

**CHAPTER 03:**  
**FINANCIAL MARKETS**

## *Preview*

Financial markets are an important component of the financial system; they are not only an effective financial intermediation institution that connects savers and investors directly, but they are also a very important means of enhancing the resilience and efficiency of the financial system. Therefore, financial markets link the various depository and non-depository financial institutions together, increasing their interaction and opening the way for their pooled funds to be invested in investments with an appropriate return to sustain their activity.

### **1. Financial markets: their concept, functions, and types**

As it is said before, financial markets are the most popular financial institutions, and many consider them to be the most effective and capable mean of channeling funds from people who do not have productive uses or opportunities to those who do, which in turn contributes to greater economic efficiency. Therefore, financial markets are reliable tools to have direct effects on personal wealth, the behavior of businessmen and consumers, and the overall performance of the economy and well-being.

#### **1.1. Concept and functions of financial markets**

Given the importance of financial markets, several efforts have emerged to give them a concept and define their functions.

**1.1.1. Financial markets concepts:** Given the complexity of financial markets' roles, and the evolution of their functions, many definitions have been addressed, perhaps the most important of which are:

- Financial markets are defined as an automatic communication tool between savers and investors; that is, they represent the link between savings and investment through several specialized technical tools and institutions that create the opportunity for the surplus funds (savings) to be within the reach of the investors (individuals, institutions, or governments) who own investment opportunities and need finance for both.<sup>1</sup>

- Some see financial market as a system whereby sellers and buyers are combined for a certain type of securities or financial assets so that investors can sell and buy a number of shares and bonds within the market, either through

---

<sup>1</sup> Tijani Najeh, op.cit, p. 67.

brokers or companies working in this field. As telecommunications companies grew as information and communication technologies developed, the importance of being in the headquarters of financial markets decreased, allowing for intensified off-market interaction with brokerage companies that are widely spread, so that transactions take place in both official or organization markets (exchanges) and parallel or unorganized markets (over-of-the-counter).<sup>2</sup>

**1.1.2. Financial markets functions:** Financial markets have a variety of roles. With all economic or technological progress, some new needs emerge, and then new functions for the financial market arise to satisfy them and stimulate economic development. The most important of these functions are:

- Attracting savings, especially those of small investors, which benefit development and reduce inflation.<sup>3</sup> Thanks to economies of scale and the experience of financial brokerages, savers have the potential to achieve higher returns at low costs.<sup>4</sup>

- Reducing inactive savings and hoarding (compactness) by opening channels to employ them in investments with encouraging returns, which reduces banks' dominance in relation to national savings and their different employment.<sup>5</sup>

- Contributing to direct financing by providing governments and institutions (public and private) with the opportunity to obtain the necessary funding by harnessing their potential to issue and market bonds and shares, thereby contributing to productive investments leading to an increase in production and national income and the consequent improvement of economic development. Since the investor's goal is to maximize profit, this can only be done by covering the costs of obtaining funding, which will therefore motivate him to direct investments to the best and most efficient uses.<sup>6</sup> Advanced financial markets provide long-term liquidity for productive investments, so providing the possibility of fast and low-cost securities liquidation will eliminate the hesitancy

---

<sup>2</sup>Abdul Ghafar Hanafi, op.cit, p. 37.

<sup>3</sup> Ziad Ramadan & Marwan Shmout, *Financial Markets*, United Arab Company for Marketing & Supply, Egypt, 2008, p. 09.

<sup>4</sup> Mohamed Kamal Abu Amcha, *Investing in Gulf Capital Markets and Their Role in Attracting Foreign Investments*, *The Arab Journal of Economic Research*, N° 61-62, Spring 2013, p. 79.

<sup>5</sup> Panicos O.Demetriades, *Financial Markets and Economic Development*, ECES, working paper N°27, June 1998, p. 12.

<sup>6</sup> Chaker Atallah, *Financial Market: the Tunisian Experience*, Imprimerie Tunis Carthage, Tunisia, 2007, p. 13.

of savers to cede their savings for a long time to the purchase of financial instruments, thereby linking savers to long-term investments.

- Alleviating the Principle/Agent problem by linking the performance of corporate managers to the movement of prices of their stock in the market, which prompts them to make greater efforts to improve their performance and realize the best results.<sup>7</sup>

- Give a valuation of companies and projects where financial markets play an important role in reducing the Asymmetric Information problem and taking advantage of Free Riders by publishing all information, reports, and indicators. This will allow investors to realize the real status of companies, which will have a reflection on equity prices, and thus urge the company to adjust its policies to benefit from further financing.

- Attracting foreign investments. The availability of an appropriate investment climate will contribute to reducing the use of external borrowing. On the one hand, financial markets largely guarantee the necessary financing to expand domestic and foreign investment activities. On the other hand, financial markets provide adequate safeguards to maintain the stability and development of investments, including foreign indirect investments seeking to form secure and profitable investment portfolios, by ensuring the liquidity of traded securities, as well as adequate supervision of listed companies by obliging them to publish periodic and structured reports.<sup>8</sup>

- Reducing the leakage of national capital abroad by providing a secure and profitable instrument capable of absorbing capital.<sup>9</sup>

- Contributing to the sustainability of companies' activities, financial markets play a role in improving their competitiveness by persuading them to introduce improvements in their financial structure by increasing the importance of self-financing and permanent and stable financing to integrate with bank financing, which has a positive impact on alleviating external debt burdens and achieving long-term financial balance.

- Contributing to the success of privatization programs. The existence of efficient financial markets is central to any process aimed at privatizing public

---

<sup>7</sup> Mohamed Kamal Abu Amcha, *Investing in Gulf Capital Markets and Their Role in Attracting Foreign Investments*, op.cit, p. 79.

<sup>8</sup> Chaker Atallah, op.cit, p. 13.

<sup>9</sup> Mohamed Kamal Abu Amcha, *The Importance of Developing Financial Markets in Member States of the Cooperation Council of the Gulf*, *The Arab Journal of Economic Research*, N° 55-56, Autumn 2011, p. 135.

enterprises and improving their performance. Sharp competition in financial markets will enable a real valuation of the companies' assets to be privatized and bring the shares to a level of real and realistic prices.<sup>10</sup>

- Contributing to the preservation and development of wealth, like cash money, securities available for trading are usually held and retained as a tool of preservation of wealth until they are liquidated at the time of necessity. Due to their distinctive characteristics, securities traded in financial markets are neither depreciated (worn out) nor eroded over time, but some generate profits that increase their value and grow the wealth of their holders.

- Facilitating access to the borrowing market. Financial instruments are stocks and bonds that allow their owners to borrow from financial institutions against their mortgage.

- Facilitating the payments and development of exchanges. Financial instruments usually enjoy broad acceptance among customers in different markets, which makes the clearance of them easy and smooth and encourages the development of internal and external transactions.

- In addition to their role in facilitating access to financing channels, financial markets play another role that is positively reflected in investment by reducing investment risk through financial derivatives that allow diversification and hedging. The multiplicity of financial markets and financial instruments traded in them allows the investor to diversify his or her areas of investment, avoiding the risk of investing in a particular instrument or market. The development of financial markets and their openness to each other, on the one hand, and the development of financial engineering outputs from innovative financial instruments such as derivatives, on the other hand, have given investors the opportunity to hedge against the risk of declining returns in the future.<sup>11</sup>

- High-liquidity financial markets reduce investment risk by allowing the saver to adjust his investment portfolio by selling and buying such securities quickly and at low costs, which accelerate the turnover of financial assets in the markets and increase the markets efficiency.

- Improving the functioning of financial markets has a positive impact on other financial institutions because financial markets provide services and investment opportunities that increase the return on their assets, thereby increasing profits and market value.

---

<sup>10</sup> Chaker Atallah, op.cit, p. 13.

<sup>11</sup> Ziad Ramadan & Marwan Shmout, op.cit, p. 10.

- Increasing the effectiveness of listed companies. The access of companies listed financing by stock offering will stimulate them to increase the effectiveness of the use of resources and increase the productivity of their human resources, with a view to increasing their market value and allowing them to obtain additional financing easily in the future.<sup>12</sup>

- Assisting in the implementation of monetary policies, financial markets allow central banks to implement their policies effectively. Open market operations, which are an important tool in the functioning of these banks, cannot be carried out with the required effectiveness in the absence of financial markets.<sup>13</sup> Most central banks use financial market indicators in their models to foresee activity and inflation rates in the future and to anticipate economic shocks, avoiding financial crises. Financial markets are preferred places to measure market expectations and reactions to monetary policies, allowing them to adjust these policies quickly.<sup>14</sup>

- Measuring companies' performance through the movement of equity prices and giving a fair assessment of their performance and real value.<sup>15</sup>

- Contributing to raising the level of financial awareness and sense of savings and investment among individuals and institutions, and improve the transparency of information about the performance of listed companies and the economy as a whole.

- Through economic openness and the development of media and communication, economies with financial markets have the opportunity to benefit from international finance by establishing international relations with various financial and business centers around the world.<sup>16</sup>

## **1.2. Types of financial markets**

Multiple needs for investment opportunities and finance, as well as the urgent need to improve the efficiency of the overall economy, have prompted the

---

<sup>12</sup> Panicos o.demetriades, op.cit, p. 12.

<sup>13</sup> Paul Mylonas and Sebastian Schich, *The Use of Financial Markets Indicators by Monetary Authorities*, OECD publishing , working paper N°223, 1999, p. 13.

<sup>14</sup> Mohamed Kamal Abu Amcha, *The Importance of Developing Financial Markets in Member States of the Cooperation Council of the Gulf*, op.cit, p. 141.

<sup>15</sup> Nazhan Mohamed Su, *Securities Markets in the Wake of the Current Global Economic Crisis*, Damascus university journal for the economic and legal sciences, Vol 26, N°02, 2010, p. 658.

<sup>16</sup> Mohamed Kamal Abu Amcha, *The Importance of Developing Financial Markets in Member States of the Cooperation Council of the Gulf*, op.cit, p. 141.

emergence of different types of financial markets. We cannot address financial markets without shedding light on the different types of them, which can be divided according to many criteria.

**1.2.1. Division according to the securities dealt with:** This includes:

- **Money Market:** This market offers short-term credit instruments with a maturity of less than a year. It is characterized by a low degree of risk as it offers the possibility to liquidate the assets without high costs. In the money market, liquidity and flexibility are high due to the short investment period and low levels of both money risk (the likelihood of a sudden and sharp decline in securities prices) and credit risk (the likelihood of the debtor's inability to pay). In turn, money markets are divided into three main types:

✓ **Open markets:** Central banks rely on these markets to manage their monetary policy.

✓ **Discount markets:** These markets are primarily designed for dealing with discountable securities, the central bank charges banks a discount rate for these securities.

