Historical Development and **Evolution of** Banking

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Banking has been around since time in memorial, But todays banking has been around since the first currencies were minted.

The history of banking began when empires needed a way to pay for foreign goods and services with something that could be exchanged easily.

In ancient times, rich people in ancient Rome kept their coins and jewels in the basements of their temples, believing that priests or temple workers are devout and honest and therefore, will not touch the wealth, and sometimes armed guards are added to the temples to make sure that the wealth are secured.

Historical records from Greece, Rome, Egypt, and Ancient Babylon have suggested that temples loaned money out in addition to keeping it safe. Therefore in ancient times, temples and places of worships functioned as the financial centers of their cities.

The Romans are the first civilization that separated banking from the temples and formalized it within separate distinct buildings.

According to World History Encyclopedia, Julius Caesar was the first person to gives that allowed bankers to confiscate land in lieu of loan payments. This was a monumental shift of power in the relationship of creditor and debtor, as landed noblemen were untouchable through most of history, passing debts off to descendants until either the creditor or debtor's lineage died out.

The Roman Empire eventually crumbled, but some of its banking institutions lived on and eventually, the various monarchs that reigned over Europe noted the strengths of the banking institutions.

In those days banks existed by the grace, and occasionally explicit charters and contracts of the ruling sovereignty (King or Queen).

The Medici Bank of Florence was the most important financial institution in 15th-century Europe.

The Medici is a family that created a bank that manages the fund of countries, kings, queens and major firms in Europe. Members of the Medici family became involved in Florentine banking in the latter 1300s.

In 1393, Giovanni di Bicci de' Medici took ownership of the Roman branch of a bank owned by one of his Florentine cousins. He moved the headquarters of his bank to Florence in 1397.

During that time, Rome was a source of funds, but Florence offered more investment opportunities. Therefore, the Medicis set up a system of branch banks, any one of which could be declared independent by rearranging accounts. Such arrangements protected the parent bank from the bankruptcy of individual branches caused by localized economic difficulties.

By 1402, the Medici Bank had opened a branch bank in Venice, which was also an important outlet of investment opportunities.

Nearly a century later, the Medici Bank was the most powerful bank in Europe and became the chief bank for the Roman Catholic, and it had branches in the major cities of Italy, as well as in London, Lyon, Geneva, Bruges, and Avignon.

The royal powers of that time began to take loans to make up for hard times. This easy financing led kings into unnecessary extravagances, costly wars, and arms races with neighboring kingdoms that would often lead to crushing debt.

In 1557, Philip II of Spain managed to burden his kingdom with so much debt (as the result of several pointless wars) that he caused the world's first national bankruptcy. This occurred because 40% of the country's GNP was going toward servicing the debt.

Fast forward to 1776, the Adam Smith's view of a self-regulated economy led moneylenders and bankers to limit the state's involvement in the banking sector in the British Empire. At the same time, This free-market capitalism and competitive banking found fertile ground in the New World, where the United States of America was about to emerge.

Initially, Smith's ideas did not benefit the American banking industry. The average life for an American bank at that time was five years, after which most banknotes from the defaulted banks became worthless. This is because the bank can only issue banknotes against the gold and silver coins they had in their reserve.

Alexander Hamilton, the Secretary of the Treasury of the United States at that time, established a national bank that would accept member banknotes at par, thus floating banks through difficult times.

Few years later, this national bank created a uniform national currency and set up a system by which national banks backed their notes by purchasing Treasury securities, thus creating a liquid market.

Most of the economic duties that would have been handled by the national banking system, in addition to regular banking business like loans and corporate finance, fell into the hands of large merchant banks because the national banking system was sporadic.

During the unrest that lasted until the 1920s these merchant banks utilize their international connections into political and financial power. These banks included Goldman Sachs, Kuhn, Loeb & Co., and J.P. Morgan & Co. which are still the giant banks that control most of the world finance today.

Originally, they relied heavily on commissions from foreign bond sales from Europe, with a small back-flow of American bonds trading in Europe. This allowed them to build capital.

J.P. Morgan & Co. emerged at the head of the merchant banks during the late 1800s. It was connected directly to London, then the world's financial center, and had considerable political influence in the United States. This bank created U.S. Steel, AT&T, and International Harvester, as well as monopolies in the railroad and shipping industries, through the revolutionary use of trusts.

