International Finance
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Lecture - 34
Financial Stability

Good morning. Today’s session that is number 34, we will be discussing on international financial stability. How the financial sector over the year developed? How the different sector of the economy interact each other and create financial sector instability. What the theories are there on financial sector instability. What are the process of getting financial sector stability. We will be discussing in this session.

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Let us start with what is financial stability? If you see it is very difficult to define what is financial stability? Generally different researchers in on this area mention that when a financial sector will be stable when there is no instability. So, removal of instability is the first to achieve financial sector stability. The question arises here, which are the factor or sources that create instability in financial sector. If you would see, world financial system over the period has developed tremendously. Here the development in the form of growth, development in the form of innovation and development in the form of what is called deepening and widening of financial sector, which are the changes that contribute in the development of the Indian development of the financial sector at the growth and innovation in the financial sector.

If you analyze the history of development last 30 years, we can find that development of new product, market and technological innovation has impacted the financial sector both positively and negatively. There had been significant reduction of trade barriers and financial control last 30 years. Developed and developing country have liberalised their financial market. Many emerging market economies had developed last 30 years and this development took place because of financial decontrol or what is called financial sector liberalisation and reduction of trade barrier.

There has been, cross border financial what is called payment system the cross border cross border financial and payment system, has increased significantly during the recent years. There has been international diversification of asset portfolio. There has been development of financial instrument in the form of derivative product. Securitization market which has no doubt helped in hedging financial risk, at the same time it has created many different kind of risk in the financial system. There has been greater risk sharing internationally through a broad area of financial instrument, the increasing share of cross border of holding of assets. Increasing diversification of international portfolio and there has been significant development of new financial market, new financial instrument and different kind of financial sectors.

As a result of this the geographical domain of financial intermediation has widened and it has been more globalized at present than it was before because of this reason there has been increase of financial instability and spill overs of financial risk from one country to another country. The financial instability created or generated in one segments of financial market, in one segments of the country or one region of a international financial set up has been diversifying, has been globalized because of international integration of financial markets.

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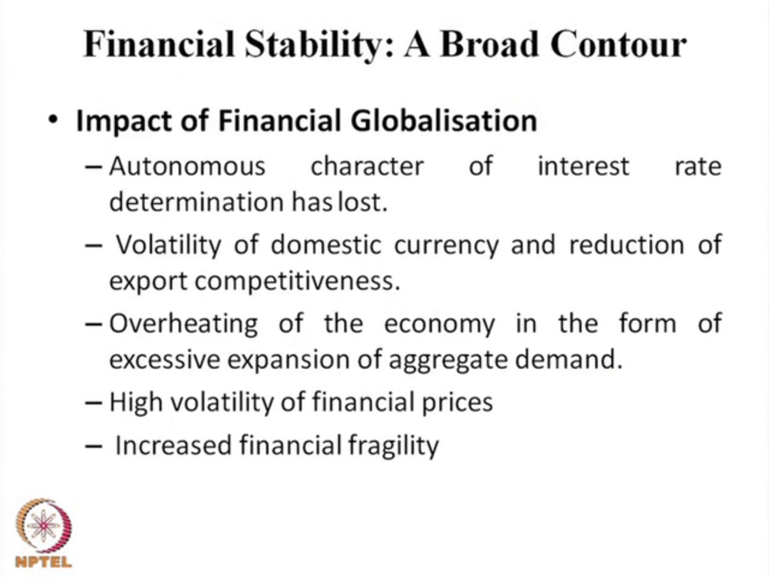

And if you see, if you see the impact of this financial globalisation, we can identify that the impact in in the interest rate determination process, the impact in the creation of volatility of financials financial assets, the impact in the export reduction of export competitiveness, in the impact may be in the overheating of local economy and also increase financial fragility. So, the impact can be seen the the autonomous character of interest rate determination is no more. The interest rate definitely determined by the domestic financial demands and supply. However, it is not so it is not at present, the reason being sighted as international character of the interest rate determination.

It is not only the domestic parameters or domestic variables that determine the domestic interest rate, but also there has been there has been international dimension of this interest rate determination process. The local volatility or volatility of local market financial instrument has become globalised at present. The volatility of domestic currency and reduction of export competitiveness is one of the major impact or of financial globalisation. There has been a overheating of economy in the form of excessive expansion of aggregate demands, when the rupee or the domestic currency increase their what is called circulation because of the FII inflow because of foreign direct inflow there has been overheating of the economy.

