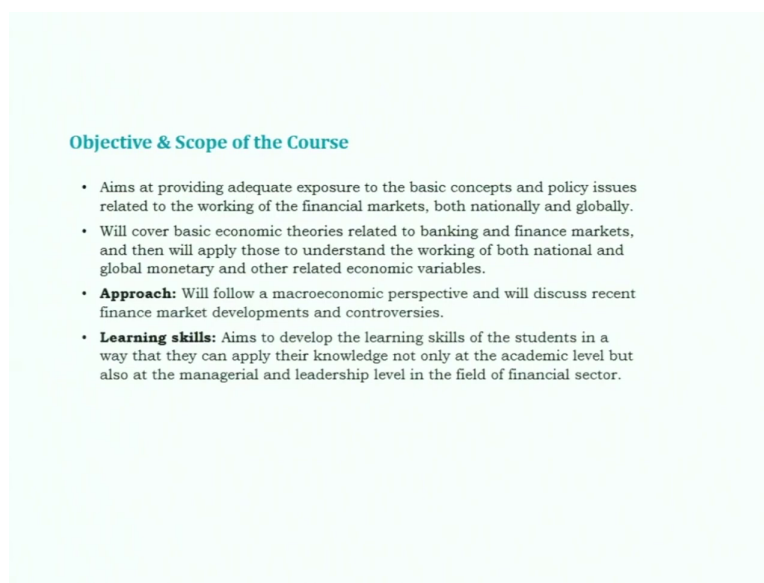


Economics of Banking and Finance Markets
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Lecture - 01
Introduction

Welcome to the first and introductory session of this course. Let us begin with the objective and scope of this course.

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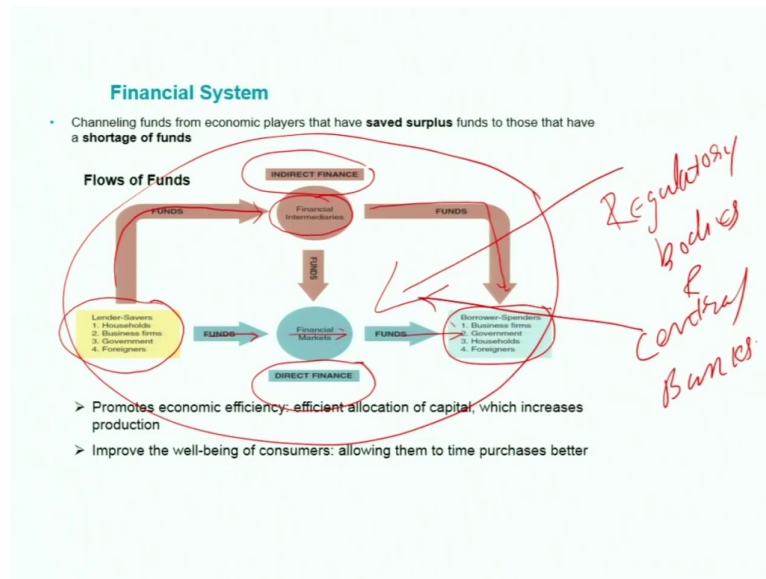
Objective & Scope of the Course

- Aims at providing adequate exposure to the basic concepts and policy issues related to the working of the financial markets, both nationally and globally.
- Will cover basic economic theories related to banking and finance markets, and then will apply those to understand the working of both national and global monetary and other related economic variables.
- **Approach:** Will follow a macroeconomic perspective and will discuss recent finance market developments and controversies.
- **Learning skills:** Aims to develop the learning skills of the students in a way that they can apply their knowledge not only at the academic level but also at the managerial and leadership level in the field of financial sector.

So, the main aim of this course is at providing adequate exposure to the basic concepts and policy issues related to the working of the financial markets, both nationally and globally. And, the course will cover basic economic theories related to banking and finance markets, and, then we will apply those to understand the working of both national and global monetary and other related economic variables.