✓ **On-demand money markets:** These markets bring together commercial and specialized banks willing to lend and borrow in between for a short time and in various currencies.

- **Capital market:** Financial transactions are carried out in this market on medium- and long-term financial assets (instruments) with maturities exceed a year. Capital market is of the utmost importance in view of its advantages for both parties in financial transactions (seller and buyer). It allows for the creation of suitable canals for the investment of funds and the gaining of rewarding returns, ultimately in the interest of the national economy, as well as for the seller and buyer to obtain the real value of the securities. Managers of capital markets are constantly working to achieve liquidity for the invested funds at any time and in any form (shares, bonds, and others) with ease.<sup>17</sup>

**1.2.2. Division according to issue type:** This includes:

- **Primary market (initial issues market or subscription):** This market deals with new securities that are put up for subscription (before being traded). Companies and governments seeking to finance their investment operations rely on this market to introduce new issues of securities. In order to ensure the success of the issuance process, companies must take certain conditions into account when choosing the appropriate size of the issuance, the timing of the issuance, the type

---

<sup>17</sup> Nadia Abu Fakhra & Mahmoud Sobh & Shamel Al-Hamoui, op.cit, p. 16.

of security, as well as the methods of issuing and marketing the new issuance. In this regard, there are three ways in which issuers can manage their securities:

✓ **Resorting to an investment bank<sup>18</sup> as a broker:** it provides advice to the issuer company. The investment bank engages in issuing and marketing the company's securities, starting with all the operational procedures for issuing the paper, such as contacting the competent market management committee, through the pledge to make efforts to dispose of a minimum amount to be issued and to reach the possibility of covering the issue for subsequent resale to the public. In order to choose the optimal investment bank, companies can negotiate directly with a group of specialized banks or resort to the bidding method by launching a competition between banks to choose the best offer (competitive bidding). The selected bank charges the company a commission based on a contract.

✓ **Direct interaction:** Companies willing to issue new securities can contact major investors directly in the form of major financial institutions to convince them to purchase all the exported quantities.

✓ **Auctions:** Companies can call investors for a bid to offer the price and quantity of securities they are willing to purchase. The priority is given to the best price and then the lowest.<sup>19</sup>

- **The secondary market (trading market or stock exchange):** The secondary market is the market where securities can be exchanged from one party to another in specific places called trading floors that deal with securities previously issued in the first market. In this market, there are major motives that persuade investors to come. The first motive is liquidity, which drives investors to employ excess liquidity they hold by purchasing securities and then selling them in case of a liquidity shortage. The second motive is information. By using the information available to the investors about certain securities that they believe are exclusive (not available to other investors), they can make extraordinary profits or avoid losses.<sup>20</sup>

**1.2.3. Division according to market transaction regulation:** This includes:

- **Organized markets:** These markets are subject to supervision by a higher authority (the market authority). The latter is charged with the management of trading operations and ensures that they conform to the regulations governing fair

---

<sup>18</sup> An investment bank is a specialized financial institution, most notably Merrill Lynch, First Boston Corporation, Morgan Stanley, and the Salomon Brothers.

<sup>19</sup> Munir Ibrahim Hindi, *Securities and Capital Markets, Securities and Capital Markets*, Monchaat Al Maaref, Egypt, 1999, p. 92.

<sup>20</sup> Ziad Ramadan & Marwan Shmout, op.cit, p. 88.

competition, preventing any fraud that has adversely affected the rights of traders and the market's reputation, and thus their ability to perform their economic functions.<sup>21</sup> Therefore, most legislation and laws stipulate that the organized markets must possess a set of conditions that are characteristic of them, such as the existence of conditions for the trading of securities, providing a specific place where trades take place (the stock exchange hall), setting working times, and the presence of intermediaries who are responsible for carrying out trades and are subject to the terms and laws of the exchange.<sup>22</sup>

- **Unorganized markets:** They are called over-the-counter markets or parallel markets. In these markets, unrestricted securities in organized markets are traded in short selling, mostly bonds, because they cannot meet the conditions of listing in organized markets. Therefore, transactions take place outside the stock exchange (inside and outside the country), relying on a modern and fast communications network connecting investors, financial intermediaries, and traders who hold quantities of such securities, so there is no specific place to conduct them or specific rules that frame operations.<sup>23</sup> The unorganized markets provide important services to their customers and largely ensure the marketing of new issuances of securities due to the simplicity of the procedures. Their large liquidity offers the possibility for the securities to be liquidated very quickly and in any quantity, and in this way, they outperform the organized markets. Unorganized markets have two main types:

- **Third market:** This is an unorganized market in which transactions are done on securities restricted in organized markets. The third market arose to remedy the shortcomings of organized markets as it allows large investment companies such as pension funds and mutual funds to benefit from rewarding commissions in the form of deductions on commissions, unlike organized markets, and allows large operations to be carried out at the required speed.

- **Forth market:** This market links large companies and wealthy individuals. The role of the broker in this market is very limited, as it is limited to connecting the parties directly, so its commission has come down. The fourth market has

---

<sup>21</sup> Issam Abdelghani Ali, *Principles of Finance, Facilities Management, and Financial Markets*, Nas Law Company, Egypt, 2004, p. 351.

<sup>22</sup> Ziad Ramadan & Marwan Shmout, op.cit, p. 16.

<sup>23</sup> Munir Ibrahim Hindi, *Securities and Capital Markets, Securities and Capital Markets*, op.cit, p. 106.

come to respond to the need of those companies to execute deals in large volumes and at a low cost.<sup>24</sup>

**1.2.4. Division according to the time of execution of transactions:** This includes:

- **Spot markets:** In these markets, the transaction is liquidated directly; the sellers receive the price of the securities from the buyers immediately after the latter deliver the securities.

- **Forward markets:** Unlike the spot markets, transactions in forward markets are liquidated later, thus postponing the delivery and payment of securities to a later date to be agreed upon between the transaction parties. In order to ensure the execution of the transaction, financial market authorities require the traders in forward markets to pay an insurance amount as coverage, depending on the type of transaction.<sup>25</sup> Most financial systems have created forward markets as a hedging method that gives buyers and sellers a cover to reduce the risk of future price changes that cause losses to their savings and investments. In this regard, derivatives are the most prominent financial instruments in the forward markets.<sup>26</sup> The following figure demonstrates the structure of the financial market in its various markets.

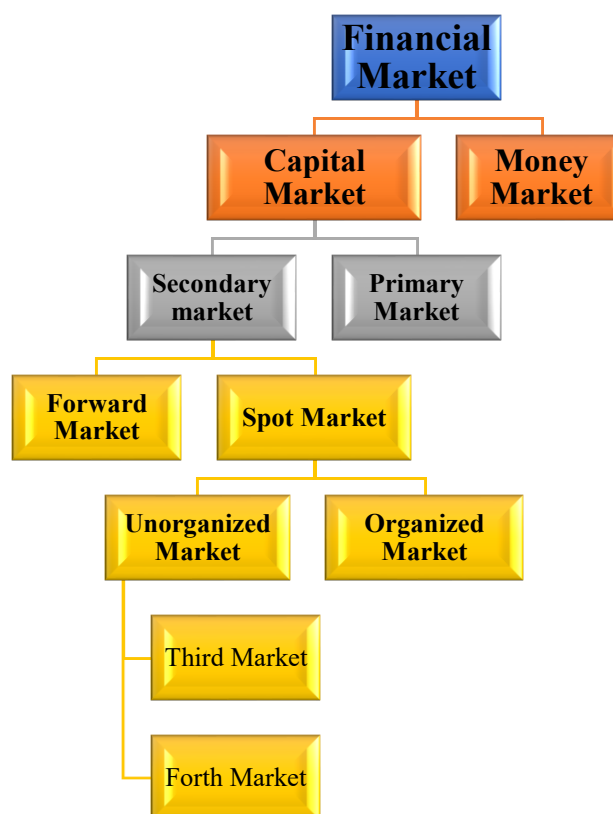
---

<sup>24</sup> Ziad Ramadan & Marwan Shmout, op.cit, p. 93.

<sup>25</sup> Salah al-Din Hassan El-Sissi, *Theoretical and Applied Studies: Arab and International Securities Exchanges and Establishment of the UAE Stock Exchange*, First Edition, Dar El Wissam, Lebanon, 1998, p. 15.

<sup>26</sup> Ziad Ramadan & Marwan Shmout, op.cit, p. 19.

**Figure 05: Financial Market Structure**



**Source:** the Author's preparation

## **2. Conditions of operation of the financial market and types of financial instruments traded**

To ensure the well-functioning of financial markets and the trading of financial instruments, financial market authorities set several conditions. In the following, we shed light on these conditions and the prominent instruments traded in financial markets.

### **2.1. Conditions of operation of the financial market**

To enable financial markets to perform their mandated functions, they must meet conditions and criteria that determine their value and efficiency, notably:

- **Openness and transparency:** To alleviate the asymmetric information problem that negatively affects the efficiency of the market, market authorities are charged with the responsibility of periodically publishing market-related data and information, including restricted and traded securities, indices, and their

prices, to all market parties without exception or discrimination. Stock exchanges are required to provide a monthly publication in more than one language through many means of publication. One of the methods recommended by international bodies to improve corporate transparency and performance is governance, defined by the Organization for Economic Cooperation and Development (OECD) as the set of relationships between the company's managers, the board of directors, and shareholders. Therefore, governance aims at establishing control over the work of corporate management in order to prevent any action that harms the interests of shareholders and then damages the reputation of the financial market in which the company is listed.

- **Liquidity:** Managers of financial markets are required to work to permanently provide liquidity in the market, enabling traders to perform transactions to sell and buy securities quickly and without high costs.

- **Low cost of exchanges and mediation:** It is seen as one of the most attractive factors for traders to sell and buy different securities, which then contributes to increasing liquidity in financial markets.

- **Market depth:** Market depth increases as a large number of sellers and buyers are permanently and continuously available at prices that may exceed or fall short of current prices.

- **Market flexibility:** Securities must be tradable and flexible enough to facilitate a smooth transfer of ownership from one party to another.

- **Free and fair competition:** They enable securities to reach real prices and balance the market.<sup>27</sup>

- **Diversity and abundance of financial instruments:** To achieve the efficiency desired, market authorities need to work to provide the traders with diverse securities in nature, terms, and prices in permanent abundance to avoid a shortage of securities that leads to unreasonable increases in prices, which harm the sustainability of financial markets and affect their capabilities to function efficiently.

- **Financial market efficiency:** Efficiency, especially operational efficiency, is the ultimate goal that market authorities work to achieve; it is the principal way to bring prices closer to real prices and then avoid exacerbate the asymmetric information problem.

