Topic one: Financial System

Topic Contents

- Definition of Financial system
- Participants and elements of Financial system
- Structure of financial system
- Roles of financial system
- Ugandan Financial system
- Illicit ways of money flow in an economy

Topic Objectives

After the completion f this topic, students should be able to;

- Explain the financial system and its role to an economy
- Discuss the elements and participant with roles in the Ugandan financial market
- Understand the structure of Uganda’s financial system

Definition of Financial System

- Is a system of rules and practices that coordinates and regulates the monetary and economic affairs of a country.
- It brings an interaction between policy makers, monetary system, financial institutions, financial markets, financial agents and intermediations.
- There fore enabling transfer of monetary resources between lenders and borrowers (both at international, regional and or at individual and organizational level).
- It can be formal based vs informal based and bank based vs financial market based.

Definition of Financial System continues….

- Formal based financial system is governed by standards, regulations for the economy's monetary stability and security.
    - E.g. Commercial banks (25 commercial banks), MDIs (5 MDIs), Credit institutions (4 Credit intuitions), Online payment systems, Forex bureau, pension funds etc..
- Informal based financial system, they are unregulated and may not be recognized by government but is governed on personal relationship among the members.
    - E.g. rotational saving groups, village loan and saving associations, pawn brokers, etc.
- Bank based is where the money flow basically through the banks
    - E.g. Commercial banks, investment banks, mortgage banks, agricultural banks etc.
- Financial market based is where money flows typically through the financial markets.