The approach that we will be taking here will be following a macroeconomic perspective, and we will discuss a recent finance market developments and controversies. And, regarding the learning skills, the course aims to develop the learning skills of the students in a way that you can apply this knowledge not only at the academic level, but also at the managerial and leadership level in the field of financial sector.

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So, let us begin with financial system: what is meant by a financial system? The financial system channelise funds from economic players that have saved surplus funds to those that have a shortage of funds. So, this can be better understood with a figure like this, which showcase the flow of funds.

You can see here that there are two ways of flow of funds, one is using the direct finance channel and the other one is using the indirect finance channel. You can see on the left-hand side, here the lenders, we can also call it savers who have surplus funds. These include households, business firms, government, and foreigners. Those who have surplus funds, through the direct finance channel, the funds flow like this, and through the finance markets it goes to those who have shortage of funds and who are better equipped to make the best use of these funds.

The borrower includes mainly who needs funds that includes business firms, government, households, and foreigners. This is one route, and another route is called indirect finance, which includes mainly financial intermediaries like banks, insurance companies, pension funds etcetera. Through this channel the funds channelized to the needy people, means to the borrower-spenders. These are the two broad channels of how a financial market works.

In this course what we are going to learn is that why sometime there was the finance market overrepresented by direct finance. The flow fund is mainly happened mostly through direct

finance, and some other time we see that there is indirect finance, that is there is a need for financial intermediary.

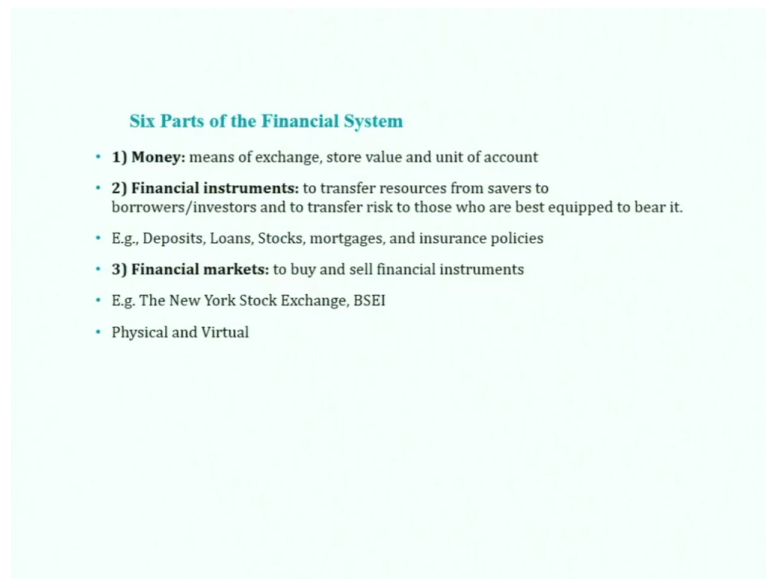
Sometimes, we see a proper mix we see that there is overrepresented by either indirect finance or direct finance. So, in this course we are going to see what makes; that means, there is over representation or weighing more on indirect finance or direct finance. Further, we will be studying different concepts and theories related to this working of this financial system.

And here in overall there are different players will be included here and top of this there will be regulators, that is regulatory bodies, will be coming here, including central banks. So, we are going to study the economics behind all these transactions. So, in this way financial system what we can say that this in fact, promotes, we expect that, this promotes economic efficiency because there can be an efficient allocation of capital which increases production.

Because, for the households those who have surplus of funds they may not be knowing how to utilize these funds in a better way in production. So, it promotes economic efficiency because these funds, those who have surplus funds, but, they do not know how to make the best use of this capital. It transfers to the borrowers-spenders who have better way to utilize these funds. In that way, we can see that the capital is utilized in its efficient way. So, it promotes economic efficiency.

And you can also see from this figure that the fund is also given to the households as well. So, consumers, as you can see here that. it improves the well-being of consumers which allowing them to purchase, allowing them to time their purchases, better. For example, when you buy a vehicle or by taking loan from finance market or you are taking a student loan, you are making, making the best use of your time to spend, using this capital of borrowed funds.

