines in cash flow for households and businesses and a decrease in the number of good credit risks who are willing to borrow.

### **Growing Uncertainty**

Financial crises in Canada have often started when there is a lot of uncertainty, either when a recession has started or the stock market has plummeted. A significant cause of increased uncertainty that is present during financial crises is the demise of a significant financial institution. Examples from Canadian history include the Home financial in 1923, the Bank of Upper Canada in 1866, and the financial crisis of 1879. Due to the difficulty in obtaining reliable financial information during times of high uncertainty, lending and economic activity suffer as a result of moral hazard and adverse selection issues [7]–[10].

### **The financial crisis is the second stage**

Depositors start to withdraw their money from banks due to the deteriorating business circumstances and anxiety about the viability of their banks, which often leads to a financial crisis or bank panic. A loss of knowledge capital, growing moral hazard and adverse selection issues in the credit markets, and a subsequent fall in bank numbers cause the economy to continue to collapse. All of the financial crises that affected Canada in the nineteenth and twentieth centuries, including those that occurred in 1866, 1879, 1923, and 1930–1933, included bank panics. Up to World War II, every financial crisis in the United States included a bank panic component. These panics occurred about every 20 years: 1819, 1837, 1857, 1873, 1884, 1893, 1907, and 1930–33. Following that, bankruptcy processes are used to separate the companies that were insolvent (had a negative net value) from the healthy companies in the typical Canadian financial crisis. For banks, the same procedure is followed, often with the assistance of public and private agencies. Once this clearing up is done, there is less uncertainty in the financial markets, the stock market bounces back, and interest rates drop. Overall, this has the effect of reducing moral hazard and adverse selection issues while also easing the financial crisis. The financial markets are now able to function properly, which opens the door for the economy to recover and move on to the next phase.

### **Third Stage: Deflation of Debt**

The recovery phase, however, may be sped up if the economic slump causes prices to drop significantly. In this circumstance, a process known as debt deflation takes place. During this time, a significant unforeseen decrease in the price level sets in, which worsens the firm's net worth because of the rising burden of debt. Due to the adverse selection and moral hazard issues that are exacerbated by debt deflation, lending, investment expenditure, and overall economic activity are all negatively impacted over a protracted period of time. The Great Depression, which was the biggest economic recession in history, was the most major financial catastrophe that also included debt deflation.

### **The Great Depression in the United States**

Prices on the American stock market doubled between 1928 and 1929. Officials of the Federal Reserve considered the stock market boom to be excessive speculation. The Fed got more than it bargained for when the stock market collapsed in October 1929, plunging by more than 60%, as a result of their restrictive monetary policy that they followed to boost interest rates. Most people overlook the fact that by the middle of 1930, more than half of the stock market fall had been reversed, despite the fact that the 1929 crisis had a significant influence on the minds of a whole generation. In fact, there was no indication that a serious

financial crisis was developing, and credit market conditions remained mostly steady. However, severe shocks to the agricultural sector resulted in bank failures in agricultural areas that subsequently spread to the main financial centres, turning what could have been a typical recession into something quite unusual. From October 1930 until March 1933, a series of bank panics ensued. More than one-third of American banks closed their doors. In the credit markets, adverse selection and moral hazard issues were made worse by the continued decline in stock prices after mid-1930 (by mid-1932, stocks had dropped to 10% of their value from their 1929 peak), as well as the rise in uncertainty brought on by the uncertain business conditions caused by the economic contraction. The quantity of financial intermediation was decreased by the loss of one-third of the banks. Financial markets were less able to direct money to businesses with profitable investment prospects due to increased moral hazard issues and adverse selection. The number of outstanding commercial loans decreased by half between 1929 and 1933, as our study predicted, and investment expenditure plummeted, falling by 90% from its 1929 level. Because of a 25% drop in price level between the years of 1930 and 1933, the mechanism that usually allows the economy to recover swiftly from recessions was short-circuited. Due to the significant drop in prices, there was a debt deflation, in which enterprises' net value decreased as a result of their higher debt load. The credit markets saw a rise in moral hazard and adverse selection issues as a consequence of the drop in net worth, which extended the economic downturn and increased unemployment to 25% of the working force. The Great Depression's financial crisis was the worst ever, which explains why the United States' economic contraction was the worst it had ever been.

## CONCLUSION

Asset markets have an influence on balance sheets, which has an effect on the health of the economy, financial stability, and market participants. The financial stability and solvency of organizations and people may be impacted by fluctuations in asset prices, which may alter the valuations of assets and liabilities. Risks and possibilities are brought about by the connections between asset markets and balance sheets. Market players, regulators, and policymakers must actively monitor these consequences and put risk management strategies into place.

Enhancing institutional resilience and reducing the negative effects of changes in the asset market may be achieved through strengthening capital buffers, fostering transparency, and performing stress testing.

## REFERENCES

- [1] P. Pavone, "Market Capitalization and Financial Variables: Evidence from Italian Listed Companies," *Int. J. Acad. Res. Bus. Soc. Sci.*, 2019, doi: 10.6007/ijarbss/v9-i3/5802.
- [2] S. C. Lim, A. J. Macias, and T. Moeller, "Intangible assets and capital structure," *J. Bank. Financ.*, 2020, doi: 10.1016/j.jbankfin.2020.105873.
- [3] J. Zou, G. Shen, and Y. Gong, "The effect of value-added tax on leverage: Evidence from China's value-added tax reform," *China Econ. Rev.*, 2019, doi: 10.1016/j.chieco.2018.10.013.
- [4] Y. Dou, S. G. Ryan, and B. Xie, "The Real Effects of FAS 166/167 on Banks' Mortgage Approval and Sale Decisions," *J. Account. Res.*, 2018, doi: 10.1111/1475-679X.12204.

- [5] O. Roggi and A. Giannozzi, “Fair value disclosure, liquidity risk and stock returns,” *J. Bank. Financ.*, 2015, doi: 10.1016/j.jbankfin.2015.04.011.
- [6] O. Godechot, “Financialization is marketization! A study of the respective impacts of various dimensions of financialization on the increase in global inequality,” *Sociol. Sci.*, 2016, doi: 10.15195/v3.a22.
- [7] Y. Dai, L. Guo, H. Zhang, and Y. Liu, “On-balance-sheet duration hedging and firm value,” *Int. Rev. Financ. Anal.*, 2020, doi: 10.1016/j.irfa.2020.101517.
- [8] M. A. Ofeh and Z. N. Jeanne, “Financial Performances of Microfinance Institutions in Cameroon: Case of CamCCUL Ltd.,” *Int. J. Econ. Financ.*, 2017, doi: 10.5539/ijef.v9n4p207.
- [9] C. Evangelos, “The informative value of taxes: The case of temporal differences in tax accounting,” *J. Account. Tax.*, 2019, doi: 10.5897/jat2019.0350.
- [10] R. Sinclair and K. L. Keller, “Brand value, accounting standards, and mergers and acquisitions: ‘the Moribund Effect,’” *J. Brand Manag.*, 2017, doi: 10.1057/s41262-016-0025-1.



## CHAPTER 4

### EMERGING FINANCIAL INNOVATIONS IN THE MORTGAGE MARKETS

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#### **ABSTRACT:**

New financial changes in the mortgage markets may alter the landscape of housing financing and homeownership. The most current advancements in the mortgage sector are examined in this research along with how they affect lenders, borrowers, and the housing market as a whole. It considers factors like cost, accessibility, risk management, and regulatory repercussions when analyzing the benefits and risks of these advancements. This article also discusses how these innovations have affected market efficiency and financial inclusion, as well as the role that fintech companies and technology have had in promoting them. Policymakers, regulators, and market participants must grasp and assess emerging financial innovations in the mortgage markets in order to navigate the changing environment and ensure sustainable and fair housing finance systems.

#### **KEYWORDS:**

Financial Inclusion, Fintech, Housing Finance, Mortgage Markets, Risk Management.

#### **INTRODUCTION**

The advent of new financial technologies that are changing how people and family's access and finance homeownership is causing a dramatic upheaval in the mortgage industry. The long-standing problems in the housing finance industry are addressed by these innovations, which make use of technology, data analytics, and alternative financing methods. These new financial innovations have the potential to completely alter the mortgage industry and improve the ecology of the whole housing market by providing new options for accessibility, affordability, risk management, and efficiency. Traditional lenders like banks and mortgage firms have historically dominated the mortgage industry with their conventional mortgage offerings. However, the emergence of fintech businesses and technological improvements have created new opportunities and alternate methods of mortgage finance. The motivation behind these improvements is to enhance the client experience, shorten procedures, boost credit availability, and promote financial inclusion [1]–[3].

The use of big data and sophisticated analytics to evaluate borrower creditworthiness is one of the primary areas of innovation in the mortgage industry. Lenders may create more accurate risk models and make better lending choices by using enormous volumes of data from several sources, such as credit reports, income verification, and alternative data points. This gives them the opportunity to provide credit to applicants who may not fulfil standard underwriting requirements but have the capacity to pay back the mortgage. The introduction of online and digital mortgage platforms, which provide a simplified and effective borrowing experience, is another noteworthy breakthrough. With the help of these platforms, borrowers may submit their mortgage applications online, electronically submit the necessary documents, and obtain quicker loan approvals. Additionally, they provide borrowers access to personalized mortgage alternatives and real-time mortgage rates, giving them greater control

and transparency. Additionally, the idea of crowd funding and peer-to-peer financing has entered the mortgage sector. These platforms enable direct lending without the need of conventional financial intermediaries by bringing private investors and borrowers together. For borrowers who would have trouble obtaining credit via conventional channels, this might provide extra funding sources and alternative financing possibilities. Although these new financial technologies have many advantages, they also present significant obstacles. To maintain consumer protection, ethical lending practises, and financial stability, regulatory frameworks must keep up with these advances. To protect borrower information, data privacy and security issues must also be addressed. It examines the advantages, dangers, and legal ramifications of these developments. Policymakers, regulators, and market players may influence the future of the mortgage market to support financial inclusion, accessibility, and sustainable homeownership by being aware of the possible effects of these developments.

Prior to 2000, home mortgages were only available to the most creditworthy (prime) applicants. The credit risk for a new class of riskier residential mortgages, however, was more thoroughly and quantitatively evaluated as a result of developments in computer technology and new statistical methods, such as data mining. Mortgages for borrowers with less-than-perfect credit histories are referred to as subprime mortgages. Mortgages for Alt-A borrowers are those with stronger credit histories than subprime borrowers but greater predicted default rates than prime (A-paper) borrowers. Now, households with credit histories might be given a numerical credit score, called a FICO score in the US (named after the Fair Isaac Corporation that created it), which would indicate how probable it was that they would miss a loan payment. Additionally, computer technology made it possible to securitize smaller loans (like mortgages) into conventional debt instruments by reducing transaction costs.

A new source of funding for these mortgages was made possible by the ability to easily package and quantify the default risk of the underlying high-risk mortgages in a standardized debt product known as mortgage-backed securities. The birth of subprime and alt-A mortgages as a financial innovation. The advancement in finance didn't end there. Structured credit products, which are created from cash flows of underlying assets and may be designed to have certain risk characteristics that appeal to investors with varied preferences, are the result of financial engineering, the invention of new, complex financial instruments. Collateralized debt obligations (CDOs), in particular, were renowned for paying out the cash flows from subprime mortgage-backed securities in various tranches, with the highest-rated tranche paying out first and lesser ones paying out less if there were losses on the mortgage-backed securities [4]–[6].

## DISCUSSION

### Housing Price Bubble Develops

The subprime mortgage industry grew up after the recession ended in 2001, becoming a sector worth over a trillion dollars by 2007. This growth was aided by liquidity from capital flows soaring into the United States from nations like China and India. Politicians and economists alike praised the growth of the subprime mortgage sector since it helped democratize access to credit and push homeownership rates in the United States to their greatest levels ever. The housing asset price bubble that began following the crisis of 2000–2001 also contributed to the expansion of the subprime sector. Higher housing costs made it possible for subprime borrowers to refinance their homes with even greater debts as their properties' values increased. Due to the fact that subprime borrowers could always sell their homes to repay the loan, they were also less likely to fail. This made investors pleased since



the securities backed by subprime mortgage cash flows offered attractive yields. In consequence, the expansion of the subprime mortgage business raised housing demand, which in turn fueled the surge in home prices.

### **Agency Problems Arise**

The so-called originate-to-distribute business model was the foundation of the subprime mortgage industry. Under this approach, a mortgage was created by a third party, usually a mortgage broker, and then disseminated to an investor as the underlying asset in a security. Because the agent representing the investor, the mortgage originator, has no motivation to ensure that the mortgage is a good credit risk, the originate-to-distribute model is unfortunately vulnerable to the principle agent issue. The broker gets more money the more volume she originates. Given these motivations, it should come as no surprise that mortgage brokers often did not put up any effort to determine if the applicant could repay the loan. The severity of adverse selection increased at that point, as risk-loving investors were able to get loans to buy homes that would be very lucrative if housing values rose but that they could simply walk away from if prices fell.

The primary agent issue also gave mortgage brokers incentives to persuade families to take out loans they couldn't afford or to conduct fraud by providing false information on borrowers' mortgage applications to qualify them for loans. Lax regulation of originators, who were not obligated to provide borrowers with information that would have allowed them to determine whether they could repay the loans, exacerbated this issue. The issues with the agency became worse. Commercial and investment banks had little motivation to ensure that the eventual holders of the securities would get their money, despite the fact that they were making significant fees from underwriting mortgage-backed securities and structured credit instruments like CDOs. Conflicts of interest also existed between the credit rating organisations that were analysing these assets since they were paid to rate them and to advise customers on how to arrange securities to get the best ratings. It was thus more probable that the reliability of these assessments would be undermined [7]–[9].

### **Information Problems Surface**

Financial engineering has a dark side even if it has the ability to provide goods and services that better suit investors' risk tolerances. It may become very difficult to evaluate the cash flows of the underlying assets for a security or to identify who truly owns these assets when dealing with complex structured products like CDOs, CDO2s, and CDO3s. In fact, Ben Bernanke, the chairman of the Federal Reserve, made a joke about wanting to know how much those blasted things are worth in a speech in October 2007. In other words, the rising complexity of structured products has the potential to actually destroy information, worsening the asymmetry of knowledge in the financial system and escalating the issues with moral hazard and adverse selection.

### **Bubble in Housing Prices Bursts**

The underwriting requirements for subprime mortgages decreased to ever-lower standards as home values increased and mortgage originators and lenders saw high levels of profitability. Mortgages could now be obtained by riskier borrowers, and the loan-to-value ratio (LTV), which measures the mortgage's size in relation to the value of the home, increased. The ability of borrowers to get piggyback, second, and third mortgages on top of their initial 80% LTV mortgage allowed them to purchase homes with little or no down payment. However, asset values must decline when they diverge too far from fundamentals, which leads to the final implosion of the housing bubble. After reaching their high in 2006, house prices started

to decline, exposing the flaws in the American financial system. Many subprime borrowers discovered that their mortgages were underwater as a result of the downturn in property values, meaning that the value of the home had decreased below the mortgage's balance. When this occurred, distressed homeowners had strong incentives to leave their properties unoccupied and just return the keys to the lender. Mortgage defaults dramatically increased, ultimately resulting in the foreclosure of nearly 1 million mortgages.

### **Crisis Spreads Worldwide**

The fact that the crisis began in the United States but that Canada and Europe were the first to raise an alarm shows just how widespread financial markets had grown in their globalisation. On August 7, 2008, the asset-based commercial paper market collapsed as a result of ratings downgrades by Fitch and Standard & Poor's on mortgage-backed securities and CDOs worth more than \$10 billion. BNP Paribas, a French investment house, then suspended redemption of shares held in some of its money market funds. Despite significant liquidity injections into the financial system from the Federal Reserve and the European Central Bank, banks started to hoard cash and were reluctant to lend to one another. A reliable indicator of interbank market liquidity, the U.S. Treasury bill-to-Eurodollar rate (TED) spread, soared from an average of 40 basis points (0.40 percentage points) during the first half of 2007 to a high of 240 by August 20, 2007.

When Northern Rock, which had depended on wholesale short-term borrowing rather than deposits for its financing, failed in September 2008, it was the first significant bank failure in the UK in more than 100 years. In Canada, the asset-backed commercial paper (ABCP) market's cooling down in August 2007 was the first sign of the U.S. subprime crisis. Short-term Canadian credit markets, such as the overnight interbank market and the overnight repurchase market, saw a severe decline in liquidity as a result. Market players came to an agreement known as the Montreal in order to reestablish trust and liquidity in the ABCP market and stop large write-offs for banks that would have lowered their capital and created doubts about their viability.

### **Banks Balance Sheets Deteriorate**

Mortgage defaults increased as a result of the rapidly quickening decrease in property values in the United States. Due to the value collapse of mortgage-backed securities and CDOs, banks and other financial institutions had to take ever-larger write-downs. The losses from holding these securities and the fact that many of these institutions had to add some of the structured investment vehicles (SIVs) they had sponsored back onto their balance sheets caused the balance sheets of these institutions to worsen. Structured investment vehicles are similar to CDOs in that they distribute cash flows from collections of assets like mortgages; but, unlike CDOs, they issued asset-backed commercial paper rather than long-term debt. These banks and other financial institutions started to deleverage due to their weakened balance sheets, selling off assets and limiting the amount of credit available to both individuals and companies. No one else was able to step in to gather data and make loans, thus moral hazard and adverse selection issues grew in the credit markets, slowing the U.S. economy and driving up unemployment rates.

### **High-Profile Companies fail**

Bear Stearns, the fifth-largest investment bank in the United States that had made significant investments in subprime-related assets, was forced to sell itself to J.P. Morgan in March 2008 as a result of a run on its funds for less than 5% of its value from the previous year. The Federal Reserve had to assume control of \$30 billion of Bear Stearns' difficult-to-value assets

in order to facilitate the sale. After suffering significant losses from their holdings of subprime securities, Fannie Mae and Freddie Mac, the two privately owned government-sponsored enterprises that together insured over US\$5 trillion in mortgages or mortgage-backed assets, needed support from the U.S. Treasury and the Federal Reserve in July. They were subsequently placed under conservatorship (effectively government management) at the beginning of September 2008. Even worse things were still to happen. Lehman Brothers, the fourth-largest U.S. investment bank by asset size (with over \$600 billion in assets and 25,000 workers), filed for bankruptcy on Monday, September 15, 2008, making it the biggest bankruptcy filing in American history.

The previous day, Merrill Lynch, the third-largest investment bank (which also sustained significant losses on its holdings of subprime assets), announced that it would be sold to Bank of America for a price that was 60% less than what it had been purchased for a year earlier. AIG, a massive insurance company with more than US\$1 trillion in assets, had a severe liquidity problem on Tuesday, September 16, as a result of a fall to its credit rating. It had signed credit default swap insurance contracts worth over \$400 billion that required payments for potential losses from subprime mortgage securities. The Federal Reserve then intervened with a US\$85 billion loan (eventually expanded to US\$150 billion) to keep AIG solvent. The Reserve Primary Fund, a large money market mutual fund with approximately US\$60 billion in assets, also broke the buck on September 16 as a consequence of its losses from exposure to Lehman Brothers debt, meaning it was no longer able to redeem its shares for their \$1 par value. Following a run on money market funds, the U.S. Treasury offered a temporary guarantee for all redemptions of money market mutual funds in an effort to stop withdrawals.

### **Bailout Package Debated**

The financial crisis subsequently took an even worse turn when the U.S. House of Representatives rejected a US\$700 billion bailout plan presented by the Bush administration on Monday, September 29, 2008, out of concern for their voters' fury about having to save Wall Street. On Friday, October 3, the Emergency Economic Stabilization Act was ultimately approved. The greatest weekly fall in American history occurred during the week starting on October 6, when the stock market crisis escalated. Almost the next three weeks, credit spreads skyrocketed, reaching a record high of almost 450 basis points (4.50 percentage points) for the U.S. Treasury bill-to-Eurodollar rate differential. Following a series of financial institution collapses, the crisis then expanded throughout Europe. The severity of adverse selection and moral hazard issues in the credit markets was made worse by the heightened uncertainty brought on by the collapse of so many financial institutions, the degradation of financial institutions' balance sheets, and the drop in the stock market of more than 40% from its high. By the end of 2008, the U.S. unemployment rate had risen to 7% as a consequence of the decrease in lending, and things were only going to get worse from there. Global economic development was slowed by the financial crisis, and there were significant government bailouts of banking institutions.

### **Subprime Mortgages in Canada**

Although the American subprime mortgage crisis dominated press coverage, there is also a Canadian subprime mortgage issue. Following the Conservative government's opening of Canada's mortgage industry to major American businesses in its first budget in May 2006, high-risk, long-term (40-year), zero-down mortgages were widely available in that country in 2007 and 2008. The result was the development of subprime mortgages in Canada. The second-largest and one of the most profitable mortgage insurance marketplaces in the world is found in Canada. Since 1954, when amendments to the National Housing Act and the Bank

Act made it possible for chartered banks to provide insured mortgage loans, the Canada Mortgage and Housing Corporation (CMHC) has dominated the mortgage insurance market.

By charging customers an insurance charge and providing a 100% governmental guarantee to back its insurance policies, CMHC guaranteed the mortgages of homebuyers who were unable to put down a 25% down payment. However, after years of coordinated lobbying by American insurance companies to the Department of Finance and Office of the Superintendent of Financial Institutions, the government finally agreed to guarantee the \$200 billion worth of business of major American players like AIG in May 2006. In an effort to safeguard its business ahead of the arrival of the major American insurers, CMHC stated in February 2006 that it would guarantee 30-year mortgages. The only other (private) mortgage insurer in Canada at the time (with an estimated market share of roughly 30%) declared two weeks later that it would cover 35-year mortgages. Genworth Mortgage Insurance Co. is the Canadian mortgage division of American corporation General Electric. By insuring mortgages for 40 years, AIG, CMHC, and Genworth were competing in the Canadian mortgage insurance market by October 2006. In the summer of 2008, the Canadian government outlawed subprime mortgages in the country in reaction to the subprime mortgage crisis in the United States. The majority of the new mortgages approved by Canadian financial institutions during this time, totaling over \$50 billion, are believed to have been risky, 40-year mortgages. Additionally, 10% of these mortgages, totaling over \$10 billion, are believed to have been taken out with no down payment. As of this writing, it is unclear how the Canadian economy and the normally conservative mortgage market will be impacted by this short trial with subprime lending in the United States.

### **U.S. Treasury Asset Relief Plan and Government Bailouts throughout the World**

In order to encourage recovery from the subprime financial crisis, the Economic Recovery Act of 2008 in the United States included a number of measures. The Treasury Asset Relief Plan (TARP), which gave the US Treasury the green light to spend \$700 billion buying subprime mortgage assets from struggling financial institutions or injecting capital into banks, was the most significant. By purchasing subprime assets, it was hoped that their value would climb beyond fire sale levels, establishing a market for them while also boosting capital in financial institutions. This would allow these banks to resume lending along with capital infusions.

The Act also required the U.S. Treasury, as the owner of these assets, to urge the servicers of the underlying mortgages to restructure them in order to reduce foreclosures, temporarily raising the federal deposit insurance limit from US\$100,000 to US\$250,000. Shortly after, the Treasury guaranteed shares of money market mutual funds at par value for a year, and the Federal Deposit Insurance Corporation (FDIC) established a guarantee for some newly issued debt by banks. A number of financial institutions received bailouts as a result of the spreading bank failures in Europe in the autumn of 2008: the Netherlands, Belgium, and Luxembourg invested US\$16 billion to support Fortis, a significant European bank; the Netherlands invested US\$13 billion in ING, a banking and insurance giant; Germany offered a US\$50 billion rescue package for Hypo Real Estate Holdings; and Iceland took over its three largest banks after the banking system collapsed. Similar to Greece, the government of Ireland insured all of the deposits held by its commercial banks as well as interbank lending.

Similar to the US, Spain executed a rescue plan that included buying up to 50 billion euros' worth of assets from its banks in an effort to boost lending. The U.K. Treasury created a rescue plan with a 400-billion-pound price tag, which is comparable to the U.S. Treasury's proposal. It contributed 100 billion pounds to a facility that exchanges these assets for

government bonds, guaranteed 250 billion pounds of bank obligations, and let the UK government to purchase up to 50 billion pounds' worth of equity shares in British banks. Then came bailout programmed totaling more than \$100 billion in South Korea, \$200 billion in Sweden, \$400 billion in France, and \$500 billion in Germany, all of which guaranteed bank loans and provided capital injections. These bailout packages' size and level of international cooperation were unprecedented.

### **Canada's Banking System Is the World's Envy**

During the current unstable financial circumstances, Canadian banks also had difficulties. Some of institutions suffered enormous losses in futures trading; for instance, CIBC lost \$2.1 billion in derivatives trading in 2008. Their shares dropped by about 50%. The Canadian government did not have to bail out any banks, but governments in the United States and Europe have been working on full-scale financial bailouts and rescue packages (in the billions of dollars). The structure of the Canadian mortgage market is one reason why Canadian banks have performed better than banks in other nations. Banks in Canada maintained a significant amount of their mortgages on their balance sheets, in contrast to banks in the United States that sold the majority of their mortgages. This practice encouraged Canadian banks to ensure the quality of their mortgage loans. Furthermore, it is difficult for customers to walk away from a mortgage in Canada due to the law's provision for banks to pursue other assets. Another factor is that, in compared to other large banks throughout the globe, Canada's main banks have been more cautious in their lending and acquisition practices. Additionally, the Office of the Superintendent of Financial Institutions (OSFI), Canada's primary banking regulator, has been more cautious than banks authorities in the US and Europe.

For instance, Canada's banks had stronger capital requirements than their international counterparts at the start of the financial crisis. They thus have more robust reserves to protect against any losses. Though the Canadian banking sector has been criticized for being less competitive due to lower leverage and a lower rate of return on capital than in other jurisdictions, this conservative regulatory framework allowed Canadian banks to weather the financial crisis better than banks in other nations. The operations of Canada's banks are also widely varied and not only restricted to conventional retail banking. In particular, the federal government's decision to let banks to purchase investment brokers on Bay Street and to participate in the mutual fund and insurance industries in the late 1980s gave Canada's banks access to a wider range of financial services. Additionally, unlike investment dealers in the United States who had previously been subject to relatively loose and limited oversight from the Securities and Exchange Commission, these arm's-length organizations are bound by the same severe laws and regulations as the banks. Overall, Canada's banking sector has been regarded as the world's most reliable in the wake of the financial crisis. In fact, several nations throughout the globe are currently thinking about reforming their financial systems in the manner of Canada [10]–[12].

### **CONCLUSION**

Mortgage industry innovations have the ability to change financing and access to homes. These developments provide fresh approaches to the problems of cost, accessibility, and risk management. Borrowers may gain from faster procedures, improved credit evaluation, and specialized mortgage alternatives by using technology and financial goods. However, there are dangers, including systemic hazards, weak consumer protection, worries about data privacy, and greater complexity. In order to avoid an excessive concentration of power or discriminatory practices, policymakers and regulators must find a balance between



innovation and financial stability while addressing any biases in algorithms and maintaining regulatory monitoring.