Participants and Elements of Financial System

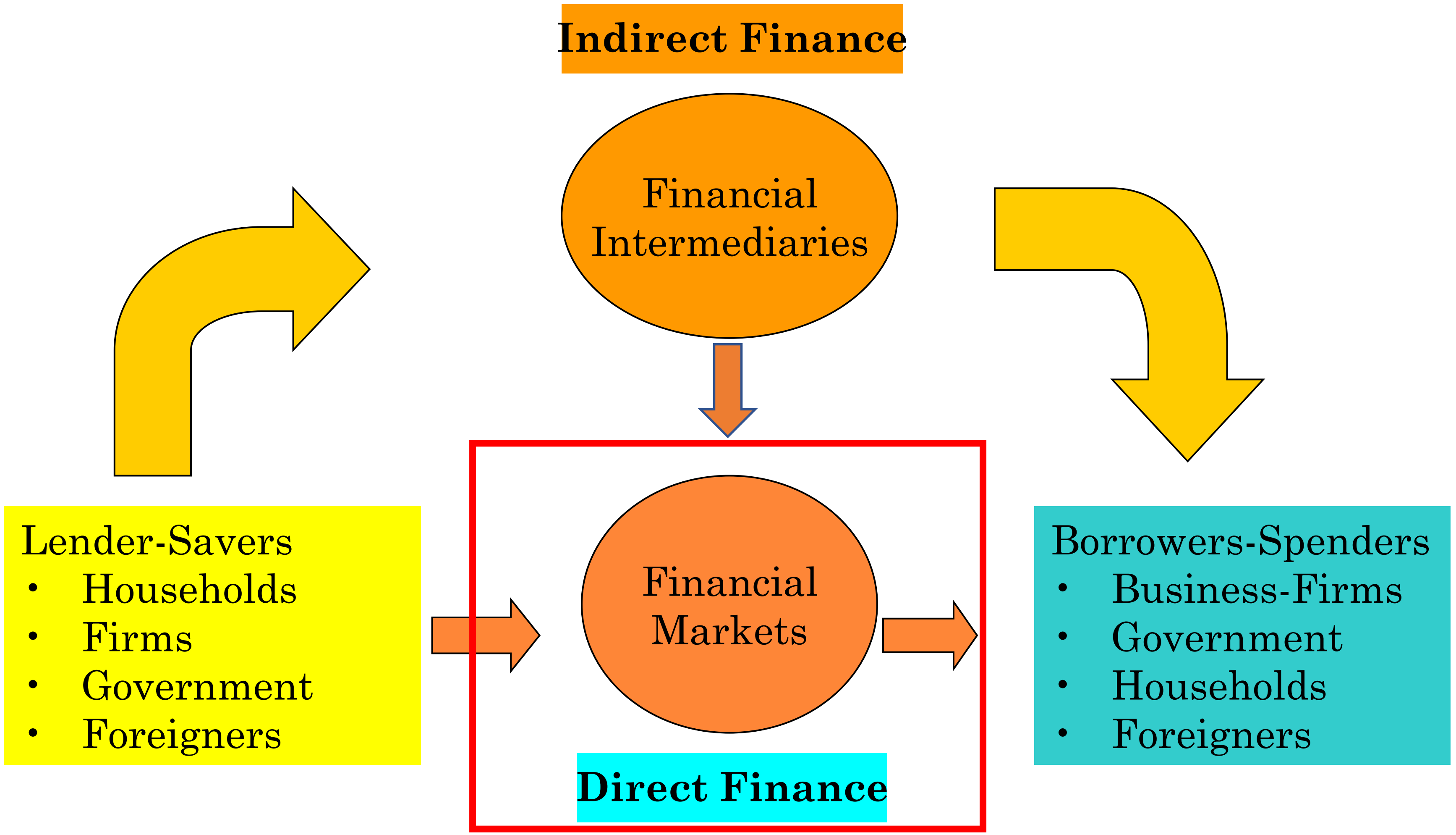
Participants

- Government
- Households (Individuals)
- Business firms
- Foreigners

Elements

- Money-Pay purchases and store of value.
- Financial Instruments-Transfers of resources from savers to borrowers inform of bonds, stock and shares, derivatives, promissory notes, certificate of deposits and treasury bills/bonds.
- Financial market-Link between surplus(savers) and deficits(borrowers).
- Financial intermediaries/institutions-Provides information about prospective borrowers and their credit worthiness.
- Regulators e.g. BOU-Monitors and stabilizes the economy through monetary policy, CMA, UMFRA,URBRA,FIA,IRA.

Structure of Financial System



Direct Finance

- In direct finance, businesses raise funds directly from lenders in financial markets. Therefore, borrowers borrow funds directly from lenders in financial markets by selling them securities
- Surplus income unit advances directly to deficit unit. Direct finance involves direct sale of households marketable securities (financial instruments) such as stocks and bonds in the financial markets.
- **Financial assets**, often called **financial instruments**, are intangible assets, which are expected to provide future benefits in the form of a claim to future cash. Some financial instruments are called *securities* and generally include stocks and bonds.
- Financial instruments have claims on the borrowers future income or assets.
- Securities are assets for the person who buys them but liabilities or debts for the individual or firm that sells (issues) them.
- For example, if a company needs to borrow funds to pay for a new establishment of a new a campus. It might borrow the funds from savers by selling them a bond (a debt security) that promises to make payments periodically for a specified period of time or a stock a security that entitles the owner to a share of the company's profits and assets.

Financial Markets

- Market places where there are buying and selling of financial securities (short and long term). This can be of several categorizations that illustrates the features of these of financial markets.

1. Debt and Equity Markets

- A firm or an individual can obtain funds in a financial marker in two ways; The most common method is to issue a debt instrument, such as a bond or a mortgage.
- Debt instrument is a contractual agreement by the borrower to pay the holder of the instrument fixed amounts at regular intervals (interest and principal payments) until a specified dare (the maturity date), when a final payment is made.
- The maturity of a debt instrument is the number of years (term) until that instrument's expiration date.
- A debt instrument is short-term if its maturity is less than a year and long-term if its maturity is ten years or longer. Debt instruments with a maturity between one and ten years are said to be intermediate-term.

Debt and Equity Markets continues…

- The second method of raising funds is by issuing equities, such as common stock, which are claims to share in the net income (income after expenses and taxes) and the assets of a business.
- For example, If you own one share of common stock in a company that has issued one million shares, you are entitled to 1 one-millionth of the firm's net income and 1 one-millionth of the firm's assets.
- Equities often make periodic payments (dividends) to their holders and are considered long-term securities because they have no maturity date. In addition, owning stock means that you own a portion of the firm and thus have the right to vote on issues important to the firm and to elect its directors.
- The main disadvantage of owning a corporation's equities rather than its debt is that an equity holder is a residual claimant; that is, the corporation must pay all its debt holders before it pays its equity holders.
- The advantage of holding equities is that equity holders benefit directly from any increases in the corporation's profitability or asset value because equities confer ownership rights on the equity holders. Debt holders do not share in this benefit, because their payments are fixed