- **Protecting investors' rights:** Preserving the rights of investors is among the responsibilities of market authorities that are required to improve the methods

---

<sup>27</sup> Mohamed Kamal Abu Amcha, *The Importance of Developing Financial Markets in Member States of the Cooperation Council of the Gulf*, op.cit, p. 143.

of disclosure and publication of information and deter any fraud in markets. So, they contribute to providing sound securities and reducing the risk of investing in the financial market.

- **Internal and external promotion of the financial market:** Among the missions of market authorities is to promote markets in the country where the market is active and abroad, which can attract more investors and surely increase market liquidity.<sup>28</sup>

- **Availability of sophisticated and diversified banks and non-bank financial institutions:** It is crucial to have sophisticated and diversified banks and non-banking institutions in financial markets due to their role in collecting savings and investing them in the financial market, which helps to achieve a balance in the market between supply of securities and demand for them.

- **The existence of active brokers and dealers:** Having many active financial intermediaries, including dealers and brokers, is essential for the market to operate since they connect sellers and buyers.

- **Economic freedom:** Market authorities must provide economic freedom by authorizing trading in securities at any amount.

- **Fast performance:** Brokers are required to execute their client's orders (delivery or receipt of securities at agreed prices) within a short time and compensate clients with other securities.

- **Availability of adequate experts:** To perform well without any serious deviations, financial markets must have adequate experts who can manage trading and transactions within the markets.

- **Acquiring fast and modern communications network:** A fast and modern communications network is crucial to improving the performance of financial markets since this network connects various financial markets, ensuring a fast and accurate flow of information.

- **Enabling investors to get a suitable return on their investments:** To improve the attraction of financial markets, which is the only way to increase market liquidity, market authorities must work to enable investors to gain an encouraging return on their investments, by setting a minimum price for securities that they should not exceed while activating a catalytic tax system.

- **Opening the opportunity for small savers and investors to access and take advantage of the financial market:** To improve liquidity by attracting more

---

<sup>28</sup> Mohamed Kamal Abu Amcha, *Investing in Gulf Capital Markets and Their Role in Attracting Foreign Investments*, op.cit, p. 82.

savers, market authorities are called upon to encourage the issuance of shares and bonds with nominal values commensurate with their potential. Thereby, these efforts will increase the popularity and liquidity of the market, supporting its ability to attract savings and financial investments.

- **Openness:** To deal with globalization and financial liberalization, financial market authorities are required to open the market to foreign companies that operate in the domestic market but have their headquarters abroad, opening up broad prospects for communication and interaction between domestic and foreign markets and then attracting more liquidity.

- **Modern infrastructure:** To improve the competitiveness of the financial market with other markets in attracting liquidity, market authorities are required to modernize the market infrastructure in terms of systems, procedures, institutions, and committees that facilitate the execution of transactions, the transfer of ownership of assets, and the settlement of the resulting payments.

The above requirements cannot serve their purpose in the absence of a stable economic and political environment that encourages the attraction and stability of domestic and foreign investments and, in addition to the availability of a legal and regulatory framework framing the functioning of the market and the relations between its parties in order to safeguard their interests, taking into account the flexibility and alignment of innovations in financial instruments and domestic and foreign economic developments.<sup>29</sup>

## 2.2. Instruments traded in the financial markets

To respond to the development of economic life, many instruments have been invented and introduced in financial markets to satisfy the needs of all parties in the market. The most prominent instruments are:

**2.2.1. Instruments traded in money markets:** Money markets include many instruments traded whose maturity does not exceed a year, which are:

- **Negotiable certificates of deposit (CDs):** CDs are the most important and famous security traded in the money market. Commercial banks release CDs into circulation for sale to their depositors for annual interest to attract additional funds and raise their liquidity volume.<sup>30</sup> CDs are issued in different values and with different maturities of less than one year for the bank to keep the deposit for a

---

<sup>29</sup> Mohamed Kamal Abu Amcha, *The Importance of Developing Financial Markets in Member States of the Cooperation Council of the Gulf*, op.cit, p. 143.

<sup>30</sup> Frederic S.Mishkin, op.cit, p. 26.

certain period. CDs offer the investor in them (the deposit holder) attractive benefits such as a higher interest rate than the interest of savings accounts and the opportunity to obtain liquidity before maturity by selling them in secondary markets (including banks, investors, and brokers who deal with them), in addition to their guarantee from the central bank.<sup>31</sup>

- **Commercial papers:** They are such fixed-income investment instruments, usually issued by major banks and reputable companies with discounts like treasury bills, and are only guaranteed by the issuing company's reputation.<sup>32</sup> The value of commercial papers has grown steadily in the United States since the 1970s, surpassing 3000% in 1970–1999, as financial intermediaries and companies are among the largest holders of commercial papers.<sup>33</sup>

- **Treasury bills:** Treasury bills are a government debt instrument that is subject to subscription in order to balance its public finances, with periods ranging from three months to one year. As government banks, central banks, on behalf of their governments, offer treasury bills for sale (issuance) at discounted prices in auctions that may be electronic. Companies, governments, and financial institutions are among the most prominent investors in Treasury bills because they are highly liquid and without the risk of default.<sup>34</sup>

- **Private short-term bonds:** These bonds are considered a short-term financing tool traded in the monetary market. These bonds are issued by private companies and corporations and have a higher degree of default risk relative to government bonds. These bonds are issued at relatively high interest rates.<sup>35</sup>

- **Banker's acceptances:** Banker's acceptances emerged in the context of traders' international trade transactions hundreds of years ago. They are negotiable bank withdrawals, issued by companies and individuals and guaranteed by banks at the stamp of "accepted", under which they undertake to pay a specified amount at a given date if the original issuer fails to meet its obligations within the agreed deadlines. Banker's acceptances address the lack of liquidity among individuals and institutions, and thanks to the strength and good reputation of banks, banker's acceptances are widely accepted by traders to settle transactions between them without the need to transfer funds. They can also be kept and receive their nominal

---

<sup>31</sup> Aouadi Naceur, *Les marches de capitaux en Tunisie*, Editions C.L.E, Tunisie, 2002, p. 59.

<sup>32</sup> Ziad Ramadan & Marwan Shmout, op.cit, p. 55.

<sup>33</sup> Frederic S.Mishkin, op.cit, p. 26.

<sup>34</sup> AouadiNaceur, op.cit, p. 63.

<sup>35</sup> Chaker Atallah, op.cit, p. 133.

value when the due date comes, or put up for sale on the secondary market at a discount, which is similar to treasury bills.

- **Repurchase Agreements (Repo agreements):** Repo agreements are considered short-term loans (usually with a maturity period of less than two weeks), in which treasury bills are a guarantee that the lender is entitled to acquire in the case of the borrower's default.<sup>36</sup> Repo agreements include the sale by the borrower (mostly banks) of a quantity of treasury bills to the lending buyer (mostly companies), with the undertaking to buy them back at a later date at a price higher than the sale price. Because of their effectiveness, central banks usually use these agreements to adjust interest rates and provide liquidity in the market, or vice versa.<sup>37</sup>

- **Federal Funds:** Central banks have introduced a one-night interbank lending and borrowing market to help banks meet their obligations regarding the reserve limits to be deposited with them (required reserve), so banks borrow from other banks using an electronic money transfer system between operating banks. This market is a strong indicator of the state (situation) of the banking system in the country; its high interest rates indicate the need for large banks to borrow to meet financing needs, and on the contrary, lower prices indicate a decline in banks' need for funds as a result of reduced economic activity.<sup>38</sup>

- **Short-term bills:** these bills are a negotiable short-term credit tool whereby a person (the editor) undertakes to pay back the amount borrowed with interest at a particular date to the bank, which he may hold or sell to a third party (the undertaking holder) at a particular discount.

- **Eurodollars:** Given the position of dollar in international transactions and its relative stability, banks outside the United States and foreign banks active in the United States have attempted to attract this currency by allowing their clients to open dollar deposit accounts on which they pay interest and are obliged to refund them when they are due in the same currency. U.S. banks have also often resorted to borrowing dollars from other banks or their offshore branches to finance their lending activities,<sup>39</sup> trading in the currency market both inside and outside the U.S. market.

---

<sup>36</sup> Frederic S.Mishkin, op.cit, p. 27.

<sup>37</sup> Issam Abdelghani Ali, op.cit, p. 298.

<sup>38</sup> Frederic S.Mishkin, op.cit, p. 27.

<sup>39</sup> Mahmoud Younes & Kamel Amine El-Wassal, op.cit, p. 91.

- **Short-term Eurobonds:** These bonds are issued in the form of a negotiable bearer's bond for a period of one week to one year.<sup>40</sup>

**2.2.2. Instruments traded in the capital markets:** Capital markets include instruments with maturities exceeding a year; these instruments are:

- **Long-term Bonds:** Long-term bonds are a contractual agreement between two parties for a fixed period of more than one year, with the first borrower paying the second lender interest for the duration of the contract period, ending with the depreciation of the bond at the end of the period. The holder (lender) may receive periodic interest for the duration of the bond's life plus the nominal value (original value) on the last day of the bond, or may receive fixed and periodic installments including interest and part of the nominal value of the bond. The holder of a bond may also get equal shares of the bond's asset and not interest that is concessional during the bond period. Bonds are divided into several types and on different grounds, including:

✓ **Government bonds (sold at a discount) and corporate bonds:** Government bonds are a type of sovereign bond. Government bonds usually have medium or long maturities, ranging from a few years to several contracts. The government issues these bonds to finance economic development operations or to meet a budget deficit or other emergency. Issuance is done either by direct public offering (DPO), offering on the stock exchange, or using banks to sell it. These bonds are free of risk because of the government's ability to meet its obligations. Low interest rates are awarded on this type of bond because of their low risk since the government undertakes to pay the value of the bonds and the interest due. These bonds enjoy a high degree of liquidity while being exempt from taxes. They also vary into various types of state bonds that are issued to finance public expenditure or bonds of international bodies such as the International Bank for Reconstruction and Development, which it issues to finance its projects. Then there are bonds that public institutions export to finance their expenses and projects, and they vary according to the type and nature of the enterprise. Corporate bonds are issued by financial institutions, shareholding companies (joint-stock companies) operating in the private sector, or commercial, industrial, and service companies to finance their projects, and they are mostly guaranteed. Corporates issue bonds at higher interest rates, but it is more exposed to the risks of the issuers' inability to meet the debt and its annual interest.<sup>41</sup>

---

<sup>40</sup>Ziad Ramadan & Marwan Shmout, op.cit, p. 57.

<sup>41</sup> Ziad Ramadan & Marwan Shmout, op.cit, p. 112.

