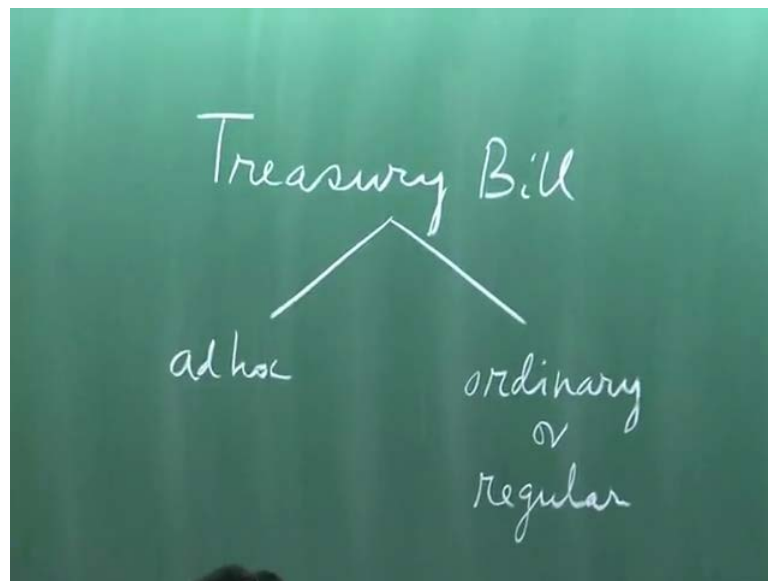


**Money and Banking**  
**Prof. Surajit Sinha**  
**Department of Humanities and Social Sciences**  
**Indian Institute of Technology, Kanpur**

**Lecture - 17**

We are with topic 3, topic 3. We started money market. And today I really begin a complex instrument, commercial paper and what is that, another thing you have seen commercial paper and certificate of deposit. Now, I get into something much more complex. So, today I begin slightly more complex money market instrument which government uses; government, it is a government instrument. Gilt Edge, Gilt Edged market instrument, government uses to raise funds.

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This is called Treasury bill, this is called Treasury bill. So, I am going to talk about Treasury bill. Silent please. Treasury bill is also a finance bill. Do you understand the meaning of finance bill? These are the words you will get in books. Treasury bill is also a finance bill. Finance bill means it is a paper which is used to raise money to borrow money. It is called a bill, because this is the common terminology. But is not a bill I you go to store you buy goods and you get a bill for payment. So, that kind of a bill is a real bill; because the real bill carries some real transaction in good. Say a company purchases raw materials from a company in Tamilnadu. Company a manufacturing company in

Kanpur purchases some raw material from a company in Tamilnadu. Since, Tamilnadu is far away and there is a payment problem immediate, today it is not much of a problem.

I will talk about this later; they create something called commercial bills. These bills are real bills, because this is a real transaction. The goods will be shift by road or by railways and they would arrive and there is this agreement has to be there for payment; these are called real bills. But finance bills are bills which are purely a monetary transaction; there is no real goods changing hands. Therefore, financial bills are different kind of bills. So, it is a finance bill. First thing to remember just like c p and c d, but it is also a promissory note; it is also a promissory note.