Financial Markets continues…

2. Primary and Secondary Markets

- A primary market is a financial market in which new issues of a security, such as a bond or a stock, are sold to initial buyers by the corporation or government agency borrowing the funds.
- The primary markets for securities are not well known to the public because the selling of securities to initial buyers often takes place behind closed doors.
- An important financial institution that assists in the initial sale of securities in the primary market is the investment bank. It does this by underwriting securities: It guarantees a price for a corporation's securities and then sells them to the public.
- A secondary market is a financial market in which securities that have been previously issued can be resold.
- USE in which previously issued stocks are traded, is the best-known example of secondary market in Uganda, they always have a larger trading volume.

2. Primary and Secondary Markets continues…

- Other examples of secondary markets are futures markets, and options markets.
- Securities brokers and dealers are crucial to a well-functioning secondary market.
- Brokers are agents of investors who match buyers with sellers of securities; dealers link buyers and sellers by buying and selling securities at stated prices.
- When an individual buys a security in the secondary market, the person who has sold the security receives money in exchange for the security, but the corporation that issued the security acquires no new funds.

2. Primary and Secondary Markets continues…

- A corporation acquires new funds only when its securities are first sold in the primary market. Nonetheless, secondary markets serve two important functions.
- **Liquidity.** They make it easier and quicker to sell these financial instruments to raise cash; that is, they make the financial instruments more liquid. The increased liquidity of these instruments then makes them more desirable and thus easier for the issuing firm to sell in the primary market.
- **Price Determination**. They determine the price of the security that the issuing firm sells in the primary market. The investors who buy securities in the primary market will pay the issuing corporation no more than the price they think the secondary market will set for this security. The higher the security price in the secondary market, the higher the price that the issuing firm will receive for a new security in the primary market, and hence the greater the amount of financial capital it can raise.

2. Primary and Secondary Markets continues…

- Conditions in the secondary market are therefore the most relevant to corporations issuing securities. It is for this reason that one, who deal with financial markets, focus on the behavior of secondary markets rather than primary markets.
- Exchanges and Over-the-Counter Markets Secondary markets can be organized in two ways. One method is to organize exchanges , where buyers and sellers of securities (or their agents or brokers) meet in one central location to conduct trades like USE and Alt EA Exchange Ltd
- An over-the-counter (OTC) market, in which dealers at different locations who have an inventory of securities stand ready to buy and sell securities "over the counter" to anyone who comes to them and is willing to accept their prices. Because over-the-counter dealers are in computer contact and know the prices set by one another, the OTC market is very competitive and not very different from a market with an organized exchange.
- Many common stocks are traded over-the-counter, although a majority of the largest corporations have their shares traded at organized stock exchanges.

Financial Markets continues…

3. Money and Capital Markets

- The money market is a financial market in which only short-term debt instruments (generally those with original maturity of less than one year) are traded
- The capital market is the market in which longer-term debt (generally those with original maturity of one year or greater) and equity instruments are traded.
- Money market securities are usually more widely traded than longer-term securities and so tend to be more liquid. Short-term securities have smaller fluctuations in prices than long-term securities, making them safer investments.
- As a result, corporations and banks actively use the money market to earn interest on surplus funds that they expect to have only temporarily. Capital market securities, such as stocks and long-term bonds, are often held by financial intermediaries such as insurance companies and pension funds, which have little uncertainty about the amount of funds they will have available in the future.

3. Money and Capital Markets continues…

Money Market Instruments

1. **Commercial Paper**, is a short-term debt instrument issued by large banks and well-known corporations, such as Microsoft to raise funds.
2. **Repurchase Agreements(repos)**, are effectively shot-term loans (usually with a maturity of less than two weeks) for which Treasury bills serve as collateral, an asset that the lender receives if the borrower does nor pay back the loan. Repos are made as follows:

A large corporation, such as Microsoft, may have some idle funds in its bank account, say $1 million, which it would like to lend for a week. Microsoft uses this excess $1 million to buy Treasury bills from a bank, which agrees to repurchase them the next week at a price slightly above Microsoft's purchase price. The effect of this agreement is that Microsoft makes a loan of $1 million to the bank and holds $1 million of the bank's Treasury bills until the bank repurchases the bills to pay off the loan.

