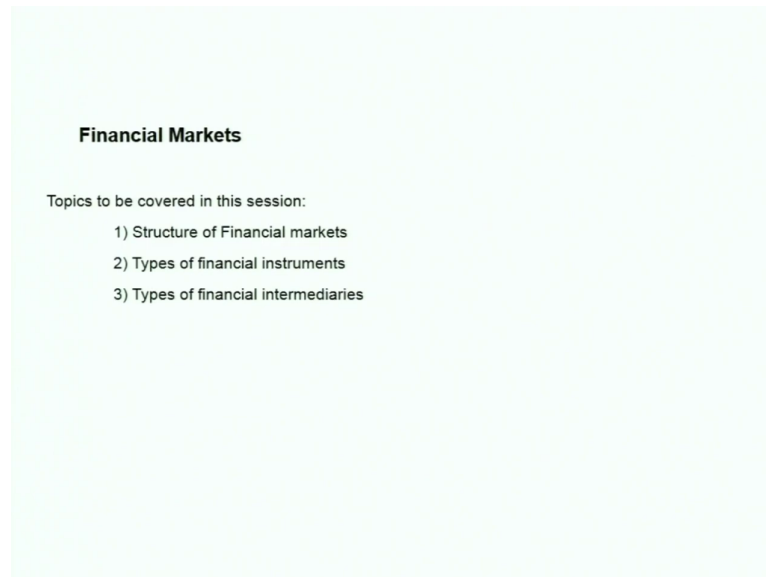


Economics of Banking and Finance Markets
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Lecture - 02
Overview of financial system

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Financial Markets

Topics to be covered in this session:

- 1) Structure of Financial markets
- 2) Types of financial instruments
- 3) Types of financial intermediaries

Welcome to this session. In this session we are going to cover is to discuss the topics of i) the structure of financial markets, ii) types of financial instruments, and iii) types of financial intermediaries. We will be mainly focusing on an overview of these three different aspects.

(Refer Slide Time: 00:44)

Structure of Financial Markets

- **Debt and Equity Markets**
 - 1) **Debt instruments (maturity)**
 - Markets for bonds, loans and mortgages
 - Short term and long term
 - 2) **Equities (dividends)**
 - Markets for stocks
 - Claims on the net income and assets of a business
 - Risky vs. High return

Advantage of Debt vs Equities

- Debt: Lenders get first preference on claims on the assets and income of the borrower
- Equity holder: only a residual claimant only

Let us begin with the structure of financial markets. Overall, the financial markets can be categorized into two markets; one is called debt markets and the other one is equity markets. In the case of debt market, a debt market is mainly for the markets for bonds, loans, and mortgages, and there can be different types of debt instruments for short term and long term.

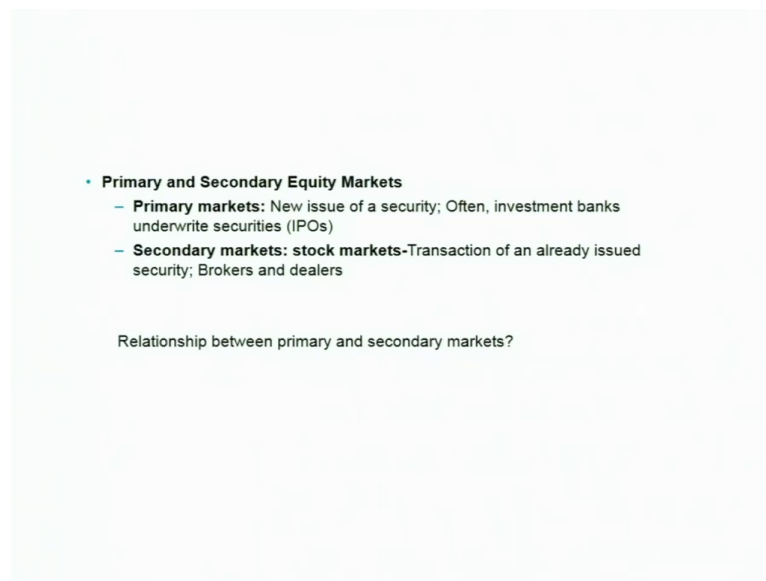
And the second market that is called equity markets, this is called markets for stocks. In the stock market, those who buy stocks they have the claims on the net income and assets of a business.

Then you can see that these two types of instruments, that is, the debt instrument and equity instrument or the debt market and equity market, and you know that the debt market is mainly lending loan. Suppose you are depositing your money in a bank, or you are lending your money to a corporate, it all means that you are buying a bond, or you are buying government securities (government bonds).