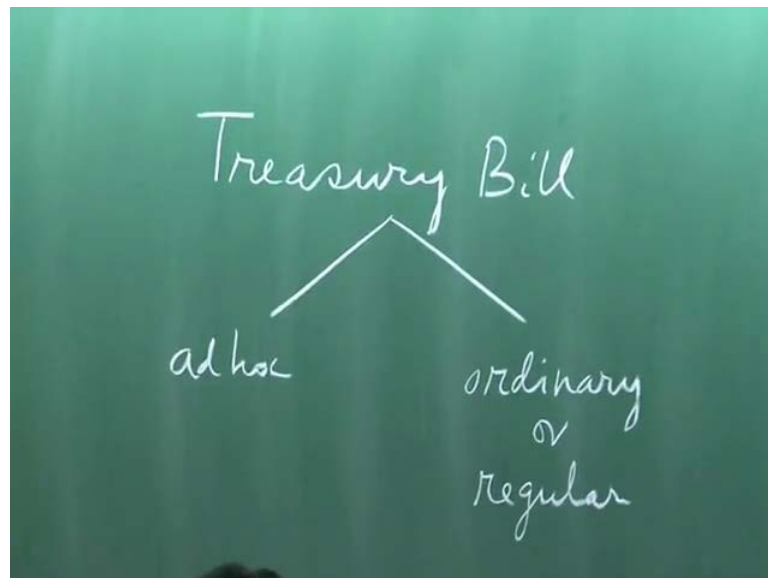
What is the promissory? Note is a paper on which something is written; you called loosely though the currency. But a promissory note is which promises to pay something . So, it is which is our currency also, a note; promissory promises you to pay something. Treasury bill is also a promissory note; in simple words it is like a bond. It promises you to pay some amount say as an interest or whatever and when it borrows money from you. And it has a maturity also; see it is a useance promissory note also.

So, it is just like a commercial paper and c d, except this is the government bill. So, it has enormous importance for a macro economy for the money market; it is enormous importance. Because when government goes into a borrowing mode, it is not a companies borrowing mode. Companies borrowing mode is much smaller compare to an government goes into a borrowing mode. And when government budget are having deficits, they are usually thousands and lacks of crores.

So, a borrowing mode there using Treasury bill to fund it, to finance it, is a big issue. It does influence the market, the interest rates etcetera; it is very important. So, I want to go through slowly Treasury bill. So, it is usually the government bill, a finance bill and a promissory note like c p. But interestingly enough at least in India, I do not know about all other countries; practices some countries may have similar practices, after all India was born after many countries. So, India adopted many things from the western countries. Our constitution was adopted from various western democracies; the British constitution, the American constitution etcetera. Our parliamentary system is very much borrowed from the British parliamentary system the concepts etcetera.

Similarly, our central bank was designed after some other central bank; may be bank of England. Now, normally not so much trees days for years central bank of India, used to take the responsibility of selling the government of India's Treasury bill. Government of India its Treasury bill, but the responsibility of selling it was with RBI. So, RBI was acting like an underwriter for the government. So, when a company sell shares, it does not directly go to you and me and knock on your door and sells share. It appoint underwriters, who take the responsibility of selling the shares. So, RBI was acting like a underwriter for government bills for a long time, the treasury bills anyway. So, I will go to all that. The historically which is not anymore true. So, far my understanding goes there has been 2 types of Treasury bills The government of India has been selling.

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One called ad hoc Treasury bills, ad hoc Treasury bills; the other one is called ordinary or regular Treasury bills. So, there are two kinds of treasury bills, the government of India has been selling. And how it worked? Ad hoc means essentially what it implied was government of India was selling it whenever it requires funds. And what it did was simply what we called deficit financing in macro economics, government has no money government has no money in its account anywhere either with RBI or with other banks. Government needs cash; I am talking about the 1960s and the 1970s of Indian economy or even 1980s. What was, what used to happen government needs funds, it would knock on RBI say adhoc bill. Means, it is guaranteed by central government and RBI would

say, oh what can I do I am your central bank. One of my job which you will see in the next topic is to serve you.

Not like a commercial bank which behaves the other way, I am suppose to serve them; their behavior. But RBI being central banks, central government bank; first job is to serve central government. So, what it used to do is, ok sir I am we are accepting say the finance minister knocks on them, phone calls them up, ad hoc bill. What RBI would do? Does not have cash, starts printing, hand them over. Then if you go to a bank and say I do not have cash in my account, give it to me; bank would not print and give it to you. But central bank can do that for the central government, in particular. I do not know so much about state government; they all sell Treasury bills, but I do not know much about that interaction.