## REFERENCES

- [1] G. Amromin, N. Bhutta, and B. J. Keys, “Refinancing, Monetary Policy, and the Credit Cycle,” *Annual Review of Financial Economics*. 2020. doi: 10.1146/annurev-financial-012720-120430.
- [2] A. Kaniadakis and P. Constantinides, “Innovating financial information infrastructures: The transition of legacy assets to the securitization market,” *J. Assoc. Inf. Syst.*, 2014, doi: 10.17705/1jais.00362.
- [3] A. Saiz, “Bricks, mortar, and proptech: The economics of IT in brokerage, space utilization and commercial real estate finance,” *J. Prop. Invest. Financ.*, 2020, doi: 10.1108/JPIF-10-2019-0139.
- [4] L. Rethel and T. J. Sinclair, “Innovation and the Entrepreneurial State in Asia: Mechanisms of Bond Market Development,” *Asian Stud. Rev.*, 2014, doi: 10.1080/10357823.2014.956685.
- [5] C. Bertaut, L. P. DeMarco, S. Kamin, and R. Tryon, “ABS inflows to the United States and the global financial crisis,” *J. Int. Econ.*, 2012, doi: 10.1016/j.jinteco.2012.04.001.
- [6] K. A. Williams, “Market-Based Innovation in Consumer Protection,” *Conn. Law Rev.*, 2019.
- [7] A. Saiz, “Bricks, mortar, and proptech,” *J. Prop. Invest. Financ.*, 2020, doi: 10.1108/jpif-10-2019-0139.
- [8] S. Kasiewicz, “New trends in the system regulating the market of bank services,” *Kwart. Nauk o Przedsiębiorstwie*, 2017, doi: 10.5604/01.3001.0010.7450.
- [9] V. Songwe, “Africa’s capital market appetite: challenges and opportunities for financing rapid and sustained growth,” *Brookings Inst.*, 2014.
- [10] S. Vegesna and E. Assistant, “Efficiency of Public and Private Sector Banks in India,” *J. Appl. Manag. Investments*, 2014.
- [11] C. D. Dannhauser and S. Hoseinzade, “Corporate Bond ETFs: Innovative, but Not Inconsequential,” *SSRN Electron. J.*, 2020, doi: 10.2139/ssrn.3559433.
- [12] A. Etxezarreta, G. Cano, and S. Merino, “Housing cooperatives on ‘assignment of use’: Emerging experiences in Spain,” *CIRIEC-Espana Rev. Econ. Publica, Soc. y Coop.*, 2018, doi: 10.7203/CIRIEC-E.92.9266.

## CHAPTER 5

# FINANCIAL CRISES' DYNAMICS IN EMERGING MARKET ECONOMIES

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### **ABSTRACT:**

Financial crises have had a significant negative influence on developing market economies, with far-reaching consequences for their chances for economic stability and prosperity. Examining the underlying causes, precipitating events, and dissemination channels that contribute to the incidence and spread of financial crises in developing market countries. By taking into account variables including external shocks, capital flows, exchange rate dynamics, and internal vulnerabilities, it analyses the essential traits and patterns of financial crises in these countries. The study also covers governmental responses and steps made to strengthen emerging market economies' resilience and lessen the effects of financial crises. It is essential for policymakers, regulators, and investors to comprehend the mechanisms of financial crises in emerging market economies in order to manage the difficulties and dangers posed by these economies and promote sustainable and equitable development.

### **KEYWORDS:**

Capital Flows, Emerging Market Economies, Financial Crises, Policy Responses.

### **INTRODUCTION**

Economic stability and development are hampered by the frequent and serious phenomena of financial crises in developing market countries. Sudden disruptions in the financial markets, currency devaluations, capital flight, and severe economic contractions are the hallmarks of these crises. For policymakers, investors, and analysts to effectively manage risks and devise policies to enhance stability and resilience in these economies, it is imperative that they have a thorough understanding of the dynamics of financial crises in developing markets. Financial crises are especially prone to affect emerging market economies, a broad collection of nations with fast economic development and growing integration into the global economy. These crises may be brought on by a number of things, including external shocks like volatility in the world financial markets, swings in investor attitude, variations in commodity prices, and changes in global capital flows. The fragility of these economies may also be attributed to domestic causes including weak financial systems, excessive borrowing, fiscal imbalances, and insufficient regulatory frameworks.

Financial crises in developing economies have complicated and diversified characteristics. They often entail an interaction between economic, financial, and social elements that heighten the effect of shocks. Contagion effects, trade ties, and financial interdependence are just a few of the many ways that crises may spread across nations and regions [1]–[3]. Emerging market economies are particularly vulnerable to the effects of financial crises on both the economy and society. They may result in abrupt drops in production, growing unemployment, higher levels of poverty, and problems with financial intermediation. For disadvantaged people, the effects of economic crises may be extremely severe, escalating social tensions and financial disparities.

It is necessary to have a thorough grasp of the processes of financial crises in developing countries in order to formulate effective policy responses. Implementing macro prudential measures to increase the resilience of the financial sector, strengthening regulatory frameworks, enhancing risk management procedures, fostering transparency and accountability, and encouraging structural reforms to diversify economies and lessen reliance on risky external factors are a few examples of possible responses. In order to influence future initiatives for crisis management and prevention, it will also examine policy responses and lessons acquired from earlier crises. Policymakers and market players may better predict and react to possible risks by understanding the mechanics of financial crises, which will help to build more stable and resilient emerging market economies.

## DISCUSSION

Economists searched abroad for previous instances of financial disasters before the subprime crisis in the United States. Emerging-market economies, those that have just opened up to the flow of goods, services, and money from the rest of the world but are still in the early stages of market growth, are especially at risk. Emerging-market economies are no stranger to terrible financial crises in recent years because to the opening up of their economy to global markets. Though there are some significant distinctions, the mechanics of financial crises in emerging-market countries have many of the same components as those in Canada and the US. Describe the main phases and order of happenings in the financial crises that affected these economies and are the subject of this section.

### Stage 1: Beginning of the Financial Crisis

Two main avenues lead to the development of financial crises in emerging-market nations: one involves the improper handling of financial liberalisation and globalisation, and the other involves significant fiscal imbalances.

#### Path One: Negligent Globalization and Financial Liberalization

When nations liberalize their financial systems, the seeds of a financial crisis are often sowed, just as it happened in the United States during the subprime financial crisis of 2007–2008. When limitations on local financial institutions and markets are lifted and the economy is made more accessible to foreign capital flows and financial institutions, liberalization has taken place. This is the financial globalization process. The oversight of banks by bank authorities is often quite lax in emerging-market nations, and financial institutions lack the necessary skills to screen and supervise borrowers. As a consequence, the lending boom that follows a financial liberalization often results in lending that is much riskier than is normal in developed nations like Canada and the United States, with significant loan losses as a result. The trend of financial globalization fuels the flames by enabling local banks to borrow overseas. The banks may quickly boost their lending since they offer high interest rates to draw in foreign money. Government regulations that maintain exchange rates pegged to the dollar and provide international investors a feeling of lesser risk further encourage the capital influx. At some point, all of the extremely hazardous lending begins to result in significant loan losses, which subsequently cause the balance sheets of banks to worsen and banks to reduce their lending. The loan boom comes to an end in a lending crisis, much as in industrialised nations like Canada and the United States. Because securities markets and other financial institutions are less established in emerging-market nations than in industrialised nations, banks there play an even bigger role in the financial system.

Thus, the fall in bank lending implies that there aren't really any other participants to address the issues of moral hazard and adverse selection. Therefore, lending and economic activity



are negatively impacted by the deterioration in bank balance sheets much more than in developed nations. The narrative thus far would have you believe that financial liberalisation and globalisation in emerging-market nations will inevitably lead to a loan bubble and disaster. This is not the case. They only happen when a country cannot properly manage the process of liberalisation and globalisation due to institutional weakness. More particular, the loan boom and crisis would not have occurred if prudential regulation and oversight to curb excessive risk-taking were robust. which promotes the diversion of the financial liberalisation process by strong domestic commercial interests. Politicians and prudential supervisors are ultimately representatives of the voter-taxpayer (principals); as a result, their objective is, or ought to be, to safeguard the interests of the taxpayer.

Almost invariably, the expense of saving the banking industry from losses is borne by the taxpayers. After financial markets are liberalised, strong corporate interests that control banks will seek to obstruct the supervisors' ability to do their duties effectively. Politicians are often persuaded to loosen restrictions that prevent their banks from participating in high-risk/high-reward schemes by powerful commercial groups that make significant political contributions. After all, bank owners stand to profit handsomely if their businesses thrive and significantly increase their loans. But if the bank runs into problems, the government will probably step in and pay the debt.

Additionally, these commercial interests may ensure that the regulatory authorities lack the funding necessary to efficiently oversee financial institutions or shut them down, even in the face of strict restrictions. In developed nations like Canada and the United States, strong economic interests have also taken action to hinder supervisors from carrying out their duties effectively. This distortion of the financial liberalisation process is made worse by the less robust institutional framework in emerging-market nations. Business interests are far more dominant in emerging-market economies than they are in established countries, where a more educated populace and a free press keep an eye on (and penalise) politicians and bureaucrats who don't behave in the public interest. It follows that the principle agent issue has a disproportionately high cost to society in emerging-market countries [4]–[6].

### **Severe Fiscal Imbalances: Path Two**

Government fiscal imbalances, which result in substantial budget deficits that must be covered, are the second cause of financial crises in emerging-market nations. This sort of financial crisis affected Argentina in 2001 and 2002; similar crises also occurred in Russia in 1998, Ecuador in 1999, and Turkey in 2001. These crises were caused in part by deficit-driven fiscal imbalances. Famous bank robber Willie Sutton said, "Because that's where the money is," when asked why he targeted banks. The same mindset is shared by the governments of rising market nations. They often bribe or coerce banks to buy government debt when they are faced with severe budgetary imbalances and are unable to fund their debt. Bond prices fall as a result of investors selling their holdings when they lose faith in the government's capacity to pay down this debt. The asset side of the balance sheets of the banks holding this debt has a significant hole, and their net value has significantly decreased. The fall in bank lending that results from the deterioration in bank balance sheets might potentially trigger a bank panic. Extreme fiscal imbalances undermine the financial system and cause spillovers, which exacerbates the issues of moral hazard and adverse selection.

### **Additional Factors**

In the first phase of various crises, other elements also contribute. For instance, a spike in interest rates brought on by international events, such tighter monetary policy, may also be a trigger for certain crises. The adverse selection issue is worse as interest rates rise because

riskier businesses are more ready to pay the higher interest rates. Additionally, as a result of the lower cash flows caused by the higher interest rates, businesses are forced to turn to external capital markets, which have more asymmetrical issues. Foreign interest rate increases that also boost local interest rates might exacerbate issues with moral hazard and adverse selection. Asset markets are less important in financial crises in emerging-market nations than they are in established nations because of their smaller size.

However, asset price falls on the stock market reduce enterprises' net worth and hence exacerbate adverse selection issues. Since there is less collateral for lenders to seize, moral hazard issues worsen since owners of businesses with lesser net worth have less to lose if they take on riskier ventures. Therefore, asset price reductions may contribute, both directly and indirectly, to the development of moral hazard and adverse selection issues by worsening the balance sheets of banks via asset write-downs. People's confidence in the returns on investment projects decreases when an emerging-market economy has a recession or a notable company fails, much like in developed nations. Another potential cause of uncertainty in emerging-market nations is their typically turbulent political systems. Because it is more difficult for lenders to distinguish between good and poor credit risks and to keep track of the actions of the businesses they have lent money to, adverse selection and moral hazard issues become worse as uncertainty rises.

### **Second Stage: Currency Crisis**

Participants in the foreign exchange market are alert to an opportunity since they may win greatly by betting on a currency's decline. Currency that is pegged to the US dollar is now vulnerable to speculative attacks, in which traders sell large amounts of the currency. A currency crisis occurs when the market is overrun with currency sales, supply vastly exceeds demand, and the value of the currency plummets. A number of factors are at play, including rising levels of uncertainty and high international interest rates. However, the two main reasons that set off speculative assaults and send an economy into a full-scale, violent downward cycle of a currency crisis, financial crisis, and collapse are the deterioration in bank balance sheets and major fiscal imbalances.

### **Bank balance sheet degradation causes currency crises**

Governments have few alternatives when banks and other financial firms are in crisis. Raising interest rates to protect their currencies should promote capital inflows. Banks will have to pay more to borrow money if the government increases interest rates. The decline in profitability caused by these cost increases might result in bank collapse. The government and central bank are therefore caught in a difficult situation when the financial sector is in trouble: if they increase interest rates too much, they would ruin their already frail institutions. They can't keep their currency's worth if they don't hike interest rates.

Foreign exchange traders can identify problems in a nation's financial system and can tell when the government's capacity to protect its currency is weak.

They will take advantage of a virtually certain wager since the value of the currency can only decrease. In an effort to earn greatly, speculators sell the currency in a frenzy in expectation of its fall. These sales quickly deplete the nation's foreign exchange assets since the government has to sell its reserves to buy its own currency and prevent its value from declining. The cycle comes to an end after the nation's central bank has used up all of its foreign currency reserves. It must allow the value of the native currency to decline since it lacks the resources to interfere in the foreign exchange market. That is, a devaluation must be permitted by the government.

### **Currency crises are triggered by severe fiscal imbalances**

Severe fiscal imbalances have been shown to deteriorate bank balance sheets, which may contribute to a currency crisis along the lines previously mentioned. A currency crisis may also be directly caused by fiscal imbalances. Foreign and domestic investors start to withdraw money from the country and start selling local currency as government budget deficits spiral out of control, raising concerns that the nation would not be able to repay its government debt. Thus, as soon as it is realized that the fiscal situation is out of control, there is a speculative assault on the currency that ultimately leads to its collapse.

### **Stage Three: Comprehensive Financial Crisis**

The debt load of domestic firms increases in terms of domestic currency when debt contracts are denominated in foreign currency (U.S. dollars), as is typically the case in emerging-market nations, and there is an unanticipated depreciation or devaluation of the domestic currency (for example, the peso). That is, repaying the dollarized debt costs more pesos. The assets of the company do not increase in value in terms of pesos, however the debt increases, since the majority of products and services supplied by businesses are priced in local currencies. The value of debt is increased in relation to assets due to the local currency depreciation, which causes a decrease in the firm's net worth. Negative selection and moral hazard issues subsequently become worse as a result of the fall in net value. Then comes a reduction in investment and economic activity. We can now see how the institutional structure of debt markets in emerging market nations interacts with currency devaluations to cause the economies to devolve into full-blown financial crises. The twin crises are what economists refer to when a currency and financial crisis coexist. Higher inflation may also result from a currency's devaluation. Most emerging-market nations' central banks lack credibility in their ability to combat inflation. Therefore, following a currency crisis, a fast currency depreciation pushes import prices immediately upward. It will probably be followed by a sharp increase in both actual and anticipated inflation [7]–[10].

As a consequence, interest payments rise. This creates cash flow cutbacks for businesses, which increases asymmetric information concerns since businesses are now more reliant on outside funding for investment. The rise in moral hazard and adverse selection issues that results reduce investment and economic activity, as the asymmetric information analysis implies. The economy continues to deteriorate. Many people are no longer able to pay off their loans due to the decline in economic activity, the worsening of cash flow and balance sheets of businesses, and families, which results in significant losses for banks. The profitability and balance sheets of banks are negatively impacted by sudden increases in interest rates. The sudden rise in the value of the banks' obligations denominated in foreign currencies after a devaluation is much more of an issue. As a result, the value of banks' assets declines while the value of their obligations increases, putting pressure on their balance sheets from both angles. The financial system will often experience a crisis under these situations, and many banks will probably collapse (as it did in the US during the Great Depression). The banking crisis and the variables in the credit markets that contributed to it account for the worsening of the adverse selection and moral hazard issues as well as the subsequent collapse of lending and economic activity.

### **Financial crises in Mexico (1994–1995), East Asia (1997–1998),**

### **And Argentina (2001–2002):**

Emerging-market nations had great expectations that globalisation would spur economic development and ultimately make them wealthy when they opened their markets to the

outside world in the 1990s. However, several of them had financial crises that were just as catastrophic as the Great Depression was in the United States and other nations, which prevented rapid economic expansion and decreased poverty. The Mexican crisis, which began in 1994, the East Asian crisis, which began in July 1997, and the Argentine crisis, which began in 2001, were the three crises that were the most severe.

Now, we use the asymmetric information analysis of financial crisis dynamics to explain why a developing nation can suddenly go from a trajectory of rapid economic growth prior to a financial crisis, as was the case in Mexico and, in particular, the East Asian nations of Thailand, Malaysia, Indonesia, the Philippines, and South Korea, to a sharp decline in economic activity. Mexico and the East Asian nations had established good economic strategies before to their crises. East Asian nations had budget surpluses, while Mexico had a deficit of less than 1% of GDP, numbers that most developed nations today would be happy to have. The deterioration in bank balance sheets brought on by rising loan losses was the primary initiating element in both crises. Lending booms followed the early 1990s liberalization of these nations' financial systems and their opening to global capital markets. Lending increased at a pace of 15% to 30% per year, with a strong acceleration in bank credit to the private non-financial company sector. Losses on loans started to mount at banking institutions due to inadequate supervision by bank regulators, which was helped and abetted by strong business interests as well as a lack of expertise in screening and monitoring borrowers. This resulted in an erosion of banks' net worth. Banks have less money to lend as a consequence of this erosion. As was said in the part above, this lack of credit caused the economy to decline. Argentina's banking sector was well regulated, in contrast to Mexico and the East Asian nations, and there was no lending boom before to the crisis.

Even though a severe recession had started in 1998, the banks were remarkably in decent health before the catastrophe. Tax collections decreased as a result of the recession, and the difference between taxes and spending on the government grew. The government was forced to force banks into taking on significant sums of government debt due to the consequent severe fiscal imbalances, which were so huge that the government struggled to sell enough of its bonds to both local and international investors. Investors quickly lost faith in the Argentine government's capacity to make good on this loan. Debt prices fell precipitously, leaving banks' balance sheets with significant gaps. As in Mexico and East Asia, this deterioration resulted in a drop in lending and a reduction in economic activity.

Another catalyst for the financial crises in Mexico and Argentina (but not East Asia) was an increase in foreign interest rates, which is consistent with the Canadian experience in the late nineteenth and early twentieth century. In order to combat inflationary pressures, the Federal Reserve in the United States started a cycle of hiking the federal funds rate before the crises in Mexico in February 1994 and Argentina in the middle of 1999. The Fed's monetary policy initiatives were effective in containing U.S. inflation, but they also increased interest rates in Argentina and Mexico. The adverse selection and moral hazard issues in Mexico and Argentina's financial markets became worse as a result of the country's rising interest rates. The parties that were most eager to take on risk were more inclined to seek loans, as was previously said, and the higher interest rates caused a reduction in firm cash flows.

## CONCLUSION

A mix of local vulnerabilities and foreign shocks characterizes the dynamics of financial crises in developing market countries. The stability, expansion, and efficiency of these nations' financial markets are all significantly impacted by these crises. Sudden changes in capital flows, fluctuating currency rates, and weaknesses in the domestic financial system are

important causes of financial crises. In order to reduce the effects of financial crises and increase resilience in emerging market economies, effective policy responses are essential. Long-term structural changes must be combined with immediate stabilization measures, according to policymakers and regulators. These include putting in place responsible monetary and fiscal policies, stepping up oversight and regulation of the financial sector, improving risk management procedures, and increasing financial inclusion.

## REFERENCES

- [1] M. Nissanke and H. Stein, "Financial Globalization and Economic Development: Toward an Institutional Foundation.," *East. Econ. J.*, 2003.
- [2] E. M. Ordóñez-granda, C. I. Narváez-zurita, and J. C. Erazo-álvarez, "<http://dx.doi.org/10.35381/r.k.v5i10.693>," *El Sist. Financ. en Ecuador. Herramientas innovadoras y nuevos Model. Neg.*, 2020.
- [3] U. E. Habiba, S. Peilong, W. Zhang, and K. Hamid, "International stock markets Integration and dynamics of volatility spillover between the USA and South Asian markets: evidence from Global financial crisis," *J. Asia Bus. Stud.*, 2020, doi: 10.1108/JABS-03-2019-0071.
- [4] R. Pandey and V. M. Jessica, "Determinants of Indian housing market: effects and counter-effects," *Prop. Manag.*, 2020, doi: 10.1108/PM-06-2018-0038.
- [5] D. Kenourgios and P. Padhi, "Emerging markets and financial crises: Regional, global or isolated shocks?," *J. Multinat. Financ. Manag.*, 2012, doi: 10.1016/j.mulfin.2012.01.002.
- [6] M. Janoschka, G. Alexandri, H. O. Ramos, and S. Vives-Miró, "Tracing the socio-spatial logics of transnational landlords' real estate investment: Blackstone in Madrid," *Eur. Urban Reg. Stud.*, 2020, doi: 10.1177/0969776418822061.
- [7] M. B. Aalbers, "The Great Moderation, the Great Excess and the global housing crisis," *Int. J. Hous. Policy*, 2015, doi: 10.1080/14616718.2014.997431.
- [8] D. C. Bhimjee, S. B. Ramos, and J. G. Dias, "Banking industry performance in the wake of the global financial crisis," *Int. Rev. Financ. Anal.*, 2016, doi: 10.1016/j.irfa.2016.01.005.
- [9] D. Fields, "Constructing a New Asset Class: Property-led Financial Accumulation after the Crisis," *Econ. Geogr.*, 2018, doi: 10.1080/00130095.2017.1397492.
- [10] K. Jebran, "Volatility spillover between stock and foreign exchange market of China: evidence from subprime Asian financial crisis," *J. Asia Bus. Stud.*, 2018, doi: 10.1108/JABS-01-2016-0003.



## CHAPTER 6

### ECONOMICS OF FINANCIAL REGULATION: A COMPREHENSIVE STUDY

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#### **ABSTRACT:**

Grasping the effects of regulatory policies on financial markets, institutions, and general economic stability requires a grasp of the economics of financial regulation. The main ideas, theories, and empirical methods used to examine the economics of financial regulation are examined in this essay. It looks at the goals of financial regulation, including increasing investor safety, market efficiency, and financial stability, and it talks about the many regulatory instruments and methods used to make these goals a reality. The article also looks at the difficulties and trade-offs of financial regulation, such as the possibility of unintended effects and the need of striking a balance between regulation and market innovation. For policymakers, regulators, and academics to create effective and efficient regulatory frameworks that support a stable and resilient financial system, they must have a solid understanding of the economics of financial regulation.

#### **KEYWORDS:**

Financial Institutions, Financial Markets, Financial Regulation, Regulatory Framework, Risk Management.

#### **INTRODUCTION**

An interdisciplinary topic called the economics of financial regulation studies how regulatory policies affect financial markets, institutions, and the wider economy. Financial regulation is essential for preserving market integrity, safeguarding investors, and assuring the stability and effectiveness of the financial system. It includes a broad variety of guidelines, benchmarks, and control mechanisms intended to reduce risks, advance fair competition, and strengthen public confidence in the financial industry. The study of financial regulation's economics examines the economic justifications for regulatory actions and assesses their efficacy and efficiency. It aims to comprehend the intricate relationships that exist between market players, regulatory laws, and the overall economy. Researchers, policymakers, and regulators want to create and put into effect regulatory frameworks that strike the correct balance between defending the interests of market players and enabling market innovation and development by researching the economics of financial regulation [1]–[3].

Financial regulation has many different goals. They include preserving financial stability, avoiding systemic risks, defending consumers and investors, assuring honest and open markets, and encouraging effective resource allocation. But reaching these goals is not without difficulties. Financial regulation sometimes entails compromises and unexpected effects that might stifle innovation or cause market players to incur excessive compliance expenses. The effects and efficacy of regulatory measures are examined using a variety of theoretical and empirical methodologies in the study of the economics of financial regulation. Evaluating the effectiveness of regulatory instruments, identifying potential market failures,



and assessing the economic effects of regulatory interventions are made possible through cost-benefit analysis, econometric modelling, and empirical investigations.

Policymakers, regulators, and market players must all comprehend the economics of financial regulation. It offers insights into the possible drawbacks and advantages of various regulatory methods, aids in the formulation of evidence-based policy, and encourages the creation of regulatory frameworks that are supportive of market efficiency, investor protection, and financial stability. It will explore the goals, difficulties, and trade-offs associated with financial regulation and go into detail on how economic analysis influences regulatory decision-making. By improving our knowledge of the economics of financial regulation, we can promote a more dependable and long-lasting financial system that enhances the health of the economy as a whole.

### **The Need for Deposit Insurance and Bank Panics**

Before the CDIC began operating in 1967, depositors had to wait until the bank was liquidated (until its assets had been converted into cash) in order to receive their funds; at that time, they would only be paid a portion of the value of their deposits. A bank failure occurs when a bank is unable to pay its obligations to pay its depositors and other creditors and must go out of business. Depositors would be unwilling to put money in the bank since they wouldn't know whether bank management were taking on too much risk or were blatant thieves, which would make financial institutions less sustainable. Lack of knowledge from depositors on the calibre of bank assets may cause bank panics, which may have detrimental effects on the economy.

Consider the following instance to illustrate this. Without deposit protection, the economy suffers a negative shock. Due to the shock, 5% of the banks have such significant loan losses that they become bankrupt (have a negative net value). Depositors are unable to determine if their bank is a solid institution or one of the 5% that are bankrupt due to asymmetric information. Both depositors at reputable and poor banks are aware that they may not receive their money back in full and will seek to withdraw their funds. Depositors have a very strong incentive to arrive to the bank first since the bank may have ran out of money if they are last in queue and would not get anything. This is because banks operate under a sequential service constraint (a first-come, first-served basis). Runs on banks may occur for both good and negative reasons due to uncertainty about the overall state of the banking system, and the collapse of one bank can accelerate the failure of other banks (a phenomenon known as the "contagion effect").

## **DISCUSSION**

A bank panic may develop if nothing is done to rebuild the public's faith. A government safety net for depositors helps prevent bank panics and bank runs, and by protecting the depositor, it can dissuade people from withholding money from the banking system. Put insurance is one kind of safety net; under a guarantee like that offered by the Canada Deposit Insurance Corporation (CDIC), depositors are fully reimbursed for the first \$100,000 they put in a bank, regardless of what happens to the business. Depositors who have fully insured deposits don't need to rush to the bank to withdraw money even if they are concerned about the bank's stability since their savings will always be worth exactly \$1. The CDIC handles a collapsed bank using two main strategies. The CDIC pays out deposits up to the \$100,000 insurance limit under the first option, known as the "payoff method," using money collected from the insurance premiums that CDIC-insured banks paid. Following the bank's liquidation, the CDIC lines up with the other bank creditors and receives its portion of the revenues from the sold assets. Account holders who deposit more than the \$100 000 cap often

get more than 90 cents on the dollar when the payout method is used, albeit the procedure might take many years to complete.

By finding a willing merger partner who assumes (takes over) all of the bankrupt bank's obligations, the CDIC reorganizes the bank using the second option, known as the purchase and assumption technique, which ensures that neither depositors nor other creditors suffer any financial loss. The CDIC often sweetens the deal for the merging partner by giving it subsidized loans or by purchasing some of the riskier debts belonging to the bankrupt bank. The CDIC has insured all of a bank's deposits, not only those under the \$100 000 cap, as a result of the purchase and assumption technique. Government deposit insurance has been more and more widespread worldwide in recent years due to its rising popularity.

### **Additional Government Safety Nets**

Government safety nets come in many other forms besides deposit insurance. Even in the absence of formal deposit insurance, governments have often remained ready to defend local banks facing runs in foreign nations. As our consideration of financial crises has shown, banks are not the only financial intermediaries that may represent a systemic danger to the financial system. When financial institutions are exceptionally big or closely linked to other markets or financial institutions, their collapse might put the whole financial system to an end. In fact, when Bear Stearns, Lehman Brothers, and AIG, three investment banks, went into problems during the 2008 subprime financial crisis in the United States, this is precisely what occurred.

Lending from the central bank to failing institutions is one method governments provide assistance, as the Bank of Canada did during the recent financial crisis. This kind of assistance is sometimes referred to as the central banks function as a lender of last resort. In other instances, money is given directly to struggling institutions, as was done in 2008, at the worst of the subprime financial crisis, by the Canadian government via the Canada Mortgage and Housing Corporation (CMHC), the U.S. Treasury, and other governments. Additionally, governments take over (nationalize) insolvent institutions and provide a guarantee that all creditors will get a full repayment of their debts [4]–[6].

### **Moral Danger and the Safety Net of the Government**

Although a safety net provided by the government may assist shield depositors and other creditors and avert or lessen financial crises, it is not without its drawbacks. Moral hazard, or the incentives of one party to a transaction to engage in behaviors harmful to the other side, is the most significant flaw in the government safety net. Because the presence of insurance increases the incentives for taking risks that might result in an insurance return, moral hazard is a significant issue in insurance systems generally. For instance, some motorists with low-deductible vehicle collision insurance may be more motivated to engage in risky driving since, in the event of an accident, the insurance provider would likely cover the majority of the expenses associated with damage and repairs. Governmental safety net systems are heavily concerned with moral hazard. A safety net ensures that creditors and depositors won't lose money in the event that a financial institution collapses, preventing them from imposing the market's discipline on such institutions by withdrawing money when they believe it is taking on too much risk.