You know that they (government bonds) are relatively less risky, but you often see that the return will be very less. At the same time, in equities, you can see that they are highly risky. So, sometimes you can see that they expect high return in equities. Let us also see what the advantages of debt and equities. You can see that in the case of debt, suppose if you are a lender when you are lending your money to a corporate or to government. As a lender, you get the first preference on claims on the assets and income of the borrower.

And, only after that the equity holder get a claim, it means, the first claim on the assets and income of the borrower is on the lender, not on the equity holder. In this case we can see that equity holder is only a residual claimant only; that means, when you are buying a stock of a company you are only a residual claimant, but when you are lending your money to a corporations or government then you have the first preference on claims on their assets and income when they default.

(Refer Slide Time: 03:14)



When it comes to equity market you might have heard that that the primary and secondary equity markets. So, what is meant by primary markets and what is meant by secondary markets? Primary markets means where the new issue of a security happens. Often, investment banks underwrite securities; that means, IPO- Initial Public Offerings. Where the transaction of initial public offering happens, we call it primary markets.

The secondary market means the stock exchange. We are all familiar secondary markets. Secondary market or stock markets where the transaction of an already issued security or the already issued IPO happens. Here brokers and dealers are involved. In short, the stock market is a place where the transaction of an already issued security or equity happens.

Is there any relationship between primary and secondary markets? Yes, sometimes we see that when the stock market performs better, as you know, the income the return of equity holder the shareholders increase, not of the firm. Firms' capital will not increase, only the shareholders return increase (their assets value increase). When the secondary markets

perform better, as just I had stated here that the income of the firms of the or the company will not increase, but you can see that companies share perform better, thus, they can issue more IPOs at a higher rate. Because there is a high correlation relationship between secondary market and the performance the price the stock price and the price of the IPO; when the share of a company is performing better means the investors are more interested in that company. Not only that when the secondary market is performing better; that means, there is more demand for the securities or the share of these companies you can also see that more capital is moving to the stock markets and because of that you can also see that a companies can issue new IPOs.

So, in that way when the secondary market is performing better you can also see that primary market also will perform better and as a result economy you can see that there will be more capital flow or more investment in the economy. As a result, economy will be doing better and more investment in the economy means more production, more economic activity, more production of goods and services. In that way, the better performance of stock market is highly beneficial for the overall welfare of the economy. That is why sometime we see that the working or the efficiency or the performance of secondary market is often considered as an indicator of the health of the economy.

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Debt and Equity markets
Vs.
Derivative markets

- Debt and Equity markets: actual claims are sold and bought for immediate cash payment
- Derivative markets: investors make agreement that are settled later
- Derivative markets: Futures, Options, Swaps (Transfer of risk)

Sometime, when we discuss debt and equity markets, we also refer the derivative markets. About debt and equity markets you can see that the actual claims are sold and bought for the

immediate cash payments, but when it comes to derivative markets, we can see that investors make agreement that are settled later. The derivative markets include futures, options, and swaps. So, in this course we will be focusing mainly on debt and equity market, and we will be giving very little attention to the derivative market. So, if you are interested more on derivative market, I would suggest you enroll the course on derivative and risk management where the derivative markets will be very thoroughly covered.

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Money markets	Capital markets
<ul style="list-style-type: none">Deal in short-term debt instruments (< 1 year)Market for highly liquid, very safe, short-term	<ul style="list-style-type: none">Deal in longer-term debt and equity instruments (> 1 year)
<ul style="list-style-type: none">Debt securities (cash equivalents that can be interchangeable for money at short notice)	<ul style="list-style-type: none">Refers to the entirety of the stock and bond markets.
<ul style="list-style-type: none">Primarily used by governments and corporations to keep their cash flow steady, and for investors to make a modest profit	<ul style="list-style-type: none">Companies that issue stock and long-term bonds do so for the purpose of raising money for their long-term operations

Let us now discuss different aspects of the overall the financial market we can further classify into another group called money and capital markets. Even the stock market the equity market and debt market, we are going to make further classification as money and capital markets.

And let us discuss what is meant by money markets. Money markets deal in short term debt instruments, mostly less than 1 year. So, these are markets for highly liquid, very safe, and short-term transactions, and its mainly involved debt securities; that means, cash equivalence that can be interchangeable for money at short notice. And these are primarily used by governments and corporations to keep their cash flow steady, and investors to make a modest profit. Banks are the important participants in the money markets, we can also see that there are so many other participants including governments and corporations.