3. Government treasury bills/bonds.

4. Certificate of deposit.

3. Money and Capital Markets continues…

Capital Market Instruments

1. Stocks, are equity claims on the net income and assets of a corporation. Their value exceeds that of any other type of security in the capital marker.
2. Mortgages are loans to households or firms to purchase housing, land, or other real structures, where the structure or land itself serves as collateral for the loans.
3. Corporate Bonds, These long-term bonds are issued by corporations with very strong credit ratings. The typical corporate bond sends the holder an interest payment twice a year and pays off the face value when the bond matures.
4. Government bonds, These long-term debt instruments are issued by the Treasury to finance the deficits of the federal government.

Function/role of Financial Markets

- Channeling of funds from surplus unit to deficit unit which helps in in transforming economy.
- Increase production in the business by allowing funds moves from people who lack productive investment opportunities to people with productive opportunities.
- Allocation of capital i.e. funds moves from savers to borrowers.
- Improves the well being of consumers.

Indirect Finance

- This is the movement of funds from lenders to borrowers by route, called indirect finance because it involves a financial intermediary that stands between the lender-savers and the borrower-spenders and helps transfer funds from one to the other.
- A financial intermediary does this by borrowing funds from the lender (savers) and then using these funds to make loans to borrower (spenders).
- For example, a bank might acquire funds by issuing a liability to the public (an asset for the public) in the form of savings deposits.
- It might then use the funds to acquire an asset by making a loan to General Motors or by buying a Government Treasury bond in the financial market.

Indirect Finance continues…

- The ultimate result is that funds have been transferred from the public (the lender-savers) to General Motors or the Government Treasury (the borrower-spender) with the help of the financial intermediary (the bank).
- The process of indirect finance using financial intermediaries, called financial intermediation, is the primary route for moving funds from lenders to borrowers.
- Indeed, although the media focus much of their attention on securities markets, particularly the stock market, financial intermediaries are a far more important source of financing for corporations than securities markets are. This is true for industrialized countries as well.

Types of the Financial intermediaries

Type	Sources of funds	Uses of funds
1. Depositary Institutions E.g. Commercial banks, MDIs, Credit Institutions, SAACOs (Loans and Saving Associations)	Take Deposits	Business loans, consumer loans, buy government securities (bonds and treasury bills), mortgages
2. Contractual Saving Institutions E.g. Insurance companies, Mutual funds, Pension funds, Provident funds (e.g. employees' retirement benefit schemes)	Premiums from Policies, Employees contributions	Buy corporate and Government bonds, Mortgages and Corporate stocks/shares
3. Investment Intermediaries E.g. Business firms, Finance companies, Mutual firms, REITs	Issue Commercial papers, bonds and shares/stocks	Business and consumer loans, Shares/stocks and money market instruments

Functions of Financial Intermediaries

Why are financial intermediaries and indirect finance so important in financial markets? To answer this question, we need to understand the role of transaction costs, risk sharing, and information costs in financial markets.

1. Reducing Transaction costs , the time and money spent in carrying out financial transactions, are a major problem for people who have excess funds to lend. For example a farmer in Mbarara needs $ 1,000 for his expansion of the farm, and you know that it is an excellent investment opportunity.

- You have the cash and would like to lend him the money, but to protect your investment, you have to hire a lawyer to write up the loan contract that specifies how much interest the farmer will pay you, while he will make these interest payments, and when he will repay you the $ 1 ,000.
- Obtaining the contract will cost you $500. When you figure in this transaction cost for making the loan, you realize that you can't earn enough from the deal (you spend $500 to make perhaps $100) and reluctantly tell the farmer that he will have to look elsewhere.

Reducing Transaction costs continues…

- This example illustrates that small savers like you or potential borrowers like the farmer might be frozen out of financial markets and thus be unable to benefit from them. Can anyone come to the rescue? Yes, Financial intermediaries can. Financial intermediaries can substantially reduce transaction costs because they have developed expertise in lowering them; and because their large size allows them to take advantage of economies of scale, the reduction in transaction costs per dollar of transactions as the size (scale) of transactions increases.
- For example, a bank knows how to find a good lawyer to produce an Agric loan contract, and this contract can be used over and over again in its loan transactions, thus lowering the legal cost per transaction. Instead of a loan contract (which may not be all that well written) costing $500, a bank can hire a topflight lawyer for $5,000 to draw up an airtight loan contract that can be used for 2,000 loans at a cost of $2.50 per loan. At a cost of $2.50 per loan, it now becomes profitable for the financial intermediary to lend the farmer the $ 1 ,000.