✓ **Bearer bonds and nominal bonds:** A bearer bond is a fixed-income security that is owned by the holder, or bearer, rather than by a registered owner. Bearer bonds are offered with coupons for interest payments that are physically attached to the security. The bondholder is required to submit the coupons to a bank for payment and then redeem the physical certificate when the bond reaches the maturity date. For example, when the bond is stolen, the bondholder is the owner of the bond can obtain its value or interest.<sup>42</sup> Nominal bond also referred to as a conventional bond in some countries like Canada and the U.K. makes payments of a fixed amount, rather than a fixed real (inflation-adjusted) value. Most bonds are nominal.<sup>43</sup>

✓ **Secured bonds and unsecured bonds:** Secured bonds are guaranteed by the mortgage of some of the issuing company's assets or securities of another company, or even by an external body, and unsecured bonds. Secured bond gives the holder the right to claim the specific guarantee when the issuing company is unable to satisfy the nominal value of the bond and its interests or when the company is liquidated. Theoretically: bondholders can dispose of these assets and fulfill their rights (1) If the sale value of these assets is greater than their debts, they meet their rights and pay the rest to the company, or (2) If the value derived from the sale is lower, the bondholders become ordinary creditors in the amount of the remaining amount. Secured bond differ from unsecured ones, the latter are bonds without any mortgage to their owner other than the pledge and obligation of the issuer to pay. Unsecured bonds are called ordinary bonds; the actual guarantees of these bonds are the total assets of the issuer and its financial position (its ability to meet its obligations to its creditors).

✓ **Callable bonds and non-callable bonds:** The issuing company of the callable bond has the right to recover its bond before the expiration of the bond period. These bonds are usually issued with a recall premium, and the bondholder receive the band value in addition to all interest due. Conversely, the issuer of the bonds cannot claim the bonds back before the date of their postponement, as these bonds constitute the majority of the bonds issued and traded in the markets.

✓ **Convertible bonds and non-convertible bonds:** Convertible bonds give their holder or issuer the right to convert the bond into shares. Bonds are converted

---

<sup>42</sup> James Chen, *Bearer Bond: Definition, How It Works, and Why They're Valuable*, 20/07/2021, Consulted on 18/07/2023 at [https://www.investopedia.com/terms/b/bearer\\_bond.asp](https://www.investopedia.com/terms/b/bearer_bond.asp)

<sup>43</sup> Akhilesh Ganti, *Nominal Value: What It Means, Formulas for Calculating It*, 19/05/2023, Consulted on 10/08/2023 at <https://www.investopedia.com/terms/n/nominalvalue.asp>

into ordinary shares either at a fixed rate, where they are normally issued at an interest rate lower than the interest rate on non-convertible bonds, or the share price is calculated through its market value and gives the investor a number of shares corresponding to the value and interest of the bond at the time of the transfer, which can be converted into shares of the company itself or of a second company in which the issuer has a share.

Convertible bonds are the most popular type of bond that investors are interested in because they explicitly state that the bondholder can convert the value of the bond and its returns into ordinary shares in the issuing company. The owner of the bond, when he notes that the profits earned by shareholders are much higher than the nominal annual interest, can ask the issuer to transfer his bond to a stock. Convertible bonds provide different advantages to all parties (issuer, investor, and broker) in the financial market. The issuer, investor, and broker can get the money they need at a relatively low cost because the interest rates on convertible bonds are lower than the interest rates on ordinary bonds. This advantage benefits companies that are at the beginning of their operating life, i.e., in what is known as the growth phase. On the other hand, the issuance of convertible bonds by companies will avoid the risk of the impact of dumping. As for the investor, it gives him the opportunity to obtain capital gains resulting from the expected increase in the market value of the share over the transfer price and protects him from capital losses due to the security provided by the bond to the investor. That is, no matter how low the market value of the common share, the acquisition of the convertible bond guarantees him at least the opportunity to obtain the interest rate of the bond, which is the same market rate as a common bond without the condition of convertibility. The advantages of convertible bonds for the intermediary offer opportunities for all intermediaries to do a great deal of trading in ownership, which is achieved because of the low margin required for speculation in the financial market, which is usually less than the margin required for speculation in equities, thus providing them with the opportunity to achieve significant capital gains by dealing with them in the secondary market. Conversely, non-convertible bonds are the most common form of lending bonds; originally, the bonds are non-convertible, although given a special advantage, they are convertible.

✓ **Fixed-rate bonds and floating-rate bonds:** The rate of interest granted on the fixed-rate bond is fixed and consistent over the length of the bond, and this type of bond is usually invested in and purchased due to the bond's resistance to changes in interest rates and inflation during the period. On the contrary, the

interest rate on floating-rate bonds is changed based on interest rates on interbank loans for a given country, for example, or on another indicator, especially inflation, and the interest rate is usually adjusted on a monthly basis or on a quarterly or annual basis.

✓ **International bonds:** These bonds are issued in different currencies for acquiring foreign currencies.<sup>44</sup>

✓ **Perpetual bonds:** These bonds are issued with no maturity dates; buyers who purchase this type of bond receive interest all the time, whether on a semi-annual, annual, or as specified in the bond.<sup>45</sup>

✓ **Zero Coupon Bonds and coupon bonds:** Among the most prominent of zero coupon bonds are U.S. treasury bills that are offered for sale at a value below the nominal value, the holder shall recover the nominal value only upon maturity. So, zero coupon bonds don't pay interest for lending money, but issue a discount on the bond's face value. On the contrary, coupon bonds are Bearer's bonds that are accompanied by with vouchers (coupons) used to claim interest.

✓ **Income bonds:** These bonds link the holder's interest to the condition that the issuing enterprise makes a profit, so the bondholder cannot claim interest in years when the issuing company does not earn a profit. In other words, income bonds guarantee the investor's (the bondholder's) interest only in the case of yields, and income bonds are not offered for sale as new financing, but their issuance takes place at the official restoration of the exchange of securities. However, some prospectus may allow the bondholders to earn profits despite the lack of profits, as the interest distributed is deducted from the dividend of subsequent years.

✓ **Junk bonds (high-yield bonds) and investment grade bonds:** These bonds are famous for the high risk they contain, making them low-quality bonds. They have been created to finance board members' ownership of a large share in the capital of the company by issuing bonds that use their proceeds to buy a large part of their traded shares in the market. However, this procedure would result in a significant increase in the proportion of money borrowed to money owned; making investment risky that would require a high coupon rate to offset those risks. Therefore, these bonds called high interest rate bonds, high interest is awarded on these bonds due to the client's higher risk of investing in this type of

---

<sup>44</sup>Ziad Ramadan & Marwan Shmout, op.cit, p. 112.

<sup>45</sup> Frederic S.Mishkin, op.cit, p. 74.

bond, such as default risks, etc.<sup>46</sup> Unlike junk bonds, investment grade bonds have low interest rates. This type of bond is issued by entities with a high credit rating present a relatively low risk due to the liquidity or profits earned annually and the company's ability to pay the value of the bond and the interest resulting therefrom. Individuals who want to buy this type of bond bear low risks.<sup>47</sup>

✓ **Participating bonds:** These bonds are hybrid bonds that have some equity qualities, allowing the holder to earn an additional profit if the exporting company makes a profit.<sup>48</sup>

✓ **Electronic bonds:** unlike other bonds, electronic bonds are intangible bonds offered, traded, and registered electronically.<sup>49</sup>

✓ **War bonds:** Bonds issued by government agencies in order to finance the military sector in equipment, salaries, and materials needed in cases of war.<sup>50</sup>

✓ **Climate bonds (green bonds):** They are bonds launched by the official authority authorized by the government to deal with volatile climate situations in the country or to finance projects that reduce carbon emissions or alleviate the effects of climate change. When the state faces changes in climate and adverse conditions, the agency is financed to deal with climate change through this type of bond.<sup>51</sup>

✓ **Serial bonds:** This type of bond is based on a clear sequence of repayment of the asset over fixed periods of time before the expiration of the bond period, so as to reduce the bond's value to zero at the last payment.<sup>52</sup>

✓ **Extendable bonds:** They are Another type of bond gives the buyer the right to extend the bond's term when the maturity period is exceeded or before it is exceeded.<sup>53</sup>

---

<sup>46</sup> Munir Ibrahim Hindi, *Financial Management*, fourth Edition, Modern Arab Center, Egypt, 1999, p. 557.

<sup>47</sup> *Investment-grade Bond (or High-grade Bond)*, 2023, Consulted on 10/07/2023 at <https://www.investor.gov/introduction-investing/investing-basics/glossary/investment-grade-bond-or-high-grade-bond>

<sup>48</sup> Chaker Atallah, op.cit, p. 144.

<sup>49</sup> Issam Abdelghani Ali, op.cit, p. 194.

<sup>50</sup> Andrew Ancheta, *War Bonds*, 27/03/2022, Consulted on 15/07/2023 at <https://www.investopedia.com/terms/w/warbons.asp>

<sup>51</sup> *Understanding Climate Bonds*, 2023, Consulted on 15/07/2023 at <https://www.climatebonds.net/resources/understanding>

<sup>52</sup> James Chen, *Serial Bond: What it is, How it Works, Example*, 29/04/2022, Consulted on 15/07/2023 at <https://www.investopedia.com/terms/s/serialbond.asp>

<sup>53</sup> James Chen, *Extendable Bond Definition*, 30/03/2023, Consulted on 15/07/2023 at <https://www.investopedia.com/terms/e/extendablebond.asp>

✓ **Traditional bonds and subordinated bonds:** The nominal value of the traditional bond shall be paid in a single payment at the expiration of the term of the bond, and interest shall be paid on periods prior to its expiration. Interest shall normally be paid on semi-annual or annual periods.<sup>54</sup> Subsidiary bonds possess a lower priority in repayment than other bonds to be paid to the issuer and are different from ordinary bonds in the event of the issuer's bankruptcy, where the bonds are paid to the holders of ordinary bonds first, followed by the payment of the holder of subordinated bonds through the remaining amount, which are bonds at high interest rates because they contain high risks.<sup>55</sup>

- **Stocks (shares):** Shares are participating security, giving the holder the right to receive a share of assets and realized profits. The shares are divided into ordinary and preferred, which in turn are divided into several forms of shares, the most famous of which are:

✓ **Ordinary shares:** These shares constitute the largest category of shares issued whose holders have the right to participate in the profits of the company after paying the dividend but before paying the deferred dividend.

✓ **Preferred shares:** These shares enjoy certain privileges in voting, profits, liquidation products, or other rights, provided that shares of the same type are equal in rights and privileges. The preferred share differs from ordinary one in that it enables the shareholder to concede a fixed return before making any dividend received by the holders of the common stock. In the event that the company does not make a profit covering the amount of dividend the holder must receive, the right does not fall but may be deferred.<sup>56</sup>

✓ **Nominal shares:** These shares are registered in the name of their owners in the issuing company records and requires that the name of the new owners be re-registered in the event of any transfer of ownership.

✓ **Bearer shares:** The ownership of these shares is transferred once they are required, so the holder of this type of share shall not be entitled to vote in public associations.