Multiple Regulatory Agencies

Commercial bank regulation nowadays has developed into a complex layers of multiple regulatory agencies with overlapping jurisdictions. Lets take USA for example:

- ➤ The Office of the Comptroller of the Currency has the primary supervisory responsibility for the 2,100 national banks that own more than half of the assets in the commercial banking system.
- ➤ The Federal Reserve (The Central Bank) and the state banking authorities have joint primary responsibility for the 1,200 state banks that are members of the Federal Reserve System.
- ➤ The central bank also has regulatory responsibility over companies that own one or more banks (called bank holding companies) and secondary responsibility for the national banks.
- ➤ The Federal Deposit Insurance Corporation (FDIC) and the state banking authorities jointly supervise the 5,800 state banks that have FDIC insurance but are not members of the Federal Reserve System.

Multiple Regulatory Agencies

- ➤ The state banking authorities have sole jurisdiction over the fewer than 500 state banks without FDIC insurance. (Such banks hold less than 0.2% of the deposits in the commercial banking system.)
- ➤ If you find the U.S. bank regulatory system confusing, imagine how confusing it is for the banks, which have to deal with multiple regulatory agencies.

countries (This only for the banks that are listed in the stock exchange markets in a

□ The Central Bank
 □ Bank and Other Financial Institution Act (Law)
 □ Company Law (Act)
 □ Corporate Affairs Commission
 □ The Securities and Exchange Commission also known as Capital markets Board in some

In most countries banks are regulated under:

country)

To understand how the banking industry has evolved over time, we must first understand the process of financial innovation, which has transformed the entire financial system. To maximize their profits, financial institutions develop new products to satisfy their own needs as well as those of their customers

A change in the financial environment will stimulate a search by financial institutions for innovations that are likely to be profitable. "Necessity is the mother of invention"

Financial Engineering: To survive in the new economic environment, financial institutions had to research and develop new products and services that would meet customer needs and prove profitable, this process is referred to as *financial engineering*.

There are three basic types of financial innovation:

- ✓ Innovations relating to responses to changes in demand conditions
- ✓ Innovations relating to responses to changes in supply conditions
- ✓ Innovations relating to avoidance of regulations

Innovations relating to responses to changes in demand conditions: The most significant change in the economic environment that altered the demand for financial products in recent years has been the dramatic increase in the volatility of interest rates. Large fluctuations in interest rates lead to substantial capital gains or losses and greater uncertainty about returns on investments.

The risk that is related to the uncertainty about interest-rate movements and returns is called *interest-rate risk*. High volatility of interest rates, leads to a higher level of interest-rate risk.

Therefore, the increase in interest-rate risk increases the demand for financial products and services that could reduce that risk. This change in the economic environment would thus stimulate a search for profitable innovations by financial institutions that meet this new demand.

Example: In 1970s, interest rate fluctuated between 4.0% and 11.5%, and in the 1980s, it ranged from 5% to over 15% in the US. These high volatility of interest rates led to a higher level of interest-rate risk, as such the bank had to innovate new products to meet the demand of its customers, as such the development of adjustable-rate mortgages and financial derivations emerged.

Adjustable Mortgages: This is mortgage loans on which the interest rate changes when a market interest rate (usually the Treasury bill rate) changes. Initially, an adjustable-rate mortgage might have a 5% interest rate. In six months, this interest rate might increase or decrease by the amount of the increase or decrease in, say, the six-month Treasury bill rate, and the mortgage payment would change. Because adjustable-rate mortgages allow mortgage-issuing institutions to earn higher interest rates on mortgages when rates rise, profits of the bank are kept higher during these periods.

This is a good example of Innovations relating to responses to changes in demand conditions because, financial institutions find that lending is more attractive if interest-rate risk is lower. They would not want to make a mortgage loan at a 10% interest rate and two months later find that they could obtain 12% in interest on the same mortgage.