There has been overheating, we will find in the in the rising of inflation, circulation of domestic currency and this has impacted many emerging market economy because of globalisation. If you see the financial volatility there is recent years we have witnessed, the financial volatility very high, not only in the realty sector, but also in financial sector also. The financial sector if you see, the financial volatility in the form of asset volatility, in the form of stock market, equity market volatility, in the form of exchange rate volatility, in the form of also domestic debt market volatility. So, the financial globalisation has contributed more in increasing the volatility of domestic financial sector and rather helping the economy in developing itself. So, we have to arrest the financial sector of volatility because there is no other way then accepting the globalisation. The financial globalisation, we have to be a part of this globalisation process at the same time we have to what is called safeguard our domestic economy from international volatility pressure or forces.

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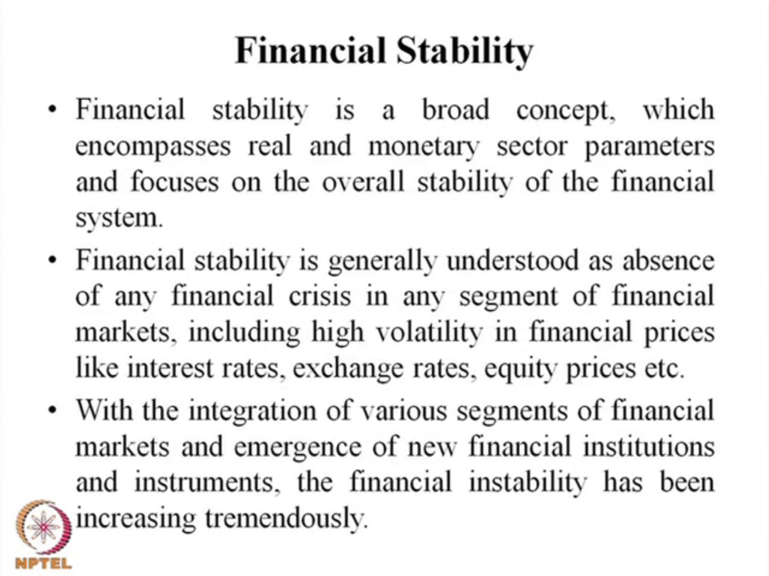

If you see the financial stability. How we can define it, because there are many parameter which impact or may be may be influenced because of the financial stability. So, financial stability is a broad concept. We cannot define by having one parameter or one line of definition. So, financial stability is a broad concept which encompasses a real and monetary sector parameter and focuses on overall stability of the economic system. So, in economic system we have real sector and at the same time we have monetary sector. The real sector is the inflation interest rate that define the real sector. The real sector is the growth of the economy and the monetary sector is the money supply.

The financial sector stability particularly, the asset price stability, the exchange rate side, the what is called the increase of broad money supply all these all these thing comes in the monetary sector. So, financial stability only can be possible when there is stability of the real sector, that is control of inflation, less volatility of interest rate and at the same time stability of the financial sector financial sector or monetary sector together So, financial stability is generally understood as absence of any kind of financial crisis in any segments of the financial market including high volatility in financial prices like interest rate, exchange rate, equity prices with the integration of various segments of financial market and emergence of new financial institution and instrument the financial instability has been increasing tremendously during the recent years.

So, the causes of integration may causes of the financial instability nothing but integration of segments, different segments of financial market, emergence of new financial instruments, new financial markets, new financial institution and also instability of the real sector, which may also contribute to the financial sector instability. So, what what way we can define the financial sector instability? The financial sector instability or financial sector stability is that there should not be financial sector instability and stable monetary sector, stable real sector can only proceed can only define or only can provide financial sector stability. So, financial sector stability is the overall stability of the economy where monetary sector and real sector coexist and interact each other and create what is called a stable market economy.

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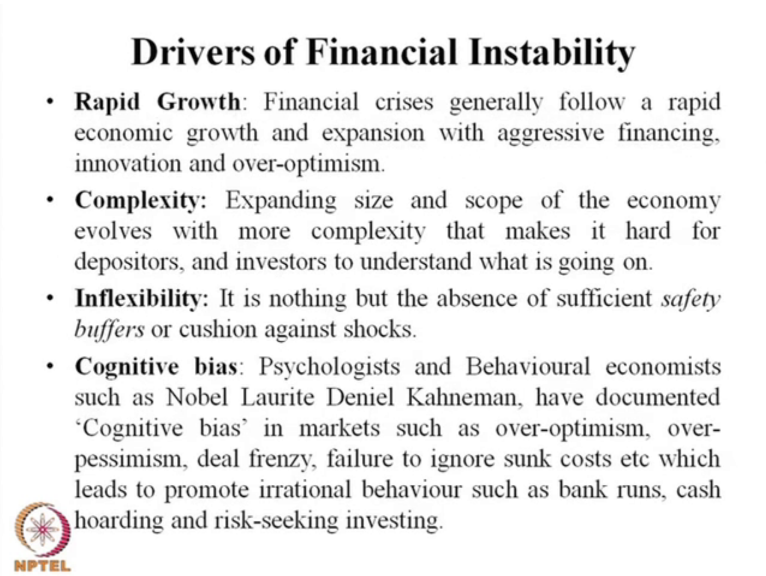

So, if you see the, what are the drivers of financial instability? So, there are drivers of financial instability are the rapid growth complexity of financial markets instrument. Inflexibility of what is called safety net or buffers program, cognitive bias, the psychology of the investors, the behaviours of the investors.