There ad hoc bill became notorious in some sense, in India because they were sold anytime, any amount central government wanted. And then sometimes RBI would say, oh too much of printing going on. So, they would then take the responsibility that may be 50 percent of the cash they would print and 50 percent they would go to state governments semi government departments people like you and me may be foreign governments to get the money. So, it would act like a underwriter one is like a financier, and the other part was like a underwriter I am going to try to sell this on your behalf to whoever can is willing to buy them. Right now famous US federal, US government treasury bills sold all over the world; main investor are like china [FT]. So, they are going to china etcetera and buying them; Europe (( )) purchase Europe does not have funds.

In fact, Europe is asking china to help them or it is fascinating stuff going on, in the western world. Europe is asking China to help them out, US is asking china to help them out; they are the main investor in treasury bills. Their own country bank etcetera how much they purchase I do not know. But I have heard the largest investor are china; one of the largest investors is china. So, this is the ad hoc bill and ad hoc bill had a very funny thing, it has no market related relationships. It had a fixed return which either the central bank or the RBI or RBI in concentration with the central government would fix it; no marker determine. So, how would they fix it you think? The discount rate or the interest rate, very low. So, the interest work burden of the government is low. They are short of

cash, they want as much cash as purchase from men's wear and when they fix the return they had the power, they would fix it very low; it is not market determined.

In the market it would have been very high, because how much of money existence in rail sward in the economy to buy central government bills; often, on a regular basis. It was not possible. And, it was very low and you would not believe me the rate of interest was pegged. Pegged means fixed; it was pegged at 4.6 percent for a long long time decade after decade. 4.6 percent, is it a any decent return? In India sometimes those days interest rate went up to 25 percent and the Treasury bill interest rate was fixed at 4.6 percent. So, nobody was getting any return. Why government is doing it, you understand. Government did not have the financial standing to repay any decent interest.

So, it was asking RBI and the RBI is like my my step brother; I can asking for help anytime, part of my family. And whether it is paying any interest rate, a decent interest rate; it really does not matter. Poor RBI sometimes got fed up with printing so much of notes, when to the market and try to sell it. Otherwise, it is entirely upon them, because after all they look after monitor policy. And in macro economics you know, if there is too much money; chasing too few goods, what would happen? Crises will start shooting up and in fact, that used to happen inflation is to be notorious. Again, we are back into kind of a days and months of high inflation. It was not there for a long time; we are back to it. I do not know some mismanagement is going on, everybody is saying.

The entire economy is getting mismanaged currently. Beginning with the government and then a central bank everything is getting mismanaged too. We are back in very bad days, because every time anybody from the economy like the private sector other than the government, giving an interview including the other day NDTV was interviewing Narayana murthy Infosys, ex boss. And yesterday I saw there was investment summit going on in west Bengal and there are some industrialist speaking just like us with power point and also some data, speaking. What they have to say is unbelievable; after while, I got so depressed that government is under functioning so much. And RBI is mismanaging the economy so much. I I switched it off and went to some other thing, I say it is impossible to watch. So, that used to be the case ad hoc bills.

On the other hands the ordinary in the market, ordinary in the regular Treasury bills; these are like other Treasury bills also, like the western country developed country

treasury bills. These bills used to be sold through a market mechanism. What was the mechanism? The mechanism was, they would called tender or put it through weekly auctions; both are kind of market; because the buyers would come and bid. And they would bid for the interest rate or also bid for the amount they want to buy; together government will take the lowest bid. Just like if you are going to construct a building; there are 10 contractors around, you ask for tender. And then they come and seal the envelopes, the quotations and then in front of other people you open that and you select the lowest bidder; this is the thing.