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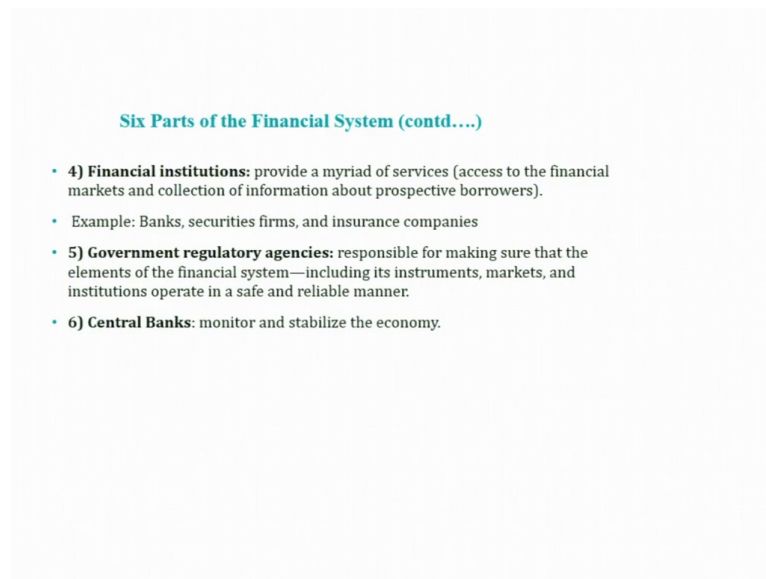
Let us begin giving the different parts of the financial system. We can understand the financial system seeing these 6 major parts of the system. The first one is money. We will be discussing in this course what is money. Money is mainly a means of exchange, store value, and unit of accounts. So, in our course we will be considering that this is one of the assets, an alternative asset, in the financial system.

Then we will discuss another component, the financial instruments. An instrument used to transfer resources from savers to borrowers-investors and to transfer risk to those who are best equipped to bear it. So, the examples of financial instruments are the deposit certificate that you are getting when you are depositing in the bank, or the bank passbook that you are getting. Loan certificates, stocks, mortgages, insurance policies- these are all financial instruments.

Then comes financial markets. So, financial market is a place- it can be a physical or virtual platform where the lender and the borrower interact. A financial market is a place or platform where to buy and sell financial instruments. The examples are the New York Stock Exchange BSEI etcetera. So, as I mentioned just now, it can be a physical place or a virtual place.

So, if you are buying financial products on online. So, that is also a kind of market if you are directly buying it from an insurance company through online.

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Then, the 4th component of the financial system is financial institution. The financial institution they provide a myriad of services, access to the financial markets and collection of information about prospective borrower etcetera. The examples of financial institutions are banks, security firms, and insurance companies.

Then comes regulatory agencies, specifically, government regulatory agencies. They are responsible for making sure that the elements of financial system including its instruments, markets and institutions operate in a safe and reliable manner. We also see in the coming sessions that why we need government regulatory agencies in the financial market because ensuring a sound financial system is the backbone of an economy.

Because, you know already, as seen in the figure on the left-hand side, we say that there are people those who have surplus funds on the right-hand side, and we have seen there are people those who need those who have a shortage of fund, who can use the better make the better use of these funds.