Therefore, financial organizations with a government safety net are enticed to take on more risk than they otherwise would because if the bank fails, taxpayers would foot the price. The following wager has been made available to financial institutions: If I get heads, the taxpayer loses.

### **The Government Safety Net and Adverse Selection**

A third issue with a government safety net like deposit insurance emerges due to adverse selection, or the fact that individuals who are most motivated to utilize the insurance are also those who are most likely to create the unfavorable result insured against (bank collapse). For instance, poor drivers are more likely than excellent drivers to get low-deductible vehicle accident insurance. Risk-loving entrepreneurs might find the financial industry to be a particularly attractive one to enter since they know that they will be able to engage in highly risky activities. This is because depositors and creditors protected by a government safety net have little reason to impose discipline on financial institutions. Even worse, without government intervention, outright thieves might also find the financial sector to be an attractive industry for their activities because it is simple for them to get away with fraud and embezzlement. This is because protected depositors and creditors have so little reason to monitor the financial institution's activities.

Financial regulators are in a unique bind because of the moral hazard that a government safety net creates and the need to avoid financial disasters. Financial authorities are averse to allowing a big institution to collapse and inflict losses to its depositors and creditors since doing so increases the likelihood that a significant financial disruption would occur. The too-big-to-fail doctrine has the drawback of making giant banks more motivated to engage in moral hazard behavior. Large depositors with more than \$100,000 would incur losses if the bank collapsed if the CDIC were prepared to shutter a bank using the payout method and reimburse depositors only up to the \$100,000 limit. As a result, customers would have a reason to keep an eye on the bank by thoroughly monitoring its operations and withdrawing their funds if it was taking on too much risk. The bank would be more inclined to participate in less hazardous operations in order to avoid such a loss of deposits. However, if huge depositors are aware that a bank is too big to fail, they have no motivation to keep an eye on it and withdraw their money when it starts to take on too much risk since they will not lose money no matter what the bank does.

The too-big-to-fail policy has the effect of encouraging huge banks to take on even bigger risks, increasing the likelihood that banks would collapse. The too-big-to-fail policy further heightens the moral hazard incentives for nonbank financial companies that are given access to the government safety net. Creditors have little motivation to keep an eye on the financial institution and withdraw their funds when the firm is taking on excessive risk since they know they will be bailed out. Therefore, high-risk operations will be more likely to be undertaken by big or linked financial institutions, increasing the likelihood of a financial catastrophe.

### **Financial Stabilization and the Safety Net of the Government**

The process of financial consolidation has been moving forward quickly, creating bigger and more sophisticated financial organizations. Due to the presence of the government safety net, financial consolidation presents two difficulties for financial regulation. First, since there will now be more large institutions whose collapse exposes the financial system to systemic (system-wide) risk, the size expansion of financial institutions as a consequence of financial consolidation exacerbates the too-big-to-fail issue. As a result, more financial institutions are likely to be considered "too big to fail," which might make the financial system more fragile due to increasing moral hazard incentives for huge institutions to take on more risk.

Second, as happened in the United States in 2008 during the subprime financial crisis, the government safety net may be expanded to new businesses such as securities underwriting, insurance, or real estate operations as a result of financial consolidation of banks with other

financial services companies. The temptations to take more risks in these operations, which may further erode the foundation of the financial system, are increased. One of the major challenges confronting financial regulators in the wake of the subprime financial crisis in the United States will be limiting the moral hazard incentives for the bigger, more sophisticated financial organizations that have emerged as a consequence of recent legislative changes.

### **Limitations on the Asset Holdings**

As we have seen, financial institutions take on too much risk due to the moral hazard brought on by a government safety net. Financial rules that limit asset holdings aim to reduce this moral hazard, which may be very expensive for taxpayers. Even in the absence of a safety net from the government, financial firms are nevertheless enticed to take on excessive risk. Risky investments could boost a financial organization's revenues when they succeed, but if they don't and the firm collapses, the depositors are stuck with the bill. If depositors and creditors could readily track the institution by learning about its risk-taking practices, they may withdraw their money right away if the institution was taking on too much risk. The institution would be more inclined to restrict its risk-taking operations to avoid such a loss of cash. Unfortunately, it may be challenging to gather information about an organization's operations in order to determine how much risk the institution is incurring. As a result, the majority of depositors and creditors are unable to impose rules that would stop financial firms from taking risks. Therefore, even prior to the creation of deposit insurance, there was a compelling case for government regulation to limit financial institution risk-taking [7]–[9].

Due to their greater susceptibility to panics, banks are subject to rigorous restrictions that limit their ability to own hazardous assets like common stocks. Regulations for banks encourage diversity, which lowers risk by restricting the number of loans granted to certain borrowers or groups of borrowers. Increased limitations on the ownership of hazardous assets by nonbank financial entities are expected as a result of the government safety net's expansion during the 2007–2008 financial crisis. However, there is a risk that these limitations might become too onerous and reduce the financial system's effectiveness.

### **Capital Requirements**

Capital requirements set by the government are yet another method for reducing moral hazard at financial organizations. Financial institutions are more inclined to undertake lower-risk endeavors when they are required to keep a significant amount of equity capital since they have more to lose if they fail.

When severe shocks happen, capital acts as a buffer, reducing the likelihood that a financial institution would collapse and directly enhancing the safety and soundness of financial institutions. There are two types of capital requirements for banks.

The first kind is based on the leverage ratio, which is the capital amount divided by the total assets of the bank. A bank's leverage ratio must be more than 5% to be considered properly capitalized; a lower leverage ratio, particularly one below 3%, results in more regulatory constraints being placed on the bank. Over the past ten years, bank holdings of risky assets and the rise in off-balance-sheet activities like trading financial instruments and earning money from fees that do not appear on bank balance sheets but nonetheless expose banks to risk have alarmed regulators in Canada and other countries. The Basel Committee on Bank Supervision was established by an agreement between banking officials from industrialized countries (because it meets in Basel, Switzerland, under the auspices of the Bank for International Settlements), and it is responsible for implementing the Basel Accord, which deals with risk-based capital requirements, a second type of capital requirement.

More than 100 nations, including Canada and the United States, have ratified the Basel Accord, which mandated that banks maintain capital of at least 8% of their risk-weighted assets. In order to indicate the level of credit risk, assets and off-balance-sheet operations were divided into four groups, each with a distinct weight. Items that have negligible default risk were included in the first group, which had no weight, including reserves and government securities issued by OECD industrialized nations. Claims against banks in OECD nations are included in the second category, which has a 20% weight. Municipal bonds and home mortgages are included in the third group, which has a 50% weighting. The fourth group, which comprises consumer and corporate obligations, has the highest weight of 100%.

By giving off-balance-sheet activities a credit equivalent percentage, which turns them into on-balance-sheet items to which the proper risk weight applies, they are handled similarly to on-balance-sheet operations. The Basel Accord's 1996 Market Risk Amendment established minimum capital standards for risks in banks' trading accounts. The Basel Accord's weaknesses have grown clearer over time since the regulatory assessment of bank risk set out by the risk weights might deviate sub statically from the risk the firm really confronts. This has led to a practise known as "regulatory arbitrage," in which banks keep on their book's assets with the same risk-based capital requirements but are relatively risky, like a loan to a company with a very low credit rating, while removing low-risk assets, like a loan to a company with a very high credit rating.

Thus, the Basel Accord can have the reverse effect of what it was intended for increased risk-taking. The capital requirements for these other financial organizations will in fact be scrutinized more in the future due to the government safety net being extended to nonbank financial companies during the American subprime financial crisis. To maintain the safety and soundness of financial institutions, capital regulation must adapt as the financial sector does. In the future, it is more probable that the Basel Committee will play a bigger role in examining the capital needs of a larger variety of financial institutions.

### **Prompt Corrective Action**

There are two major issues when the capital of a financial organization drops to low levels. The bank has a lower capital buffer, making it more vulnerable to failing if it has loan losses or other asset write-downs. Second, a financial institution is more inclined to take on excessive risks when it has less capital since it has less stake in the outcome. In other words, the institution is more likely to collapse, leaving the taxpayer to pick up the tab as the moral hazard issue worsens. To avoid this, the CDIC enacted procedures for quick corrective action, which oblige the CDIC to step in sooner and more forcefully when a bank has difficulties.

### **Financial Regulation: Examining and Chartering**

A key strategy for lowering moral hazard and adverse selection in the financial sector is financial supervision, also known as prudential supervision, which involves keeping an eye on who runs financial institutions and how they are run. Such bad individuals would be keen to lead a financial institution since financial organizations may be utilized by thieves or overly ambitious businesspeople to engage in highly speculative operations. One way to address this adverse selection issue is by chartering financial institutions. Through chartering, new institution proposals are evaluated to ensure that undesirable individuals do not dominate them.

Regular on-site inspections help to reduce moral hazard by enabling regulators to check on how well an institution is adhering to capital requirements and asset holding limitations. Banks are given a camels grade (the acronym stands for capital adequacy, asset quality,



management, earnings, liquidity, and sensitivity to market risk), which is based on the six categories evaluated. With this knowledge of a bank's operations, regulators may formally intervene to change the conduct of the bank, such as issuing cease-and-desist orders, or they may even decide to shut down a bank if its CAMELS rating is too low. Actions made to limit banks' capacity for excessive risk-taking assist lessen the adverse selection issue because, with fewer opportunities for taking risks, risk-loving entrepreneurs will be less likely to be drawn to the banking sector. Chartering resembles the screening of prospective borrowers, restrictions on the ownership of risky assets resemble restrictive covenants that forbid borrowing companies from engaging in risky investment activities, capital requirements resemble restrictive covenants that mandate minimum net worth levels for borrowing companies, and routine inspections resemble the monitoring of borrowers by lending institutions [10].

A bank may get chartered either by a parliamentary act or by making an application to the minister of finance, who has the power to grant charters. The individuals who want to establish the bank must submit an application outlining their business model in order to be granted a charter. The regulatory body considers the quality of the bank's proposed management, the likelihood of the bank's profits, and the size of the bank's beginning capital when analyzing the application to determine if the bank is likely to be sound. Additionally, the chartering organization usually considers whether the area needs a new bank. If the introduction of a new bank might harm nearby banks, the charter for that bank would often not be approved. This anticompetitive posture, which was formerly justified by the need to save existing banks from failing, is no longer as powerful. Once a bank is chartered, it must submit periodic (often quarterly) call reports outlining its assets and liabilities, earnings and dividends, ownership, foreign currency activities, and other information. In order to determine the bank's financial state, the bank regulatory bodies must examine it at least once every year.

The three federal agencies cooperate with one another and often accept one other's exams to prevent duplication of effort. This implies that the OSFI, the CDIC, and the Bank of Canada generally review licensed institutions. Bank examiners carry out bank inspections by looking at a bank's records to see if it is adhering to the laws and rules that are relevant to the assets it holds. The bank examiner has the authority to order a bank to sell any assets or loans that are deemed to be overly risky. A bank examiner may order the bank to declare a loan worthless (to write off the debt, which lowers the bank's capital) if the examiner determines that the loan is unlikely to be repaid. The bank may be labelled a problem bank and be subject to more regular inspections if the examiner concludes that it lacks enough capital or has engaged in dishonest practices.

## CONCLUSION

The dynamics and complexity of regulatory measures in the financial industry requires a grasp of the economics of financial regulation. It encourages financial stability, safeguards investors, and makes sure that markets are fair and effective. It lowers information asymmetry, reduces systemic risk, and promotes confidence and trust. To prevent unexpected effects and hinder market innovation, it is crucial to strike the correct balance between regulation and market freedom. Theoretical and empirical techniques are provided by the economics of financial regulation to evaluate the efficacy, efficiency, and possible trade-offs of regulatory actions. For implementation to be effective, regulatory agencies, financial institutions, and stakeholders must work closely together. To maintain regulatory compliance and identify developing risks, efficient oversight, enforcement, and risk management procedures are required. Regulatory frameworks should be flexible to changing market



dynamics and new hazards and be ready to react as necessary. To identify areas that need improvement and to make sure that they remain relevant and successful, regular monitoring and assessment are required.

## REFERENCES

- [1] G. Kou, X. Chao, Y. Peng, F. E. Alsaadi, and E. Herrera-Viedma, "Machine learning methods for systemic risk analysis in financial sectors," *Technological and Economic Development of Economy*. 2019. doi: 10.3846/tede.2019.8740.
- [2] E. Norman, "Kebijakan Keuangan Inklusif Dalam Perspektif Ekonomi Syariah," *Reslaj Relig. Educ. Soc. Laa Roiba J.*, 2020, doi: 10.47467/reslaj.v2i1.134.
- [3] R. E. Tomy, "Threat of entry and the use of discretion in banks' financial reporting," *J. Account. Econ.*, 2019, doi: 10.1016/j.jacceco.2018.06.003.
- [4] R. A. Werner, "A lost century in economics: Three theories of banking and the conclusive evidence," *Int. Rev. Financ. Anal.*, 2016, doi: 10.1016/j.irfa.2015.08.014.
- [5] V. Mak and J. Braspenning, "Errare humanum est: Financial Literacy in European Consumer Credit Law," *Journal of Consumer Policy*. 2012. doi: 10.1007/s10603-012-9198-5.
- [6] A. Arfah, F. Z. Olilingo, S. Syaifuddin, D. Dahliah, N. Nurmiati, and A. H. P. K. Putra, "Economics During Global Recession: Sharia-Economics as a Post COVID-19 Agenda," *J. Asian Financ. Econ. Bus.*, 2020, doi: 10.13106/jafeb.2020.vol7.no11.1077.
- [7] H. R. Ismael and C. Roberts, "Factors affecting the voluntary use of internal audit: evidence from the UK," *Manag. Audit. J.*, 2018, doi: 10.1108/MAJ-08-2016-1425.
- [8] C. Leuz and P. D. Wysocki, "Economic Consequences of Financial Reporting and Disclosure Regulation: A Review and Suggestions for Future Research," *SSRN Electron. J.*, 2011, doi: 10.2139/ssrn.1105398.
- [9] E. V. A. Eijkelenboom and B. F. H. Nieuwesteeg, "An analysis of cybersecurity in Dutch annual reports of listed companies," *Comput. Law Secur. Rev.*, 2021, doi: 10.1016/j.clsr.2020.105513.
- [10] R. W. Klein, "Principles for insurance regulation: An evaluation of current practices and potential reforms," *Geneva Pap. Risk Insur. Issues Pract.*, 2012, doi: 10.1057/gpp.2011.9.

## CHAPTER 7

### AN OVERVIEW ON EVALUATION OF RISK MANAGEMENT

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#### ABSTRACT:

In organizations across a range of sectors, risk management is a crucial process that aims to detect, evaluate, and reduce any risks that might jeopardize the attainment of goals. The practices, approaches, and frameworks for risk management are evaluated in this study. In order to strengthen organizational resilience and reduce possible losses, it examines the significance of risk management. The fundamental components of efficient risk management are covered in the article, including risk identification, assessment, monitoring, and reaction tactics. Additionally, it looks at the difficulties and constraints posed by risk management and emphasizes how risks are always changing in the context of contemporary business. Organizations must comprehend and assess risk management procedures in order to traverse uncertainties, make wise choices, and protect their operations and stakeholders.

#### KEYWORDS:

Assessment, Decision-making, Evaluation, Framework, Governance, Resilience.

#### INTRODUCTION

Organizations across all sectors depend on risk management to help them identify, evaluate, and reduce any risks that can have an influence on their goals and operations. Effective risk management becomes more important for maintaining resilience, reducing losses, and exploiting opportunities as firms operate in an environment that is more complicated and unpredictable. Risk management frameworks, processes, and strategies are evaluated in order to determine how effective, reliable, and efficient they are. A thorough analysis of the organization's risk management procedures, including risk identification, assessment, monitoring, and reaction methods, is part of the evaluation process. It looks to assess whether the company has put in place risk management frameworks that are suitable for its goals, risk tolerance, and industry standards. It evaluates the effectiveness of risk controls, mitigation strategies, and backup plans that have been put in place.

Organizations may learn a lot about their risk environment, vulnerabilities, and strengths by analysing their risk management practices. The review identifies gaps, potential improvement areas, and chances to increase risk management efficiency. It lets organizations to decide on resource allocation, risk prioritization, and risk mitigation techniques in an educated manner. Combining qualitative and quantitative analyses is necessary for a thorough evaluation of risk management. It could include checking risk registers, reviewing policies and processes, performing risk assessments, and evaluating the governance and risk culture of the company. Additionally, it considers new hazards, legal needs, and industry standards [1]–[3]. Evaluation of risk management techniques has several benefits. First of all, it improves accountability and transparency, making sure that risks are correctly recognised and dealt with across the organisation. Additionally, it helps businesses to measure how cost-effective risk management initiatives are and to allocate resources more effectively. Thirdly, it helps the organisation comply with legal and regulatory standards. Finally, it gives stakeholders

including board members, executives, and investors' confidence in the company's capability to properly manage risks. An essential step in determining the efficacy of an organization's risk management frameworks and strategies is the assessment of risk management practises. It aids in the identification of weaknesses, areas of strength, and opportunities for progress, helping organisations to strengthen their resilience and reduce possible losses. Organisations may enhance their overall risk management skills, react to shifting risk environments, and make informed choices by performing frequent reviews. On-site audits have historically been mainly concerned with determining whether a financial institution is in compliance with capital requirements and limitations on asset holdings, as well as the quality of its balance sheet at a particular moment in time. In today's world, where financial innovation has created new markets and instruments that make it simple for financial institutions and their employees to make large bets easily and quickly, the traditional focus—while important for reducing excessive risk taking by financial institutions—is no longer felt to be adequate.

As powerfully illustrated by the fall of Barings in 1995, a financial organisation that is healthy at one point in time may be forced into insolvency incredibly quickly as a result of trading losses. Therefore, it may not be possible to determine whether a financial institution will really be taking on excessive risk in the near future from an analysis that just considers its position at a certain moment in time. A significant shift in perspective concerning the prudential supervision process has occurred globally as a consequence of this transformation in the financial environment for financial institutions. For instance, bank examiners are increasingly giving far more weight to assessing how well a bank's risk management procedures are implemented. The rules for examiners on trading and derivatives operations have changed to place a greater emphasis on risk management as a result of this shift in thinking. Four components of good risk management are now the focus of bank examiners:

1. The effectiveness of the oversight provided by the board of directors and senior management,
2. The sufficiency of policies and limits for all activities that present significant risks,
3. The efficacy of risk measurement and monitoring systems, and
4. The sufficiency of internal controls to guard against employee fraud or unauthorized activity.

The most recent recommendations established by the Canadian bank regulatory authorities to deal with interest rate risk also reflect this move towards emphasis on management practices. According to these regulations, the bank's board of directors must set interest rate risk limits, designate bank employees to manage this risk, and keep an eye on the bank's exposure to risk. In accordance with the rules, senior management of a bank must also create formal risk-management policies and procedures, establish internal controls to monitor interest-rate risk, and monitor compliance with the board's orders. Implementing stress testing, which determines losses under catastrophic circumstances, or value-at-risk (VaR) calculations, which assess the extent of a loss on a trading portfolio that may occur 1% of the time, say during a two-week period, is particularly crucial. In addition to these rules, bank examiners will still take interest-rate risk into account when determining a bank's capital needs.

## **DISCUSSION**

### **Disclosure Necessary**

Individual depositors and creditors would be sufficiently motivated to provide sensitive information on the calibre of a financial institution's assets. Regulators can mandate that financial institutions follow certain standard accounting principles and disclose a variety of

information that enables the market to judge the calibre of an institution's portfolio and the extent of its exposure to risk in order to ensure that the market has better information.

To better allow owners, creditors, and depositors to assess and monitor financial institutions and so serve as a disincentive to excessive risk taking, more public information regarding the risks taken by financial institutions and the quality of their portfolios is desirable.

A crucial component of financial regulation is disclosure legislation. With one of its three pillars emphasizing improving market discipline via improved disclosure of credit exposure, reserve size, and capital, there is a special emphasis on disclosure requirements. All businesses, including financial institutions that issue publicly traded securities are subject to disclosure rules set down by provincial securities commissioners, the most notable of which is the Ontario Securities Commission (OSC). Additionally, it has mandated that financial institutions provide more information about their off-balance-sheet holdings and how they value their portfolios. Regulation to increase disclosure is required to reduce incentives to take on excessive risk.

It also improves the quality of market information so that investors can make educated decisions, which helps financial markets better allocate capital to its most beneficial uses. The above-mentioned disclosure rules of the OSC, together with its oversight of brokerage companies, mutual funds, exchanges, and credit-rating organizations to ensure that they create accurate information and safeguard investors, all contribute to the efficiency of markets.

In response to the Sarbanes-Oxley Act in the United States, the Ontario government introduced Bill 198 in October 2002. It increased incentives for producing accurate audits of corporate income statements and balance sheets and established rules to restrict conflicts of interest in the financial services sector [4]–[6].

### **Consumer Protection**

The availability of asymmetric information also raises the possibility that customers lack the knowledge to adequately defend themselves. Regulations for consumer protection have taken many different shapes. The first is truth in lending, which calls for all lenders not just banks to advise borrowers of the cost of borrowing, including the annual percentage rate (APR) and the total amount of financing costs for the loan. Legislation also mandates that billing disputes be resolved as soon as possible and that creditors, particularly credit card issuers, publish information on how financing costs are calculated.

Because so many borrowers ended up taking out loans that they did not comprehend and that were much beyond their means to repay, the subprime mortgage crisis in the United States and Canada's brief trial with subprime lending have highlighted the need for improved consumer protection. Millions of houses were foreclosed upon as a consequence, causing many families to lose their homes. There are growing calls worldwide to strengthen consumer protection regulations since they were lax and contributed significantly to the current crisis.

### **Obstacles to Competition**

The moral hazard incentives for financial firms to take on greater risk may also rise with more competition. Increased competition and declining profitability may push financial institutions to take on more risk in an attempt to maintain previous profit levels. As a result, governments throughout the world have implemented restrictions to shield banking institutions from rivals. In the past, these rules have taken on several forms, one of which has been restricting nonbank entities from participating in banking activities in order to compete

with banks. Although limiting competition boosted the health of banks, it also had major drawbacks, including increased consumer costs and reduced efficiency within financial institutions since they were not forced to fight as fiercely. As a result, even while the availability of asymmetric knowledge offered a justification for anticompetitive laws, it did not follow that these restrictions would be advantageous. In fact, the desire of governments in industrialized nations to stifle competition has been declining in recent years.

### **Accounting for Mark-to-Market Changes and Financial Stability**

Accounting has become a heated subject as a result of the mark-to-market accounting debate. In the US accounting business, mark to market accounting became standard procedure in 1993. Depending on whether a financial instrument is traded on an active market or not, U.S. Generally Accepted Accounting Principles (GAAP) developed a variety of methods for determining fair value. The International Financial Reporting Standards (IFRS), created by the International Accounting Standards Board (IASB), are a collection of international standards that are comparable to U.S. GAAP and the standards in place in those nations. Mark-to-market accounting is justified by the idea that market prices provide a superior foundation for determining the real worth of assets and, therefore, capital, in the company. Businesses used the conventional historical-cost (book value) foundation, in which an asset's value is fixed at its original acquisition price, prior to the advent of mark-to-market accounting.

The issue with historical-cost accounting is that changes in asset and liability values brought on by interest rate fluctuations or default are not taken into account when determining the firm's equity capital. However, changes in the market value of assets and liabilities, and therefore changes in the market value of equity capital, are what reveal whether a corporation is in good financial form or, alternatively, if it is in crisis and may thus be more vulnerable to moral hazard. However, mark-to-market accounting has a serious drawback. Markets may sometimes cease functioning, as was the case during the subprime financial crisis. An asset's sale price at a period of financial difficulty does not correspond to its true worth. In other words, an asset's fire-sale liquidation value may sometimes be far lower than the present value of its anticipated future cash flows. During the subprime financial crisis, a lot of individuals, especially bankers, criticised mark-to-market accounting, saying it was a major contributing reason to the catastrophe. They assert that market prices are much below fundamental values as a result of the markets' seizing up. Since mark-to-market accounting mandates that the financial businesses' assets be depreciated in value, this depreciation results in a shortage of capital that prompts a reduction in lending, which then worsens asset values and prompts another reduction in lending. The ensuing negative feedback loop may further exacerbate a financial catastrophe.

Some of the bankers' criticism of mark-to-market accounting is self-serving, despite the fact that it has some merit. Mark-to-market accounting was only criticized when asset values were down since it painted a gloomier image of banks' balance sheets at that time, as opposed to when asset prices were surging and it made banks' balance sheets seem quite strong. The International Accounting Standards Board established an advisory council to improve its guidelines on valuing financial assets in inactive markets during crises in response to complaints about mark to market accounting that emerged in the wake of the US subprime disaster. Additionally, the Emergency Economic Stabilization Act of 2008, included a provision that required the SEC to submit a study of mark-to-market accounting that applied to financial institutions. This requirement came about as a result of Congressional attention on fair value accounting in the United States.



## **Consumer protection laws and the subprime mortgage crisis**

The late 2000s Subprime Mortgage Crisis had a significant effect on the world financial system and made clear the need of strict consumer protection regulations in the banking sector. Subprime mortgages, high-risk loans granted to people with bad credit, were widely issued at the time of this crisis. Inadequate consumer protection laws led to the spread of predatory lending practices and reckless lending behavior, it became clear as the crisis developed. This resulted in a wave of bankruptcies, financial misery, and systemic concerns that rippled across the whole global economy. The Subprime Mortgage Crisis revealed a number of flaws in the legislation governing consumer protection in the mortgage industry. It exposed supervision flaws, insufficient disclosure rules, and weak enforcement procedures. As a consequence, legislators and regulatory bodies saw the need of tightening consumer protection laws in order to avoid such disasters in the future and defend borrowers' interests.

The goal of consumer protection laws is to guarantee honest, open, and ethical lending practises in the financial sector. They provide a set of rules that financial organisations and lenders must follow while providing goods and services to customers. These rules include a wide range of topics, including as disclosure standards, criteria for determining affordability, prohibitions on predatory lending, and processes for resolving disputes. The implementation of new rules and changes to improve consumer protection in the mortgage sector was a key reaction to the subprime mortgage crisis. In the United States, one of these changes was the Dodd-Frank Wall Street Reform and Consumer Protection Act, which sought to strengthen regulatory supervision, increase transparency, and encourage responsible lending practises. To fix the flaws in their consumer protection regimes, other nations and regions also enacted regulatory changes.

The Subprime Mortgage Crisis brought to light the need of thorough consumer protection legislation in averting financial crises and safeguarding financial system stability. Ineffective financial products, deceptive marketing tactics, and predatory lending are all problems that may be identified and reduced with the use of strong consumer protection measures. They provide customers the knowledge, rights, and recourse they need to make wise financial choices and safeguard them from unfair business practices [7]–[10]. The Subprime Mortgage Crisis served as a reminder of the necessity for the financial sector's consumer protection laws to be strengthened. It revealed holes in the mortgage system and underlined the dangers of insufficient regulation and poor consumer protections. In order to improve accountability, transparency, and responsible lending practices, regulatory changes were implemented. To protect consumer interests, advance financial stability, and avert future financial crises, continual vigilance and continuous improvement in consumer protection rules are required going ahead.

## **Canadian Banking Crisis of the 1980s**

It was believed that Canadian chartered banks could never collapse during the years from 1923 (when the Home Bank failed) until 1985. Around 20 deposit-taking financial institutions failed in the United States on average yearly at that time. However, the collapse of two licensed banks and the financial struggles of several more financial organizations in the middle of the 1980s drastically altered the situation in Canada.

### **Crisis in its early stages**

The narrative opens during the 1970s oil boom in western Canada. It resulted in the establishment of other western banks, notably the Canadian Commercial Bank and the Northland Bank, two Schedule I banks with locations in Alberta that were both founded in



1975. Unfortunately, the management of these banks lacked the knowledge necessary to effectively manage risk; as a result, they overly focused on a small number of borrowers in western Canada and lent a disproportionate amount of money for real estate. Because insured depositors had no motivation to restrain insured banks from taking on excessive risk, the introduction of deposit insurance enhanced moral hazard for the Canadian Commercial and Northland banks.