---

<sup>54</sup> LCX Team, *Tokenized Bonds vs Traditional Bonds*, 20/02/2023, Consulted on 15/07/2023 at <https://www.lcx.com/tokenized-bonds-vs-traditional-bonds/#:~:text=Traditional%20bonds%20are%20debt%20securities,investors%20at%20a%20fixed%20rate>.

<sup>55</sup> Konstantine Vasilev, *Subordinated Bond*, 06/08/ 2023, Consulted on 15/07/2023 at <https://cbonds.com/glossary/subordinated-bond/>

<sup>56</sup> Real Business Rescue, *Understanding Preference and Ordinary Shares*, 2023, Consulted on 18/07/2023, at <http://bitly.ws/Sob9>

✓ **Order shares (promissory notes):** This type of shares resembles ordinary shares in that the name of its owner is mentioned on the instrument, but the transfer of its ownership depends on its mere manifestation and does not require its return to the company; it is accompanied by the requirement of permission or order.<sup>57</sup>

✓ **Free shares:** These shares are distributed free of charge to shareholders in the company that uses them as a strategy to increase its capital, using profits that were held in the form of reserves.

✓ Shares listed on the stock exchange and unlisted shares.

✓ **Preferred blue shares of high quality:** These shares are of interest to investors seeking to build a low-risk financial portfolio, as they relate to large companies with excellent reputation that generate profits and distribute them continuously and regularly.

✓ **Buy-and-hold shares:** Investors accept the acquisition and long-term retention of these shares as part of their long-term strategy to generate rewarding returns because of the widespread belief that their exporting companies can achieve significant profits in the future.

✓ **Income shares:** They are the shares of large and long-standing companies active in important sectors such as industry and services and have a long tradition of distributing profits regularly, which attracts investors, especially older ones looking for regular income.

✓ **Speculative shares:** Investors use speculative shares to speculate to gain greater profits. Speculative stock is highly risky and traded at a relatively low price because its fundamentals do not look strong or have a sustainable business plan, yet the trader is optimistic that the share price will improve in the future.

✓ **Cyclical shares:** These shares are due to companies whose activity revenues are linked to a close relationship with the overall economic situation. The share prices rebounded during the economic boom and decline, one of the most prominent shares of automotive.

✓ **Growth shares:** They are the shares of emerging and modern companies active in promising sectors that supposedly possess significant opportunities for expansion and growth, reflected in their future market value and their expected distribution of significant profits.

✓ **Quality shares:** These shares belong to companies that are famous for having quality and distinct management, which creates security and guarantees for investments in their shares.

---

<sup>57</sup> Ziad Ramadan & Marwan Shmout, op.cit, p. 98.

✓ **Value shares:** They are shares whose market prices are usually undervalued as a result of difficult conditions that the company suffers from, but they are expected to surpass and make significant profits in the future.<sup>58</sup>

✓ **Ordinary shares of the productive divisions:** These are shares whose distributions are linked to the activities of one of the productive divisions and the profits that they make. In the 1980s, the corporation GMC introduced several innovative categories of stocks, each one associated with the dividend of a production department: the category E Class associated with the electronic information systems division and the class H Class associated with the aircraft parts division.

✓ **Ordinary shares with deductible distributions:** In order to alleviate the problem of Principal-Agent and encourage employees to participate in the ownership of their companies and expand the ownership base in them, some governments have introduced incentive legislation that exempts companies from interest taxes if they provide loans to their employees to finance the purchase of their shares. It also allows them to include dividends on shares in expenses deducted prior to tax calculation if they sell a share of their shares to their employees.

✓ **Blue-chip shares:** Unlike familiar shares, companies may issue shares that give their holder the right to obtain compensation from the issuing company if the market value falls to a certain extent within a period of time that is declared in the prospectus.

✓ **Preferred shares in which distributions are associated with the return on treasury bills and government bonds:** The issuing company of these shares links the dividends with the returns on treasury bills and government bonds. The companies issue these shares to attract more investors seeking to own securities with stable real values, as treasury bills and government bonds enjoy great demand due to the absence of default risk.<sup>59</sup>

✓ **Defensive shares:** They are the shares of companies active in vital sectors that are not affected by business cycles or emergency conditions, such as essential goods and services companies, which gives them relatively better security and stability.<sup>60</sup>

---

<sup>58</sup> Chaker Atallah, op.cit, p. 126.

<sup>59</sup> Munir Ibrahim Hindi, Financial Management, op.cit, p. 542.

<sup>60</sup> Nadia Abu Fakhra & Mahmoud Sobh & Shamel Al-Hamoui, op.cit, p. 26.

✓ **Convertible shares into bonds:** These shares are corporate securities that allow their holders to choose to turn them into a certain number of bonds within an agreed period to benefit from the fixed income of bonds.<sup>61</sup>

✓ **Convertible preferred shares into ordinary shares:** These shares are corporate securities that the investor can have the option to turn into a certain number of ordinary shares of the same company after a predetermined time span or on a specific date.<sup>62</sup>

✓ **Callable shares:** These shares belong to a company that can buy back. Callable shares may be issued in order to have the option of retaining tighter control over a business or to avoid paying interest on preferred stock.<sup>63</sup>

- **Investment certificate & voting trust certificate:** Investment and voting trust certificates are tradable securities that are usually offered at a nominal value equivalent to the share. These certificates are distributed free of charge to shareholders on the occasion of an existing stock fragmentation or to increase the company's capital. The owners of investment certificates are responsible for the same financial rights as shareholders, as a priority of subscription bonds and shares issuing (initial public offering IPO) and participating in profits and losses without participating in management. The owners of voting trust certificates are entitled to non-financial rights, such as voting on the company's decisions, participating in its management, and so on.<sup>64</sup>

- **Structured Finance:** Structured finance is one of the innovative financing methods (one of the instruments of financial engineering) that has become popular with financial and non-financial institutions in the money and capital markets. Structured finance enjoys great demand from financial institutions to dispense with traditional brokerage and overcome liquidity problems and traditional financing risks.

Structured finance includes a wide range of activities and products that have been included to attract appropriate funding according to the desires of clients of all forms of organizations while reducing risk through the use of complex techniques and structures. In structured finance, a range of highly diverse assets are assembled in terms of quality and nature (loans, bonds, mortgages, and rights issues). These assets, which are in most cases illiquid and can be structurally

---

<sup>61</sup> Chaker Atallah, op.cit, p. 146.

<sup>62</sup> Nadia Abu Fakhra & Mahmoud Sobh & Shamel Al-Hamoui, op.cit, p. 84.

<sup>63</sup> Accounting tools, *Callable Stock Definition*, 10/03/2023, Consulted on 18/08/2023 at <https://www.accountingtools.com/articles/what-is-callable-stock.html>

<sup>64</sup> Aouadi Naceur, op.cit, p. 201.

isolated in the interest of investors and lenders, form a capital structure in the form of tranches or segments based on the revenue flows generated from securing (collateral) assets against those collateral pools. Through this process, risks are identified, allocated, and hedged in new safe negotiable assets (products), which are therefore accepted by credit rating agencies so that they can use them as a base of financing independent from the risks of the asset originator's bankruptcy. The asset isolation process allows the asset creator (asset originator) to easily access the capital markets by creating returns on the debt issued at a lower cost and thereby reducing the cost of financing.

Among the most prominent structured products are Asset-Backed Securities (ABS), Commercial Mortgage-Backed Securities (CMBS), Residential Mortgage-Backed Securities (RMBS), and Collateralized Debt Obligations (CDO). Thus, structured finance involves derivatives, securitization, and special-purpose entities independent and far from bankruptcy<sup>65</sup> that receive funds, secure receipts and payments produced, and entities transferring ownership<sup>66</sup> to avoid double taxation of entities performing the roles of borrowers or holders of loans, as well as the use of risk mitigation techniques. The issuer, which is a structured finance operating company (SFOC)<sup>67</sup>, raises funds through the issuance of two categories of securities: bills of category I and bills of Category II after the

---

<sup>65</sup> Special-purpose entities are structured in a way that eliminates the incentive to initiate financial insolvency proceedings voluntarily, and it is unlikely that a third party of creditors will commence insolvency proceedings voluntarily. Sponsoring companies (referred to as guarantors, originators, sellers, or managers) are usually a large bank, finance company, investment bank, or insurance company, establishing these entities that take the form of a limited liability company or a joint liability company by contributing an asset or set of assets in exchange for monetary returns from the funding to be granted, while investors contribute to the remainder of the shares of the capital (assets), where the assets act as security and insurance. Thereby, the sponsoring company secures the debt of the entity for the particular purpose of the lender.

<sup>66</sup> Entities transferring ownership distribute their income to their owners or investors, thus requiring income taxes at the individual level of their owners or investors.

<sup>67</sup> Among the types of structured finance companies, there are: (1) Structured Investment Vehicles (SIVs) that issue structured financial assets The investor receives returns from: (1) Structured Lending Vehicles (SLVs), which differs from its precedent in that it purchases securities to enter into a repurchase agreement or total return exchange; (2) Financing Agreements where the affiliate investor pays a predetermined interest in exchange for returns; and (3) Credit Derivatives Product Companies (CDPCs), which sell credit protection on the names of one company or portfolio of companies as well as structured assets and issue equity and debt categories.

purchase of securities, the issuer pledges to secure cash or future flows (returns) that come from the financial asset investment pool. This process generates increased liquidity for the issuer without increasing the capital base, either by selling these assets to a special purpose entity that subsequently issues debt bonds to investors in order to finance the purchase. It should be noted that structured finance differs from securitization in that the first is granted to a special purpose company that is secured by a series of contractual agreements from the principal counterparts (contractors, buyers, suppliers, speculators, and others), where their assets constitute a guarantee of improved stability of cash flows and mitigation of volatility, while securitized bonds are based on assets isolated from the instrument itself (a special purpose securitization company), so that the source of repayment of the capital and interest is the pool of assets generating cash flows.

Structured finance offers several advantages to issuing company in terms of flexibility in the payment structure, securities design, and asset types to meet investors' needs, obtaining a better credit rating, reducing financing costs, and the possibility of converting liquid assets into illiquid ones, as well as transferring and allocating risks.<sup>68</sup>

– **Financial derivatives:** These innovative financial instruments are financial contracts relating to off-balance sheet items that have been devised to meet clients' needs in managing the risk of changing interest rates, prices, and exchange rates by hedging them. The derivatives first appeared in 1937 to meet the needs of merchandise market dealers when some sales contracts on the London Stock Exchange were contracted on Dutch mercury follicles. The first futures contract took place on the rice exchange in Osaka, Japan, in 1950. The Chicago Grain Exchange approved those contracts in 1965, and a clearing house was established in the same year.