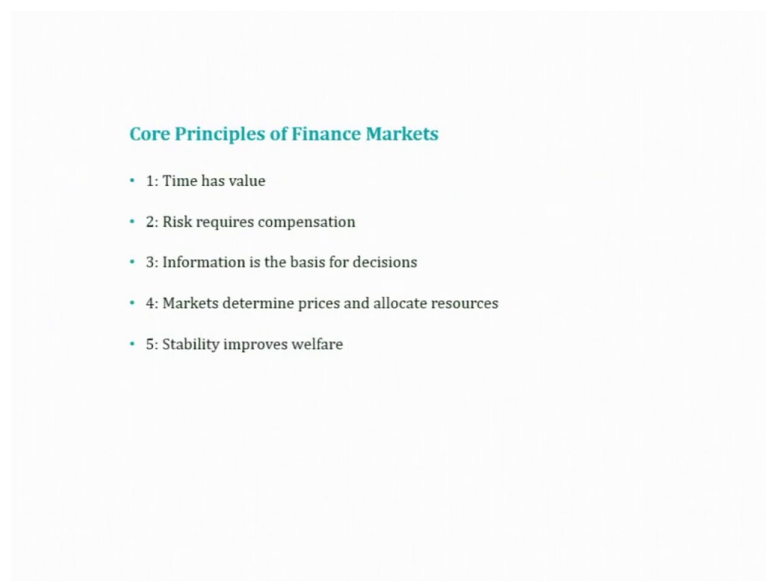
In fact, the financial system ensures that the flow of funds from the surplus funds, where there is surplus of funds it can be the financial system ensure the smooth flow of these funds to the sector those who can make the best use of these funds. So, in that way, you can also see that, for the increase in the economic activities in the production of goods and services you know that we need capital.

Capital is coming from those who have the surplus. In the production of goods and services or the economic activities, we need factors of production. The factors of production means capital and labour. One of the key factors of production is capital, and the smooth flow of this capital movement is ensured by the financial system.

A sound financial system and efficient finance system is at the best interest of the economy. That is why the government regulatory agencies are more prevalent in the financial system. They (regulatory agencies) are responsible for making sure that the financial system works efficiently.

Another important player and integral part in the finance system is central banks. Most economies across the globe have central bank, and the central bank's role is mainly to monitor and stabilize the economy. They play central key roles in the smooth working of the economy to ensure that the financial system also works more smoothly and efficiently.

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Let us now move to discuss the core principles involved in the financial markets. We are going to list out here some of the key principles that will often use in the finance market. These principles that we are going to discuss here very shortly are inherent in the working of financial market. We may see these things directly or indirectly or explicitly or implicitly in the working of financial markets.

So, let us go through it one by one. In our course, we may not be directly discussing this, but, across our discussion, all these principles will appear as these are the underlying principles in our discussion, though we may not be explicitly discussing this.

The first one is time has value, you know that the money that you are depositing today in the bank, suppose when you are lending 100 rupees today and when you are getting 100 rupees, this getting back this 100 rupees after 1 year, you know that the 100 rupees that you are giving today is not equal to the 100 rupees that you are getting after one year because, what makes the difference is the time.

That is, 100 rupees today and after 1 year is not having the same value because time has value. We will be using through heavily thoroughly in our course, in our discussion. Then, it comes risk requires compensation. it means, the money that you are lending to someone, what is the guarantee that you will be getting back this money on the agreed date? What is the guarantee that the borrower will not default the repayment? Similarly, when you are putting your money in stocks. In fact, you are taking risk and when you are taking risk you require (you need) compensation, it means, risk requires compensation.

The third principle is information is the basis for decision. this is another key principle; that means, information that is an important variable that we will be discussing in our course that the efficient and smooth working of finance market we are going to see that how information plays a key role.

And, we also see that markets determine prices. The prices of financial instruments will be determined by the markets, and the markets determine prices and allocate resources accordingly. Finally, we will also see that stability improves welfare. In the finance market, we are going to see that how stability in interest rate, how stability in inflation rate, or how stability in economic stability overall, economic stability and political stability. Improve welfare. How it improves welfare. So, the instability that we are going to see in interest rate, inflation, political socio economic, political conditions all affect the welfare of economy, and welfare of the finance markets and then ultimately the welfare of the economy as well.