About the capital markets: Capital markets deal in long-term debt and equity instrument; that means, greater than 1 year. For all the transaction that involves for the instruments for debt

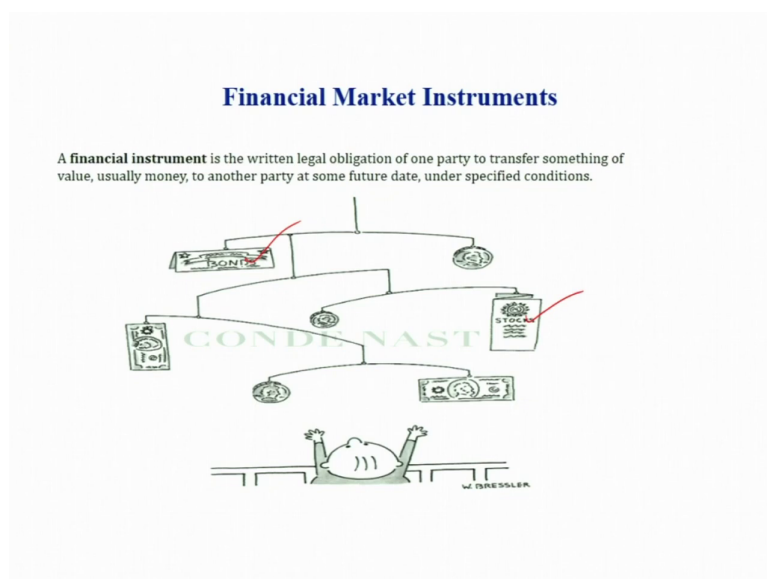
and equity instruments more than 1 year, we are going to call them capital markets. It refers to entire stock and bond markets; and companies that issue stock and long-term bonds do so for the purpose of raising money for their long-term operations through long term borrowings and long-term investment. For example, when a company issue IPOs, it is part of capital markets.

(Refer Slide Time: 09:39)



So, let us now say discuss the second topic that is called types of financial instruments.

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What is meant by a financial instrument? Financial market instruments is a written legal obligation of one party to transfer something of value, usually money, to another party at some future date under specified conditions. The examples of financial instruments are stocks, bonds, bank deposit, insurance policies etcetera.

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Money Market Instruments	
(Govt) Treasury Bills	<ul style="list-style-type: none"> • One-, Three- and Six month-maturities • Selling at a discount • Very low (zero) default risk • Held mainly by Banks
Bank Deposits [short-term Certificate of Deposit-CD]	<p>Sold by a bank to depositors</p> <p>Negotiable CDs are sold in the secondary markets (they do have the right to transfer, sell, buy, or exchange the CDs)</p>
Consumer Loans	<p>Short terms loans to consumers</p>
Commercial Paper	<p>Issued by large banks and well-known corporations</p>

Let us discuss some of the key financial market instruments under two headings- that is dealing with money market instruments and capital market instruments. Let us start with money market instruments. Look at treasury bills, this is one of the money market instruments. Treasury bills are issued by government. You can see here that 1 month, 3 months, 6 months maturities.

The advantage of government treasury bill is that there is very low default risk, or nearly you can see the zero-default risk, for well performing governments. And these treasury bills are most often held by banks. Then, another kind of instrument money market instrument is bank deposits, we are going to call a short-term certificate of deposits. These are sold by bank to depositors. There is negotiable certificate of deposits as well and these are sold in the secondary market as well. Because they do have the right to transfer (sell and buy or exchange) the CDs. Another group of instruments is consumer loans, which is another kind of money market instruments. These are short term loans to consumers. Then commercial papers, that is also short term, but that issued by large banks and well-known corporation to meet their day to day operations and liquidity requirements.

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Money Market Instruments (contd.)

Repo agreements	<ul style="list-style-type: none">• Very short-term - usually with a maturity of 2 weeks, for which T-bills serve as the collateral• Large corporations are the most important lenders
Fed Fund	<ul style="list-style-type: none">• Overnight loans between banks (Very short-term)....• To meet the Cash reserve requirements• A closely watched barometer of tightness of credit market conditions

Some more money market instruments; one is called Repo agreements, repurchase agreements. These are very short term usually with a maturity of 2 weeks for which treasury bills serve as the collateral. Large corporations are the most important lenders in this market.

Another kind of money market instrument is interbank borrowing. one example is fed fund rate in the US which is determined in fed fund market by borrowing and lending between banks. these are very short term. So, the overnight loans between banks it often happens mainly to meet their cash reserve requirements. The cash reserve requirement is mandated by the central bank to the commercial banks; that means, a certain fraction of their total deposit should be kept with the central bank as cash reserve. Sometime, some commercial banks may face deficit in meeting their cash reserve. In order to cover up this deficit, these banks borrow from each other. It is called overnight loans between banks. This is one of the money market instruments. And this is a closely watched barometer of tightness of credit market conditions. Based upon the overnight bank rate, one can come to know what is the liquidity conditions in the credit market.