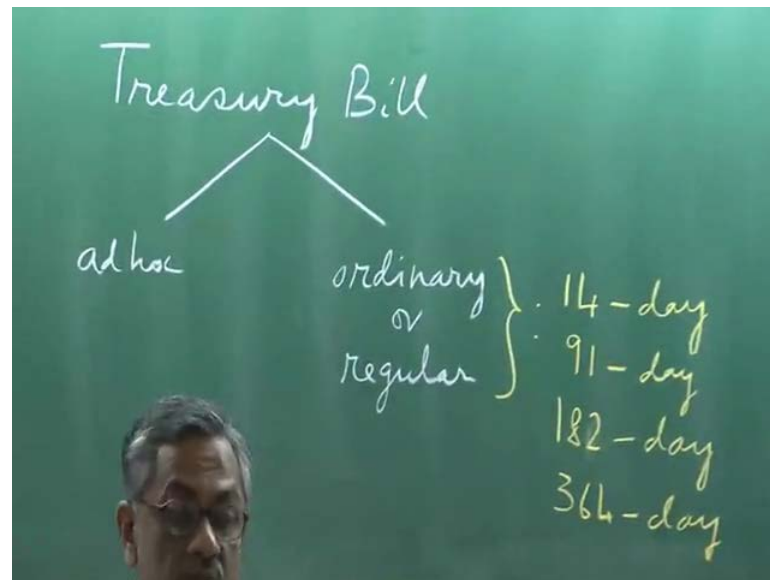
So, this has the market nature. This has a kind of a market dimension, where market force is determine something. The ad hoc bill was government saying this much I want, this is the interest rate and it was pegged for years, . So, either through tender or through auction, you know how auction happens. Auction is quick tender, in some sense. Everybody gets together and everybody starts bidding. So, somebody said 7 percent and I want to buy this amount. Somebody says something else, and I want to buy this amount. Government has already announced say they they 10000 crores. Somebody says I need 1000 crores; I can, I want to buy at this rate. Finally, through that bidding process which is an auction, the job is done.

And there is an auction here with a hammer; you have seen bidding like a precious article paintings etcetera auctioneer stands with the hammer. And keeps on saying and raises a placard or hand and says some amount. And finally, when it is decided it pushed the hammer down, with the bang, with a huge noise and says over. So, weekly auction they arranged and tenders; tenders take more time it cannot weekly, because tender take months. You call a tender and you give them 10 days time to submit a tender and you announced the date, when the tender will be open and then some selection will be done. Are you with me, so far? Now, therefore that it was a better treasury bill in the eyes of a critic, in the eyes the even the central bank; regular treasury bills.

Now, I would be talking about the regular treasury bills, this because that what exists today; ad hoc treasury bills they have wind up. They do not exist anymore. Because government realized after the reforms came in 1990s, it is just becoming too much of an indiscipline on our part. And RBI has been insisting that on government; you stop that ad hoc bill, it is unmanageable. How I can manage my my accounts? Ad hoc bills are stopped. We now have only regular treasury bills, but there has been very funny things

about the regular treasury bills. Some treasury bills were on and off, on and off and one has completely stopped. But I need to talk all of them a little bit, to give you a complete prospective. And today in India there are 4 categories of regular treasury bills. There are 4 categories of regular treasury bills in India; the 4 categories are.

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This fellow here 14 day, 91 day, 180 day, and 364; 182day and 364. There are 4 types with 4 different maturities; the type is in terms of the, term of the bill. They have used government o f India so far. Now, I am not talking about the British days what they had. Reserve bank of India was created during the British days, then they were nationalized around 1949 or so. I am not talking about what kind of bills government bills, treasury bills, British government used to use; I am not going to talk about that. I am talking about the post independence period. Now, is very interesting that the 14 day, the shortest bill, the shortest duration gone completely. They introduced that, completely gone. The two most popular once are today 91 and 364. And the 182 day bill came in when doubt for a while few years and then they came back again. So, I need to give you the data and going to tell you as what happened.

Before, I go to the regular treasury bills, let me give you a history of ad hoc bills. Indian banks was very mature and you can imagine a British government was also on its way out. So, India had to start everything a fresh to developed etcetera. This ad hoc bills; however, which government of India used to use for a long time. And extensively these

ad hoc bills were used in 1977 in India, . And they have a very interesting thing in the British period and which continued after independence; that there was negative and between the government and the RBI, a very interesting agreement. That if government wants ad hoc bills, we fund it, finance through sell of ad hoc bills by the RBI; then government should maintain with the RBI and interest free minimum cash balance of 50 crores on Fridays and 4 crores on other days.