Financial Derivatives: The greater demand for the reduction of interest-rate risk led the commodity exchanges such as the Chicago Board of Trade to recognized that if they could develop a product that would help investors and financial institutions to protect themselves from interest-rate risk, then they could make a lot of profits by selling this new instrument. And that is the birth of hedging in finance. Financial instruments such as Futures, Forward, Options, and etc. were developed.

A Futures contracts is a financial asset in which the seller agrees to provide a certain standardized commodity to the buyer on a specific future date at an agreed on price whether the price increased or decreased.

Innovations relating to responses to changes in supply conditions: The most important source of the changes in supply conditions that stimulate financial innovation has been the improvement in computer and telecommunications technology. The improvements in information technology has had two effects:

- 1. It has lowered the cost of processing financial transactions, making it profitable for financial institutions to create new financial products and services for the public.
- 2. It has made it easier for investors to acquire information, thereby making it easier for firms to issue securities.

The rapid developments in information technology have resulted in many new financial products and services as:

- Bank Credit and Debit Cards.
- Electronic Banking
- Securitization.
- Commercial Paper Market

■ Junk Bonds: Before the advent of computers and IT, it was difficult to acquire information about the financial situation of firms that might want to sell securities. Because of the difficulty in screening out bad from good credit risks, the only firms that were able to sell bonds were the very well established firms that had high credit ratings. With the improvement in IT in the 1970s, it became easier for investors to screen out bad from good credit risks, thus buying long-term debt securities from less well known firm with lower credit ratings at higher interest rate. This give way to the creation of Junk Bonds. Which are issued by firms with high credit risk but with higher rate of return.

Innovations relating to avoidance of regulations: Because the financial sector is more heavily regulated than other industries, government regulation becomes a much greater cause of innovation in this financial services industry. Government regulation leads to financial innovation by creating incentives for firms to evade regulations that restrict their ability to earn profits. This is done by exploiting the "loopholes of regulations".

Two sets of regulations have seriously restricted the ability of banks to make profits, these are:

■ Reserve requirements: reserve requirements forces banks to keep a certain fraction of their deposits as reserves; some in their vault as buffer cash and some deposits in the central bank. Because the central bank does not pay interest on reserves, the opportunity cost of holding them is the interest that a bank could otherwise earn by lending the reserves out.

Restrictions on interest paid on deposits: Central bank control the interest rate that banks can pay on deposit accounts. Banks are not allowed to pay interest on current accounts. Therefore, If market interest rates rose above the maximum rates that banks paid on time deposits, depositors will withdrew funds from banks to put them into higher -yielding securities. This loss of deposits from the banking system restricted the amount of funds that banks could lend called *disintermediation* and thus limits the bank profits.

The desire to avoid restrictions on interest payments and the tax effect of reserve requirements led to two important financial innovations:

- ❖ Money Market Mutual Funds: Money market mutual funds issue shares that are redeemable at a fixed price (usually \$1) by writing cheque. For example, if you buy 5,000 shares for \$5,000, the money market fund uses these funds to invest in short-term money market securities such as Treasury bills, certificates of deposit, commercial paper, etc. that provide you with interest payments. Although money market fund shares effectively function as current account deposits that earn interest, they are not legally deposits and so are not subject to reserve requirements or prohibitions on interest payments. For this reason, they can pay higher interest rates than deposits at banks. In addition, the account holder can write cheque up to the \$5,000 held as shares in the money market fund.
- ❖ Sweep Accounts: sweep account is an arrangement in which any balances above a certain amount in a firm's current account at the end of a business day are "swept out" of the account and invested in overnight securities that pay the firm interest. Because the "swept out" funds are no longer classified as current account deposits, they are not subject to reserve requirements and thus are not taxed and the bank can also pay the account holder some interest.

Therefore, financial innovations have created a more competitive environment for the banking industry, causing the industry to change dramatically and also causing the decline in traditional banking business of "borrowing short and lending long."

To understand why traditional banking business has declined in both size and profitability, we need to look at how the financial innovations caused banks to suffer declines in their cost advantages in acquiring funds that are on the liabilities side of their balance sheet, while at the same time they also lost income advantages on the assets side of their balance sheet.