(Refer Slide Time: 13:34)

Capital Market Instruments	
Stocks ✓	Equity: Ownership in the income and assets of a business
Mortgages (loans) ✓	Loans to purchase house, land and other real structures where the structure or lands itself serves as collateral for loans

Let us now look at the capital market instruments. One is called stocks equity. Equity means, you are already aware, it is ownership in the income and assets of a business; you can also call it as share. Then mortgages loans; these are loans to purchase house, land where the structure or lands itself serves as collateral for loans.

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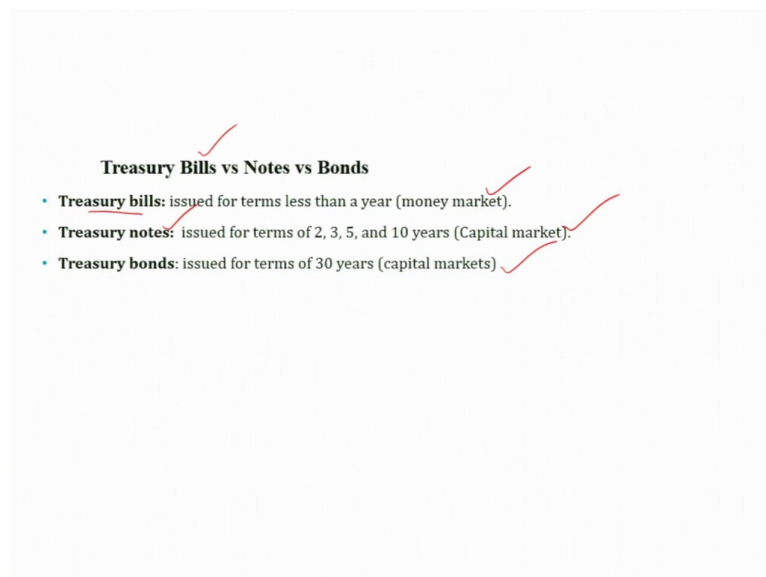
Capital Market Instruments (contd..)	
Corporate Bonds ✓	<ul style="list-style-type: none">• Long term bonds issued by corporations• Major buyers: Insurance companies, pension funds, individuals etc
Govt .Securities ✓	<ul style="list-style-type: none">• By the Governments to meet the budget deficit• Bought mostly by central bank, commercial banks, households, foreigners
Municipal Bonds ✓	<ul style="list-style-type: none">• Issued by State and local governments ✓• Normally the interest income exempted from income tax
Consumer and commercial bank loans ✓	<ul style="list-style-type: none">• To Consumers and businesses

Corporate bonds are another capital market instruments. These are long term bonds issued by corporations; major buyers are insurance companies, pension funds, individuals etcetera. Then comes government securities, issued by governments to meet their budget deficit.

Government securities are bought mostly by central bank, commercial banks, households, and foreigners. As we know that the default risk of government securities are very less, and that is one of the reason why commercial banks and household they prefer to buy government securities.

Another kind of market instrument is municipal bonds. Municipal bonds are primarily issued by state governments and local governments. And, normally, the interest income for municipal bonds are exempted from income tax. Then comes consumer and commercial bank loans, these are long term loans given to consumers and businesses; these are the capital market instruments.

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In our course, we will be using these three terms: treasury bills, treasury notes and treasury bonds; often people get confused with this. let us make it clear what does these three terms means. So, treasury bills issued for terms less than a year. So, this is a money market instrument. The second one is treasury notes, treasury notes issued for terms of 2, 3, 5 and 10 years, this is a capital market instrument. Then, treasury bonds issued for terms of 30 years and more, issued for a very long term.

So, here my objective was to just to give you an overview, but what are the various aspects will be discussed thoroughly in appropriate context.

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Type of Financial intermediaries

- 1. **Depository institutions** (commercial banks, savings banks, and credit unions) accept deposits and make loans.
- 2. **Insurance companies** accept premiums, which they invest in securities and real estate (their assets) in return for promising compensation to policyholders should certain events occur (their liabilities).
 - Life insurance: protect against the financial risk of untimely death.
 - General insurance: Property and casualty insurers protect against personal injury loss and losses from theft, accidents, and fire.
- 3. **Pension funds** invest individual and company contributions in stocks, bonds, and real estate (their assets) in order to provide payments to retired workers (their liabilities).