Deposit insurance ensured that depositors wouldn't experience any losses, regardless of the level of risk the banks were incurring. In order to get the required money, Canadian Commercial and Northland issued big denomination certificates of deposit with high interest rates. These companies sought fast expansion and embarked on riskier initiatives. Due to the realistic assumption that they would not receive their money back in the absence of deposit protection, high interest rates would not have persuaded depositors to lend money to the high-rolling institutions. However, depositors were more than pleased to make deposits in the Canadian Commercial and Northland banks with the higher interest rates since the government was ensuring that the money were secure thanks to deposit protection.

As was previously said, the management of Canadian Commercial and Northland lacked the necessary knowledge to manage risk in the liberal environment of western Canada. Even if the necessary knowledge was originally available, fast credit expansion may have exceeded the financial institution's information resources, leading to excessive risk taking. The loan boom also meant that Canadian Commercial and Northland's operations were broadening in scope and growing more complex, necessitating an increase in regulatory personnel to properly supervise these activities. Regulators of chartered banks at the Inspector General of Banks (the predecessor to the Office of the Superintendent of Financial Institutions) sadly lacked the knowledge and resources necessary to effectively oversee Canadian Commercial and Northland's operations. It is not surprising that Canadian Commercial and Northland took on excessive risks, which resulted in significant losses on bad loans, given the lack of expertise in both the banks and the Inspector General of Banks, the deterioration of the regulatory framework, and the moral hazard incentives provided by deposit insurance.

A historical accident that resulted in a combination of sharp interest rate increases from late 1979 until 1981 and a severe recession in 1981–82, both of which were engineered by the Federal Reserve in the United States to lower inflation, also significantly increased the incentives for moral hazard. Long-term residential mortgages, which had their rates fixed at a period when interest rates were much lower, were the banks' main asset. However, the banks' fast growing funding costs were not kept up with greater revenues on these mortgages. The Alberta economy was severely impacted by the recession of 1981–1982 as well as the fall of petroleum and agricultural commodity prices. As a consequence, numerous loans experienced defaults. By the start of 1985, Canadian Commercial and Northland had negative net value and were thus bankrupt due to mounting losses.

## CONCLUSION

Organizations must evaluate their risk management procedures if they want to improve their capacity to deal with uncertainty and protect their business operations. An organized process for identifying, evaluating, monitoring, and reacting to possible hazards is necessary for effective risk management. Organizations may increase their resilience, make well-informed choices, and allocate resources efficiently by putting strong risk management frameworks and methods into place. The dynamic nature of threats and the need for accurate data are only two of the difficulties that risk management must overcome. To keep ahead of new threats, organizations must constantly modify and enhance their risk management procedures. In the

end, a well conducted assessment of risk management procedures aids in better decision-making, operational effectiveness, and the defense of organizational value and reputation.

## REFERENCES

- [1] E. Rwagasana, G. Wanyona, and T. Kivaa, "Evaluation of risk management practices in construction projects in rwanda," *Int. J. Recent Technol. Eng.*, 2019, doi: 10.35940/ijrte.B1501.078219.
- [2] M. A. Arab, H. R. Khankeh, A. M. Mosadeghrad, and M. Farrokhi, "Developing a hospital disaster risk management evaluation model," *Risk Manag. Healthc. Policy*, 2019, doi: 10.2147/RMHP.S215444.
- [3] M. Čech and M. Januška, "Evaluation of risk management maturity in the Czech automotive industry: Model and methodology," *Amfiteatru Econ.*, 2020, doi: 10.24818/EA/2020/55/824.
- [4] K. Setty, R. McConnell, R. Raucher, and J. Bartram, "Comparative evaluation of risk management frameworks for U.S. source waters," *AWWA Water Sci.*, 2019, doi: 10.1002/aws2.1125.
- [5] E. Van Kleef *et al.*, "Consumer evaluations of food risk management quality in Europe," *Risk Anal.*, 2007, doi: 10.1111/j.1539-6924.2007.00989.x.
- [6] J. Mackevičius and L. Giriūnas, "Model of evaluation of enterprise risk management," *Buhalterinės Apskait. Teor. ir Prakt.*, 2019, doi: 10.15388/batp.2014.no16.5.
- [7] M. C. Ugwu, T. O. Osunsanmi, and C. O. Aigbavboa, "Evaluation of Risk Management Practice in the Nigeria Construction Industry," *Modul. Offsite Constr. Summit Proc.*, 2019, doi: 10.29173/mocs116.
- [8] J. Fan and G. Huang, "Evaluation of flood risk management in Japan through a recent case," *Sustain.*, 2020, doi: 10.3390/su12135357.
- [9] A. Klinke and O. Renn, "A new approach to risk evaluation and management: Risk-based, precaution-based, and discourse-based strategies," *Risk Anal.*, 2002, doi: 10.1111/1539-6924.00274.
- [10] D. W. Kim, J. Y. Choi, and K. H. Han, "Risk management-based security evaluation model for telemedicine systems," *BMC Med. Inform. Decis. Mak.*, 2020, doi: 10.1186/s12911-020-01145-7.

## CHAPTER 8

### CRISIS AT A LATER STAGE: REGULATORY FORBEARANCE

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#### ABSTRACT:

Regulatory forbearance is a strategy used by regulatory agencies to provide financial institutions more leeway during times of economic hardship by temporarily relaxing or delaying the implementation of certain requirements. Regulatory forbearance may have unforeseen repercussions and contribute to the extension and amplification of financial vulnerabilities, even though it was meant to lessen the immediate effects of a crisis and avoid systemic breakdowns. This essay examines the idea of regulatory forbearance, its consequences, and the problems it creates for both financial stability and the efficiency of the regulatory system. Regulatory forbearance is the phenomena wherein regulatory bodies take a more tolerant or slack stance towards enforcing rules during periods of economic hardship. It is a governmental solution meant to stop possible systemic collapses and temporarily relieve financial institutions that are struggling.

#### KEYWORDS:

Crisis, Financial institutions, Financial Stability, Regulatory forbearance, Regulatory policies.

#### INTRODUCTION

Regulatory forbearance gives financial institutions more freedom in handling their financial troubles by allowing them to ignore or postpone compliance with certain regulatory regulations. In the years after the global financial crisis of 2008, when multiple financial institutions were confronted with serious liquidity and solvency concerns, the idea of regulatory forbearance rose to prominence. Regulatory authorities, including central banks and regulatory agencies, enacted forbearance measures in an attempt to avert major breakdowns and stabilize the financial sector. These actions included extending the deadlines for completing capital adequacy obligations, enabling temporary loosening of accounting norms, and providing liquidity assistance [1]–[3].

The goal of regulatory forbearance is to reduce financial institutions' immediate stress so they may recover and regain their financial health. It is seen as a short-term solution to give institutions some time to raise money, reorganise their business, or take care of the underlying problems that are causing their difficulties. By giving the financial system some breathing room, authorities hope to avert panic, preserve investor confidence, and stop a damaging chain reaction of failures. Regulator tolerance is not without its difficulties and possible dangers, however. The moral hazard issue, where the leniency of regulators may promote hazardous behavior and create incentives for further wrongdoing, is one of the main worries. Financial firms could take on excessive risks in the belief that regulators would help them out if they run into difficulties. Additionally, delaying the resolution of underlying problems or the acknowledgment of losses may result in the buildup of hidden risks and the extension of financial vulnerabilities. This essay explores the idea of crisis at a later stage: regulatory forbearance, looking at its effects on financial stability, the efficacy of regulation, and the long-term health of the financial system. It talks about the possible dangers and

difficulties brought on by regulatory forbearance, including moral hazard, diminished market discipline, and the effect on market expectations. The study also emphasizes the need of finding a balance between offering short-term reliefs and making sure a financially stable and well-regulated system.

Regulatory forbearance is essential for crisis management since it provides financially troubled institutions with immediate assistance. However, it is crucial to thoroughly evaluate the dangers and possible long-term effects connected with such programs. To lessen the unexpected negative impacts of regulatory forbearance, regulatory agencies must exercise prudence, preserve openness, and create efficient risk assessment frameworks. They may achieve a balance between crisis management and maintaining a strong and stable financial system by doing this. The Bank of Canada and the Inspector General of Banks could have closed the insolvent banks at this time if they had been regulators. Instead, the authorities took a position of regulatory forbearance, declining to use their authority to shutter the bankrupt Canadian Commercial Bank and Northland Bank. The Bank of Canada and the Inspector General of Banks chose regulatory forbearance for two key reasons.

First, there weren't enough cash in the CDIC's insurance fund to shutter the bankrupt institutions and return customers' savings. Second, the regulators chose to brush their issues under the rug in the hopes that they would go away since bureaucrats do not like to acknowledge that their own agency is having difficulties. The Bank of British Columbia, Mercantile Bank, and Continental Bank had a high number of big depositors remove their sums after Canadian Commercial and Northland were declared bankrupt in September 1985 due to reports of financial difficulty. The Bank of Canada had loaned more than \$5 billion by the time Mercantile, Bank of British Columbia, and Continental were bought by the National Bank of Canada, Hongkong Bank of Canada, and Lloyds Bank of Canada (a subsidiary of a U.K.-based banking behemoth, respectively). The financial reforms of 1987–1992 and the consolidation of financial institution oversight under the Office of the Superintendent of Financial Institutions were prompted by the decline in public trust in the Canadian banking sector.

## **DISCUSSION**

### **Developments at CDIC**

Each depositor at member institutions is covered by the Canada Deposit Insurance Corporation (CDIC) up to a loss of \$100,000 per account. The CDIC's members include all trust and mortgage lending firms that are provincially and federally incorporated. The Quebec Deposit Insurance Board (QDIB) insures provincially incorporated financial institutions in Quebec, and the other provinces have deposit insurance corporations that insure the deposits of credit unions in their jurisdiction on terms similar to the CDICs. Insurance companies, credit unions, caisses populaires, and investment dealers are not eligible to join the CDIC. Only deposits payable in Canadian currency are permitted to be insured by the CDIC; deposits payable in other currencies, such as accounts in US dollars, are not permitted to be protected. Additionally, not all investments and deposits made available by CDIC member banks are insured. Savings and checking accounts, term deposits having a maturity date of less than five years, money orders and draughts, certified draughts and checks, and traveler's checks are all examples of insurable deposits. Treasury bills, bonds and debentures issued by governments and enterprises (including the chartered banks), investments in stocks, mutual funds, and mortgages are not covered by the CDIC's term deposit insurance policy.

Deposit insurance's main justification is to safeguard depositors against bank bankruptcy and so promote financial stability. By lowering obstacles to entry for new deposit-taking

institutions, deposit insurance may help foster competition among financial institutions. Without deposit protection, it is difficult for new banks to draw in deposits. For instance, the majority of depositors are unable to do the necessary risk computations to evaluate the danger of a new bank. These depositors would often deposit their money in institutions that are seen as being too large to fail, creating enormous entry hurdles and unfair disadvantages for smaller newcomers. The CDIC successfully lowers entry barriers for new deposit-taking financial institutions by guaranteeing deposits at all deposit-taking financial institutions.

### **Differential Premiums**

Prior too recently, CDIC premium income was unrelated to the risk profile of financial institutions; regardless of risk profile, the premium rate applied to all deposit-taking institutions. For instance, the flat-rate insurance premium for the 1998–1999 fiscal year was 1/6 of 1%, or 0.1667%, which meant that each financial institution accepting deposits paid an insurance cost of over 17 cents every \$100. The major Six, represented by the Canadian Bankers Association, vehemently opposed the creation of the CDIC in 1967 for this reason among others, arguing that deposit insurance would amount to a subsidy to small banks funded by the major banks. The Canadian Bankers Association has actively supported the reform of the country's deposit insurance system throughout the years. The Differential Premiums By-law was created by the CDIC as a consequence, and it became effective for the premium year starting on May 1, 1999. The bylaw has undergone several revisions and periodic evaluations. This law's implicit provisions for swift corrective action, which mandate that the CDIC act more quickly and forcefully when a bank has difficulties, are its key feature [4]–[6].

Based on their risk profile, CDIC member institutions are now divided into four premium categories. A number of quantitative and qualitative factors, such as capital adequacy, profitability, asset concentration, income volatility, regulatory ratings, and adherence to the Standards of Sound Business and Financial Practices of the CDIC are used to determine an institution's risk profile. Capital adequacy dominates the criteria, accounting for 20% of the score. The premium rates under the new system are those shown in; they range from 1 cent to 11 cents per \$100 for CDIC member institutions. Well-capitalized banks that greatly surpass the minimal criteria are designated as Group 1, the best. The insurance premium that banks in group 4, which is considered the worst, pay is 11 basis points, which is the highest permitted by the CDIC Act, yet they are severely (and maybe critically) undercapitalized. The CDIC is further expected to take swift remedial steps for group 4 banks, including asking them to submit a capital restoration plan, limiting their asset development, and requesting regulatory clearance to operate new branches or expand their business lines. Over 90% of CDIC member institutions are now categorised, although, as in other nations, the premium category and any associated supervisory information that applies to specific CDIC members is private.

The Opting-Out By-law, which went into force on October 15, 1999, is another intriguing new development. Due to this law, Schedule III banks that predominantly take wholesale deposits—defined as those of \$150 000 or more can choose not to join the CDIC and go without deposit protection. The new law does, however, offer safeguards for depositors who have funds covered by the CDIC. In particular, it mandates that an opted-out bank notify all depositors that their funds won't be covered by the CDIC and refrain from imposing early withdrawal fees on customers who want to withdraw their funds. The opting-out legislation's ability to reduce CDIC liability to uninsured deposits is perhaps its most significant component. In contrast to earlier practices, when the CDIC was hospitable to uninsured depositors, this signals a substantial change. For instance, during the Canadian Commercial and Northland collapses in the middle of the 1980s, the CDIC reimbursed all depositors



insured and uninsured 100 cents on the dollar. The opting-out law strengthens the incentives of uninsured depositors to supervise the risk-taking actions of banks by rewarding just the insured depositors rather than all depositors, hence minimizing the danger of moral hazard.

## **CONSIDERING CDIC AND OTHER PROPOSED BANKING REGULATORY SYSTEM REFORMS**

### **Limitations on the Coverage of Deposit Insurance**

By restricting protection to insured deposits, the CDIC narrowed the scope of deposit insurance, which may have given uninsured depositors more motivation to watch banks and remove money if they feel the institution is taking on too much risk. Banks may now be less inclined to take on excessive risk since they worry about losing deposits when they participate in dangerous operations. Although the stated additional deposit insurance components increase depositors' incentives to watch over banks, some detractors would go even farther in limiting the reach of deposit protection. Some argue that deposit insurance should be completely removed or scaled down from its present \$100 000 cap to something like \$20 000 or \$10 000. Another suggested change would establish a coinsurance system in which only a portion of a deposit, let's say 90%, would be insured. In this scenario, both the deposit insurance company and the insured depositor would share in the losses.

Depositors would have an incentive to keep an eye on the bank's operations if they faced losses due to a lower limit on deposit insurance or coinsurance. Other experts disagree, though, and don't think depositors can hold banks to account or enforce discipline on them. The main issue with further limiting deposit protection is that banks would be vulnerable to runs, which are hurried withdrawals by uneasy investors. By themselves, such runs may result in bank collapses. Deposit insurance serves to safeguard individual depositors as well as to avoid many bank failures, which would result in an unstable banking system and an unstable economy. Deposit insurance has been a huge success from this angle. Since deposit insurance was implemented, bank panics, in which several banks collapse at once and the financial system is subsequently disrupted, have not happened. The likelihood of bank panics would rise if the too-big-to-fail policy were completely repealed, which would result in some of the same issues as if deposit insurance were withdrawn or decreased. The effects on the financial system may be severe if a bank were permitted to collapse. Other banks that had a correspondent connection with the failing bank—those that had deposits there in return for services would suffer significant losses and may fail as a result, sparking a panic-like situation. Additionally, the issue of liquidating the loan portfolio of the large bank might cause a significant disturbance in the financial system.

### **Prompt Corrective Action**

Incentives for bank risk-taking should be significantly reduced by the fast corrective action provisions of CDIC, which should also lower taxpayer losses. CDIC encourages banks to keep greater capital by using a carrot-and-stick strategy. They are given higher ratings and are put in a better premium rate category if they are properly capitalised; nevertheless, if their capital ratio drops, they are subject to ever-heavier regulation. A bank with greater capital is less likely to engage in excessive risk-taking since it has more to lose in the event of failure. Additionally, by encouraging banks to keep more capital, the CDIC faces less potential losses since higher capital acts as a safety net and decreases the likelihood of bank collapse. Prompt corrective action is a genuine endeavor to lessen the main agent issue for politicians and regulators. It calls on regulators to act quickly when bank capital starts to decline. Regulators no longer have the option of regulatory forbearance, which, as we have shown, may significantly raise moral hazard incentives for banks, with fast corrective action measures.



## Premiums for Risk-Based Insurance

The Differential rates By-law imposes higher insurance rates on banks that are seen to be taking on more risk due to weaker capital or riskier assets. As a result, risk-based insurance premiums lessen the moral hazard incentives for banks to assume more risk. Aside from the advantages previously discussed, the fact that risk-based premiums decrease as a bank's capital grows encourages banks to keep greater capital. Risk-based premiums have the drawback that the method used to calculate how much risk the bank is incurring may not be particularly precise. For instance, authorities can find it challenging to identify the riskiness of a bank's loans. Additionally, some detractors have argued that the Basel risk-based capital requirement, for example, only adequately accounts for credit risk when categorizing banks, leaving out interest-rate risk. However, the regulatory bodies are urged to add interest-rate risk to the already-existing risk-based requirements.

## A Different CDIC Provision

In order to track banks' adherence to bank capital requirements and asset limitations, the CDIC mandates that authorities conduct periodic bank audits and that member institutions submit a Standards report at least once a year. The Canadian Commercial and Northland fiascos serve as examples of how often monitoring banks is required to prevent them from taking on excessive risk or engaging in fraud. In a similar vein, strengthening the regulators' oversight capabilities of foreign banks may help deter international banks from taking part in these harmful practices. The benefit of banks having stronger and more onerous reporting requirements is that it gives regulators more data to track bank activity. Banks, on the other hand, have criticised these reporting rules, arguing that they make it more difficult for them to lend to small firms. In response, the CDIC created the Modernised Standards By-law, which was enacted in early 2001 and gives the CDIC the ability to choose the frequency of reporting for a member institution depending on how that institution is classified under the Differential Premiums By-law. The Modernized Standards By-law gives CDIC latitude in assessing the performance of member institutions who are having issues. Well-capitalized category 1 banks will be required to submit a Standards report every five years under the new system. However, the institution would be responsible for the costs associated with any special examinations conducted on banks in categories 3 and 4. Along with boosting regulatory oversight of issue banks, the Modernised Standards By-law also strengthens the CDIC's responsibility. Additionally, it enhances banks' incentives to maintain capital and reduces their incentives to take on excessive risk [7]–[10].

## Additional Proposed Modifications to Banking Regulations

Consolidation of Regulations Financial institutions in Canada are now regulated by three federal organisations: the CDIC, the Office of the Superintendent of Financial Institutions, and the Bank of Canada. The many regulatory entities with overlapping responsibilities are criticised for creating a system that is too complicated and expensive because of all the redundancy. For instance, the Standards of Sound Business and Financial Practises of the CDIC coincide with those of the OSFI even though it has no direct supervisory responsibility. The CDIC and the OSFI were discussed as possible candidates for merger by the MacKay Task Force, which was established by the government in 1996 and was given the name of its chairman Harold MacKay. The task force suggested that the CDIC's mission be changed to eliminate any overlap with the OSFI's mandate, despite the fact that it was recommended that the regulator (OSFI) and insurer (CDIC) not be united in a single organisation.

Because they boost banks' incentives to retain capital and reduce their incentives to take on excessive risk, the latest CDIC measures seem to be a significant step in the right direction.

To increase the incentives for banks to reduce their risk-taking, more might be done. However, completely doing rid with deposit protection and the "too big to fail" rule would be going too far since these ideas might render the financial system too vulnerable to a panic.

### **Crises in Banking across the World**

History continues repeating itself in the financial crises that have occurred in several nations. There is a sense of déjà vu because of the striking connections between financial crisis occurrences in different nations. All of them began with financial innovation or liberalisation, with lax government safety nets and inadequate bank regulatory institutions. Financial liberalisation can increase moral hazard and increase risk-taking on the part of banks if there is lax regulation and supervision, which can then result in banking crises. Financial liberalisation is generally beneficial because it encourages competition and can make a financial system more efficient. The banking crisis events covered here do vary, however, in that deposit insurance hasn't been a big problem in a lot of the nations going through them. For instance, the Deposit Insurance Corporation, the Japanese version of the CDIC, was so small that it had little impact on the banking system and quickly ran out of money when the first banks failed. This illustration shows that some of these financial crises are not caused by deposit insurance. The presence of a government safety net, in which the government stood ready to save banks whether deposit insurance was a crucial component of the regulatory framework or not, is a trait that all the nations mentioned here have in common. Deposit insurance by itself does not create moral hazard incentives for banks to take excessive risks; rather, the availability of a government safety net does.

The financial regulatory system will undoubtedly never be the same given the enormity of the bailouts and the nationalisation of so many financial firms. Here, we might speculatively consider the potential future of financial regulation in light of the current crisis. The subprime and Alt-A mortgage markets, as well as complex credit instruments like collateralized debt obligations, contributed to the crisis's inception. The originate to-distribute business model's agency issues caused these innovations to go catastrophically wrong, despite the fact that they had the ability to support the democratisation of credit improving the poorest elements of society's access to credit. In order to improve the functionality of the originate-to-distribute model and the financial system as a whole, future legislation will undoubtedly concentrate on reducing these agency issues. The following list contains eight sorts of regulation that are expected to exist in the future.

#### **More stringent regulation of mortgage brokers**

Mortgage brokers, who were essentially unregulated and had the right incentives to ensure that clients could afford their mortgage payments, are now expected to come under closer regulatory scrutiny. Tighter likening standards and increased restrictions will make it necessary for mortgage originators to explain mortgage conditions in more detail and prohibit them from pressuring clients to take on more debt than they can handle.

#### **Fewer Subprime Mortgage Products**

Regulators may outlaw some of the intricate mortgage packages that were provided to subprime customers. Subprime borrowers, who are unlikely to be financially knowledgeable, may not be able to appreciate these products' features even after full disclosure, making it difficult for them to make educated decisions. A government prohibition or regulation of certain mortgage products might aid in preventing future financial difficulties for subprime borrowers.

### **Compensation for Regulation**

Government regulation may place restrictions on compensation plans for all parties along the supply chain, from the origination of mortgages through the marketing of mortgage-related securities. The financial sector was encouraged to release securities that turned out to be considerably riskier than marketed and proven to be catastrophic by the high fees and CEO bonuses that have so upset the public.

### **Increased Capital Needs**

There will probably be more regulation and oversight of financial institutions to make sure they have adequate capital to handle the level of risk they incur. Investment banks did not have adequate capital in relation to their assets and hazardous operations given the risks they were incurring. Similar to AIG, AIG's capital was insufficient to handle the substantial risk that was being assumed by it when it issued credit insurance. For these organizations, capital requirements will almost certainly be increased. Also expected is a tightening of capital requirements for banks, especially for some of their off-balance-sheet operations. Some off-balance-sheet operations should be considered as if they were on the balance sheet, according to banks that sponsored structured investment vehicles (SIVs), which were ostensibly off-balance-sheet but returned there after the SIVs ran into problems.

### **Additional Regulations for Government-Sponsored Businesses Owned by Private Parties**

To control privately held, government-sponsored businesses like Fannie Mae and Freddie Mac in the US, new rules are required. The American government might proceed in one of four ways:

1. Completely privatize them by removing government sponsorship, eliminating the underlying support for their debt.
2. Totally nationalize them by removing their private status and converting them into government organizations.
3. Continue to treat them as privately held government-sponsored businesses, but tighten rules to limit the amount of risk they may assume and set greater capital requirements.
4. Maintain them as privately held, government-sponsored businesses, but make them drastically reduce in size so that they no longer subject taxpayers to large losses or endanger the stability of the financial system in the event of a failure.

### **Increased Regulation to Reduce Risk Taking by Financial Institutions**

Regulation will be required to prevent financial institutions from taking on too much risk when the government safety net is expanded to include a larger variety of financial organizations. Increased investment bank regulation will be necessary to address this. The fact that the biggest ones that have survived are now incorporated into bank holding companies means that some of this will happen automatically. As a result, they will be subject to the same regulations and oversight as banks and insurance companies, which, as the AIG example suggests, can endanger the stability of the entire financial system when they take on too much risk.

## **CONCLUSION**

Regulators use the sophisticated and sensitive policy instrument of regulatory forbearance when the economy is struggling. While it may be used as a quick fix to help financial institutions and avoid imminent catastrophe, it has inherent dangers and might have long-

term repercussions. Later crises brought on by regulatory laxity may take many different forms, including as the buildup of unaddressed hazards, moral hazard, and the deterioration of market discipline. As a result, authorities must carefully balance responding to current crises with preserving long-term financial stability. The possible effects of regulatory forbearance must be carefully considered by regulatory authorities, taking into account how they may affect risk-taking behavior, market expectations, and the general stability of the financial system. In order to ensure that regulatory forbearance measures do not undermine the efficacy of rules and unintentionally contribute to the emergence of systemic hazards, transparency, accountability, and solid risk assessment frameworks are crucial.

## REFERENCES

- [1] F. Landini, A. Arrighetti, and A. Lasagni, “Economic crisis and firm exit: do intangibles matter?,” *Ind. Innov.*, 2020, doi: 10.1080/13662716.2018.1544065.
- [2] D. Qiu, Y. Li, L. Li, J. He, F. Ouyang, and S. Xiao, “Policies to Improve the Mental Health of People Influenced by COVID-19 in China: A Scoping Review,” *Frontiers in Psychiatry*. 2020. doi: 10.3389/fpsy.2020.588137.
- [3] F. Alqahtani, D. G. Mayes, and K. Brown, “Economic turmoil and Islamic banking: Evidence from the Gulf Cooperation Council,” *Pacific Basin Financ. J.*, 2016, doi: 10.1016/j.pacfin.2016.05.017.
- [4] S. Sukatin, N. Chofifah, T. Turiyana, M. R. Paradise, M. Azkia, and S. N. Ummah, “Analisis Perkembangan Emosi Anak Usia Dini,” *Golden Age J. Ilm. Tumbuh Kembang Anak Usia Dini*, 2020, doi: 10.14421/jga.2020.52-05.
- [5] F. Alqahtani, D. G. Mayes, and K. Brown, “Reprint of Economic turmoil and Islamic banking: Evidence from the Gulf Cooperation Council,” *Pacific Basin Financ. J.*, 2017, doi: 10.1016/j.pacfin.2016.06.013.
- [6] N. Saghi-Zedek and A. Tarazi, “Excess control rights, financial crisis and bank profitability and risk,” *J. Bank. Financ.*, 2015, doi: 10.1016/j.jbankfin.2014.10.011.
- [7] S. C. Ratzan, S. Sommariva, and L. Rauh, “Enhancing global health communication during a crisis: Lessons from the COVID-19 pandemic,” *Public Heal. Res. Pract.*, 2020, doi: 10.17061/phrp3022010.
- [8] M. Gascó, P. S. Bayerl, S. Deneff, and B. Akhgar, “What do citizens communicate about during crises? Analyzing twitter use during the 2011 UK riots,” *Gov. Inf. Q.*, 2017, doi: 10.1016/j.giq.2017.11.005.
- [9] A. M. de Vasconcelos and Á. G. R. Lezana, “Modelo de ciclo de vida de empreendimentos sociais,” *Rev. Adm. Publica*, 2012, doi: 10.1590/S0034-76122012000400007.
- [10] G. Huang *et al.*, “ZNF217 suppresses cell death associated with chemotherapy and telomere dysfunction,” *Hum. Mol. Genet.*, 2005, doi: 10.1093/hmg/ddi352.