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Course Outline	
Section	
I. An Overview of the Financial System:	Financial markets, institutions and instruments
II. Debt (bond) Markets	Types of bonds; Determination of bond price and interest rates Theories of interest rates; Term and risk structure approaches. Economics of credit ratings and interest rates
III. Equity Markets	Setting price of equities; Efficient market hypothesis
IV. Banking sector	Basics of banking; Principles of bank management

Let us now move to the course outline. We will begin this course by giving an overview of the financial system. Here we will be discussing what is meant by finance markets, financial institutions, and financial instruments. We will be giving a brief overview of these three key aspects. Then, we will be moving to bond market, also called as debt markets. Here we will discuss what are the different types of bonds, and how bond price and interest rates are determined.

Mostly our focus here will be the determination of interest rate. We will also discuss the widely discussed inverse relationship between bond prices and interest rate. We will be deriving the formal relationship between why there is an inverse relationship between a bond price and interest rate, we will be deriving this relationship very formally. Then, we will discuss the various theories of interest rate and we will discuss these theories under two category- two approaches- one is term structure, and another is risk structure of interest rate.

And while discussing the risk structure of interest rate, we will discuss the economics of credit rating and how credit ratings and interest rates are subsequently related. Once we complete the debt market, we will move to the equity market, that is, the stock market, and here we will discuss how prices of, say, equities or securities are set. And, in this context, we will also discuss efficient market hypothesis and how efficient market hypothesis and pricing of equities using efficient market hypothesis. how the pricing of equities is done. Then, we will move to another key section that is called basics of banking. Here we will mostly focus

on commercial banking what are the basics of banking system, specifically the commercial banking, then what are the various principles involved in the bank's management, this part we will thoroughly cover under this section.

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Course Outline (contd...)	
V. Asymmetric information in finance markets and the rationale for regulations	<ul style="list-style-type: none"> • Selection bias and moral hazard in bond and equity market and banking sector • Tools for addressing market failures • Economics of conflict of interest • Asymmetric information and financial structure • Economic Analysis of Financial Regulation: Rationale; Types of regulation and its implications • Dynamics of financial crisis (with special reference 2007-08 crisis)
VI. Central banking and finance market outcomes	<p>Central banking and finance markets; Federal reserve system and RBI</p> <p>Monetary Aggregates and Money supply process: Credit creation and multiplier</p> <p>Optimal Monetary Policy: Strategies and tactics: - Targeting Monetary Aggregates or Interest Rates</p> <p>Transmission mechanisms: traditional, asset price and credit view channels</p>

Then, we will move to another key component called information, how asymmetric information in finance market and why we need, which justifies, the reason for the rational for regulations. Here, we will define what is meant by information asymmetry and then we will introduce some concepts called selection bias and moral hazard, and we will apply these concepts in the bond market and equity market as well as in the banking sector, then we will discuss what are the tools used for addressing this asymmetric information.

We are also going to say that this is a kind of market failure. So, we see that the market in fact, determine the prices and allocate resources, but when it comes to the finance markets, we are going to see that, because of the degree the high level of asymmetric information, there is market failure often. For the efficient working of markets, we need the information, but if there is asymmetric information or there is imperfect information there is market failure is going to happen, then we are going to see that how it leads to market failure, that is, the collapse of finance markets.

Using that context, we will see why we need regulation as well. So, in this context we also relate this asymmetric information the discussion of asymmetric information, we will further

extend it to understand the conflict of interest among different stakeholders in the finance market. So, this one how asymmetric information explain in the financial structure.

Then, using the asymmetric information that is leading to from market failure, we will see what the rationale for financial regulations is. We will discuss the economic analysis of financial regulation, the rationale for financial regulation, types of financial regulations and its implications. And in this section, we will elaborate, extend this discussion, to understand the dynamics of financial crisis with a special reference to 2007-08 crisis. We will discuss what are the dynamics of financial crisis.

And in the emergence or in the happening of financial crisis how asymmetric information and conflict of interest plays a crucial role. So, then we will move to the final section of this course that is central banking and finance market outcomes, and here we will be covering the central banking and finance markets and we will relate the principles of central banking in the context in the working of federal resource systems of the US and the Reserve Bank of India.