Because RBI looks that it from the banking point of view; RBI is the banker of the government. That has a banker if I have to give you money, I need that your cash is with me against which I will of course, give you money. If you have nothing with me and then entire thing is going from my pocket and again you are asking next week to give more money; it becomes very difficult. So, what they agreed; they started the agreement during the British days and I guess those days, they were no regular treasury bills, they had (( )) Treasury bills. At 50 crores on Fridays end of the week and 4 crores on any other days, there should be minimum balance. Whenever cash balance of the government will fall below this minimum, government would replenished the cash balance by borrowing from the RBI against the ad hoc bills.

Ad hoc bills came into existence as something which would be floated, whenever government is say over spending and the minimum cash balance, their balance with RBI; which is their banker, is going down below a minimum limit. 50 crores on Friday and 40 crores on all other days, whenever government cash balance when beg, you have some money in your account; whenever you over spending, you cannot keep the minimum balance. Then you have to take the responsibility by selling bills, because by selling bills what is happening; government is borrowing from RBI, to fill it up. And also government now has a responsibility to pay it back. And treasury bills are money market instruments, they are not like you take money for 10 years; now, for 10 years. These are short term bills.

So, ad hoc bills I think ad hoc bills initially and was there, when ad hoc bills were there, they were all 91 day bill. So, far I have gathered from the literature, all ad hoc bills were 91 day bill. So, within 3 months it would mature. So, this was the beginning or the introduction of ad hoc bills, how it came into existence. Government has its account like you and me have account with commercial bills; government have account has accounts with RBI, where there is some cash balance. For our saving account also we need a



minimum cash balance, I think it is 1000 rupees. If it goes down below 1000 rupees there is a penalty. They would ask the deposit to pay a penalty.

So, here RBI is penalty is, if it goes down below the minimum; is that government now you sell bills more from us, fill it up the gap. And when you are borrowing of course, you have the responsibility of the data you have to return the money. But these borrowing those days, RBI was also support that RBI most of the time was printing money. And there where it was getting unhappy. Because printing money is something which have monitory authority does not want to do awful, because if it is a monitory authority, it has to control the monitory economy. Monitory economy sometimes people say earlier literature always said, these days also they say; is a very important determining factor of incision in a country.

So, if the monitory authority goes up, management of money supply it can create and enormous amount of incision. Later what happened? In from the pre independent days and later, they gradually what they did was RBI was borrowing so much of ad hoc money and that ad hoc money, ad hoc bills were often deficit finance which is created by printing money. What happen was they started this is no (( )) known as a money marketing instrument of the government; because they are not very short term. RBI advised and government agreed that they would sell what we known as known as bonds. And that what they introduced, but I am not going to talk about that.

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They are called government dated securities. It is essentially bonds, long term bills; 2 years, 3 years, 4 years, 5 years etcetera. So, this is what they did, slowly introduced; particularly imagine central government, central bank was just beginning its business those days. In India independence came, new government, the whole country is new. You have to start everything from the beginning, build institutions. So, ad hoc bills went on for a while, later a substitute one was created which I would not talk. But you will get these details in volage books professor volage book. Government dated securities which are essentially government involves long term; 5 years, 6 years, 4 years, 3 years, whatever. But they are if they are more than one year, we should not talk about that, because it is not part of money market.

Then, some of you who have taken Indian economics, the planning era came and you know how what trouble we have got into from third plan; third, fourth, fifth enormous trouble in India, you learnt all that. Now, where is the money coming from. Therefore, government of India was in big troubles. So, it was a men's trend on RBI to keep on funding government, because government balance was never 4 crores and that 20 crores. It was falling, nearing 0 often. So, ad hoc bills were extensively used.