## CHAPTER 9

### THE CANADIAN BANKING SYSTEM'S HISTORIC DEVELOPMENT

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#### ABSTRACT:

The history of the banking industry in Canada is extensive and rich, spanning many centuries. The development of the Canadian banking system, from its modest beginnings in the early colonial era to its current position as one of the most resilient and stable banking systems in the world, is a testament to the nation's economic development, regulatory prowess, and dedication to financial stability. The lengthy and distinctive history of the Canadian financial system has influenced how it has evolved over time. This article presents a historical overview of the evolution and stability of the Canadian banking system, emphasizing significant turning points, regulatory modifications, and influencing variables. Examining the influence of governmental initiatives, technological improvements, and market pressures, it analyses the transition from a decentralized and brittle banking system to one that is more centralized and robust. The historical evolution of the Canadian banking system and its effects on financial stability, competitiveness, and the supply of financial services are also covered in this study.

#### KEYWORDS:

Banking System, Canadian Economy, Financial Services, Financial Stability, Government Interventions.

#### INTRODUCTION

The first banks were founded in the late 18th century to assist commerce and finance in the expanding Canadian economy. This is when the foundations of the current banking system in Canada were laid. At first, there were several separate banks operating in different parts of the world, each producing its own currency. Regulation, stability, and homogeneity issues arose as a result of this decentralization in the banking industry [1]. The Canadian government eventually realized that in order to promote stability and economic growth, a more centralized and well-coordinated financial system was necessary. As a result, the Bank of Canada was established in 1934 as the nation's central bank, charged with maintaining monetary stability and overseeing the banking sector. Numerous variables have influenced how the Canadian financial sector has historically developed.

The soundness and stability of the banking industry have been made possible by government initiatives such as the deployment of regulatory measures and deposit insurance. These efforts were most noticeable during financial crises, when assistance and involvement from the government lessened the negative impact on the banking sector and the overall economy. The growth of the Canadian financial system has also been significantly influenced by technological improvements. The emergence of online and mobile banking platforms, the acceptance of electronic banking, and the incorporation of cutting-edge financial technology have all changed how Canadians engage with and access banking services. These developments have increased operational effectiveness and risk management within the banking industry in addition to convenience and accessibility.



The historical evolution of the Canadian banking system has had a significant impact on economic growth, financial stability, and the delivery of financial services to Canadians. The system has earned a reputation as one of the most stable banking systems in the world because to its strong regulatory structure, responsible risk management procedures, and dedication to customer protection. The Canadian banking industry has also been vital in fostering the nation's economic growth by providing critical funding for enterprises, people, and government programs. The historical growth of the Canadian banking system, examining significant turning points, legislative amendments, and determining elements that have influenced its development. It investigates how market dynamics, technical developments, and governmental interventions have affected the stability, efficiency, and accessibility of the banking system. We may learn a great deal about the Canadian banking system's resiliency, flexibility, and continuous dedication to financial stability by comprehending the historical background and the causes that have created it. In 1817, nine Montreal businessmen founded the Bank of Montreal, which marked the beginning of the modern banking sector in Canada. The Bank of Montreal didn't have any official power at first, but in 1822, Lower Canada's legislature granted a charter, which was then ratified by royal approval. The Canadian banking sector was up and running in the meanwhile, with the Chartered Bank of Upper Canada in York (Toronto) opening its doors in 1821 and the Bank of New Brunswick receiving royal approval in 1820.

All of these banks were permitted to take deposits, issue notes, and lend money only for business reasons; no bank was permitted to provide loans for the purchase of real estate, land, or mortgages. However, there were various variations in these banks' charters. For instance, the Bank of New Brunswick's charter provisions adhered to the New England banking tradition. The conditions regulating the Bank of the United States, a government organization in charge of the supply of money and credit to the economy as a whole, were virtually exactly replicated in the charter of the Bank of Montreal. The Bank of the United States was a central bank with aspects of both private and central banking. Additionally, the Bank of New Brunswick was prohibited from opening branches (additional offices for the conduct of banking operations) and was required to submit regular annual statements to the government; in contrast, the Bank of Montreal was only required to provide statements upon request and was permitted to open branches anywhere in Upper or Lower Canada.

## DISCUSSION

### **Experiment with Free Banking**

To make it easier for small unit banks to operate similarly to American banks, Canada established the Free Banking Act in 1850. It permitted any entity that complied with the loose standards outlined in the free banking Act to create a bank without a statutory charter. The minimum net worth required to establish a bank under this law was \$100,000, branching was prohibited, and even though the free banks' banknotes were tax-free, the total quantity of notes they could produce was only equal to the amount of public debt they owned. The transition to free banking was a positive development, but Canada's free banking experiment was a failure. Only five new banks were founded; two of them promptly collapsed, and the other three were converted to legislative charters. This did not result in the foundation of many new banks. The failure of Canada's free banking experiment was attributed to the restrictions on branching and the issuance of banknotes based on public debt rather than private loans [2].

The main difference from the US scenario, where the option of a legislative charter was concurrently abandoned in those states where free banking was formed, was that the



legislative charter option was still an option. Free banking in Canada turned out to be less lucrative than banking governed by legislative charters because to its restrictive rules, especially the prohibition on branches and the less lenient note issuance rule. There were fifteen licenced banks in Canada in 1850, with seven in what would become Atlantic Canada and eight in Central Canada. Except for a brief spell after 1857, the Canadian provinces saw their economies grow from 1850 until Confederation in 1867. Thirty new banks were also founded during this time. By the end of 1867, there were only thirty-four authorised banks with a total of 127 branches after eleven of them failed or closed for various reasons.

### **Provincial Notes Act, 1866**

Governments were concerned about the chartered banks' dominance of the note issuance in the years leading up to Confederation. They thought that separating the nation's currency from the banking interests would be the best way to shield the general population from some of the effects of bank failures. Alexander Galt, the province of Canada's finance minister, suggested in 1860 that paper money be produced by the government in place of banknotes. However, his plan was rejected by his detractors, particularly the chartered banks, for the apparent reason that replacing the interest-free bank debt with interest-free government debt would have adversely affected their revenues. With the collapse of the Bank of Upper Canada Canada's first chartered bank failure during a small financial crisis in 1866, supporters of government-issued paper money ultimately succeeded in achieving their goal with the passage of the Provincial Notes Act. The Act permitted the issuance of provincial notes, which may be used in place of specie due to their legal reserve status. The banks started to hold the new currency and gave up their ability to produce notes with the help of the Bank of Montreal, which had taken over as the government's fiscal agent in 1864 by displacing the Bank of Upper Canada.

### **Dominion Notes Act, 1870**

The British North America Act, which became the Constitution, established Canada in 1867. The Act gave the nascent Canadian federal government exclusive authority over all concerns involving money and banking, with paper money being the first issue to be resolved. The Dominion Notes Act was created in 1870 as a result of the Chartered Bank of Canada's bankruptcy in 1867 (the second chartered bank failure in Canadian history). The Act upheld banks' rights to print money on their own accounts, but it only applied to large-denomination (\$5 and more) notes, giving the government control over the \$1 and \$2 Dominion notes. Despite the absence of reserve requirements, the Dominion Notes Act of 1870 obliged banks to maintain at least half of their reserves in Dominion notes, providing the government a portion of the seignorage profits from the issue of money—that was generated. The Dominion Notes Act of 1870 established the gold standard for Canada, which meant that its money was instantly convertible into gold. The Dominion notes themselves were fractionally backed by gold. Up to World War I, Canada continued to use the gold standard, keeping its currency guaranteed by and convertible into gold. Dominion notes were more significant between 1870 and 1935, although they never made up a significant portion of the money in circulation. They were replaced, along with the banknotes, not long after the Bank of Canada (Canada's central bank) was established in 1935.

### **First Bank Act, 1871**

In 1871, the first Bank Act went into force. This sunset provision successfully made sure that governments throughout the years paid periodic attention to banking reform by requiring it to be amended every 10 years in light of experience and shifting situations. The Bank Act established the regulatory framework for banks that were chartered in Canada as well as for

the future growth of Canadian banking practises. The Act maintained the practise of granting banks legislative charters, each of which had to be evaluated and renewed every 10 years. The minimum capital requirements for new banks were \$100 000 paid up front against a total capital requirement of \$500 000. The banks' note issuance was still only permitted in big denominations (notes worth more than \$5) and was capped at the sum of their paid-up capital plus reserves. There were no minimum reserve requirements, although Dominion notes had to make up one-third of a bank's cash reserves. The Act kept mortgage lending and real estate loans illegal, but it also allowed banks to use most types of products as collateral for loans, reinforcing the commercial character of banking. Additionally, bank stockholders were held accountable for twice the amount of their subscription in order to increase public security. Finally, there was no mechanism for government inspection or audit; instead, each bank was expected to provide a thorough statement to the government each month.

### **Bank Act, 1881 1913**

Following Confederation, there was a downturn that lasted from 1873 until 1879. The funds of many noteholders were lost as a result of thirteen bank failures during the depression years (four in 1878, five in 1887, and another four in 1890). The early decennial modifications of the Bank Act in 1881, 1891, 1901, and 1913 (delayed since 1911) were meant to better protect banknote holders and avoid future losses from similar failures, but the Act was not much altered. In instance, the capital requirement was raised to \$250 000 paid up in the Bank Act modification of 1891, limiting entrance into the sector.

The percentage of Dominion notes in bank cash reserves was raised to 40%, and in the case of a failing bank's liquidation, its notes were made the first charge against its assets. Additionally, a Bank Circulation Redemption Fund was established in the Bank Act Revision of 1891 to protect note holders from loss, with each bank donating a sum equivalent to 5% of its average note circulation.

The Canadian economy had spectacular growth from the middle of the 1890s to the start of World War I. While the Bank Act of 1891's increased capital requirements limited bank entrance, the Bank Act modification of 1901 streamlined the merger and acquisition processes by needing just Cabinet approval, as opposed to the prior requirement that all mergers be subject to a special Act of Parliament.

These legal amendments led to thirteen mergers by the end of 1914, compared to just six in the preceding 33 years, and a decrease in the number of banks from 41 in 1890 to 22 in 1914. However, throughout that time, there were 426 more bank branches, bringing the total to over 3000. When the Bank Act was revised in 1913, another significant legal reform took place. The Act required banks to undergo yearly, independent audits of their financial accounts, with the findings being provided to shareholders and the minister of finance.

The goal was to reduce moral hazard and adverse selection issues, which had become worse over time and were identified as the root of many bank failures, most notably the Farmers Bank disaster in 1910. The excess circulation clause, which added some flexibility to the management of the money supply, was another notable reform. After mid-1890, the economy grew to the point that banknote issuance exceeded the maximum set by the Bank Act of 1871, which was equal to paid-up capital plus reserves. A scarcity of money resulted from the banks' failure to expand their capital and, therefore, their ability to issue notes. The Bank Act of 1913 permitted the issuance of banknotes in excess of a bank's paid-up capital plus reserves in order to increase the money supply in accordance with the development of economic activity [3].

## **Finance Act, 1914**

World War I seemed inevitable towards the end of July 1914, little than a year after the Bank Act was revised in 1913. The immediate issue was to maintain the stability and liquidity of the financial system since Canada's existing banking laws looked to be insufficient. The banks and the government were worried about their capacity to convert money into gold on demand since their gold reserves were a tiny portion of their overall monetary obligations, and panic had set in as depositors converted their money into gold for hoarding. Due to these changes, the government prohibited the ability of Dominion notes and banknotes to be converted into gold on August 3, 1914, putting an end to the gold standard that had been established more than 40 years earlier in 1870. The gold standard was reinstated in 1926 but suspended once again in 1929 when the globe experienced the Great Depression.

The Finance Act of 1914 was a significant piece of legislation that was altered when the gold standard was suspended. The Finance Act allowed the Department of Finance to act as a lender of last resort, that is, to provide Dominion notes to banks (on the pledge of approved securities) when no one else would, preventing bank and financial panics. This was modelled after the episode of 1907, during which banks could obtain cash reserves from the Department of Finance to prevent bank runs (which were sparked by bank failures in the United States). The additional freedom in managing the money supply that the Bank of Canada offered in 1935 was anticipated by the Finance Act.

## **Shadow Banking System Growth and Financial Innovation**

The conventional banking industry of issuing loans backed by deposits has been declining in recent years, despite the fact that banks remain the most significant financial entities in the Canadian economy. The shadow banking system, which substitutes lending via the securities markets for bank lending, has displaced some of this industry. We must first comprehend the process of financial innovation, which has revolutionized the whole financial system, in order to comprehend how the banking sector has changed through time. The financial sector, like other sectors, is in business to make money by selling its goods. A soap manufacturer will create a product to fill a market need if it notices that there is a demand for laundry detergent that also has fabric softener. Financial institutions create new products to meet both their own requirements and those of their customers in order to maximize their profits; in other words, innovation, which has the potential to be very helpful to the economy, is motivated by the desire to become (or stay) wealthy. This perspective on the innovation process results in the straightforward analysis below: Financial institutions will look for innovations that are likely to be lucrative in response to changes in the financial climate [4]–[6].

Beginning in the 1960s, people and financial institutions who operate in the financial markets had to deal with significant changes in the economic environment: interest rates and inflation rose significantly and were more unpredictable, changing the demand conditions in the financial markets. The rapid development of computer technology altered supply dynamics. Financial restrictions also become more onerous. The financial services and products that financial institutions had been giving to the public were not selling, and many of the traditional business models were no longer lucrative. Many financial intermediaries discovered that they could no longer raise money using their conventional financial instruments, and that without this money they would soon go out of business.

Financial institutions had to do research and design new goods and services that would satisfy client wants and prove lucrative in order to thrive in the new economic climate. This process is known as financial engineering. In this instance, invention was born out of need. According to our analysis of the causes of financial innovation, there are three main

categories of it: reactions to shifting supply and demand factors, avoidance of laws, and responses to shifting demand conditions. These three factors often combine to produce specific financial breakthroughs. Let's look at some instances of how financial institutions have developed the three fundamental categories of financial innovations in their pursuit of profits now that we have a framework for understanding why financial organizations produce innovations.

### **Responses to Variations in Demand: Interest Rate Volatility**

The enormous rise in interest rate volatility in recent years has been the most important economic environment shift that has affected consumer demand for financial goods. Three-month Treasury bill interest rates varied between 1.0% and 5.5% in the 1950s, between 3% and 14% in the 1970s, and between 7% and over 20% in the 1980s. Significant capital gains or losses and increased uncertainty about investment returns are caused by interest rate changes that are large. Remember that excessive interest rate volatility, like what we witnessed in the 1970s and 1980s, increases interest rate risk. Interest rate risk is connected to the uncertainty about interest-rate movements and returns. The demand for financial goods and services that may lower interest-rate risk should rise as a result of the increased risk. Thus, this alteration in the economic climate would encourage financial institutions to look for lucrative innovations that satisfy this new need and would encourage the development of new financial products that aid in reducing interest-rate risk. This forecast is supported by two financial breakthroughs that emerged in the 1970s: the emergence of financial derivatives and adjustable-rate mortgages.

### **Adaptations to Alterations in Supply Conditions: Information Technology**

The advancement of computer and telecommunications technology has been the most significant contributor to the changes in supply circumstances that spur financial innovation. There are two impacts of this technology, known as information technology. As a result, financial institutions may now profitably develop new financial goods and services for the general public. First, it has reduced the cost of processing financial transactions. It has also made it simpler for investors to get information, which makes it simpler for businesses to issue shares. We evaluate some new financial goods and services that have emerged as a consequence of the quick advancements in information technology.

### **Bank Credit and Debit Cards**

Credit cards were first used a long time ago, even before World War II. By providing clients with credit cards that enabled them to make purchases at these businesses without using cash, several distinct retailers (such as Sears, Eaton's, and the Bay) developed charge accounts. In order to be used at restaurants, Diners Club created the first nationwide credit card following World War II. American Express and Carte Blanche also launched similar credit card programs, but due to the exorbitant expense of running them, only a restricted group of people and companies who could afford pricey transactions were given cards. A company that issues credit cards generates money by lending money to credit card users and by collecting payments from merchants for credit card transactions (a portion of the purchase price, say 5%).

Loan defaults, card theft, and the cost of processing credit card transactions are the main causes of a credit card program's charges. Bankers sought a piece of the lucrative credit card industry after learning about the success of Diners Club, American Express, and Carte Blanche. In the 1950s, some chartered banks sought to spread the credit card industry to a larger market, but their first efforts were unsuccessful due to the high cost per transaction of

operating these programs. Late in the 1960s, advances in computer technology increased the likelihood that bank credit card programs would be financially successful by reducing the transaction costs associated with offering credit card services. A second attempt by the banks to join this market resulted in the development of two successful bank credit card programs: Visa and MasterCard. More over 200 million of the cards issued by these programs are now in use, demonstrating their extraordinary success.

Bank credit cards have been so successful, in fact, that non-financial companies like Walmart, General Motors, and Sears which introduced the Discover card—have also gotten into the credit card market. Credit cards have helped customers since they are more often accepted for payment than checks (especially overseas) and make it simpler for them to get loans. Banks developed debit cards as a new financial innovation as a result of the popularity of bank credit cards. Debit cards often resemble credit cards in appearance and function and may be used in a similar way. A debit card purchase is instantly debited from the cardholder's bank account, in contrast to credit cards, which provide the buyer a loan that is not immediately due. Since debit cards' revenues are completely derived from the fees paid by merchants on debit card purchases made at their establishments, they are much more dependent on cheap transaction processing costs. In recent years, debit cards have gained popularity [7]–[10].

### **Electronic Banking**

By allowing consumers to communicate with electronic banking (e-banking) facilities instead of with human employees, banks are now able to reduce the cost of bank transactions. The cash machine (ATM), an electronic device that enables users to get cash, make deposits, move money between accounts and check balances, is one significant kind of e-banking service. The ATM has the benefit of not requiring overtime pay and operating around-the-clock, making it accessible for usage. This not only results in less expensive transactions for the bank, but it also offers clients additional convenience. Because they are inexpensive, ATMs may be placed outside of banks or their branches, further enhancing client convenience. Due of their cheap cost, ATMs have proliferated all around. Additionally, getting cash from an ATM when travelling in Europe is now just as simple as getting it from your home bank. Home banking was another financial innovation created by banks in response to the decline in telecommunications costs. Banks may now afford to build up an electronic banking facility where customers can conduct transactions over the phone or on a personal computer by connecting to the bank's computer.

Customers of banks may now do various financial transactions from the convenience of their homes. Clients benefit from the ease of home banking, while banks see that the cost of transactions is much lower than when clients visit the bank. A significant innovation in home banking has been the emergence of the virtual bank, a bank that has no physical location but instead operates entirely online, thanks to the fall in the price of personal computers and their rising use in homes.

The first virtual bank was founded in 1995 and is now owned by Royal Bank of Canada. Security First Network Bank offered a variety of banking services online, including accepting deposits into checking and savings accounts, selling certificates of deposit, issuing ATM cards, offering bill-paying services, and more. By allowing users to access a complete range of financial services at home around-the-clock, the virtual bank advances home banking. The virtual banking industry was first entered by Bank of America and Wells Fargo in 1996, and many other financial institutions soon followed. Today, Bank of America is the biggest Internet bank in the United States.



## CONCLUSION

The historical evolution of the Canadian banking system is proof that market forces, technical developments, and government interventions all work together to create a stable and resilient financial system. One of the strongest and safest financial systems in the world, the system places a strong emphasis on stability, prudence, and innovation. The success and longevity of the Canadian banking system nevertheless depend on continual vigilance, flexibility to changing market conditions, and efficient risk management. The historic development of the Canadian banking system reflects a commitment to stability, prudence, and customer-centric services. The system's evolution has been guided by robust regulatory frameworks, risk management practices, and a focus on societal well-being. The Canadian banking system stands as a pillar of strength and a catalyst for economic growth, and its continued development will contribute to the prosperity and stability of the Canadian economy for years to come.

## REFERENCES

- [1] S. D. Williamson, "Current federal reserve policy under the lens of economic history: A review essay," *Journal of Economic Literature*. 2016. doi: 10.1257/jel.20151354.
- [2] J. P. Warburg, "American Banks And American Foreign Trade," *Harv. Bus. Rev.*, 1924.
- [3] A. Nathan and E. H. Neave, "Operating efficiency of Canadian banks," *J. Financ. Serv. Res.*, 1992, doi: 10.1007/BF01047084.
- [4] M. Korol, "Dynamics Of Main Indicators Of The Canadian Banking System," *Balt. J. Econ. Stud.*, 2020, doi: 10.30525/2256-0742/2020-6-3-136-142.
- [5] F. Li and Bank of Canada, "Testing for Financial Contagion with Applications to the Canadian Banking System," *Forbes*, 2009.
- [6] R. J. McKeown, "An Overview of the Canadian Banking System□: 1996 to 2015," *Queen's Univ. Work. Pap.*, 2016.
- [7] A. Guidara, V. S. Lai, I. Soumaré, and F. T. Tchana, "Banks' capital buffer, risk and performance in the Canadian banking system: Impact of business cycles and regulatory changes," *J. Bank. Financ.*, 2013, doi: 10.1016/j.jbankfin.2013.05.012.
- [8] W. E. McLaughlin, "The Canadian banking system," *Int. Exec.*, 1959, doi: 10.1002/tie.5060010213.
- [9] O. Borgogno, "Why is the canadian banking system more resilient than the U.S. system? a lesson for european competition policy," *Oss. del Dirit. Civ. e Commer.*, 2017, doi: 10.4478/87394.
- [10] M. D. Bordo, A. Redish, and H. Rockoff, "Why didn't Canada have a banking crisis in 2008 (or in 1930, or 1907, or...)?," *Econ. Hist. Rev.*, 2015, doi: 10.1111/1468-0289.665.



## CHAPTER 10

### AVOIDANCE OF CURRENT REGULATIONS: A REVIEW STUDY

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#### **ABSTRACT:**

The avoidance of current regulations refers to the intentional actions taken by individuals, businesses, or entities to circumvent or bypass existing regulatory frameworks. This study explores the concept of regulatory avoidance, examining its motivations, methods, and implications across various industries and jurisdictions. Regulatory avoidance can arise from a range of motives, including the desire to minimize compliance costs, exploit regulatory loopholes, gain competitive advantages, or engage in illicit activities. It often involves navigating legal boundaries or engaging in practices that exploit ambiguities in regulations to achieve desired outcomes while evading the intended regulatory intent. Regulators, politicians, and market actors confront difficult issues as a result of the avoidance of present restrictions, often known as regulatory arbitrage or regulatory evasion. In this essay, we examine the phenomena of regulatory evasion, its root causes, and its effects on the financial markets and the overall economy. This article highlights the necessity for efficient regulatory monitoring, regulatory harmonization, and international collaboration to solve this enduring problem by evaluating numerous techniques used by businesses to avoid or abuse regulatory frameworks.

#### **KEYWORDS:**

Financial Markets, Regulation, Regulatory Arbitrage, Regulatory Avoidance, Regulatory Oversight.

#### **INTRODUCTION**

The phenomena of rules being avoided, commonly referred to as regulatory arbitrage or regulatory evasion, has received a lot of attention in the area of financial regulation. It describes the intentional efforts made by organisations, such financial institutions or businesses, to go around or take advantage of current regulatory systems for their own benefit. This practise often entails looking for loopholes, jumping between jurisdictions, or using complicated financial arrangements to get around regulations or gain an edge over rivals.

Regulators, policymakers, and the stability of financial markets are all faced with difficulties as a result of people avoiding present restrictions. It lessens the impact of legislative initiatives intended to advance investor protection, fairness, and openness. It may result in an uneven playing field for market players, stifle competitiveness, and produce systemic risks with potentially serious repercussions. Regulatory avoidance has a variety of causes. Entities may try to reduce the costs and burdens of regulations, maximise revenues via regulatory arbitrage, or take advantage of regulatory loopholes for their own gain. The regulatory environment has become more complex as a result of technological development and globalisation, which has given companies more chances to operate internationally and use sophisticated financial tools to circumvent rules. It is necessary to take a holistic strategy that includes regulatory monitoring, global collaboration, and policy changes to address the

problem of regulatory evasion. To stop organisations from engaging in regulatory arbitrage, regulators must strengthen their monitoring and enforcement capacities, reduce regulatory gaps, and advance regulatory harmonization [1]–[3].

To combat cross-border regulatory evasion, it is also crucial to foster openness, information exchange, and collaboration among regulatory bodies on a global scale. Maintaining the integrity and stability of financial markets requires strengthening regulatory frameworks and standards, as well as making sure there are enough resources and knowledge for efficient supervision. It looks at various evasion techniques used by organisations, assesses the effects on market dynamics and financial stability, and explores legislative and policy changes to reduce the dangers brought on by regulatory avoidance. Regulators and policymakers may create more strong and effective regulatory frameworks that support market integrity, fairness, and stability by comprehending the intricacies and ramifications of regulatory evasion. The process of financial innovation that we have so far described is quite similar to innovation in other sectors of the economy in that it happens in reaction to changes in the circumstances of supply and demand. Government regulation is, however, a considerably stronger catalyst for innovation in the financial sector since it is more extensively regulated than other sectors. Government regulation encourages businesses to avoid rules that limit their capacity to make a profit, which fosters financial innovation. Loophole mining is the term used by Boston College economist Edward Kane to describe this method of evading rules.

According to the economic study of innovation, innovation and loophole mining are more likely to occur when the economic climate shifts to the point where regulatory restrictions become so onerous that significant profits may be gained by dodging them. Banking is one of the businesses with the most regulations, therefore loophole mining is particularly prone to happen. Financial innovation resulted from the regulatory restrictions placed on this business being rendered more onerous by the increase in inflation and interest rates between the late 1960s and 1980. The capacity of American banks to turn a profit has been severely hampered by two sets of regulations: reserve requirements that compel banks to hold a certain percentage of their deposits as reserves (deposits in the Federal Reserve System) and limitations on the interest rates that may be applied on deposits. These restrictions have been important driving factors behind financial innovation for the following reasons.

### **Requirements for reserves**

Recognising that reserve requirements in fact served as a levy on deposits is essential to comprehending why financial innovation resulted from them. The money that a bank might have otherwise earned by lending the reserves out was the opportunity cost of having reserves since, up until 2008, the Fed did not pay interest on reserves. Typically, the interest rate is the bank rate minus 50 basis points. For Canadian banks, there is still an opportunity cost, but it is not as great as when the central bank does not pay interest on bank reserves. Avoiding taxes is a great tradition, and banks engage in it as well. Banks attempt to boost their profits by exploiting loopholes and creating financial innovations that enable them to avoid the tax on deposits imposed by reserve requirements, just as people search for ways to reduce their tax obligations.

### **Limitations on deposit interest rates**

Although deposit rate caps have never applied to Canadian banks, after 1933 U.S. banks were not allowed to provide interest on chequing accounts. Additionally, Regulation Q gave the U.S. Federal Reserve System the authority to cap the interest rates that banks may provide on time deposits until 1986. Banks are still prohibited from charging interest on business

chequing accounts. Financial innovations were also prompted by the need to evade these deposit rate limits.

Depositors withdrew money from banks in order to invest it in assets with greater yields if market interest rates increased beyond the maximum rates that banks were required to provide on time deposits under Regulation Q. By limiting the amount of money that banks could lend (a process known as disintermediation), this loss of deposits from the banking system constrained bank earnings. In order to increase their ability to issue loans and increase their profits, banks had an incentive to circumvent deposit rate limitations.

## **DISCUSSION**

### **Market for Commercial Paper**

In case you forgot, commercial paper is a kind of short-term debt asset that is issued by large banks and businesses. Since 1970, the commercial paper market has had remarkable expansion, making it one of the money market instruments with the quickest growth. The quick expansion of the commercial paper sector is explained in part by advances in information technology. We've seen how advances in information technology have made it simpler for investors to distinguish between credit risks with excellent and poor scores, making it simpler for businesses to issue debt instruments. This not only made it simpler for businesses to issue long-term debt instruments like those found in the junk bond market, but it also made it simpler for them to generate money by issuing short-term debt securities like commercial paper. Instead of borrowing short-term cash from banks as they formerly did, many firms today commonly raise them via the commercial paper market. Another aspect of the market for commercial paper's explosive expansion has been the emergence of money market mutual funds. The expansion of assets in these funds has generated a ready market in commercial paper since money market mutual funds are required to hold liquid, high-quality, short-term assets like commercial paper. This market has grown as a result of the expansion of pension and other sizable funds that invest in commercial paper [4]–[6].