Let us now move to the third aspects; that is called type of financial intermediaries. We can better understand it by going through various type of financial intermediaries, starting with depository institutions. Depository institutions include mainly commercial banks, savings banks, and credit unions who accepts deposits and make loans.

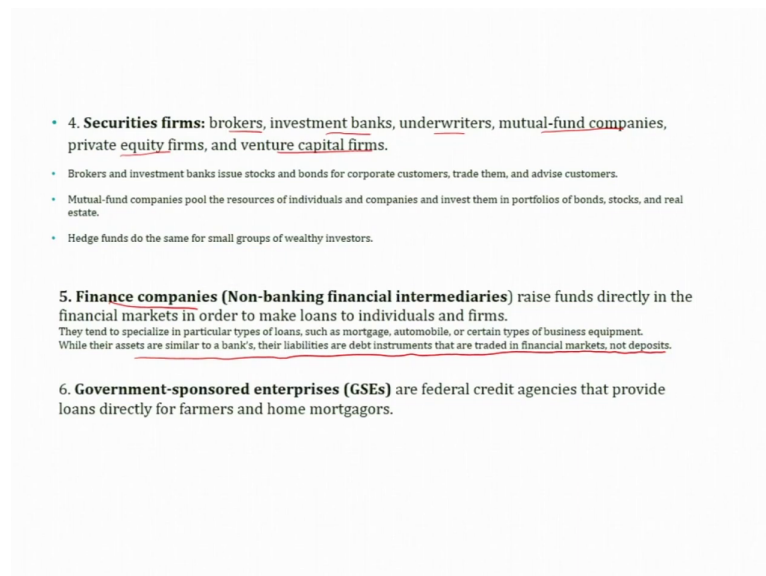
We also call them banking institutions. Interchangeably we use the term banking institution or depository institutions, and it includes, as I just mentioned, commercial bank, savings banks, credit unions etcetera. Then, comes insurance companies. Insurance companies are another type of financial intermediaries; they accept premiums that they mostly invest in securities and real estate so that they pay the promised compensation to policyholders if the insured events occur.

About the insurance companies: we can broadly put into two types; one is called life insurance companies, which protect against the financial risk of untimely death. The general insurance companies insure property, vehicle, health, theft, accidents, and fire.

Another category of financial intermediaries is pension funds, who invest in stocks, bonds, and real estate to provide payments to retired workers. The example for pension funds in India is the Employee Provident Fund, Public Providence Funds and New Pension Schemes. The Employee Provident Fund accept the contribution from employee and employers, and at the time of retirement they give a lump sum amount (the corpus) to the employee and also, they give pensions. And similarly in new pension schemes they also work on the same

principle. In order to pay the compensation to them, this pension fund invest their money, their fund, in stocks bonds and other assets to earn income.

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• **4. Securities firms:** brokers, investment banks, underwriters, mutual-fund companies, private equity firms, and venture capital firms.

- Brokers and investment banks issue stocks and bonds for corporate customers, trade them, and advise customers.
- Mutual-fund companies pool the resources of individuals and companies and invest them in portfolios of bonds, stocks, and real estate.
- Hedge funds do the same for small groups of wealthy investors.

5. Finance companies (Non-banking financial intermediaries) raise funds directly in the financial markets in order to make loans to individuals and firms. They tend to specialize in particular types of loans, such as mortgage, automobile, or certain types of business equipment. While their assets are similar to a bank's, their liabilities are debt instruments that are traded in financial markets, not deposits.

6. Government-sponsored enterprises (GSEs) are federal credit agencies that provide loans directly for farmers and home mortgagors.

Another group of financial intermediaries is called securities firms. It includes brokers, investment banks, underwriters, mutual fund companies, private equity firms, venture capital firms, etcetera. Brokers and investment banks issue stocks bonds for corporate customers, trade them and advise customers. About the mutual fund companies, they pool the resources of individuals and companies and invest them in portfolios of bonds stocks and real estate.

There is also hedge funds provide financial services for small group of wealthy investors. And we will discuss these firm security firms in appropriate context in our course then we see that what are their role in the working of financial market financial system. Then another group of intermediary financial intermediaries is called finance companies, we also call them non-banking financial intermediaries. They raise funds directly in the financial markets in order to make loans to individuals and firms. They tend to specialize in specific types of loans such as mortgage, automobile, certain types of business equipments. While their assets are like banks but their liabilities are debt instrument that are traded and financial markets, and not deposits. An important point is that these financial companies will not be coming under the direct purview of central banking system. Deposits are not their prime source of raising capital.

Thank you.

Keywords: finance markets; debt market; equity market; financial instruments; money market; capital market; financial intermediaries