In this context, we will discuss monetary aggregates and money supply process, and how credit creation and credit multiplier happens, and, subsequently, we will move to the monetary policy aspects where we will discuss monetary policies the various strategies and tactics of monetary policies, and, here, we will be looking at whether monetary policies are targeting of monetary aggregates or interest rates targeting or inflation rate targeting- these kind of aspects we will be discussing under this section.

And, after this, we will also discuss the monetary policy transmission mechanism by using the concepts and theories that we studied in this course. We will see that what are the various monetary policy transmission mechanism, how does it affect the economy.

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Some tempting questions and issues

- A simple question: What's rate of interest?
- Why do interest rates rise when inflation goes up?
- Most often, why do gold prices increase when stock price declines (and dollar depreciates)?
- Why do Indian stock markets get adversely hit when FED Fund Rate was hiked?
- Why do bank frauds often happen?
- Policy makers: "The stock market is down! We are going to follow an expansionary monetary policy to increase stock prices": How? Is it so easy to do so and get the desired results?
- Can monetary policy be used to stabilize the economy?

And in this course, we will be in examining some tempting questions and issues. We will start with a very simple question what is the rate of interest? And we will give a proper definition for that, and we will understand what the rate of interest is really means. We will also answer some of the questions why do interest rates rise when inflation goes up? Sometime, most often, we see that why do gold prices increase when stock price declines and dollar depreciate?

We will be answering this question in appropriate context while discussing the relevant topics the relevant session, we will be answering these questions. Sometimes, we also see why do Indian stock markets get adversely hit when FED fund rate was high in the US? So, we will see the economics behind the relationship between Indian stock markets or stock markets globally when the interest rate changes.

For example, in the US when the FED fund rate was hiked, what is the implication of FED fund rate hike in on Indian stock market, and Indian finance market in general? We also see that, most often, we see in the newspaper we read that bank frauds. So, why do bank frauds often happen? What is the reason for that? In this course, we will see that there is high probability of bank frauds to happen mainly because of the asymmetric information related aspects, we will cover we will be answering these kind of questions in appropriate time.

Sometimes you might have read in the newspaper that policy maker says that when the stock market is down, the policy makers will be often making the statement that we are going to

follow an expansionary monetary policy to increase stock prices. So, how, what is the economic relationship? Is it so easy to do so and get the desired results? This part also we will be answering in our course, then mainly here you can see that the policy maker is commenting mainly on the monetary policy. So, can monetary policy be used to stabilize the economy? What are the pros and cons? That we will be discussing these aspects in this course.

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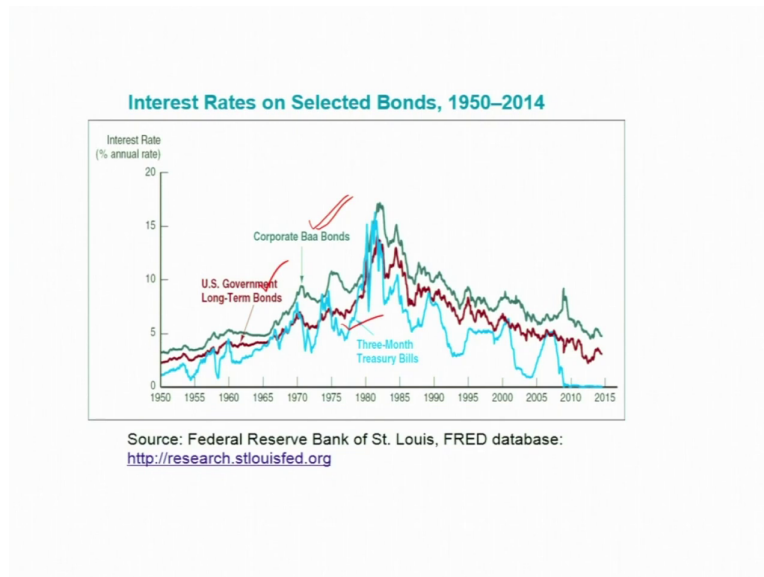
Financial crisis of 2007-2009

- Why do financial markets sometimes stop functioning?
- What factors led to the financial crisis of 2007-2009?
- When a financial crisis erupts, what can central banks do to prevent the economic recession?