Financial derivatives became popular and widespread in financial markets as early as the 1970s, so they became commonly used in financial markets for managing and hedging risks. Yet, developments in the use of these contracts revealed their misuse by directing them to speculate to take advantage of price spreads like stocks.<sup>69</sup> Derivatives contracts vary depending on their nature, risks, and duration and are valued at one or more assets, instruments, or financial

---

<sup>68</sup> Omar Taleb, *The Impact of Mortgage Debt Securitization on the Performance of the Secondary Real Estate Market - A Comparative Study of the Countries of North Africa-*, Ph.D diss in Economics, Biskra University, Algeria, 2014/2015, pp. 3-28.

<sup>69</sup> Anthony Saunders and Marcia Million Cornett, op.cit, p. 691.

indicators. They are a contract between the parties whereby the price of assets or indices is determined at the present time, with this fixed rate to be delivered at a later date.<sup>70</sup> Derivatives are divided into:

✓ **Options:** These derivatives are contractual agreements whereby the issuer of the option (the seller) grants the right rather than the obligation to the subscriber of the option (the buyer) to sell and purchase one or more financial instruments at a predetermined price (strike) at a future date. Financial options are divided into:

- **Call option:** This option gives the buyer who subscribes to it is right to exercise the contract if not.
- **Put option:** In this option, the seller of the option has the right to exercise the contract or not.

By combining call and put options, a variety of strategies can be achieved that can yield limitless profits, while the maximum risk volume remains limited to up to the price of the option contract paid for the purchase of the contract, which is called the premium (allowance). It should be noted that the U.S option gives the parties the freedom to exercise or cancel the contract before the time limits for its exercise are reached, whereas the European option does not allow this before the date of its exercise. In general, the buyer of the option at the time of writing pays the costs of coverage received by the seller of the option, representing a small proportion of the contract's value; this has allowed options markets to be the most developed in recent years. The option buyers always make gains even in the worst cases, If their expectations are not met, they remain under no obligation to perform the contract (which may be substantial in value) and incur losses, paying only for coverage costs.

✓ **Futures:** These derivatives are also known as futures contracts; they are contracts concluded between two parties, one with a long position and the other with a short position, through which the delivery and receipt of one or more financial assets are agreed at a specified time in the future at a price and conditions specified at the time of signing the contract. Unlike options contracts, futures contracts are an obligation to receive and deliver on the agreed date, so the execution of the contract requires the placement of purchase orders with a securities company active in futures markets, which passes the order to a

---

<sup>70</sup> Issam Abdelghani Ali, op.cit, p. 299.

stockbroker who executes the transaction with other brokers who are willing to sell futures contracts.

In order to maintain the attractiveness of the futures market and overcome the risk of substitution arising from defaulting due to the breach of obligations by the parties to the contract, either because of the bankruptcy of one of them or the desire of one of them to avoid the contract before it matures, the world's stock exchanges obliged all parties to pay a financial guarantee, which is a margin, to the clearance houses that register the contract. The margin includes a fixed portion of the amount if the contract paid when the contract is concluded. The margin includes a variable part required by the exchange commission to attitude adjustment (situation settlement) if the margin account falls to a certain extent.

✓ **Swaps:** Swaps are the most recent financial derivatives<sup>71</sup> and represent commitments (obligations) to exchange a range of cash flows. Swaps are undertaken to achieve certain objectives, including making profit and facing future commitments. Companies use swaps to benefit from the financial benefits of each other to reduce borrowing costs and gain an advantage. In this context, company may have the advantage of a good reputation or a good credit rating for bank borrowing at a relatively low interest rate, while other company devotes its direct borrowing advantage by offering bonds at a relatively low interest rate, so both can make better gains and agree to swap interest rates. The swap extends to other types such as currency, commodity, and equity swaps.

- **Investment certificates:** Mutual funds issue investment certificates against investment funds securities in the form of nominal investment certificates of one value.<sup>72</sup> In this regard, Investment certificates are investment products created to gather investors' capital and invest them collectively through a portfolio of financial instruments such as shares, bonds, and other securities. Therefore, Investment certificates are crucial as they facilitate the accumulation of personal savings, whether for major investments or for retirement. They are an important component of the financial market due to their role in making institutional and

---

<sup>71</sup> The first swap took place in 1985 on the currency between MBI and the World Bank.

<sup>72</sup> Meir Cohen, *Markets and Financial Institutions: Opportunities and Challenges*, Translated by Abdulhakam Ahmad Al-Khozami, Dar Al Fajr, Egypt, p. 324.

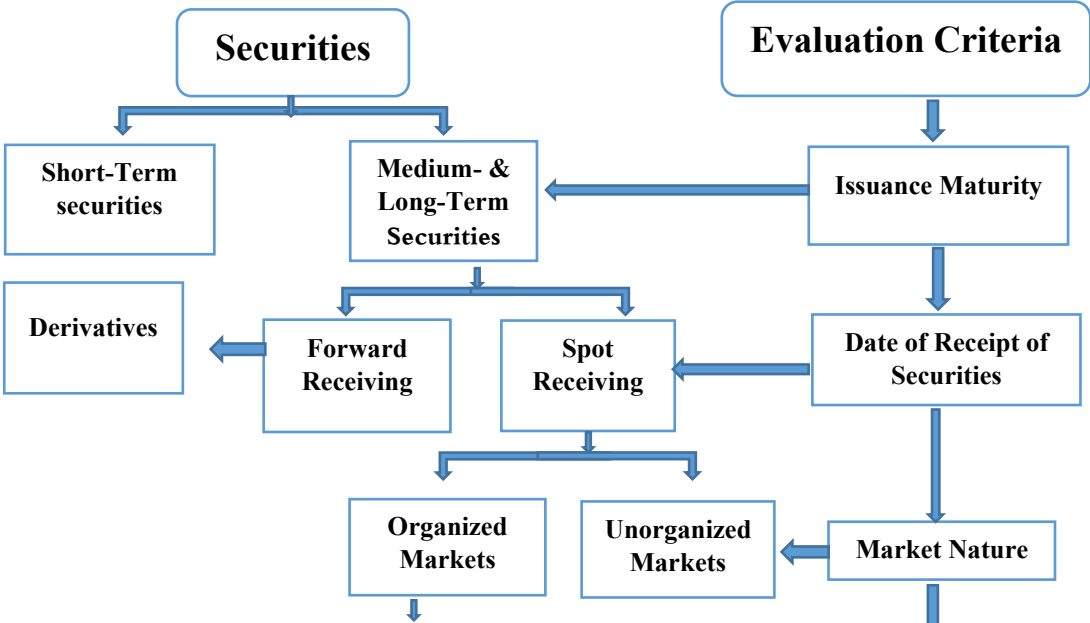
personal savings available as loans to companies and projects that contribute to growth and jobs.<sup>73</sup>

- **Foreign currencies:** Foreign exchange markets trade foreign currencies, and financial instruments denominated in different currencies are sold and purchased by individuals, companies, banks, and governments. Exchanges in this market are carried out by major commercial banks (financial brokers), which are linked to a global and sophisticated telecommunications network, mostly in major financial centers in London, New York, Tokyo, Singapore, Hong Kong, Frankfurt, and Zurich. Like other markets, investment in the foreign exchange market is affected by risk and return, and given the freedom in which these markets operate, government restrictions are usually unaffected.

- **Physical (tangible) assets:** Among the physical assets are such as real estate, where they are mortgaged as collateral to obtain a physical asset, such as loans, or are securitized in bonds backed by mortgage loans, where they create a debt used to finance investment in real estate. The mortgage market contributes to economic growth, with mortgage markets financing the acquisition of households and businesses from homes and commercial properties.<sup>74</sup>

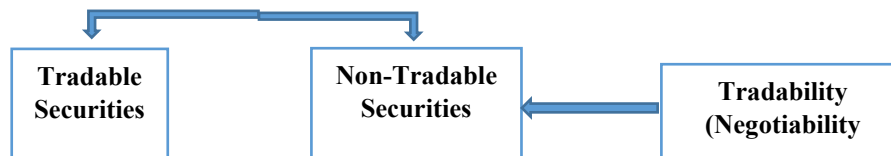
At last, we can list the securities types according to different valuations.

**Figure 06: Types of Securities**



<sup>73</sup> European Commission, *Investment Funds*, Consulted on 12/07/2023, at [https://finance.ec.europa.eu/capital-markets-union-and-financial-markets/financial-markets/investment-funds\\_en](https://finance.ec.europa.eu/capital-markets-union-and-financial-markets/financial-markets/investment-funds_en)

<sup>74</sup> Omar Taleb, op.cit, pp. 138-140.



Source: the author's preparation

### 3. Financial markets traders

Like other markets, many traders (agents) are active in the financial markets, operating to ensure the good functioning of the financial markets and reach the desired efficiency.

#### 3.1. Types of traders

The traders operating in financial markets can be divided into several types:

**3.1.1. Lending Investors:** This category of traders includes individuals and institutions active in the financial sector (banks and non-depository financial institutions) and non-financial sectors, as well as governments and their agencies that have the desire to invest their savings in financial markets and obtain adequate returns sufficient to cover their obligations and make profits. Central banks also intervene as lenders to implement their monetary policy and influence the amount of money and interest rates.

**3.1.2. Borrowing issuers:** This category of traders includes individuals and institutions from all sectors and governments that suffer from a money deficit obstructing the financing of their projects, as well as central banks that need to achieve monetary policy goals by offering bonds to influence interest rates, the amount of money in circulation (money supply), and the inflation rate. In order to plug the deficit, borrowing issuers resort to issuing securities in the primary market that can be traded later in secondary markets.<sup>75</sup>

**3.1.3. Market institutions:** To ensure the security and clearance (settlement) of transactions, the financial markets authorities has established several institutions, including:

- **Supervisory institutions:** These crucial institutions are usually represented by the ministry of finance, which enacts laws and legislation to regulate the markets and ensure the proper functioning of the financial market.<sup>76</sup>

<sup>75</sup>Ziad Ramadan & Marwan Shmout, op.cit, p. 132.

<sup>76</sup> Chaker Atallah, op.cit, p. 38.

- **Regulatory and operational institutions:** The market committee is charged with managing and preserving the interests of the financial market and the traded instruments. The committee is responsible for monitoring the market and settlement and clearing houses, examining the operations of intermediaries, and imposing disciplinary sanctions on them in case of violation of the regulations and laws governing their profession and the market in order to safeguard the interests of investors and the economy as a whole. This committee is usually composed of representatives of intermediaries registered on the exchange and of the guardianship authorities (supervisory authorities), as well as expert people.<sup>77</sup> The market committee is assisted by operational institutions that set technical and administrative structures to establish the market, accelerate its operations, decide which securities and financial instruments are accepted to be listed and traded, record transactions and prices, disclose information, suspend trading, and ensure the application of laws and regulations.