Decline in Cost Advantages in Acquiring Funds (Liabilities): Previously banks were subject to deposit rate ceilings that restricted them from paying any interest on current accounts and limited them to paying a maximum interest rate of a little over 5% on time deposits account. These restrictions worked to the banks' advantage because their major source of funds (over 60%) was current account, and the zero interest cost on these deposits meant that the banks had a very low cost of funds. Unfortunately, this cost advantage for banks did not last.

However, financial innovation of money market mutual funds put the banks at an disadvantage because depositors could now obtain current account and at the same time earn high interest on their money market mutual fund accounts. As such, the low-cost source of funds declined dramatically, falling from over 60% of bank liabilities to below 10% today.

Decline in Income Advantages on Uses of Funds (Assets): Banks have also been hit by a decline in income advantages from the financial innovations of junk bonds, securitization, and the rise of the commercial paper market. For example, instead of going to banks to finance short-term credit needs, many of the banks' best business customers now find it cheaper to go for the commercial paper market for funds. The rise of the junk bond market has also eaten into banks' loan business and IT made it easier for firms to sell their bonds to the public directly, thereby bypassing banks.

In deciding how they will respond to customers' changing demands for timely access to services, financial firms today have several options to choose from:

- 1. Chartering new financial institutions
- 2. Establishing new full-service branch offices, offering most or perhaps all the services that are also available in the home office.
- 3. Setting up limited-service facilities, including drive-up and walk-up teller windows, self-service terminals inside branch offices, automated teller machines (ATM), point-of-sale terminals (POS) in retail stores, cell phone connections, home and office computers linked to a financial institution through the Internet, and other rapidly developing electronic media.
- **Chartering new financial institutions**: No one can start a banks, credit unions, and savings Associations, without the express approval of federal or state authorities, and sometimes both.

Why is this required? Government chartering agencies believe that financial-service providers need special scrutiny for several reasons:

- ➤ They hold the public's savings, and unregulated chartering activity might result in poorly capitalized institutions that might fail
- Many financial firms are at the heart of the payments process to support trade and commerce, so their failure could disrupt business activity.
- They often create money (immediate spending power), which suggests that chartering too many might result in excessive money creation and inflation.

How are new banks chattered?

Generally, federal standards for receiving a bank charter are more rigorous than the rules of state banking commissions. However, organizers often seek a federal bank charter for the added prestige it conveys in the minds of customers, especially large depositors. The choice between pursuing a federal or a state charter usually comes down to weighing the benefits and costs of each for the particular bank, and the location that the organizers have in mind.

The advantages of Applying for a Federal (National) Charter include:

- It brings added prestige due to stricter regulatory standards that may attract larger deposits.
- In times of trouble the technical assistance supplied to a struggling institution by national authorities may be of better quality, giving the troubled bank a better chance to survive.
- Federal rules can supersede state laws.

On the other hand, the advantages of Applying for a State Charter include:

- It is generally easier and less costly to secure a state charter and supervisory fees are usually lower.
- Some states allow a bank to lend a higher percentage of its capital to a single borrower.
- State-chartered banks may be able to offer certain services (e.g., real estate brokerage)
 that national banks may not be able to offer.

Filing a charter application is a costly process. The organizers must carefully analyze their business prospects and answer several questions regarding the factors that might affect the new institution's chances for success. These factors are divided into External Factors and Internal Factors.

External factors the organizers should consider include:

- ✓ The level and growth of economic activity: Is it high enough to generate sufficient service demand? This is often measured by the volume of retail sales, personal income, bank debits (i.e. cheque volume), and number of households and businesses in the area.
- ✓ The need for a new financial firm: Has the population grown or moved into new areas not currently receiving convenient financial services? This is often measured by population per banking office, recent earnings and deposit growth, and the number and size of new residential construction projects.
- ✓ The strength and character of competition in supplying financial services: How many competing financial institutions are there, and how aggressive are they in advertising their services? This is often measured by the number of offices relative to area population and the number of other financial institutions in the area.

Internal factors the organizers should consider include:

- ✓ Qualifications and contacts of the organizers: Do the organizers have adequate depth of experience? Is their reputation strong enough to attract customers?
- ✓ Management quality: Have the organizers been able to find a chief executive officer
 with adequate training and management experience? Will the organizing group be able
 to find and pay competent management to fill the new institution's key posts?
- ✓ Pledging of capital to cover the cost of filing a charter application and getting under way: Is the net worth position of the organizers strong enough to meet the initial capitalization requirements imposed by regulation and cover consulting and legal fees? Because the chartering process often covers months and may wind up in court if competitors file suits before the new firm is allowed to open, do the organizers have sufficient financial strength to see the project through to completion?