### **Securitization**

Securitization, one of the most significant financial innovations of the past 20 years, is an important example of a financial innovation that resulted from advancements in both transactional and information technology. Securitization was particularly influential in the growth of the subprime mortgage market in the mid-2000s. The process of turning financial assets (such as home mortgages), which have historically been the mainstay of banking institutions, into tradable capital market instruments is known as securitization. As we've seen, advances in information gathering capabilities have made it simpler to sell marketable capital market products.

Financial institutions also discover that they can efficiently group together a portfolio of loans (like mortgages) with varying small denominations (often less than \$100,000), collect the interest and principal payments on the mortgages in the bundle, and then pass them through (pay them out) to third parties thanks to low transaction costs brought on by advancements in computer technology. The financial institution may then offer the claims to these interest and principal payments to other parties as securities by splitting the portfolio of loans into standardised quantities. These securitized loans are liquid assets due to the standardised quantities, and the fact that they are composed of a bundle of loans reduces risk via diversification, making them appealing. By servicing the loans (collecting interest and principal payments and disbursing them) and billing the third party for this service, the financial institution selling the securitized loans generates a profit.

## **Mutual Funds for the Money Market**

Shares from money market mutual funds are redeemable for a certain amount, often \$1. For instance, if you invest \$5,000 in 5000 shares, the money market fund would use that money to acquire short-term money market instruments (such as Treasury bills, CDs, and commercial paper) that will pay you interest. Money market fund shares are practically interest-bearing deposits, but because they are not really deposits, the CDIC does not cover them. Money market mutual funds in the US also provide chequing rights, essentially serving as deposits to chequing accounts. Because of this, since their introduction in 1971, money market mutual funds have seen unprecedented development in that nation. Their assets are now somewhere about \$3 trillion USD. Deposit-taking banking institutions (all around the globe) run the danger of losing a low-cost source of money if clients switch to mutual funds. Bruce Bent and Henry Brown, two outlaws of Wall Street, founded the first money market mutual fund in 1970. Ironically enough, during the 2008 subprime financial crisis, a money market mutual fund formed by Bruce Brent almost took down the whole money market mutual fund sector in the United States with hazardous bets.

### **Bruce Bent and the 2008 Money Market Mutual Fund Crash**

During the subprime financial crisis in the autumn of 2008, Bruce Bent, one of the pioneers of money market mutual funds, came dangerously close to bringing the sector to its knees. In a letter to his shareholders dated July 2008, Mr. Bent said that the fund was run with strict discipline that was focused on safeguarding your capital. Additionally, he contacted the U.S. Securities and Exchange Commission in September 2007 stating that the money market fund was founded in 1970 with the principles of safety and liquidity in mind. He continued by saying that these standards had been abandoned as portfolio managers sought the maximum income at the expense of the money fund's integrity. Unfortunately, he disregarded his own counsel and his fund, the Reserve Primary Fund, invested in riskier assets to boost its yield above the industry standard. The Reserve Primary Fund, which has assets worth over \$60 billion, was left holding the bag when Lehman Brothers declared bankruptcy on September 15, 2008, owing \$785 million in debt that had to be written down to zero.

Due to the consequent losses, Bents Fund was forced to "break the buck" on September 16 and could no longer afford to redeem its shares at their \$1 par value. Investor withdrawals by Bent's stockholders caused the fund to lose 90% of its assets. Investors withdrew their money at an alarming pace in a typical panic about the possibility that this may also happen to other money market mutual funds. The whole money market mutual fund sector seemed to be on the verge of collapse. On September 19, 2008, the Federal Reserve and the U.S. Treasury intervened to stop this. In order for money market mutual funds to satisfy investor requests for redemptions, the Fed established a facility to provide loans for the purchase of commercial paper from such funds. The panic calmed once the U.S. Treasury offered a temporary guarantee for all redemptions from money market mutual funds. It is hardly unexpected that there are proposals for tighter regulation of the money market mutual fund sector given the extending of a government safety net to this sector. The mutual fund business for money markets will never be the same.

### **Sweep Accounts**

The sweep account is another invention that allows banks to pay interest on business chequing accounts. In this kind of arrangement, any chequing account balances that are higher than a specific threshold at the end of a working day is swept out of the account and invested in interest-bearing overnight securities. Furthermore, as the swept away monies are no longer regarded as cheatable deposits in banking systems with reserve requirements, they

are not subject to reserve requirements and are not taxed. Sweep accounts have grown so common in recent years that most financial institutions do not even have to adhere to reserve limits. Sweep accounts and money market mutual funds are especially intriguing financial innovations since they were sparked by a shift in supply circumstances, in this instance information technology, as well as by the need to avoid an expensive regulation. These advances would not have been lucrative and hence would not have been created without affordable computers to perform the extra transactions needed by them. Innovation often results from the interaction of technological variables with other motivations, such as the desire to circumvent a law.

### **Financial Innovation and Traditional Banking's Decline**

Making long-term loans and funding them with short-term deposits have traditionally been the roles of banks in financial intermediation, a process of asset transformation known as borrowing short and lending long. Here, we look at how financial innovations have made the banking sector more competitive, leading to a significant shift in the sector and the collapse of its conventional banking operations. Our financial system no longer places as much emphasis on the conventional financial intermediation function of banking, in which banks make loans backed by deposits. Although banks' market share in total lending and total assets held by financial intermediaries has decreased, this does not necessarily mean that the banking sector is in decline. There is no proof that bank profits is on the decline.

However, since it includes a rising percentage of revenue from non-conventional off-balance-sheet operations, total bank profitability is not a reliable measure of the profitability of traditional banking. As a percentage of overall banking revenue, noninterest income from off-balance-sheet operations has climbed from around 7% in 1980 to almost 30% in the present. The growth in revenue from off-balance-sheet operations suggests that the profitability of conventional banking activity has decreased given that banks' total profitability has not increased. The decrease in profitability subsequently explains why banks have been scaling down on their core activities. We need to look at how the financial innovations previously mentioned have caused banks to suffer declines in their cost advantages in acquiring funds, that is, on the liabilities side of their balance sheet, while at the same time they have lost income advantages on the assets side of their balance sheet, in order to understand why traditional banking has shrunk in size. Traditional banking is no longer as successful as it once was, and banks are making efforts to exit this sector and move into other, more lucrative ones. This is due to the concurrent fall of cost and revenue advantages [7]–[10].

### **Reduction in Cost Perks for Getting Funds (Liabilities)**

Banks offered low interest rates on chequable deposits up to 1980. Chequable deposits were the banks' main source of funding, therefore this was to their benefit. Unfortunately, banks lost this cost advantage quickly. Since the late 1960s, there has been an increase in inflation, which has resulted in higher interest rates. This has made investors more sensitive to yield differences across various assets.

The end effect was the disintermediation process, in which consumers started moving their money away from banks and into investments with greater yields due to banks' low interest rates on both chequable and time deposits. As we've seen, at the same time, financial innovation gave rise to money market mutual funds, which gave depositors access to deposit-like services while earning high interest on their money market mutual fund accounts, further disadvantaging the banks. One effect of these modifications to the financial system was a sharp reduction in the significance of low-cost sources of funding for banks.



### **Reduction in Income Advantages on Fund (Asset) Use**

One factor contributing to Canadian banks' decreased competitiveness is the loss of cost advantages on the liabilities side of the balance sheet, but they have also suffered from a decline in income advantages on the assets side as a result of the financial innovations we discussed earlier, including securitization, the rise of the commercial paper market, and junk bonds. Due to the consequent loss of revenue advantages for banks compared to these developments, market share has been lost, and a shadow banking system that uses these technologies to allow borrowers to avoid the regular banking system has grown. As we've seen, advances in information technology have made it simpler for businesses to offer securities to the general public. As a result, many of the banks' greatest corporate clients now find it more affordable to get cash from the commercial paper market as opposed to the banks for their short-term credit requirements. Additionally, the growth of the junk bond market has hurt banks' ability to lend money.

Bypassing banks, firms may now offer their bonds to the public directly because to advancements in information technology. Even while well-established businesses began adopting this method in the 1970s, now that they have access to the junk bond market, lower-quality corporate borrowers are using banks less often. We have also seen how advances in computer technology have paved the way for securitization, the conversion of illiquid financial assets like mortgages and bank loans into tradable securities. Other financial organisations can now correctly assess credit risk using statistical techniques thanks to computers, and because computers have reduced transaction costs, it is now viable to package these loans and offer them as securities. Banks no longer have an edge when issuing loans because default risk can be quickly assessed by computers. Despite participating in the securitization process itself, banks have lost loan business to other financial organisations as a result of losing their earlier advantages.

### **Banks' Actions**

Canadian banks have pursued new, more lucrative off-balance-sheet endeavours in an effort to retain their prior profit levels. In essence, they now support the shadow financial system. However, this tactic has raised questions regarding the appropriate actions for banks. Because non-traditional bank operations might be riskier, banks may take on too much risk. Indeed, they contributed significantly to the subprime financial crisis's deterioration of bank balance sheets. As a result of the collapse of banks' core operations, the banking sector has been forced to look for new business opportunities. This might be advantageous since banks can maintain their vitality and health in this way. Up until 2007, bank profitability was robust, and non-traditional, off-balance-sheet operations were a significant contributor to those high earnings. Regulators must now be more watchful since the new banking trends have encouraged risk-taking and contributed to the demise of conventional banks.

### **Traditional Banking Declines in Other Industrialized Countries**

Other industrialized nations have seen a drop in conventional banking due to comparable forces to those in Canada and the US. Other countries outside Canada and the United States have also seen the loss of banks' monopolistic control over depositors. Global financial innovation and deregulation have produced enticing options for both borrowers and savers. Deregulation in Japan led to the public's access to a broad range of new financial products, resulting in a disintermediation process akin to that in Canada and the US. Innovations have gradually weakened the barriers that have historically shielded banks from competition in European nations. In other nations, the development of the shadow banking system and the expansion of the securities markets have led to increasing competition for banks. It is now



simpler and less expensive for businesses to finance their operations by issuing securities rather than turning to banks as a result of financial deregulation as well as basic economic processes at work in other nations.

Additionally, banks have lost loan business even in nations with stagnant securities markets since their top corporate clients now have greater access to offshore and international capital markets, such as the Eurobond market. Banks have lost loan business to foreign securities markets in smaller economies like Australia, which still do not have well-developed corporate bond or commercial paper markets. Additionally, the same dynamics that pushed the securitization process in Canada and the US were also at play in other nations, undermining conventional banking's profitability there as well. Canadian and American banks are not the only ones that experience a more challenging competitive climate. The same reasons have led to a fall in conventional banking in other nations even if it started sooner in North America than everywhere else.

### **The Canadian Chartered Banking Industry's Structure**

In Canada, there were 73 banks as of January 2009, with more than 8000 locations and more than 257 000 workers. However, more than 90% of the assets in the sector are collectively held by the six biggest chartered banks in Canada: the Royal Bank of Canada, Canadian Imperial Bank of Commerce (CIBC), Bank of Montreal, Scotiabank, TD Canada Trust, and the National Bank of Canada. The Big Six, the Canadian Western Bank, the Laurentian Bank of Canada, and another twelve domestic banks make up Canada's Schedule I banks. The other 53 banks fall into one of two categories: Schedule III banks (foreign bank branches of qualified foreign institutions) or Schedule II banks (foreign bank subsidiaries owned by eligible foreign institutions). There was no difference between Schedule I and Schedule II banks before to 1981, and foreign banks were not permitted to do business in Canada.

The 1981 amendments to the Bank Act aimed to increase competition in the country's financial services sector. Canadian domestic banks were designated as Schedule I banks, while overseas bank subsidiaries were designated as Schedule II banks. Schedule I and Schedule II banks have the same authority; the only difference is the permissible ownership structure. In instance, under the existing ownership policy, no person may possess more than 10% of any class of shares in any Schedule I bank. However, schedule II banks are an exception to this rule, although a modest one. There are really three types of exceptions. First, publicly traded foreign banks are allowed to hold 100 percent of a Canadian bank affiliate. The third exception was added in the 1992 revision of the Bank Act and allows any widely held and regulated Canadian financial institution, other than a bank, to own 100% of a bank.

The second exception is that a Schedule II bank may have a significant shareholder (more than 10%) for up to ten years after chartering as a transition measure to becoming a Schedule I bank. The generally accepted ownership criterion for Schedule I banks also applies to major Schedule II banks (those with more than \$5 billion in equity capital). The Schedule III bank. A Schedule II bank is a Canadian subsidiary of a foreign bank, while a Schedule III bank is a foreign bank that is permitted to open a direct branch in Canada subject to specific conditions.

### **CONCLUSION**

In the financial markets, avoiding existing restrictions is a difficult and ongoing issue. To properly solve this problem, regulators, policymakers, and market players must work together in a comprehensive manner. We can improve the integrity, stability, and fairness of financial markets, protecting investors' interests and the interests of the larger economy, by tightening

regulatory monitoring, harmonizing legislation, and encouraging international collaboration. The avoidance of current regulations presents a significant challenge to regulatory frameworks and the broader governance of industries and markets. This overview has shed light on the motivations, methods, and implications associated with regulatory avoidance. The author explored the diverse motivations that drive individuals and entities to avoid regulations, including the desire to minimize costs, exploit loopholes, gain competitive advantages, or engage in illicit activities. Such avoidance often involves complex strategies, legal maneuvering, and exploiting gaps or ambiguities in regulatory frameworks. The methods employed for regulatory avoidance vary across industries and jurisdictions, ranging from intricate corporate structures and offshore havens to innovative use of technology and regulatory arbitrage. These methods pose challenges for regulators, who must remain vigilant and adaptive in monitoring and enforcing compliance.

## REFERENCES

- [1] E. Visted, J. Vøllestad, M. B. Nielsen, and E. Schanche, “Emotion regulation in current and remitted depression: A systematic review and meta-analysis,” *Frontiers in Psychology*. 2018. doi: 10.3389/fpsyg.2018.00756.
- [2] K. A. Franklin and G. C. Whitelam, “Phytochromes and shade-avoidance responses in plants,” *Annals of Botany*. 2005. doi: 10.1093/aob/mci165.
- [3] K. De Castella, M. J. Platow, M. Tamir, and J. J. Gross, “Beliefs about emotion: implications for avoidance-based emotion regulation and psychological health,” *Cogn. Emot.*, 2018, doi: 10.1080/02699931.2017.1353485.
- [4] R. S. Prakash, P. Whitmoyer, A. Aldao, and B. Schirda, “Mindfulness and emotion regulation in older and young adults,” *Aging Ment. Heal.*, 2017, doi: 10.1080/13607863.2015.1100158.
- [5] S. C. Hong, “Presumed effects of ‘fake news’ on the global warming discussion in a cross-cultural context,” *Sustain.*, 2020, doi: 10.3390/su12052123.
- [6] K. Golombek, L. Lidle, B. Tuschen-Caffier, J. Schmitz, and V. Vierrath, “The role of emotion regulation in socially anxious children and adolescents: a systematic review,” *European Child and Adolescent Psychiatry*. 2020. doi: 10.1007/s00787-019-01359-9.
- [7] M. A. Gruhn and B. E. Compas, “Effects of maltreatment on coping and emotion regulation in childhood and adolescence: A meta-analytic review,” *Child Abuse and Neglect*. 2020. doi: 10.1016/j.chiabu.2020.104446.
- [8] D. Zilberman, T. G. Holland, and I. Trilnick, “Agricultural GMOs-What we know and where scientists disagree,” *Sustainability (Switzerland)*. 2018. doi: 10.3390/su10051514.
- [9] H. A. O’Mahen, A. Karl, N. Moberly, and G. Fedock, “The association between childhood maltreatment and emotion regulation: Two different mechanisms contributing to depression?,” *J. Affect. Disord.*, 2015, doi: 10.1016/j.jad.2014.11.028.
- [10] L. Fernández de la Cruz *et al.*, “Experiential avoidance and emotion regulation difficulties in hoarding disorder,” *J. Anxiety Disord.*, 2013, doi: 10.1016/j.janxdis.2013.01.004.

## CHAPTER 11

### AN ANALYSIS OF AMERICAN BRANCHING RESTRICTIONS

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#### **ABSTRACT:**

The adaptation to American branching restrictions refers to the strategies and adjustments made by financial institutions in response to regulations that restrict the geographical expansion and consolidation of banking operations in the United States. This study explores the implications of branching restrictions, the methods employed to adapt to these regulations, and the potential effects on the banking industry. Branching restrictions in the United States aim to maintain competition, prevent concentration of financial power, and protect consumers by limiting the ability of banks to expand across state lines or engage in certain activities. These restrictions stem from laws such as the Bank Holding Company Act of 1956 and the McFadden Act of 1927. Regulators, politicians, and market actors confront difficult issues as a result of the avoidance of present restrictions, often known as regulatory arbitrage or regulatory evasion. In this study, we examine the phenomena of regulatory evasion, its root causes, and its effects on the financial markets and the overall economy. This study highlights the necessity for efficient regulatory monitoring, regulatory harmonization, and international collaboration to solve this enduring problem by evaluating numerous techniques used by businesses to avoid or abuse regulatory frameworks.

#### **KEYWORDS:**

Adaptation, Financial Markets, Regulatory Arbitrage, Regulatory Avoidance, Regulatory Oversight.

#### **INTRODUCTION**

Regulation evasion, often referred to as regulatory arbitrage, has grown to be a serious problem in the area of financial regulation. It describes the intentional steps taken by people, businesses, or financial institutions to go around or abuse current restrictions in order to benefit or lessen regulatory constraints. This method might include using complicated structures, jurisdictional shopping, or regulatory loopholes to get around compliance requirements. Regulators, politicians, and the integrity of financial markets face difficulties as a result of people avoiding present restrictions. Regulatory structures created to safeguard investors, uphold market fairness, and guarantee financial stability are less effective as a result. Entities may get unfair benefits, disrupt market competition, and create systemic hazards by evading restrictions, all of which might have serious repercussions [1]–[3]. Different factors drive regulatory evasion. Entities may aim to cut down on compliance-related expenses, benefit from regulatory loopholes, or take advantage of the complexity of the world's regulatory environments. Rapid technological development and globalization have made the regulatory environment even more complex, opening doors for organizations to operate internationally and use complex financial instruments for regulatory evasion.

An all-encompassing strategy that is well-coordinated is needed to address the problem of regulatory evasion. To stop organizations from engaging in regulatory arbitrage, regulators must improve their monitoring and enforcement skills, remove legal loopholes, and foster

global collaboration. To reduce the risks posed by regulatory evasion, it is crucial to have strong regulatory frameworks, effective enforcement methods, and ongoing regulatory effectiveness assessments. To combat cross-border regulatory evasion, regulatory agencies must enhance openness, information exchange, and coordination on both a national and international scale. Enhancing regulatory efficacy and minimizing chances for regulatory arbitrage may be accomplished by harmonizing regulatory standards and encouraging best practices.

It evaluates the effects on market dynamics and financial stability of the techniques used by companies to circumvent rules and considers regulatory solutions and policy changes to address regulatory avoidance. Regulators and policymakers may enhance regulatory frameworks, promote market integrity, and protect investors' interests and the stability of financial markets by being aware of the intricacies and ramifications of regulatory evasion. The fact that regulation may restrain competition without entirely eliminating it is a key characteristic of the American banking sector. Restrictive restrictions encourage financial innovations that work around them as banks seek to maximize earnings. The emergence of two financial innovations bank holding companies and automated teller machines was aided by regulations that restricted branching.

## **DISCUSSION**

### **Conflict and Technology**

In comparison to other nations, Canada has fewer banks, yet its financial services sector is one of the most vibrant and competitive. Over 4000 financial institutions, excluding chartered banks, provide financial services. Trust and mortgage lending firms, credit unions and caisses populaires, government savings institutions, insurance firms, pension funds, mutual funds, and investment brokers are some examples. A more inventive and competitive banking sector has emerged in Canada because to new technologies and the Internet. They have made it possible for new players to enter the Canadian financial services sector, increasing competition for the Big Six. Examples of virtual banks that provide a variety of financial services online include ING Canada, a Canadian banking affiliate of a significant Dutch banking and insurance conglomerate, and Citizen Bank, a division of Vancouver City Savings Credit Union. Aside from that, U.S. credit card companies like MBNA and Capital One Financial Corporation are now providing specialised credit card products in Canada, while Wells Fargo, one of the biggest banks in the U.S., offers loans to Canadian small businesses from the U.S [4]–[6].

In addition, the 2001 revisions to the legislation governing bank ownership promoted the opening of new banks. For instance, both Loblaw's and Canadian Tyre have formed banking subsidiaries (Canadian Tyre Bank and Presidents Choice Bank, respectively). Bank West was established by the Western Financial Group, a holding company for a network of insurance agents, while General Bank of Canada was started by the Wheaton Group, a network of auto dealerships. In addition, a sizable number of private sector rivals (such as General Motors Acceptance Corporation, Ford Credit, GE Capital Group, CIT Group, and Dell Financial Services) compete in Canada's financial services market and provide services and goods that are comparable to those provided by the country's banks, such as credit cards, residential and commercial mortgages, equipment leasing, and auto financing.

### **Analysis in Relation to the United States**

Although it is comparable to that of many other industrialized nations, the structure of the commercial banking sector in Canada is vastly different from that in the United States. The

number of commercial banks in the United States is around 7100, significantly higher than in any other nation in the world. Even though Japan's economy and population are just half as large as those of the United States, it has less than 100 commercial banks, a minuscule fraction of the number in the United States. As was previously said, Canada has 73 banks. Additionally, there are an unusually high number of tiny banks in the United States; 40% of its commercial banks have assets of less than \$100 million, while the 10 biggest banks in the country together control little over 50% of the sector's total assets. The abundance of commercial banks in the country is a result of previous rules that made it difficult for these financial institutions to establish new branches. As a consequence, many local banks continued to operate since a major bank that might have forced them out of business was often prevented from building a branch close by.

In fact, opening a branch for a U.S. bank in a foreign nation was often simpler than doing so in a different state inside the country! In actuality, the number of companies in the majority of American sectors is far lower than in the commercial banking sector. For instance, General Motors, Ford, Chrysler, Toyota, and Honda dominate the car business, while Microsoft rules the computer software sector. In the US, proponents of strong state branching limits made the case that by keeping so many banks open, the laws promote competition. However, rather than being a sign of fierce rivalry, the fact that there are so many banks in the United States is a sign of a lack of competition. Because there were no conveniently situated branches of other banks, inefficient banks could continue to operate.

### **Bank Holding Companies**

A firm that owns a number of different businesses is called a bank holding company. Due to the holding company's ability to possess a controlling stake in numerous banks even when branching is not allowed, this type of corporate ownership provides significant benefits for banks by enabling them to get around onerous branching laws. A bank holding company may also carry out other banking-related operations, such as offering investment advice, data processing and transmission services, leasing, credit card services, and loan servicing in other states. Over the last three decades, bank holding corporations in the US have seen significant expansion. Today, the majority of big banks are owned by bank holding corporations, and these institutions also own more than 90% of all commercial bank deposits.

### **Automated Teller Machines**

The automated teller machine (ATM) is another banking invention that got over branching constraints. Banks understood that the ATM would likely not be regarded as a branch of the bank and would not be subject to branching restrictions if they did not own or rent the ATM but instead allowed someone else to operate it and paid for each transaction with a charge. The regulatory bodies and courts in the majority of American states came to this identical conclusion.

Many of these shared facilities, like Cirrus and NYCE, have been constructed around the country because they allow banks to expand their markets. Additionally, even when an ATM is owned by a bank, states often have specific rules that permit a broader installation of ATMs than is allowed for conventional brick and mortar branches. The creation of the ATM wasn't only done to avoid regulation. Banks were able to provide ATMs at minimal cost due to the development of more affordable computer and telecommunications technologies, making them a successful invention. This example further demonstrates how technical variables and motivations, such as the desire to circumvent onerous rules like branching limitations, can combine to yield financial advances.



## **All Four Pillars of Competition**

The distinction between the banking business and other financial services sectors like securities, insurance, and real estate was another significant aspect of the organisation of the banking industry in Canada until very recently. Only four different categories of financial services—banking, brokerage, trusts, and insurance were recognised, and regulations were enforced to separate companies based on their primary financial function. The four-pillar method is a strategy for institutional regulation (as opposed to regulation by function). Because the four pillars were separated, licenced banks were not permitted to do business in the insurance or real estate industries. Thus, it shielded banks from competition by preventing investment banks and insurance firms from participating in commercial banking operations.

## **Convergence**

However, financial markets have recently become more accessible, and Canada's classic four-pillar structure has undergone changes. Despite the legal restrictions, the desire for profits and financial innovation propelled banks and other financial organisations to ignore the law's intended purpose and infringe on one another's customary domains. For instance, with the emergence of money market mutual funds and cash management accounts, brokerage companies began to participate in the conventional banking activity of providing deposit instruments, much as credit unions had traditionally provided insurance to its members.

It should come as no surprise that in response to these dynamics, the regulatory barriers between the banking and other financial services industries have been lowering. For instance, until the 1950s, laws restricted chartered banks from lending money for residential mortgages and only permitted them to offer loans for business reasons.

Only when the Bank Act was revised in 1967 were banks permitted to originate conventional residential mortgage loans, putting them in direct competition with trust and mortgage lending firms, credit unions, and caisses. The Bank Act was modified in the 1980s to permit domestic and international financial institutions to own up to 100% of securities businesses. The Bank Act was amended in the 1990s to permit cross-ownership between financial organisations through subsidiaries. For instance, chartered banks have the option to acquire independent investment dealers or develop their own capital-raising, brokerage, and other securities businesses. As a consequence, the Big Six currently control a roughly 70% share of the investment banking market via their investment brokerage businesses.

The old four pillars of financial services in Canada banking, brokerage, trusts, and insurance have now merged into a single financial services industry as a consequence of recent legal reforms. As outdated laws and procedures are repealed, comparable phenomena are now developing in the United States. The Gramm-Leach-Bliley Financial Services Modernization Act of 1999 abolished the Glass-Steagall separation of the banking and securities industries with the merger of Citicorp, the second-largest bank in the United States, and Travellers Group, an insurance company that also owned Salomon Smith Barney, the third-largest securities firm in the nation, in 1998. This made it possible for insurance companies and securities firms to acquire banks, and for banks to deal in securities, insurance, and real estate. It should come as no surprise that the emergence of the internet and advances in computer technology are another factor promoting bank consolidation. Due to the significant initial costs associated with setting up several information technology platforms for financial institutions, economies of scale have grown.

Banks had to grow in size in order to benefit from these economies of scale, and this trend prompted further consolidation. The capacity to leverage one resource to deliver a variety of



goods and services has increased thanks to information technology. For instance, information regarding a company's quality and trustworthiness may be helpful in deciding how much money to lend them as well as how much to value its stock at. Similar to this, after selling one financial product to an investor, you presumably know how to sell another [7]–[9]. People in the business world refer to economies of scope as synergies across various company sectors, and information technology is increasing the likelihood of these synergies. As a consequence, financial institutions are undergoing consolidation not just to grow in size but also to expand the range of goods and services they can provide. There have been two effects of this consolidation. First, many forms of financial intermediaries are infringing on one another's space and becoming increasingly similar. Second, as a result of consolidation, large, complex banking organizations (LCBOs) have emerged.

### **Implications for Financial Consolidation**

As we've seen, new legislation has encouraged banking sector consolidation. Future financial consolidation will go even more quickly since it is now possible to combine not only the number of banking institutions but also other financial service industries. Given that information technology is boosting economies of scope, bank mergers with other financial service companies, like Citicorp and Travelers in the United States, should become more prevalent, and additional mega-mergers are probably on the horizon. Taking part in the complete spectrum of financial service operations, banking institutions are growing both in size and complexity. The subprime financial crisis hastened the trend towards bigger and more sophisticated banking organisations.