- **Technical institutions:** These institutions, such as clearing and reconciliation companies, strive to ensure the completion of settlements and the delivery of securities and contracts, as well as the market operations guarantee fund, which, in the event of the inability of intermediaries to meet the payment or delivery, intervenes in a guarantee as a result of market operations.<sup>78</sup>

**3.1.4. Financial intermediaries:** Financial intermediaries are seen as the drivers of the financial market. In their absence, a lending investor cannot be linked to the borrowing issuer; therefore, financial surpluses are not channeled to finance the projects, which means that the financial market fails to perform its functions. A financial intermediary, who may be a natural or moral person, is required to be licensed by the market committee and is obliged to respect market laws and the committee's instructions and directives. Overall, financial intermediaries are divided into three categories:

- **Hall dealer:** The mission of the hall dealer is to execute specific orders from his/its clients to sell and buy securities for their benefit, charging them for this commission as determined by the market authority.

- **Dealer agent:** He/it is a person who works for a brokerage house that gives him/it orders to be executed.<sup>79</sup>

---

<sup>77</sup> Nazhan Mohamed Su, *op.cit*, p. 658.

<sup>78</sup> Chaker Atallah, *op.cit*, p. 42.

<sup>79</sup> Munir Ibrahim Hindi, *Securities and Capital Markets, op.cit*, p. 115.

- **Market maker:** He/it is an exchange trader who has capital to use in the sale and purchase of securities for the benefit of his/its investment portfolio after obtaining a special license. Because he/it deals with great values, the maker can influence the market, move the prices, and make it happen.<sup>80</sup> Market makers are divided into:

✓ **Hall brokers (speculators):** They look like hall dealers but work for their own interests (self-employed) and do not carry out any operations for the public or other brokers.

✓ **Specialists:** They are financial intermediaries specializing in dealing in a particular type of security; they may be self-employed or work for other brokers.

✓ **Small order brokers:** They are traders who deal in small quantities of securities for sale and purchase on their own account, earning a commission representing the difference between the purchase price and the sale.

✓ **Large order brokers:** They are traders who deal in large quantities of securities on their own accounts in order to selling them to the requesting person.<sup>81</sup>

- **Initial Issuances coverage underwriters:** The intermediary can underwrite new issuances of securities in exchange for a commission set out in the underwriting agreement, thus performing the role of the agent, who is responsible for marketing and connecting the public to the issuers of securities. However, the underwriter's role may be limited to selling and marketing publications without undertaking to underwrite them completely or in part.

- **Investment companies:** An intermediary can be an investment company if it has the necessary qualifications.<sup>82</sup> The investment company acts on its own account or on behalf of others (clients) in the building and management of a portfolio of securities. With respect to clients, investment companies, on the basis of a joint agreement, manage clients' investments, provide advice and counselling, and may go further beyond their role to act freely and make decisions to sell and buy securities without referring to the client for a commission paid by sellers, buyers, or both.<sup>83</sup>

- **Independent (autonomous) research institutions:** Although they do not engage in brokering or intermediation activities, independent research institutions

---

<sup>80</sup> Ziad Ramadan & Marwan Shmout, op.cit, p. 138.

<sup>81</sup> Munir Ibrahim Hindi, Securities and Capital Markets, op.cit, p. 116.

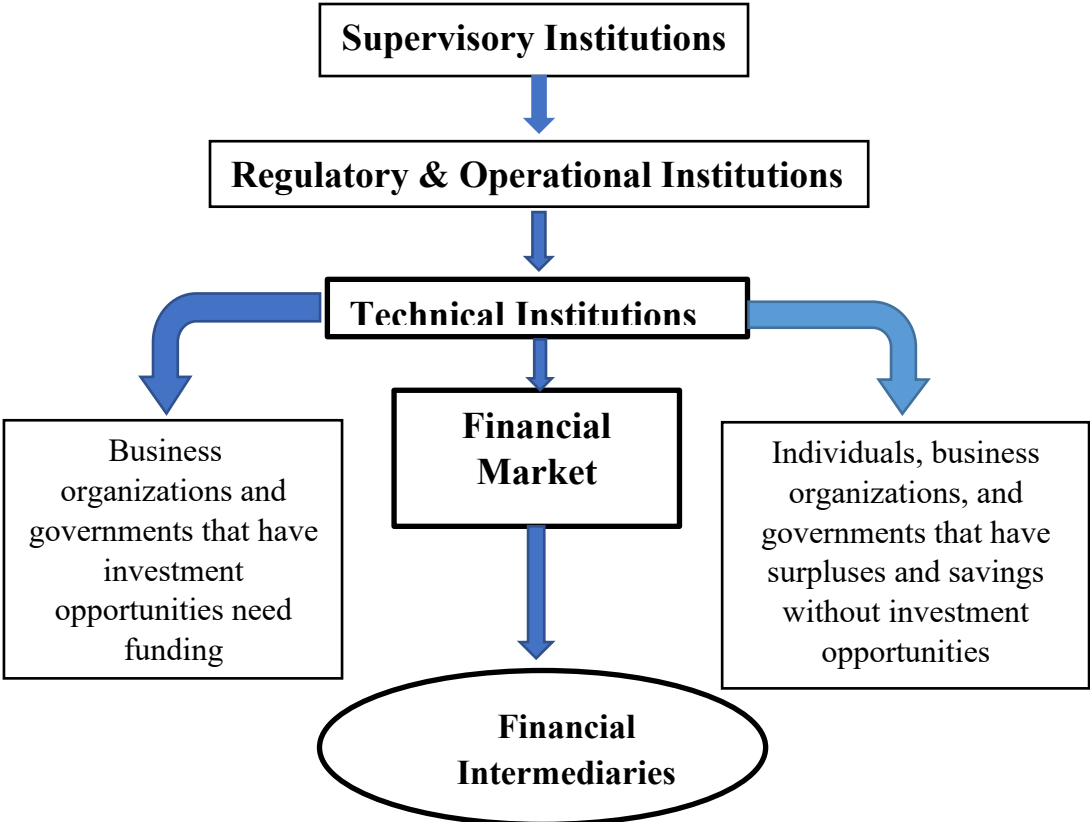
<sup>82</sup> Most local laws require investment companies to have financial resources represented in the capital, reserves, and other self-financing.

<sup>83</sup> Ziad Ramadan & Marwan Shmout, op.cit, p. 138.

contribute to stimulating the market by conducting, on request, studies and analyses of information in order to reach the best investment decision, especially since financial intermediaries are the category the most widely using information. Research institutions charge a commission from their service applicants, whether clients or brokerage houses, which in the United States is called hard or tough dollars. The following figure illustrates the various financing methods for which financial markets are available.



**Figure 07: Direct and Indirect Financing Methods in the Financial Market**



**Source:** the author's preparation

### **3.2. Importance of financial intermediaries**

Financial intermediaries have pivotal roles to play, as they are the engine of the markets, reflecting positively on the performance of financial markets, including:

- Increasing market efficiency by providing clients with up-to-date information and analysis on the assets listed or traded in the market.
- Rationalizing investment decisions, given their great experience, financial intermediary companies, along with their key work of selling and purchasing securities, advise their clients on optimal investment decisions and may manage their portfolios on their behalf.
- To maintain price stability and transaction volume, some intermediary, such as market makers, intervene using their stock of securities in sales or purchases, as well as encouraging clients to buy and sell by reducing and raising the profit margin, which will lead to a balance in the demand and supply of securities, thereby stabilizing prices and the volume of trading.<sup>84</sup>
- Activating the financial market, some intermediaries lend to investors and clients who want to buy securities, allowing continued market demand and high liquidity.
- Maintaining market stability by choosing the right times for offering securities for subscription or covering issuances due to the constant presence of intermediaries in the market, their knowledge of its conditions, and their ability to foresee its orientation.
- Working to provide indirect financing, as they are the effective element in intermediating between savers and borrowers (through intermediation, intermediaries make profits), thus allowing the market to obtain the necessary liquidity.
- Availability of funding commensurate with different timelines by funding long-term operations from short-term sources.<sup>85</sup>

---

<sup>84</sup> Munir Ibrahim Hindi, *Securities and Capital Markets*, op.cit, p. 115 .

<sup>85</sup> Nadia Abu Fakhra & Mahmoud Sobh & Shamel Al-Hamoui, op.cit, p. 62.

- Risk reduction and diversification through the building of investment portfolios in various fields and activities.
- Makin it easier for the clients to use special financial services.<sup>86</sup>
- Reducing costs by offering the feature of economies of scale to investors seeking to build a sound portfolio.
- Helping corporations optimize the capital structure by obtaining an appropriate mix of equity and debt.
- Stimulating economic development.
- Linking households to the financial market.
- Safeguarding the hard-earned money of clients.
- Providing financial advisory services, provide financial information, and engage in credit rating.<sup>87</sup>

### 3.3. Market orders

The financial intermediaries' work is based on the execution of orders received from clients, the most prominent of which are most commonly used in global markets:

**3.3.1. Specific (limit) orders for execution price:** These are the orders based on the price, namely:

- **Market order:** Where the order is executed as soon as it is received from the client and at the best prices at the date of execution.
- **Specific or limit order:** It is based on the type of condition or restriction set by the client, who may require the order to be executed as soon as the price reaches the execution price only, or may only be executed at the best prices present at the moment of the fixed execution deadline, or may be limited to the execution of both.<sup>88</sup>
- **Order at the first price:** The broker executes the order at the first price.

---

<sup>86</sup> Nirmalarajah Asokan, *What are Financial Intermediaries Used for?*, on 09/10/2022, Consulted on 28/07/2023, at <https://agicap.com/en/article/financial-intermediaries/>

<sup>87</sup> Wallstreetmoj Team, *Financial Intermediary*, Consulted on 30/07/2023, at <https://www.wallstreetmojo.com/financial-intermediary/>

<sup>88</sup> Munir Ibrahim Hindi, *Securities and Capital Markets*, op.cit, p. 128.

- **Order the last price:** The order is executed at the end of the transactions. (the closure).<sup>89</sup>

**3.3.2. Specific (limit) orders for execution time:** These execution of these orders depends on the duration, namely:

- **A day-specific order:** These orders are valid for only one day, hoping to meet expectations.

- **A week- or month-specific order:** These orders are valid for a day, hoping to reach the expected price.

- **Open order:** This order shall be valid until the client has issued his decision to execute or cancel it.

- **Instant order or market order:** Whereby the dealer execute the order immediately and at the best current prices.

**3.3.3. Orders with price and execution time:** These orders include:

- **Limit price order within a specified period:** This order is issued at a certain price to be implemented within a specified period.

- **Open order within a certain price:** This order is executed as soon as market prices reach the desired level or better, without specifying which time period.