The organizers also need to make two documents for the bank's incorporation:

- Memorandum of Association (Memorandum of Incorporation)
- Article of Association.

❖ Establishing New Branch: When an established financial institution wishes to enter new markets or when its valued customers move, an important vehicle for market entry is the creation of new branch offices, offering many, if not all, the services available from the home office. Indeed, for most of the world branch office expansion has been the most frequent mode of entry into new financial-service markets.

Establishing branches compared to chattering a new bank has the following advantages:

- 1. It is usually much cheaper than chartering new financial-service corporations.
- 2. Less capital is required
- 3. The application for new branch offices is less detailed than is usually required for a new corporate charter
- 4. Duplication of staff is usually much lower because a new branch doesn't normally require a full slate of officers and operations personnel, like a new corporation would.

The decision of whether or not to establish a branch office should include the following:

Expected Rate of Return: The decision of whether or not to establish a branch office is a *capital-budgeting decision*, requiring a large initial cash outflow (cost) to fund the purchase or lease of property and to begin operations. Branches are usually created with the expectation that future net cash inflows (NCF) will be large enough to guarantee the financial firm an acceptable return on its invested capital.

Geographic Diversification: When considering possible locations for new branches, management should consider not only the expected rate of return from each location, but also:

- i. The changes around that expected return, which is due to fluctuations in economic conditions in the area served by the branch and
- ii. The relationship of expected returns from the proposed new branch with the existing branches, and other assets previously acquired by the offering institution.

Branch Regulation: Regulation in recent years has made it more difficult to close full-service branch offices of depository institutions.

❖ Establishing ATMs: The high cost of chartering new financial firms and of setting up and operating full-service branch offices has led recently to a sharp expansion in so-called branchless banking, carried out through limited-service facilities: point-of-sale (POS) terminals, automated teller machines (ATMs), Mobile banking (including cell phones with imbedded financial accounts and customer call centers), and Internet-supplied services.

An ATM combines a computer terminal, recordkeeping system, and cash vault in one unit, permitting customers to enter a financial firm's bookkeeping system either with a plastic card containing a personal identification number (PIN) or by punching a special code number into a computer terminal linked to the financial firm's computerized records 24 hours a day. Nowadays the ATM also uses QR codes, accept deposit, exchange currencies and make payments.

Therefore, ATM is a simplified way of creating a new branch to satisfy customers. The only thing that an ATM cannot do is the issuance of loan and credit, but with the fast way things are moving, we expect to see a loan issuing ATM soon.

A Brief History of ATM

- > The first ATM began operations at a branch office of Britain's Barclays Bank in 1967.
- This first automatic cash dispenser could only accommodate customer cash withdrawals, but no other services.

Any Question?

THANK YOU

Question Bank

- 1. Which civilization started the business of banking as a separate organization in the western history? Who was the first person to allow banks to seize the property of a defaulted loan holder? And what is the name of the first international bank?
- 2. How did banks like J.P Morgan & co. and Goldman Sachs survive the turbulent period of 1920s and what lead to their success today?
- 3. List the major bank regulatory agencies that normally exist in almost every country?
- 4. With good examples, explain the differences between Innovations relating to responses to changes in demand conditions and Innovations relating to responses to changes in supply conditions.
- 5. Explain how financial innovations like Junk bonds and Money Market Mutual Funds caused decline in the profit ability of banks from its traditional activities.
- 6. Why is it required that banks must registered with the government? Briefly explain the reasons.
- 7. Your friend and her family are going to incorporate a bank, they come to you as a grade 3 Banking and Finance student to advice them on whether to charter their bank under a state or federal government. Explain the pros of chattering a bank in each situation, and state the factors that they should watch out for when incorporating their bank.
- 8. Assuming that your friends family in 7. above already have a bank, advice them on whether to open a new branch or just install an ATM in a new developed area of the city.