Reducing Transaction costs continues…

- Because financial intermediaries are able to reduce transaction costs substantially, they make it possible for you to provide funds indirectly to people like this farmer with productive investment opportunities. In addition, a financial intermediaries low transaction costs mean that it can provide its customers with liquidity services, services that make it easier for customers to conduct transactions.
- For example, banks provide depositors with checking accounts that enable them to pay their bills easily. In addition, depositors can earn interest on checking and savings accounts and yet still convert them into goods and services whenever necessary.

Functions of Financial Intermediaries continues…

2. Risk Sharing, benefit made possible by the low transaction costs of financial institutions is that they can help reduce the exposure of investors to risk-that is, uncertainty about the returns investors will earn on assets.

- Financial intermediaries do this through the process known as risk sharing: They create and sell assets with risk characteristics that people are comfortable with, and the intermediaries then use the funds they acquire by selling these assets to purchase other assets that may have far more risk.
- Low transaction costs allow financial intermediaries to share risk at low cost, enabling them to earn a profit on the spread between the returns they earn on risky assets and the payments they make on the assets they have sold. This process of risk sharing is also sometimes referred to as asset transformation, because in a sense, risky assets are turned into safer assets for investors.

Risk Sharing continues …

- Financial intermediaries also promote risk sharing by helping individuals to diversify and thereby lower the amount of risk to which they are exposed.
- Diversification means investing in a collection (portfolio) of assets whose returns do not always move together, with the result that overall risk is lower than for individual assets. (Diversification is just another name for the old saying, "You shouldn't put all your eggs in one basket.")
- Low transaction costs allow financial intermediaries to do this by pooling a collection of assets into a new asset and then selling it to individuals.

Functions of Financial Intermediaries continues…

3. Asymmetric Information (Adverse Selection and Moral Hazard)

- The presence of transaction costs in financial markets explains, in part, why financial intermediaries and indirect finance play such an important role in financial markets.
- An additional reason is that in financial markets, one party often does not know enough about the other party to make accurate decisions. This inequality is called asymmetric information. For example, a borrower who lacks out a loan usually has better information about the potential returns and risk associated with the investment projects for which the funds are earmarked than the lender does. Lack of information creates problems in the financial system on two fronts: before the transaction is entered into and after .
- Adverse selection is the problem created by asymmetric information before the transaction occurs. Adverse selection in financial markets occurs when the potential borrowers who are the most likely to produce an undesirable (adverse) outcome-the bad credit risks-are the ones who most actively seek out a loan and are thus most likely to be selected.

Asymmetric Information (Adverse Selection and Moral Hazard) continues…

- Because adverse selection makes it more likely that loans might be made to bad credit risks, lenders may decide not to make any loans even though there are good credit risks in the marketplace. To understand why adverse selection occurs, suppose that you have two aunts to whom you might make a loan-Aunt Louise and Aunt Sheila. Aunt Louise is a conservative type who borrows only when she has an investment she is quite sure will pay off. Aunt Sheila, by contrast, is an inveterate gambler who has just come across a get-rich quick scheme that will make her a millionaire if she can just borrow $ 1,000 to invest in it.
- Unfortunately, as with most get-rich-quick schemes, there is a high probability that the investment won't pay off and that Aunt Sheila will lose the $ 1,000. Which of your aunts is more likely to call you to ask for a loan? Aunt Sheila, of course, because she has so much to gain if the investment pays off.

Asymmetric Information (Adverse Selection and Moral Hazard) continues …

- You, however, would not want to make a loan to her because there is a high probability that her investment will turn sour and she will be unable to pay you back. If you knew both your aunts very well-that is, if your information were not asymmetric-you wouldn't have a problem, because you would know that Aunt Sheila is a bad risk and so you would not lend to her. Suppose, though, that you don't know your aunts well. You are more likely to lend to Aunt Sheila than to Aunt Louise because Aunt Sheila would be hounding you for the loan.
- Because of the possibility of adverse selection, you might decide not to lend to either of your aunts, even though there are times when Aunt Louise, who is an excellent credit risk, might need a loan for a worthwhile investment.
- Moral hazard in financial markets is the risk (hazard) that the borrower might engage in activities that are undesirable (immoral) from the lenders point of view, because they make it less likely that the loan will be paid back. Because moral hazard lowers the probability that the loan will be repaid, lenders may decide that they would rather not make a loan.