**3.3.4. Special order:** This type of orders include:

- **Stop order:** The dealer is obliged to execute his/its client's order to sell his securities at a certain price (stop loss order) if the prices are expected to continue to fall or buy securities at a certain price (stop by order) if the prices will hopefully rebound.

- **Stop limit order (pre-arranged stop order):** This order is used in cases of uncertainty about the price at which the stop order is executed. The client sets a minimum sale price and a maximum purchase price, only that price or better is dealt with.

- **Order of execution as appropriate:** in this type of orders, the clients leaves his dealer full freedom to choose the securities to purchase or by and the time and price of execution, which gives greater flexibility to the dealer.

**3.4. Transactions repayment (deals clearance)**

---

<sup>89</sup> Salah al-Din Hassan El-Sissi, *Theoretical and Applied Studies: Arab and International Securities Exchanges and Establishment of the UAE Stock Exchange*, op.cit, p. 16.

After receiving the orders, the financial intermediary proceeds with the execution of the transactions, which is required to complete (liquidate) the settlement of the payments arising therefrom. There are three methods of payment for transaction, which are:

- **Full monetary method:** In this method, the investor pays the value of the securities to the intermediary or banker in cash after issuing the order.
- **Partial monetary method:** This method is also known as margin style, and it is the most commonly used method. The investor pays part of the transaction in cash (margin) at the time of issuing the order, while the rest is settled by a loan and secured securities in the place of the transaction.
- **Short-selling (over-the-counter):** Unlike ordinary investment based on the sale of securities after a period of time, in practice, another method of transaction is highlighted in which investors, especially speculators, sell securities without holding them, where they are purchased at the time of their price decline. Short selling is widely used for speculating on the decline in the price of the security, investor orders the intermediary to sell the securities whose prices are expected to decrease. Accordingly, the intermediary executes the order and finds a buyer to deliver the securities from the intermediary inventory or borrows them from another broker. When prices fall, the investor receives the difference between the two prices, while the intermediary uses the proceeds of the sale in other investment areas that may be more useful than holding shares.

Besides speculation, the investor can use short selling for other purposes, the most important of which are:

- Hedging from the risks of price decreasing.
- Arbitrage by buying securities in the low-price market and selling them in the high-price market.
- Delayed payment of taxes.
- Facilitate the delivery of securities in the event of a spatial difference that prevents the investor from delivering the securities.<sup>90</sup>

#### **4. Efficiency of financial markets**

---

<sup>90</sup> Munir Ibrahim Hindi, *Securities and Capital Markets*, op.cit, p. 125.

The ultimate goal of financial market workers is to reach the maximum level of efficiency, where efficiency reflects the ideal of financial markets. Below, we will try to address this efficiency in some detail.

#### **4.1. Efficiency Concept**

The efficiency of financial markets has occupied a large place in the interests of specialists and decision-makers because of its great importance in achieving the optimal allocation of financial resources available to economic units that have the best investment opportunities at the lowest possible time and cost. Under an efficient market, securities prices reflect all available information, both about the issuing entity and about others, without an interval, which may result in unfair benefits (extraordinary profits) to some parties at the expense of others, which is incompatible with fair competition. In order for financial markets to be efficient, certain conditions must be met, including:

- Ensuring full competition by removing all the transaction restrictions that limit the number of sellers, buyers, and quantities dealt with.
- Market liquidity is affordable and timely, as a corollary of the preceding requirement.
- Make accurate and up-to-date information about securities and listed companies available to all market traders at any time and at no cost. This is can be achieved by providing modern and effective means of communication, such as publication on the Internet, in newspapers, and in periodical reports.
- Providing rationality in investors' actions, which can lead to maximizing and sustaining the benefit of exploiting their wealth.<sup>91</sup>
- The market has management that ensures its proper functioning. This management is to be unbiased and competent, composed of experienced persons assisted by a specialized committee. This committee derives its powers from legislation and laws aimed at protecting investors' interests.<sup>92</sup>

It should be noted in this regard that full efficiency is impossible to achieve, so it is impossible to meet all the above conditions. This necessitates replacing it with economic efficiency, which is based on the assumption that some time has elapsed since the information is received until it is analyzed and then reflected in the stock price. The functioning of the market and its intermediaries cannot be

---

<sup>91</sup>Abdul Ghafar Hanafi, op.cit, p. 205.

<sup>92</sup> Ziad Ramadan & Marwan Shmout, op.cit, p. 199.

done in the absence of certain costs and taxes incurred by investors, enabling some investors and brokers to earn at least extraordinary profits in the long run. Overall, in order to achieve its objective and function efficiently, the market should have two main characteristics:

- **Internal efficiency:** It is called operational efficiency, and it is the ability of the market to use savings in the best investments, i.e., to direct available resources to the most profitable securities from active sectors at the lowest possible cost, which is the cost of transactions from brokerage commission expenses and fees paid by the buyer, seller, or both to the intermediary and market authority when making transactions. Higher operational efficiency contributes to higher market attractiveness and high demand, which have a profound impact on the market and the liquidity of the securities dealt with in it.<sup>93</sup>

- **External efficiency:** It is called price efficiency, which means that securities prices reflect all available information without a significant interval, so that market value expresses fair real value, enabling no party to predict future prices or adopt a strategy that may yield extraordinary returns.

#### 4.2. Levels of efficiency

According to several factors to be explained, three levels of efficiency in financial markets are determined, which are:

**4.2.1. Poor level:** At this level of efficiency, market prices reflect historical information about prices and transaction volume, allowing information to be accessible to all. Thus, the possibility of extraordinary profits is diminished by analyzing historical prices or using them to predict future prices because these prices are available to everyone, which corresponds to *the random walk theory* of the conduct of stock prices. This theory suggests that stock prices in financial markets do not always follow a certain trend but are in random motion, which makes it difficult to predict future price behavior.<sup>94</sup> In other words, random walk theory claims that stock prices move randomly and are not influenced by their history. Because of this, it is impossible to use past price action or fundamental analysis to predict future trends or price action. If markets are indeed random,

---

<sup>93</sup> Abdul Ghafar Hanafi, op.cit, p. 209.

<sup>94</sup> Suleiman Mosli & Hazem al-Saman, *Price Efficiency Study for Damascus Securities Market*, Damascus university journal for the economic and legal sciences, Vol 29, N°02, 2013, p. 155

then markets are efficient, reflecting all available information.<sup>95</sup> It should be noted that most developing financial markets are poorly efficient.

**4.2.2. Semi-strong level (near-strong level):** At this level of efficiency, prices are supposed to reflect not only historical information but also information that is usually publicly available and published, such as international conditions, economic conditions, industrial conditions, and entities, in the form of publicly available reports and analyses. The timing here is a key and vital factor, as prices may not respond to any changes quickly, and therefore some investors can make extraordinary profits. In this regard, it can be pointed out that this level of efficiency is the closest to practical realities, as all advanced financial markets have not yet exceeded the semi-strong level of efficiency.

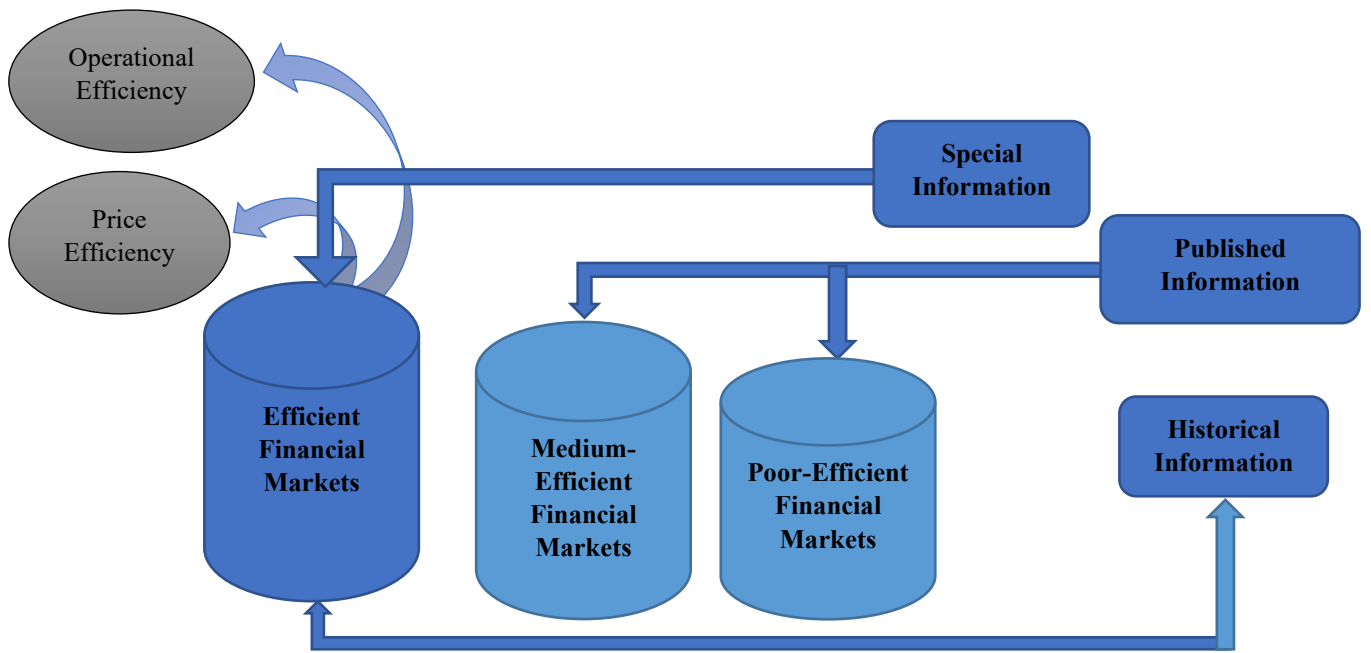
**4.2.3. Strong level:** The prices of securities under a strong level of efficiency reflect all kinds of information, including historical and publicly published information, in addition to unpublished or private information that is available only to a particular category, such as the managers of the entity and its decision-makers and financial institutions specialized in investment and securities analysis. Given the speed with which prices respond to information received, it is difficult for a particular group to take advantage of it or monopolize it to achieve additional (unusual) profits. The development and low costs of means of communication have greatly improved the efficiency of financial markets and allowed investors to respond quickly and take advantage of information that can be easily traded, thereby helping to bring prices to a fair level.<sup>96</sup>

### **Figure 08: Financial Markets Efficiency Levels**

---

<sup>95</sup> Tim Smith, *Random Walk Theory: Definition, How It's Used, and Example*, 23/02/2023, Consulted on 08/08/2023 at <https://www.investopedia.com/terms/r/randomwalktheory.asp>

<sup>96</sup> Suleiman Mosli & Hazem al-Saman, op.cit, p. 155.



**Source:** the author's preparation