Finally, September 9 1994; 1994 after these reforms, when the reforms started in India government of India and RBI entered in, after how many years then? 50, 44, 45 years they got into an agreement; the agreement again between government of India and RBI, that we would now phase out ad hoc bills, completely. No more ad hoc bills will be there, we will return all the money that we have borrowed from you against ad hoc bills by 1997, 1998. By 1997 1998 government of India promised RBI that we would phase out completely all ad hoc bills. So, they agreed upon various limits, how much intra year and end of year they would have ad hoc bills if during this period; wish they can reasonably return not more than that. However, what happened was whatever government promised was have been failed.

So, when that miserably failed to phase out ad hoc bills because government is still in trouble, financial trouble and ad hoc bills are still importance. So, what you are saying is now, you have to understand government finance position. Government (( )) securities are already known thing in the market, they are borrowing in the long term basis which they do not have to repay immediately. They have 3 years repay 4 years 5 years to repay. Then they have these regular bills are already known in the market; some of them at

least, if not all of them. So, they are borrowing from the market. So, banks are lending to government, non banks are lending, you and me are buying them, and RBI is of course, there.

In addition ad hoc bills were so important still that is government; government of India was so much in financial trouble that they could not phase that out. So, in 1997, 26 march, a fresh agreement arrived, a fresh agreement to (( )) to discontinue the bill from first of April 1997. And all outstanding ad hoc bills and 91 day regular treasury bills on tap, I will talk about that later were converted into special security without specified maturity at an interest of 4.6 percent per annum. So, what they did was finally, they put a stop on ad hoc bill by not being able to repay the money to RBI. But by converting these ad hoc bills and one more item RBI 91 day bill on tap; I will talk about that. They were two kinds on 91 day bills are there, were there; one was on tap, one was the auction and through tender etcetera.

So, 91 day bill on tap (( )) plus ad hoc bills, they were all converted into some special securities of the government. Security means basically bond paper or something; which would annually pay whoever bought them either RBI or the banks or whoever have bought them or other governance. Government of India would pay them that same old interest rate 4.6 percent which is ridiculous, big trouble 4.6 percent is not good; they would pay them, and with any specific maturity. So, what it has become then ad hoc bills you know a term; a particular time type of money market instrument. I talked about that in the beginning of first topic. Without maturity, they were converted into a fix interest bearing government security.

What is it called? I have said, I write a name, a word for these. England for the first time they you, that have used in England in the 19 century or something like that. What are they called? Government converted them into specified into special securities without any specified maturity. That means, government is not promising, when I would return your money, the principal; but I will keep on paying a nominal 4.6 percent interest to whoever have funded me in the past, when I sold ad hoc bills. This is what it is saying. What are they called?

(( ))

In perpetuity; yeah in perpetuity of course, but what are they called?

(( ))

Yeah, console. They were converted into a console actually which has no specific maturity, it will promise to pay you continuously which often governments have done; England had did that. When England was in trouble at one point it sold console, who had whoever bought them will get an interest rate. But there is no promise; this is not a typical bond, not a typical bond; bond as finite maturity period mentioned. No promise when they would return the principal or terminate that, close that. But it promises a interest rate which they will keep on paying to you and this what happened to the ad hoc bills.

And, one more thing was went into that package as far as my notes go, what I have here they are called 91 day bill on tap. 91 day etcetera I told (( )) they were all regular bills were sold, either through auction or through tender, but the there was 91 days bills those days which was I have some data with me not much. 91 day bill on tap what does it mean? They are not announced any more, they are available on tap. So, whenever people add some extra cash or government bills are safe, because this is part of Gilt Edged market; it is free. They would go and open that tap, basically ask across the counter, give it to me. Like the way we go and buy jam and butter and bread. There are always available, if not the shop announces today we are selling jam and butter or another day it announces today we are going to sell something else. This is always available.

So, on tap there was a 91 day bill (( )) converted them into special securities, with a fix interest rate without maturity, console; essentially console, they were converted into console, then the 91 day bill came, the regular bills. These are the discussion I need to have. And I have some information on this, it is quite interesting how government of India funding process went.