Look at this figure you can see this is about the financial crisis of 2007-09. So, we are going to answer in this course that why do financial markets sometimes stop functioning? And what factors led to the financial crisis of 2007 and 2009? And we will be focusing the economics behind, that led to the financial crisis of 2007-09.

So, then when financial crisis erupts what can central banks do to prevent the economic recession? That also we will be answering.

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And now look at this figure what can you make out of it? You can see that here this is the interest rate over time; this figure shows the interest rate on selected bonds over time from 1950-2014. So, you can see here that there are different types of bonds; that is, one is the US government long term bonds, and then you can see this is short term treasury bills and you can see this is corporate bonds.

So, two are government bonds where one is long term and short term, and other one is issued by corporate long-term bonds. So, from this figure what you can make out actually? You can see that there is correlation, and you can see in some kind of fluctuation and in this course, we actually going to derive is there any relationship between these three types of debt instruments, the interest rates on these three types of debt instruments, we will understand the proper economics behind this relationship.

At present I think that you are not in a better position to explain this figure, but at the end of the course I hope you will be in a better position. You will be in a better position to understand this figure in a better way.

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Online Resources

1) Websites of Regulatory and Promotional institutions:

- RBI (www.rbi.org)
- RBI: Handbook Of Statistics On Indian Economy: <https://rbi.org.in/Scripts/AnnualPublications.aspx?head=Handbook%20of%20Statistics%20on%20Indian%20Economy>
- IMF data (www.imf.org/en/Data)
- Federal Reserve Economic Data (FRED) (<http://research.stlouisfed.org/fred2>)
- Indian Stock exchanges: <https://www.bseindia.com/>, <https://www.nseindia.com/>,
- World largest stock exchanges: New York Stock Exchange, NASDAQ, the Shanghai Stock Exchange, and the Euronext

2) **Economic/finance Dailies:**

- Economic times, Business standard, Financial express, Hindu business line
- The Wall Street Journal (www.wsj.com), Financial Times (www.ft.com), Bloomberg (www.bloomberg.com), and The Economist (www.economist.com)

For this course I would suggest you refer in addition to the test book prescribed test book, you go through some online resources. I would suggest you go through the RBI website and where you will get lots of resources about the banking system, and about different aspects of the financial system, financial market in the country as well.

And there is handbooks of statistics on Indian economy where you will get time series data of different economic variables including banking sector and foreign exchange, other key economic variables including GDP etcetera. Also go through IMF data where you will get information about a data about various economic variable of various countries.

Go through the data set by Federal Reserve Economic Data in the US, they have rich data sources- data sets of time series data on key economic variables and key finance sector variables.

To get a clear more understanding about the financial market I would suggest you visit the websites of Indian Stock Exchanges- BSE and NSE - and there you can go to different component- different markets- you can go to the equity markets, you can visit the debt market as well, and then you will get a better understanding of the finance markets in India.

Subsequently to get more global understanding I would suggest you visit the websites of New York stock exchanges NASDAQ, Shanghai Stock Exchange, and the Euronext. and to understand this course better and to see how the concepts and theories that we study in this

course apply in the real world settings and to get a better perspective you also read the economic finance dailies including Economic times, Business standard, Financial express, Hindu business line etcetera.

This will give you more perspective of the financial market and various issues related to the financial system and how government and regulatory bodies intervene in the financial system, not only as a regulator, but also as a promoter of the financial system for the better health of the financial system. Also go through the international financial dailies including financial dailies including Wall Street Journal, Financial Times Bloomberg, and the Economist. In the next session we will start with a brief overview of the financial system and.

Thank you.

Key words: Financial system; lenders; borrowers; finance markets; direct finance; indirect finance