Large, independent investment banks were destroyed by the subprime financial crisis. After Glass-Steagall was repealed, the trend towards integrating financial services into bigger, more complicated banking organisations seemed inevitable, but no one anticipated it to happen as quickly as it did in 2008. The five biggest independent investment banks in the United States all went out of business in their previous forms between March and September of 2008. The Federal Reserve had to bail out Bear Stearns, the fifth-largest investment bank, in March 2008 after it disclosed significant losses on investments in subprime mortgage securities. The price was a forced sale to J.P. Morgan for less than one-tenth of what it had been worth only a few months earlier. The Bear Stearns rescue made it very evident that investment banks were included in the government safety net. The trade-off is that, in the future, investment banks will be subject to additional regulation, similar to that which applies to commercial banks. Lehman Brothers, the fourth-largest investment bank, was the next to fall, and it filed for bankruptcy on September 15, 2008. The sale of Merrill Lynch to Bank of America for less than half of its price from a year earlier was disclosed only one day earlier. Merrill Lynch, the third-largest investment bank, also experienced significant losses on its holdings of subprime assets. The first- and second-largest investment banks, Goldman Sachs and Morgan Stanley, both of which had less exposure to subprime assets, still saw the impending doom within a week. They made the decision to become bank holding companies because they realised they would soon be subject to comparable regulations and were able to access insured deposits, a more reliable source of capital.

### **Separation of the Banking and Other Financial Services Industries Worldwide**

In the years after the Great Depression, few other nations imitated Canada and the US in separating the banking and other financial services sectors. In the past, the main distinction between banking regulation in Canada and the United States and regulation in other nations was indeed this division. There are three fundamental foundations for the banking and securities industry globally. The first framework, which is already in place in Germany, the

Netherlands, and Switzerland, is universal banking. It offers absolutely no distinction between the banking and securities sectors.

Commercial banks provide a broad range of banking, securities, real estate, and insurance services under a single legal organisation in a universal banking system. It is legal for banks to possess substantial stock stakes in business organisations, and often they do. The second framework is the British-style universal banking system, which is used in the United Kingdom and nations with strong links to it including Australia, Canada, and now the United States. The British-style universal bank engages in the underwriting of securities, but it differs from the German-style universal bank in three ways: separate legal subsidiaries are more frequent, bank equity holdings of business firms are less frequent, and combinations of banking and insurance firms are less frequent.

Similar to Japan, the third framework includes some legal separation between the banking and other financial services sectors. The ability of Japanese banks to own significant equity shares in commercial companies, as opposed to British-style universal banks, is a key distinction between the British and Japanese banking systems. Despite the formal separation of the banking and securities sectors in Japan under Section 65 of the Japanese Securities Act, commercial banks are increasingly permitted to participate in securities operations and are emulating universal banks in the UK.

### **The Near Banks: Structure and Regulation**

The Bank Acts have historically prohibited chartered banks from acting as corporate trustees or fiduciaries. In contrast to the scenario in the US, Canadian lawmakers believed that if deposit-taking financial organisations served as both banks and financial fiduciaries, there may be a conflict of interest. As a result, trust organisations that were focused on providing fiduciary services were founded starting in 1843 under a number of provincial and federal statutes. Trust firms manage estates, trusts, and agencies (i.e., assets that belong to someone else) for a fee and in accordance with rules outlined in a contract as financial fiduciaries. The trust sector's organisational structure has greatly evolved over time, and trust firms have developed strong ties to chartered banks. The trust businesses were given permission to serve as financial middlemen in the early 1900s. In this capacity, trust corporations borrow money by releasing deposit obligations, which they subsequently use to support loans and asset purchases. The Bank Acts have also made it possible for regulated federal financial institutions to own trust corporations, including domestic chartered banks and life insurance firms. Trust firms presently make up a very tiny market sector as a consequence of this and the Toronto Dominion Bank's 2000 purchase of Canada Trust, the biggest trust company in Canada.

### **Mortgage Loan Companies**

Mortgage lending firms expanded at the same time as trust companies did. Building societies in the United Kingdom in the early nineteenth century served as a model for mortgage lending firms by enabling its members to purchase land, construct houses or expand farms. The mortgage lending firms of today accept deposits and lend money largely for residential mortgages. Except for those who have a licence particularly for that function, they do not operate as trustees. The second pillar of Canada's conventional financial services sector was over time developed by mortgage lending firms and trust organisations. The competitive position of financial institutions has recently undergone substantial change as a result of innovation, competition, and regulatory changes. The federal government or one of the provincial governments may have given a charter to trust and mortgage loan businesses (TMLs).

The Office of the Superintendent of Financial Institutions (OSFI) in Canada regulates and oversees federally incorporated TMLs, which are governed by the federal Trust and Loan Companies Act. Additionally, they must register and abide by local laws in every province where they do business. Even though a trust firm may be federally organised, the fiduciary aspect of their operations is exclusively governed by provincial law. The CDIC offers deposit protection for TMLs outside of Quebec (up to \$100,000 per account). On conditions comparable to the CDIC's, the Quebec Deposit Insurance Board (QDIB) covers deposits for Quebec TMLs. Chequable and nonchequable savings deposits, term deposits, guaranteed investment certificates, and debentures make up the majority of the funding for trust and mortgage lending firms; collectively, they make up around 85% of the balance sheet. Residential mortgages and personal loans make up the majority of their risk asset portfolio; collectively, they represent around 60% of assets. Short-term paper and Canadian bonds make up the majority of the low-risk investments.

Credit Unions and Caisses Populaires are examples of cooperative banks. Small lending organisations known as cooperative banks are built around a specific group of people who have a similar tie, such as union members or workers of a certain company. The first cooperative bank in Canada was established by Alphonse Desjardins in Quebec in 1900. It was inspired by European cooperative organisations, which placed a strong emphasis on lending money to the underprivileged. Canada now has two cooperative financial systems: the credit union system in other regions of the nation and the caisses populaires system in Quebec. There are over 1000 credit unions and caisses populaires operating retail financial services operations in Canada, serving close to 10 million members and employing over 60 000 people. Because of this, credit unions and caisses populaires are sometimes fairly tiny; the biggest, VanCity Savings, with assets close to \$6 billion. Most are approximately the size of a single bank branch and have less than \$10 million in assets. The establishment of credit unions and caisses populaires, which are nonprofit financial organisations, was mandated by provincial law. Cooperative banks exclusively take deposits from and lend money to its members, in contrast to licenced banks, which accept deposits from and lend money to the entire public. Members may cast ballots and choose the board of directors, who sets the lending and investing policies for the union. Credit unions and caisses, which are member-owned, autonomous financial institutions, are becoming more and more popular as an alternative financial system to the profit-seeking banking sector.

Additionally, they have created their own set of institutions, such as central banking and deposit insurance plans. In instance, each province has a central credit union that offers financial services to individual credit unions and is controlled by the member credit unions. The Credit Union Central of Canada (CUCC), commonly known as Canadian Central, is the umbrella organisation for all central credit unions operating outside of Quebec. As the third layer of the credit union movement, the Canadian Central organises numerous tasks and offers check-clearing services to all provincial central credit unions. The Fédération des caisses Desjardins du Québec, which has a structure similar to the provincial central credit unions in the rest of Canada but with somewhat larger regulatory obligations, unites caisses populaires in Quebec under a single federation. In Quebec, the federation controls both corporate and retail financial intermediation.

Desjardins General Insurance, a significant P&C insurance group, Desjardins Financial Security, a life and health insurance provider, Desjardins Venture Capital, and Desjardins Securities and Disnat, a discount brokerage, are all owned by the corporation. As the CUCC does for the rest of Canada, it also owns Caisse Centrale Desjardins, a central bank. The CDIC does not directly cover credit unions or caisses populaires. Each province government

does, however, have a body known as a stabilisation fund that has a line of credit with the provincial treasury and guarantees deposits for credit unions. Deposits are covered up to \$60 000 per account in New Brunswick and Prince Edward Island, \$100 000 in Ontario and British Columbia, \$250 000 in Nova Scotia and Newfoundland & Labrador, and unlimited in Alberta, Saskatchewan, and Manitoba.

The same provincial government organisation in Quebec that protects deposits in other deposit-taking financial institutions also offers deposit guarantees for caisses populaires, under conditions comparable to the CDIC's. Deposits are the primary source of funding for credit unions and caisses, accounting for over 85% of liabilities, followed by member equity (approximately 7% of liabilities). Nearly 55% of the balance sheet's assets are made up of residential and nonresidential mortgages, and 13% are cash loans to members. Nearly 15% of the balance sheet is made up of low-risk assets like cash and deposits, mostly with central credit unions. Shares in central credit unions and fixed assets make up the remainder of the balance sheet.

### **Governmental Institutions for Saving**

There are certain government-operated deposit accepting organisations as well as the nearby banks (popularised as trust and mortgage lending companies, credit unions, and caisses), such as the Province of Ontario Savings Office and the Alberta Treasury Branches. In 1921, the Province of Ontario Savings Office was founded with the purpose of collecting monies from the general public and lending them to farmers. However, as of right now, the Savings Office exclusively loans money to the Ontario Treasurer for use in provincial government. Its deposit obligations are really a provincial liability that is guaranteed by the government of Ontario. Desjardins Credit Union purchased the Province of Ontario Savings Office in 2003. As a result of the demands of Albertans living in rural places, the government of Alberta created Treasury offices in 1938. Currently, the province has 244 villages with 162 offices serving three target markets: independent businesses, agricultural activities, and personal financial services. Demand, notice, and fixed-term deposits provide the majority of the funding for Alberta Treasury Branches' (\$16 billion+ in assets) risk assets, which include a considerable portion of residential mortgages as well as personal, business, and agricultural loans [10]–[12]. While these adaptations can foster competition and localized banking services, they may also limit economies of scale and operational efficiencies. Navigating branching restrictions necessitates a comprehensive understanding of regulatory compliance and risk management. Overall, the adaptation to branching restrictions reflects the dynamic nature of the banking industry as it seeks to balance regulatory compliance, customer service, and market expansion.

### **CONCLUSION**

In the financial markets, avoiding existing restrictions is a difficult and ongoing issue. To properly solve this problem, regulators, policymakers, and market players must work together in a comprehensive manner. We can improve the integrity, stability, and fairness of financial markets, protecting investors' interests and the interests of the larger economy, by tightening regulatory monitoring, harmonizing legislation, and encouraging international collaboration. However, branching restrictions may hinder economies of scale and operational efficiencies that can be achieved through consolidation and geographical expansion. They may limit the ability of banks to provide seamless services to customers across state boundaries, resulting in fragmented banking experiences. Furthermore, adapting to branching restrictions requires careful navigation of complex regulatory frameworks and compliance obligations. Banks must ensure adherence to state-specific regulations, maintain adequate capitalization, and

manage risks associated with multiple subsidiaries or partnerships. In conclusion, the adaptation to American branching restrictions is an ongoing process in the banking industry. Financial institutions have employed various strategies to overcome these restrictions, including the establishment of subsidiaries, strategic partnerships, and the utilization of digital banking channels.

## REFERENCES

- [1] Y. Z. Xu *et al.*, “The chloroplast triggers developmental reprogramming when MutS Homolog is suppressed in plants,” *Plant Physiol.*, 2012, doi: 10.1104/pp.112.196055.
- [2] J. A. Postma and J. P. Lynch, “Root cortical aerenchyma enhances the growth of maize on soils with suboptimal availability of nitrogen, phosphorus, and potassium,” *Plant Physiol.*, 2011, doi: 10.1104/pp.111.175489.
- [3] E. González-Grandío, C. Poza-Carrión, C. O. S. Sorzano, and P. Cubas, “Branched1 promotes axillary bud dormancy in response to shade in Arabidopsis,” *Plant Cell*, 2013, doi: 10.1105/tpc.112.108480.
- [4] V. B. Tognetti *et al.*, “Perturbation of indole-3-butyric acid homeostasis by the UDP-glucosyltransferase UGT74E2 modulates Arabidopsis architecture and water stress tolerance,” *Plant Cell*, 2010, doi: 10.1105/tpc.109.071316.
- [5] S. Jiaqiang *et al.*, “Arabidopsis ASA1 is important for jasmonate-mediated regulation of auxin biosynthesis and transport during lateral root formation,” *Plant Cell*, 2009, doi: 10.1105/tpc.108.064303.
- [6] A. H. Singh, T. Doerks, I. Letunic, J. Raes, and P. Bork, “Discovering functional novelty in metagenomes: Examples from light-mediated processes,” *J. Bacteriol.*, 2009, doi: 10.1128/JB.01084-08.
- [7] Y. Maeda, V. Davé, and J. A. Whitsett, “Transcriptional control of lung morphogenesis,” *Physiological Reviews*. 2007. doi: 10.1152/physrev.00028.2006.
- [8] F. Kellermeier, F. Chardon, and A. Amtmann, “Natural variation of Arabidopsis root architecture reveals complementing adaptive strategies to potassium starvation,” *Plant Physiol.*, 2013, doi: 10.1104/pp.112.211144.
- [9] T. H. Nguyen, A. Eichmann, F. Le Noble, and V. Fleury, “Dynamics of vascular branching morphogenesis: The effect of blood and tissue flow,” *Phys. Rev. E - Stat. Nonlinear, Soft Matter Phys.*, 2006, doi: 10.1103/PhysRevE.73.061907.
- [10] S. A. H. Geritz, J. A. J. Metz, É. Kisdi, and G. Meszéna, “Dynamics of adaptation and evolutionary branching,” *Phys. Rev. Lett.*, 1997, doi: 10.1103/PhysRevLett.78.2024.
- [11] M. W. Stepnik *et al.*, “Scanning electron microscopic examination of third metacarpal/third metatarsal bone failure surfaces in Thoroughbred racehorses with condylar fracture,” *Vet. Surg.*, 2004, doi: 10.1111/j.1532-950x.2004.04007.x.
- [12] S. Herrero, “Aspects of Evolution and Adaptation in American Black Bears (*Ursus americanus* Pallas) and Brown and Grizzly Bears (*U. arctos* Linné.) of North America,” *Bears Their Biol. Manag.*, 1972, doi: 10.2307/3872586.



## CHAPTER 12

### A BRIEF INTRODUCTION OF INTERNATIONAL BANKING

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#### **ABSTRACT:**

International banking is essential for promoting commerce, investment, and economic development on a worldwide scale. This essay offers a succinct overview of international banking, examining its salient traits, purposes, and difficulties. It goes through the justifications for banks' foreign business ventures, the advantages and dangers of doing business internationally, and the regulatory frameworks that oversee international banking activities. Stakeholders can negotiate the complexity of the world's financial markets and advance dependable and effective cross-border financial services by having a basic grasp of international banking. Banks now have more options than ever to expand into new markets, diversify their holdings, and get capital from abroad thanks to globalization. Additionally, it has made it more difficult to manage risks, comply with regulations, and navigate through many legal and cultural contexts.

#### **KEYWORDS:**

Financial Globalization, International Banks, Regulatory Frameworks, Risk Management.

#### **INTRODUCTION**

Global financial transactions, economic development, and support for international commerce and investment are all significantly facilitated by international banking. It entails banks offering financial services to customers internationally, enabling them to extend their operations and provide a variety of services to clients anywhere. Cross-border loans, currency exchange, trade finance, and international payment services are just a few of the many operations that fall under the umbrella of international banking. The trend of financial globalization, which has expanded connectivity and integration of financial markets globally, is directly related to the growth of international banking.

The requirement for capital mobility, the need for financial services on international markets, and the ambition of banks to take advantage of economies of size and scope all contribute to the growth of international banking. It makes it possible for people and companies to interact across borders quickly, it helps cash movements, and it encourages foreign investment and economic growth. International banking does, however, come with dangers and difficulties. Banks that operate internationally must understand regulatory frameworks, adhere to laws against money laundering and funding terrorism, handle foreign currency risks, and deal with the political and economic unpredictability of other nations. The stability and integrity of global banking operations depend heavily on effective risk management, adherence to international standards, and adoption of best practices [1]–[3].

International banking is an essential part of the world financial system that enables cross-border financial transactions and promotes economic expansion. It provides chances for banks to expand their clientele and services internationally, allowing people and companies to use financial services and fostering global commerce and investment. However, it requires rigorous risk management, adherence to regulations, and adaptation to the challenges of



doing business in other markets. Understanding the dynamics of international banking is essential for banks, regulators, and market players to successfully negotiate the intricacies of the global financial environment as financial markets continue to change and globalization advances. In the international financial services sector, Canadian banks have a strong presence that varies depending on the specific organization.

For instance, the Bank of Montreal discovered early on that some of its biggest prospects came from doing business abroad. The Canadian Imperial Bank of Commerce and the Bank of Nova Scotia quickly followed. Three variables may be used to account for the astounding expansion of international banking. The first is the recent explosive rise of multinational (global) firms and international commerce. In order to fund their international commerce, Canadian businesses operating overseas need banking services in other nations. To run a plant overseas, for instance, they could need a loan in a foreign currency. Additionally, when they sell products overseas, they must have a bank convert the foreign cash they got into Canadian dollars. These businesses have the option of using foreign banks to offer them with these international banking services, but many of them choose to work with Canadian banks because they have developed long-term ties with them and because they are familiar with Canadian business practices.

International banking has expanded with increased global commerce. Second, by actively participating in global investment banking, where they underwrite international securities, Canadian banks have been able to generate significant profits. They make significant revenues from these investment banking and insurance businesses, as well as from the sale of insurance overseas. Third, Canadian banks have sought to access the sizable pool of Eurocurrency deposits made in foreign banks. Let's first take a look at the Eurocurrencies market, a significant source for international banking, to better comprehend the structure of Canadian banking abroad.

### **Eurocurrencies Market**

The most significant of the Eurocurrencies are Eurodollars, which began as U.S. dollar deposits in European banks after World War II. They came into being when deposits made into American-based accounts were moved to foreign banks and remained there as US dollars. For instance, \$1 million in Eurodollars are produced if Rolls-Royce PLC deposits a US\$1 million check issued on an account at an American bank in its bank in London with the request that the deposit be payable in US\$1 million. 90% or more of deposits in Euros are time deposits, with more than half being certificates of deposit with maturities of thirty days or longer.

The total amount of outstanding Eurodollars is around US\$5.2 trillion, making the Eurodollar market—which was ironically born—one of the most significant financial markets in the global economy. For further information, see the Global box, *Ironic Birth of the Eurodollar Market*. Despite the fact that the majority of offshore deposits are in U.S. dollars, some are also in other currencies. These offshore holdings are referred to as "eurocurrencies" as a whole. For example, a deposit kept in London denominated in Canadian dollars is referred to as a Euro Canadian dollar, while a deposit held in London denominated in Japanese yen is referred to as a Euroyen. Second, since they are kept in nations that do not impose laws like reserve requirements or limitations (known as capital controls) on moving the deposits outside the country, Eurocurrencies are offshore deposits. London, a significant global financial hub for hundreds of years, serves as the primary hub of the Eurocurrency market. Euros are also kept in places outside of Europe that provide these deposits offshore status, such as Singapore, the Bahamas, and the Cayman Islands.

The average transaction size on the euro currency market is \$1 million, and banks hold around 75% of all euro currency deposits. It is obvious that it is unlikely for you and me to interact directly with European currencies. However, the euro-currency market is a significant source of funding for Canadian banks. Canadian banks determined they could make larger profits by building their own branches overseas to draw these deposits rather than utilizing an intermediary and borrowing all the deposits from foreign banks. As a result, the market for Eurocurrencies has significantly boosted Canadian banking abroad.

### **Ironically, the Eurodollar Market Was Born**

One of the greatest ironies of capitalism is that the Soviet Union gave birth to the Eurodollar market, one of the most significant financial marketplaces utilised by capitalists. The Soviet Union had acquired a sizeable sum of dollar balances held by American banks by the early 1950s, during the height of the Cold War. The Russians sought to shift the deposits to Europe, where they would be secure from expropriation, since they were concerned that the American government may freeze these assets there. (This anxiety was not unfounded; bear in mind the 1979 U.S. freeze on Iranian funds and the 1990 U.S. freeze on Iraqi assets.) To be utilised in their foreign dealings, they also wished to preserve the deposits in dollars. Transferring the deposits to European banks was the problem's remedy, although they were still kept in dollars. Because of what the Soviets accomplished, the Eurodollar was created [4]–[6].

### **Canadian Banking International**

For more than a century, Canadian banks have operated on the world's financial markets, serving both domestic clients and global corporations. Each school has a different level of the Big Six's global reach. The Bank of Montreal, the Canadian Imperial Bank of Commerce, and TD Canada Trust in particular have a significant presence in the United States, while Scotiabank has a presence in South America and the Royal Bank in Europe and Asia. A significant component of the banks' overseas lending in the 1970s and early 1980s was in the form of sovereign loans, which were given to foreign governments and their agencies in less-developed nations (LDCs), mainly Mexico, Brazil, Venezuela, Argentina, and Chile. The majority of this overseas financing activity was uncontrolled, with very devastating results. The worldwide debt crisis, which had its roots in the oil price shocks of the 1970s, is one instance. Particularly, the 1973–1974 oil price surge was a boon for certain oil-exporting nations like Mexico, but a tragedy for oil-importing nations like Brazil, who were forced to either reduce their living standards or borrow heavily from overseas in order to pay their increased oil expenses. The oil importers couldn't resist the temptation to borrow overseas at the time since real interest rates were so low in fact, they were negative.

## **DISCUSSION**

As a consequence of the oil exporters' massive bank deposits at the same time, banks began lending to oil exporting nations as well as oil-importing nations since the latter had substantial oil reserves and seemed to be low-risk borrowers. Banks were heavily penalised in the early 1980s when the recession struck and real interest rates rose sharply because they had grossly miscalculated the amount of debt these nations had incurred from banks. The banks faced a dilemma when Argentina, Brazil, Mexico, and Peru threatened to stop making loan payments on their debts. They could either reschedule their loans or extend new loans to these nations (allowing them to pay the interest on the debt), or they could declare these nations in default and record sizable losses on their balance sheets. The losses in many instances would have been sufficient to bankrupt the banks, so they opted to issue additional loans. Due to other agreements as well, the LDC debt no longer poses a serious risk to the

global financial system. For instance, several debt conversion plans have been put out recently to reduce the big indebted LDCs' debt payment commitments. There are three main ways to convert debt: debt-debt swaps, debt-currency swaps, and debt-equity swaps. In debt-debt swaps, banks holding the debt of one LDC trade it for the debt of another LDC. In debt-currency swaps, the debt denominated in foreign currency is converted into domestic currency. The realisation that the underlying value of the sovereign debt is far lower than its face value has served as the primary driving force for all of these debt conversion initiatives. The Big Six have withdrawn from several nations and concentrated more of their worldwide operations on the United States as a result of their lending experiences in Latin America. Additionally, the Inspector General of Banks and the Department of Insurance were replaced by the Office of the Superintendent of Financial Institutions Canada (OSFI), which is now primarily in charge of overseeing Canadian banking organization's international operations. In particular, the OSFI requested that the chartered banks put up extraordinary reserves in the range of 35 to 45 percent of their exposure to various LDCs in 1991.

### **Banks from abroad in Canada**

The expansion of international commerce has prompted foreign banks to open offices in Canada as well as Canadian banks to create branches elsewhere. In Canada, foreign banks have had great success. Since the 1981 amendment to the Bank Act, internationally renowned foreign banks have established and grown their banking subsidiaries in Canada during the previous 20 years. Currently, foreign banks account for 8% of all bank assets in Canada. HSBC Bank Canada (the erstwhile Hongkong and Shanghai Banking Corp.) has a national market share of over 3%. However, it should be emphasized that some institutions focus on certain demographic groups, gaining a larger representation within these groups than their national share may imply. For instance, HSBC, the biggest Schedule II bank, has a significant presence and has been successful in serving the Chinese populations of British Columbia and Ontario.

Global financial markets have merged further as a result of the internationalization of banking, which has seen Canadian banks expand overseas and foreign banks enter Canada. The 1988 Basel Accord to standardize minimum capital requirements in industrialized nations is one example of the rising trend towards international coordination of bank regulation. Financial market integration has promoted bank mergers worldwide, which culminated in the establishment of the first trillion-dollar bank via the 2002 merger of the Industrial Bank of Japan, Dai-Ichi Kangyo Bank, and Fuji Bank, which was initially announced in August 1999. The significance of foreign banks in international banking has been another growth.

We have seen that new financial services and products are made feasible by fundamental structural changes, raising the level of competition in the financial services sector and altering the function of banking as a financial intermediary at the pace of the Internet. The federal government submitted measures to modernize the regulatory structure for the Canadian financial services industry against this background of remarkable change. This law, also known as Bank Act Reform, became operative in October 2001 with the passage of Bill C-8.

One of the most major amendments to the Bank Act in Canadian history, the new law is largely based on the MacKay Report, which was produced by the Task Force on the Future of the Canadian Financial Services Sector. The new regulatory framework for financial institutions, which has the potential to drastically alter the competitive landscape in Canada's financial services sector, is summarized in the section that follows. As you will see, the new laws establish the regulatory framework to quicken changes already occurring in the

Canadian and global economies and present fresh chances for strategic partnerships and alliances with the aim of fostering more competition and offering Canadians more cutting-edge goods and services [7]–[10].

The bank-as-parent model, in which all banking services and all subsidiaries of the bank are subject to the same regulation, was the foundation of the organizational structure of Canada's bank financial groups prior to the Bank Act Reform. Bank financial groupings may choose to set up shop under a holding company under the new rules. A firm that owns a number of separate businesses is called a holding company. For instance, under a holding company structure, a bank financial group may have a subsidiary for its regulated companies, a subsidiary for its unregulated businesses, and subsidiaries for banking, insurance, and securities. The majority of industrialized nations allow holding company structures, and during the last thirty years, holding corporations have dramatically increased in number. In the United States, for instance, holding corporations now control the majority of big banks, and more than 90% of all commercial bank deposits are kept in holding company-owned institutions. In reality, the Gramm-Leach-Bliley Act of 1999 updated the 1956-era holding company regulations in the US to make room for a new, more adaptable holding company model: the financial holding company. The holding company form of corporate ownership has significant benefits for bank financial groups because it enables them to engage in other banking-related activities like the provision of investment advice, data processing and transmission services, leasing, and credit card services.

A holding company structure also enables the bank financial group to operate with less regulation because certain activities (those not involving retail deposit-taking and insurance) can be carried out without.

The main benefit of the new holding company establishment rules is that financial organizations will be allowed to transfer portions of their highly regulated operations to less regulated affiliates that are part of the same holding company. The holding company, however, would be a feasible choice for financial firms provided the conversion to a holding company were tax neutral, did not incur additional expenditures, and did not subject the organization to additional regulations. The holding company option wouldn't be practical if, for instance, more taxes or stricter regulations were to be imposed as a consequence of restructuring into a holding company. Because of this, the new Act also includes a set of transitional guidelines to mitigate unforeseen financial effects brought on by the switch to a holding company.

### **Permitted Investments**

The sort of investments that are permitted to be made by federally regulated financial institutions is covered by a second provision of the 2001 Act. Banks, for example, are currently limited in the activities they may engage in outside of banking. However, the new regulation gives banks more freedom to engage in information technology (and, in particular, the Internet and wireless technology). It allows bank finance organizations to set up and run information services businesses using cutting-edge speech recognition, Internet, and wireless banking technology.

The capacity of Canadian banks and insurance businesses to provide new financial products and services and adjust to the changing market depends on new information technology. The financial services industry will undergo a revolution as a result of the new permitted investment regime, even though bank and insurance company involvement in the information technology space is subject to regulation. The new permitted investment regime will improve banks' and insurance companies' ability to pursue joint ventures and strategic alliances.

## **Ownership Rules**

The new ownership regime, which allows investors to have a larger equity position in widely held bank financial groupings by widening the definition of widely held, is a third policy action that has the potential to fundamentally alter the nature of competition in Canada's financial services industry. The 2001 legislation specifically increased the limit (10% of any class of shares) that had been in place since 1967 on the percentage of shares that a single shareholder could own in a widely held financial institution (either a bank holding company or a bank subsidiary under the holding company) to 20% of voting shares and 30% of nonvoting shares. However, under the current rules, a single shareholder is not allowed to control more than 10% of both a bank holding company and a bank subsidiary that is a part of the holding company. Additionally, purchases of more than 10% need the Finance Minister's consent based on a fit and suitable person assessment. A three-tiered ownership system is also included in the new law. Small banks, defined as those with equity capital under \$1 billion, may be completely owned, meaning that one investor owns all of the company's shares. If there is a 35% public float, medium-sized banks (and bank holding companies) with stockholders' equity between \$1 billion and \$5 billion are permitted to be tightly held (i.e., a single shareholder may control up to 65% of their shares). Large banks (and bank holding companies), defined as those with stockholders' equity of \$5 billion or more, must have a broad ownership base. The new ownership regime will fundamentally alter Canada's financial sector, along with other provisions in the legislation that include lowering the capital requirement to establish a bank from \$10 million to \$5 million and allowing domestic and foreign commercial enterprises (like department stores and grocery chains) to establish small and medium-sized banks.