Asymmetric Information (Adverse Selection and Moral Hazard) continues …

- As an example of moral hazard, suppose that you made a $ 1,000 loan to another relative, Uncle Melvin, who needs the money to purchase a computer so he can set up a business typing students' term papers. Once you have made the loan, however, Uncle Melvin is more likely to slip off to the track and play the horses. If he bets on a 20-tool long shot and wins with your money, he is able to pay you back your $ 1,000 and live high off the hog with the remaining $ 19,000. Bur if he loses, as is likely, you don't get paid back, and all he has lost is his reputation as a reliable, upstanding uncle.
- Uncle Melvin therefore has an incentive to go to the track because his gains ($19 ,000) if he bets correctly are much greater than the cost to him (his reputation) if he bets incorrectly. If you knew what Uncle Melvin was up to, you would prevent him from going to the track, and he would nor be able to increase the moral hazard.
- However, because it is hard for you to keep informed about his whereabouts-that is, because information is asymmetric-there is a good chance that Uncle Melvin will go to the track and you will not get paid back.

Asymmetric Information (Adverse Selection and Moral Hazard) continues …

- The risk of moral hazard might therefore discourage you from making the $ 1,000 loan to Uncle Melvin, even if you were sure that you would be paid back if he used it to set up his business. The problems created by adverse selection and moral hazard are an impediment to well-functioning financial markets.
- Again, financial intermediaries can alleviate these problems. With financial intermediaries in the economy, small savers can provide their funds to the financial markers by lending these funds to a trustworthy intermediary-say, the Honest John Bank-which in turn lends the funds out either by making loans or by buying securities such as stocks or bonds.
- Successful financial intermediaries have higher earnings on their investments than small savers, because they are better equipped than individuals to screen our bad credit risks from good ones, thereby reducing losses due to adverse selection. In addition, financial intermediaries have high earnings because they develop expertise in monitoring the parties they lend to, thus reducing losses due to moral hazard.

Asymmetric Information (Adverse Selection and Moral Hazard) continues …

- The result is that financial intermediaries can afford to pay lender-savers provide substantial services and still earn a profit. As we have seen, financial intermediaries play an important role in the economy because they provide liquidity services, promote risk sharing, and solve information problems, thereby allowing small savers and borrowers to benefit from the existence of financial markers.
- The success of financial intermediaries in performing this role is evidenced by the fact that most people invest their savings with them and obtain loans from them.
- Financial intermediaries play a key role in improving economic efficiency because they help financial markers channel funds from lender-savers to people with productive investment opportunities. Without a well-functioning set of financial intermediaries, it is very hard for an economy to reach its full potential. We will explore further the role of financial intermediaries in the economy.

Functions of Financial Intermediaries continues…

4. Transformation function (resource mobilization) - bridging the gap between the lenders and borrowers (risk, maturity and risk).

5. Investment advice

6. Liquidity provision

7. Etc..

Illicit ways of money flow in an economy

- Money Laundering
- Terrorism financing
- Ponzi schemes- profits are paid to the existing owners from the money contributed by new owners.
- Pyramid schemes- profits are paid to the existing owners from recruitment of the new owners.
- Cyber crimes
- Counterfeit
- Bribe and corruption
- Etc.

Effects to illicit money flow in an economy

- Reduction of government revenues
- Widen the poor and rich gap
- Reduces trust in the finance institutions
- Loss of people’s money
- Increase vulnerability of the financial institutions to danger
- Risk of financial crisis
- Scares foreign direct investments
- Etc.

What can done to avert IFFs

- Implementing and strengthening Anti corruption measures.
- Awareness and capacity building on IFFs.
- Strong enforcement and implementations of sanction and penalties
- Implementation of strong digital payment systems.
- Enforcement of Anti corruption measures .
- Improvement of international cooperation.
- Strengthening border control system.
- Etc.