## **Access to the Payments and Clearance System and the CP Act**

Before the 2001 financial sector legislation, membership in the Canadian Payments Association (CPA), a nonprofit organization formed in 1980 by an Act of Parliament to operate Canada's payments systems, was limited to the Bank of Canada and the deposit-taking financial institutions—chartered banks, trust and mortgage loan companies, and credit unions and caisses populaires. The 2001 legislation introduced some important changes for the Canadian Payments Association and also renamed the Canadian Payments Association Act to Canadian Payments Act (CP Act). In particular, the CP Act extends eligibility for membership in the Canadian Payments Association and therefore access to Canada's two domestic payments systems, the Large Value Transfer System (LVTS) and the Automated Clearing Settlement System (ACSS), to non-deposit-taking financial institutions, such as life insurance companies, securities dealers, and money market mutual funds.

This regulatory change will significantly affect Canada's financial services sector, since it will allow these organizations to provide bank-like services, such as chaining accounts and debit cards, without being banks, thereby directly competing with banks, trust and mortgage loan companies, and credit unions and caisses populaires. Expanding access to the payments and clearance system, by allowing non-deposit-taking financial institutions to participate, will further accelerate the process of the blurring of distinction between deposit-taking and non-deposit-taking financial institutions. As already noted, this process started in 1987, when securities dealers were allowed to own banks, and was reinforced by the 1992 federal financial reforms that permitted cross-ownership of financial institutions.

## **CONCLUSION**

International banking is a crucial component of the global financial system, enabling cross-border transactions, facilitating international trade and investment, and promoting economic



growth. It allows banks to expand their reach and services beyond national boundaries, while offering clients access to a wide range of financial products and services. However, international banking also brings challenges related to regulatory complexities, cross-border risks, and the need for effective risk management. To ensure the stability and integrity of international banking activities, robust regulatory frameworks, international cooperation, and sound risk management practices are essential. As financial globalization continues to evolve, it is crucial for stakeholders to stay informed about the dynamics and developments in international banking to navigate the complexities of the global financial landscape successfully. In conclusion, international banking is a vital component of the global financial system, facilitating cross-border transactions, capital flows, and financial services. It presents opportunities for economic growth, global trade, and financial inclusion, while also posing challenges related to risk management, regulatory compliance, and geopolitical complexities. By understanding the features and functions of international banking, stakeholders can navigate the complexities of global finance, promote economic development, and seize opportunities in the international marketplace.

## REFERENCES

- [1] R. Wade, S. Augyte, M. Harden, S. Nuzhdin, C. Yarish, and F. Alberto, "Macroalgal germplasm banking for conservation, food security, and industry," *PLoS Biology*. 2020. doi: 10.1371/journal.pbio.3000641.
- [2] A. Golubev, O. Ryabov, and A. Zolotarev, "Digital transformation of the banking system of Russia with the introduction of blockchain and artificial intelligence technologies," in *IOP Conference Series: Materials Science and Engineering*, 2020. doi: 10.1088/1757-899X/940/1/012041.
- [3] M. E. Shah, S. Mohamad, and G. Musaeva, "Research on Islamic Banking in Malaysia: A Guide for Future Directions," *J. Islam. Econ. Bank. Financ.*, 2014, doi: 10.12816/0029044.
- [4] R. Boucekkine, K. Nishimura, and A. Venditti, "Introduction to international financial markets and banking systems crises," *Journal of Mathematical Economics*. 2017. doi: 10.1016/j.jmateco.2016.12.003.
- [5] L. Wewege, "The Digital Banking Revolution: How the Financial Technology Companies Are Rapidly Transforming Retail Banking," *Baby Book*. 2017.
- [6] A. Golubev and O. Ryabov, "Transformation of traditional financial companies into FinTech," in *ACM International Conference Proceeding Series*, 2020. doi: 10.1145/3446434.3446543.
- [7] C. Woodger, "Building financial brands: The Russian way," *Int. J. Bank Mark.*, 2008, doi: 10.1108/02652320810884803.
- [8] S. Muwanguzi and G. W. Musambira, "The transformation of East Africa's economy using mobile phone money transfer services: A comparative analysis of Kenya and Uganda's experiences," *J. Creat. Commun.*, 2009, doi: 10.1177/097325861000400204.
- [9] J. Pope, "Sustainability appraisal: a sourcebook and reference guide to international experience," *Impact Assess. Proj. Apprais.*, 2015, doi: 10.1080/14615517.2014.972821.
- [10] O. Dancourt, "Neoliberal reforms and macroeconomic policy in Peru," *CEPAL Rev.*, 1999, doi: 10.18356/fc1ebdf2-en.



## CHAPTER 13

### A FUNDAMENTAL STUDY ON INSTITUTIONS OF NONBANK FINANCE

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#### **ABSTRACT:**

Institutions of nonbank finance play a critical role in the global financial system, providing alternative sources of funding, risk management tools, and investment opportunities outside the traditional banking sector. This study presents a fundamental study of institutions of nonbank finance, exploring their characteristics, functions, and significance in shaping the financial landscape. Nonbank financial institutions encompass a diverse range of entities, including insurance companies, pension funds, mutual funds, hedge funds, private equity firms, and other specialized financial intermediaries. These institutions operate outside the scope of traditional deposit-taking and lending activities associated with banks. Nonbank financial institutions, which provide a broad variety of financial services and goods outside the conventional banking sector, play a vital role in the financial system. The main characteristics and duties of nonbank financial institutions are examined in this study, along with the significance of these organizations in fostering financial intermediation and market efficiency. Finally, the possible dangers and regulatory issues these institutions may face are covered. Additionally, it draws attention to how nonbank financing is changing and what it means for financial stability and consumer safety.

#### **KEYWORDS:**

Financial Services, Financial Intermediation, Nonbank Finance, Nonbank Financial.

#### **INTRODUCTION**

Nonbank Financial Institutions, also known as Institutions of Nonbank Finance, are a vital component of the financial system and play a significant role in the supply of financial services and intermediation. To better serve the changing requirements of people and companies, these organizations, unlike conventional banks, operate outside the purview of banking rules and provide a wide variety of financial goods and services. Numerous organisations fall under the category of nonbank financial institutions, including, among others, insurance companies, pension funds, mutual funds, hedge funds, private equity firms, venture capital firms, credit unions, and crowd funding websites. These organisations provide a range of financial services, including alternative loan choices, investment possibilities, and asset management [1]–[3].

The capacity of nonbank financing to improve market efficiency and financial intermediation is one of its fundamental features. Nonbank Financial Institutions often focus on certain industries and provide creative, individualised solutions that may not be easily accessible via conventional banking channels. They are essential for raising savings, directing money towards profitable investments, and assisting with risk management in the economy. Due to their capacity to provide a variety of financing sources, access alternative investment possibilities, and offer specialised financial knowledge, nonbank financial institutions have become more well-known. Their existence increases financial sector competition and

encourages financial innovation, which ultimately benefits consumers and fosters economic progress. However, the increasing significance of nonbank financing also poses regulatory dangers and problems. Due to the fact that these institutions operate outside of the conventional banking system, they could be governed by several regulatory frameworks, which might result in regulatory arbitrage and supervision gaps. Additionally, the operations of nonbank financial organisations may have an impact on financial stability and consumer protection, necessitating strong regulatory frameworks to adequately manage these risks.

Nonbank financial institutions are essential to the financial system because they provide a broad variety of financial services, encourage financial intermediation, and boost market efficiency. They encourage innovation, increase competition, and diversify financing sources. To guarantee financial stability and safeguard consumers, however, regulatory issues and dangers related to nonbank funding must be carefully addressed. Understanding the roles, dangers, and legal ramifications of nonbank financial organisations is becoming more and more crucial for regulators, policymakers, and market players as the financial environment changes.

## DISCUSSION

### Insurance

We always have to consider the risk of certain catastrophic catastrophes taking place, which might result in significant financial losses. Due to sickness or death, a spouse's income may be lost; likewise, an automobile accident may result in high repair costs or compensation to wounded parties. We shield ourselves against financial losses from crises by acquiring insurance coverage that will pay out a certain amount of money in the event that catastrophic events take place since they might be significant compared to our financial resources. Companies that provide life insurance offer contracts that pay out in the event of death, sickness-related incapacity, or retirement. Companies specialising in property and casualty insurance provide plans that cover damages brought on by fire, theft, or accidents [4]–[6].

### Life Insurance

94 life insurance firms that are either stock corporations or mutuals are presently operating in Canada. Stock corporations are held by shareholders; mutuals, which are owned by policyholders, are conceptually comparable to credit unions. In Canada, mutual organisations constituted up half of the life insurance firms before 1999. Five significant mutual life insurance firms, including Canada Life, Clarica, Manulife Financial, Sun Life, and Industrial-Alliance, however, began a process known as demutualization in 1999, and as a result, they have now become stock corporations. The OSFI and Assuris, previously known as the Canadian Life and Health Insurance Compensation Corporation (CompCorp), are in charge of regulating life insurance companies. Sales practises, the availability of sufficient liquid assets to offset losses, and limitations on the amount of hazardous assets (such as common stock) the company may retain are all addressed by OSFI regulations.

In other words, OSFI carries out the same supervisory duties for financial institutions that are close to banks. Regarding the regulation of specific life insurance firms, Assuris plays no part. It is a privately held, not-for-profit organisation that was founded and financed by the Canadian life and health insurance sector. It offers liability insurance to policyholders by paying out benefits in the event that the issuing firm files for bankruptcy. Life insurance firms are able to anticipate with great accuracy what future payments to policyholders will be since mortality rates for the population as a whole are very predictable. They thus own long-term, less liquid corporate bonds, which account for around 60% of their assets, commercial

mortgages, which account for 15% of their assets, and some corporate shares. About 70% of the liabilities in the Canadian life insurance sector are actuarial. These are the anticipated policyholder claims' current values. Individual life insurance and group life insurance are the two fundamental types of life insurance, and they may be separated by how they are offered. In contrast to group life insurance, which is provided to a group of individuals under a single policy, individual life insurance, as its name suggests, is sold one policy at a time. Permanent life insurance, like the conventional whole life insurance, and temporary life insurance, like term insurance, are the two main types of individual life insurance plans. The premium for permanent life insurance remains the same for the duration of the policy.

Due to the low likelihood of mortality in the early years of the policy, the quantity of this premium is more than what is required to provide insurance against death. As a result, the insurance accrues cash value in the early years, but as time goes on, the cash value decreases since the constant premium is insufficient to fully protect against death, which is now more likely to occur. The permanent life insurance policy's cash value may be accessed by borrowing or by terminating the contract. Because of this, endowment insurance is another name for perpetual insurance. Contrarily, term insurance has an annual premium that is linked to the amount required to cover against death during the term such as one year or five years. Consequently, term insurance premiums increase over time as the likelihood of dying increases (or remain constant over time as the value of death benefits decreases. Term life insurance plans don't have cash values, therefore they only provide insurance, not savings, unlike permanent life insurance policies. Life insurance firms started restructuring their operations in the middle of the 1970s in order to become asset managers for pension funds. Today, pension funds account for more than half of the assets handled by life insurance firms, not life insurance. Annuities are investments that insurance companies have started to market. Under these contracts, the client pays an annual premium in return for a stream of yearly payments that will start at a certain age, say 65, and continue until death.

### **Property and Casualty Insurance**

There are 196 property and casualty (P&C) or general insurance firms in Canada, and according to assets held, foreign ownership represents around 40% of the business. The majority of property and casualty insurance providers in Canada are governed by OSFI and the Property and Casualty Insurance Compensation Corporation (PACICC) and are federally regulated. In the same way that Assures serves life insurance businesses, PACICC was established in 1988 and serves property and casualty firms. Provincial rules and legislation also apply to several P&C insurance categories, such as vehicle insurance. Real estate losses are covered by property insurance, while liabilities are shielded by casualty insurance. Despite a minor rise in their percentage of all financial intermediary assets since 1960, property and casualty insurance businesses haven't performed well in recent years, and insurance costs have surged.

Due to the large investment revenue generated by the 1970s' high interest rates, insurance firms were able to maintain cheap insurance premiums. Since then, however, investment income has decreased along with the level of interest rates, and businesses have suffered significant losses as a result of the rise in litigation involving property and liability insurance and the skyrocketing sums paid in these cases. Insurance firms have substantially increased prices, often tripling or even tripping them, in an effort to return to profitability. Some consumers have also been turned away from coverage. Additionally, they have waged a vigorous effort, notably for medical negligence, to reduce insurance compensation. By guaranteeing the payment of interest on corporate bonds and mortgage-backed securities, insurance firms are venturing into unknown terrain in the pursuit of profits. One concern is

that, in an effort to increase their profits, the insurance firms could be taking on too much risk. The fact that insurance regulators have suggested new regulations that would impose capital requirements on these businesses based on the riskiness of their assets and operations is one effect of the worries about the health of the property and casualty insurance sector.

These businesses' investment strategies are impacted by the high degree of uncertainty around property losses. In reality, these insurers are less able to forecast how much they will have to pay customers than life insurance firms are since property losses are more unpredictable than a population's mortality rate. Natural catastrophes that caused billions of dollars in losses for property and casualty insurance firms included the ice storm in 1998 and the hailstorm in Calgary in 1991. Therefore, compared to life insurance, property and casualty insurers maintain more liquid assets: about a third of their assets are made up of cash, due and accrued investment income, money market instruments, and receivables, with the majority of the remaining assets being made up of bonds, debentures, and stocks.

Unearned premiums (premiums that reflect the remaining time on policies) are their second-largest liability after outstanding claims and adjustment charges. Companies that provide property and casualty insurance will cover damages from practically any occurrence, including fire, theft, carelessness, and malpractice, earthquakes, and car accidents. A group of companies may get together to draught a policy in order to share the risk if a potential loss is too high for any one company to handle alone. By securing reinsurance, insurance firms may also lower their risk exposure. Reinsurance is crucial for small insurance firms because it transfers some of the risk to another business in return for a share of the premium. Reinsurance may be seen as insurance for the insurance provider. The most well-known risk-sharing organization is Lloyd's of London, a group where several insurance providers may jointly insure a portion of an insurance contract. For a fee, Lloyd's of London asserts that it will provide insurance against every eventuality [7]–[9].

### **Credit Insurance**

**Default Swaps:** On Credit Selling a traded derivative known as a credit default swap (CDS), in which the seller is obligated to pay the CDS holder if there is a credit event for that instrument, such as a bankruptcy or downgrading of the firm's credit rating, is one way insurance companies can effectively provide credit insurance. Thus, issuing a CDS is equivalent to offering insurance on the debt instrument since, like insurance, it pays the CDS holder when a bad credit event occurs. Recently, and often to their great sorrow, major insurance firms have joined the CDS market.

**Insured by Monoline:** Direct provision of credit insurance is another option, just as with any insurance coverage. However, property/casualty insurance companies, life insurance companies, and insurance firms with numerous lines of business are not permitted to underwrite credit insurance under insurance rules. Therefore, the only insurers permitted to provide insurance that ensures the prompt repayment of bond principal and interest in the event of a debt issuer default are monoline insurance firms, which focus only on credit insurance. Due to the fact that they insure a significant portion of the municipal bond market's securities, these insurance businesses have grown in significance. When a monoline insurer issues an insurance policy to a municipal security with a lesser credit rating, such as an A rating, the municipal security acquires the monoline insurer's credit rating, such as AAA.

As a result, the municipality's interest expense is reduced, making it more cost-effective for the municipality to pay the premiums for this insurance policy. Naturally, the monoline insurers need to have a very high credit rating to be able to accomplish this.

## **The AIG Blowup**

Before 2008, American International Group, often known as AIG, was a \$20 trillion insurance behemoth and one of the twenty biggest corporations in the world. AIG's Financial Products division, a minor independent subsidiary, made a significant investment in the credit default swap market by insuring more than US\$400 billion worth of assets, of which US\$57 billion were debt instruments backed by subprime mortgages. Investors realised that subprime securities were worth much less than they were being valued at after Lehman Brothers' troubles and eventual bankruptcy on September 15, 2008, and they also realised that AIG's losses, which had already been sizable in the first half of the year, could put the company out of business. Then, AIG's lenders abruptly withdrew their support, and the company was unable to obtain the necessary funds to survive. On September 16, the Federal Reserve and the U.S. Treasury made the decision to save AIG because they believed that its collapse may have devastating effects on the financial system.

AIG's debt was heavily held by banks and mutual funds, and if AIG had gone bankrupt, all the credit default swaps it had offered would have been worthless, causing significant losses for the financial institutions who had purchased them. In order to provide AIG access to cash, the Federal Reserve established a US\$85 billion credit facility (bringing the total loan from the Fed and the government to US\$173 billion). However, the government was granted the right to an 80% ownership in the firm if it survived, and AIG was charged an extremely high interest rate on the loans from the Fed. Insurance businesses have never been seen as presenting a danger to the financial system as a whole, according to Maurice Greenberg, the company's former CEO, who called the government's measures a nationalization of AIG. This approach is no longer tenable since the issues at AIG almost brought the American financial system to its knees. There will never be another insurance market like it.

## **The New Legislative Structure**

In an effort to align the sector with the banking industry, the new legislation permits demutualized life and health insurance companies to restructure under a holding company structure, to form joint ventures and strategic alliances, and to have access to the Canadian payments and clearance systems.

Large demutualized life and health insurance firms and banks are not permitted to join under the new rules. Furthermore, under the new law, big life and health insurance businesses (those with equity exceeding \$5 billion) must be widely held, meaning that no one person or entity may possess more than 20% of the voting shares. Closely owned enterprises must be small demutualized businesses (equity under \$1 billion).

## **Insurance Management**

Similar to banking, insurance is in the business of financial intermediation—converting one kind of asset for the general public into another. Insurance companies invest the premiums paid for policies in bonds, equities, mortgages, and other loans; the proceeds from these investments are subsequently used to settle claims arising from the policies. Insurance companies essentially convert bonds, stocks, and loans into insurance policies that provide a variety of services (including claim settlement, savings options, and helpful insurance agents). The insurer will produce a profit if its asset transformation production process effectively gives its clients enough insurance services at a reasonable cost and if it can generate high returns on its investments; otherwise, it will experience losses. Here, we use the notions of moral hazard and adverse selection to describe a number of management techniques unique to the insurance industry.



When an insurance policy is involved, moral hazard occurs when the insured party is enticed to take risks that enhance the possibility that the insurance will pay out. Because the insurance provider would pay the majority of the damages if a theft happens, a person with burglary insurance may not take as many steps to avoid a burglary. According to the theory of adverse selection, those who are most likely to benefit from significant insurance payouts are also those who will desire to buy insurance the most. For instance, a person with a terminal illness would want to get the largest life and health insurance policies imaginable, putting the insurance firm at risk of significant losses. Due to larger payments on insurance claims, moral hazard and adverse selection may both create significant losses for insurance firms. Therefore, lowering moral hazard and adverse selection to decrease these payments is a very significant objective for insurance firms, and this objective explains the insurance practices we shall cover in this article.

### **Information Collection and Screening**

Insurance companies work to separate excellent insurance risks from bad ones in order to minimise adverse selection. As a result, efficient information gathering techniques are a key insurance management element. Your insurance agent will initially inquire about your driving history (the number of speeding fines and accidents), the kind of vehicle you are insuring, and some personal information (age, marital status). Similar grilling occurs when you apply for life insurance, but the inquiries are considerably more intimate and pertain to your health, smoking habits, and use of drugs and alcohol. Even more, the life insurance company requests a medical examination (often performed by an outside business) that includes collecting blood and urine samples. In the same way that a bank determines a credit score to assess a prospective borrower, the insurer utilises the details you supply to place you in a risk class and make an educated guess about your likelihood of filing an insurance claim. Based on this information, the insurer may determine whether to approve your application for insurance or deny it because you would be an unprofitable client since your risk is too great.

### **Risk-Based Premiums**

A long-standing insurance management idea is basing insurance rates on the level of risk that a policyholder presents to the insurance provider. This idea is crucial to insurance business profitability due to adverse selection. Let's look at an example of risk-based insurance prices that first seem unjust to understand why an insurance company deems them essential. Harry and Sally, two college students without any traffic infractions or accidents, submit an application for vehicle insurance. Harry often pays a significantly larger premium than Sally. Because young men have a far greater accident rate than young women, insurance firms take this action. Imagine, however, if one insurer just charged a premium based on the average combined risk for men and women rather than basing it on a risk categorization. Sally would thus be overcharged, whereas Harry would be undercharged. While Harry signed up for the insurance, Sally might shop around for a better deal. The insurer would typically lose money on Harry since his premium isn't high enough to cover the accidents, he's likely to have. The insurance provider can only make a profit by charging a premium that is based on a risk categorization, meaning Harry will pay more.

### **Restrictive Provisions**

Policies with restrictive clauses may help control insurance risks by lowering moral hazard. Such clauses deter policyholders from taking risks that increase the likelihood of an insurance claim. For instance, life insurers include clauses in their policies that exclude the insured from receiving death benefits if the individual kills himself during the first two years the policy is in force. Restrictive clauses may also demand specific actions from the insured. In

order to be protected from any responsibility related to the rental of motor scooters, a firm renting out scooters could be obliged to offer helmets for customers. Both help to reduce moral hazard by excluding bad behavior.

### **Prevention of Fraud**

Because an insured individual has an incentive to deceive the insurer and file a claim even if it is unfounded, insurance companies are also subject to moral hazard. For instance, a person who has disregarded the contractually required restrictions may nonetheless make a claim. Even worse, a person could make claims about occurrences that never happened. Therefore, conducting investigations to stop fraud so that only policyholders with legitimate claims get reimbursement is a crucial management concept for insurance companies.

### **Cancellation of Insurance**

Another method for managing insurance is being ready to terminate coverage. By threatening to revoke coverage when an insured individual participates in actions that increase the likelihood of a claim, insurers may deter moral hazard. You will be less inclined to speed if your vehicle insurance provider makes it plain that coverage will be revoked if a motorist receives too many speeding fines.

### **Deductibles**

When a claim is settled, the insured's loss is reduced by a set sum known as the deductible. If you have a \$250 deductible on your vehicle insurance, for instance, the insurer will only cover \$750 of your \$1000 loss due to an accident. Another management strategy that aids insurance firms in lowering moral hazard is deductibles. When you file a claim with a deductible, the insurer and you both lose money. You have an incentive to drive more cautiously since you have something to lose when you get into an accident. This reduces moral hazard since a deductible encourages policyholders to make decisions that are lucrative for the insurer. Additionally, since moral hazard has been diminished, the insurance company may cut the premium by an amount that will more than make up for the policyholder's exposure to the deductible. By making the insured responsible for these losses, the deductible also serves to minimize the administrative expenses associated with addressing minor claims.

### **Coinsurance**

Coinsurance refers to the arrangement wherein a policyholder and the insurer split a portion of the losses. For instance, when a particular deductible has been reached, certain medical insurance plans cover 80% of medical costs, and the insured individual is responsible for the remaining 20%. The same way that a deductible reduces moral hazard, coinsurance also accomplishes the same. A policyholder who shares in the insurer's loss has less motivation to do activities that result in larger claims, such as seeing a specialist needlessly. Therefore, coinsurance is yet another practical management tool for insurance companies.

### **Limits on the Amount of Insurance**

Even when a client is prepared to pay more for greater coverage, there should be restrictions on the quantity of insurance offered. This is another crucial insurance management idea. The more the moral hazard, the more the insured individual might profit from hazardous actions that increase the likelihood that an insurance payout would occur, the higher the insurance coverage. Zelda may not take the necessary measures to avoid its theft, such as making sure the key is constantly withdrawn or installing an alarm system, if, for instance, her automobile were insured for more than its actual worth. She would benefit if it were stolen since the large

insurance premium would enable her to purchase a vehicle that was even better. As a result, she will take efforts to avoid having her automobile stolen when the insurance payments are more than the worth of her vehicle. In contrast, when they are lower, she will incur a loss if it is taken. Insurance companies must constantly be cautious not to have coverage levels that are so high that moral hazard results in significant losses [10]–[13].

## CONCLUSION

Nonbank financial institutions have become significant actors in the financial system, acting as a supplement to conventional banks and promoting market efficiency and financial intermediation. To meet the changing demands of customers and companies, these institutions provide a variety of financial services and products, including insurance, asset management, private equity, and crowd financing. Nonbank financial organizations provide several advantages, such as improved access to capital and innovation, but they also carry hazards including regulatory arbitrage, systemic risk, and consumer protection issues. To address these concerns, strict regulation and oversight adapted to the unique activities and hazards connected to nonbank funding are needed. Regulators must find a balance between fostering innovation and competition, preserving financial stability, and safeguarding consumer interests. Institutions of nonbank finance serve as vital components of the global financial system, complementing traditional banking activities and offering diverse financial services. Their functions include capital formation, risk management, and long-term savings. By comprehending the characteristics and functions of nonbank financial institutions, stakeholders can navigate the financial landscape effectively, diversify investment portfolios, and contribute to sustainable economic growth.

## REFERENCES

- [1] F. Allen, R. Chakrabarti, S. De, J. Q. J. Qian, and M. Qian, “Financing firms in India,” *J. Financ. Intermediation*, 2012, doi: 10.1016/j.jfi.2012.01.003.
- [2] W. Yin and X. Liu, “Bank versus nonbank financial institution lending behaviour: indicators of firm size, risk or ownership?,” *Appl. Econ. Lett.*, 2017, doi: 10.1080/13504851.2016.1273473.
- [3] Y. Nersisyan and F. Dantas, “Response to ‘A note on “Rethinking liquidity creation: Banks, shadow banks and the elasticity of finance,””” *J. Post Keynes. Econ.*, 2018, doi: 10.1080/01603477.2018.1494506.
- [4] R. H. Weber, D. W. Arner, E. C. Gibson, and S. Baumann, “Addressing Systemic Risk: Financial Regulatory Design,” *Tex. Int. Law J.*, 2014.
- [5] H. Ahmed and N. Hamid, “Financing Constraints: Determinants and Implications for Firm Growth in Pakistan,” *LAHORE J. Econ.*, 2011, doi: 10.35536/lje.2011.v16.isp.a14.
- [6] Y. Hidayat, F. Fuad, and M. Nurhidayati, “Implementation Of Economic Democracy Principle In Islamic Banking Policies Through Financial Services Authority (Fsa) In Indonesia,” *At-Taradhi J. Stud. Ekon.*, 2018, doi: 10.18592/at-taradhi.v8i2.1996.
- [7] A. Metrick and D. Tarullo, “Congruent Financial Regulation,” *Brookings Pap. Econ. Act.*, 2020, doi: 10.1353/eca.2020.0001.
- [8] K. Mitchell and D. K. Pearce, “Lending technologies, lending specialization, and minority access to small-business loans,” *Small Bus. Econ.*, 2011, doi: 10.1007/s11187-009-9243-1.

- [9] C. Dirican, “Financial services without intermediaries: benefits and effects of central banks doing business directly with corporates,” *Pressacademia*, 2016, doi: 10.17261/pressacademia.2016116545.
- [10] R. Chen and R. Divanbeigi, *Can Regulation Promote Financial Inclusion?* 2019. doi: 10.1596/1813-9450-8711.
- [11] R. Kasilingam and G. Ramasundaram, “Predicting Solvency of Non-Banking Financial Institutions in India Using Fulmer and Springate Model,” *J. Serv. Res.*, 2012.
- [12] Asian Development Bank, *Asia Small and Medium-Sized Enterprise Monitor 2020*. 2020.
- [13] T. Bates, “Financing small business creation: The case of Chinese and Korean immigrant entrepreneurs,” *J. Bus. Ventur.*, 1997, doi: 10.1016/S0883-9026(96)00054-7.