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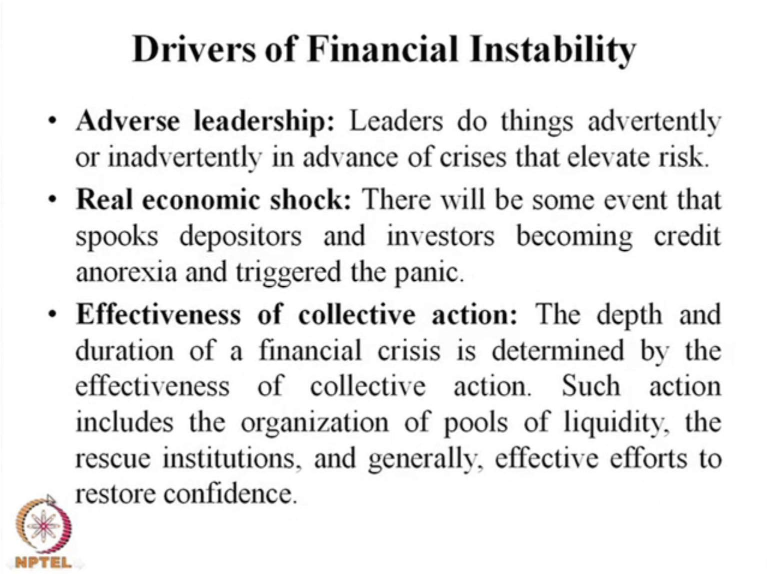

Then also we can say that, adverse leadership, the real economic shock, the effective control actions all these thing drive the what is called the financial instability. We will be discussing each of these segments or each of the contributor to the financial instability. Let us first discuss a rapid growth, if you see last 30 years. There has been significant growth in the world economy. The growth redefined in the safe of the safe of the world economy last 30 years. Many, many emerging market economy developed themselves, new market economy created. The developing world particularly the China, India, the Brazil, Mexico, Philippines, they developed themselves and created what is called emerging market economic phenomenon.

These rapid the financial crisis generally follow a rapid economic growth and expansion with aggressive financing innovation and over optimism because the contributor in the financial rapid growth the aggressive market economy. The aggressive market economy created through rapid innovation and over optimism and that lead to financial sector instability. The complexity of financial market particularly expanding size, scope of the economy, the more complexity because of the depositors hard up, hard for the depositors and investor to understand, what is actually going on in real financial sector? The complexity of financial innovation innovated product, the complexity of market economy, the complexity of rules regulation, the complexity of what is called the financial institution way of working, that actually redefine what is called the depositors and investors, investor to understand the financial market.

So, when depositors the investor and the borrower they could not understand the financial sector, they take maximum risk in the financial market and because of this that financial market become a unstable and the instability of financial sector or one segment of the financial market spread about to the other sector of the economy and economy as a overall become unstable over the period. If you see inflexibility is one of the drivers of the financial instability. What is inflexibility it is nothing but the absence of sufficient safety or buffer or cushion against shock. Inflexibility means whenever there is financial crisis whenever there is one segments of the financial market is highly volatile. What are the safety measure we have introduced to safeguard the financial system.

The safety nets are absent in financial market nowadays and because of this safety net program, the depository insurance facility, the protection to small investor all these things are not there in the many part of the world economy. Many countries at present and because of inflexibility created more financial instability in the in the economy. The cognitive bias another drivers of the financial sector instability. If you see what is cognitive bias. The cognitive bias is the behaviour of the investors. The behaviour of the trader so if you the traders behaviour the traders investor behaviour lead to financial sector instability also. Psychologist and behavioural economist such as noble laureate economy Daniel Kahneman has documented cognitive bias in markets such as over a over optimism, over pessimism, failure to ignore sunk costs etc can lead to can lead to what is called irrational behaviour and such as bank runs, cash hoarding, excessive risk taking, risk seeking investment. All these thing contribute to financial sector instability.

When market is of over optimism of everybody all investor take more and more position in the market. This is called hoarding behaviour. The hard behaviour created in the market may lead to financial sector instability and the behavioural economist have considered the cognitive bias as in the form of over optimism, in the form of pessimism and this has created many financial sector instability in over last 30 years. If you see other drivers with the adverse leadership what is adverse leadership, leader to think an advertently or inadvertently in advance of crisis that elevate risk because in the financial sector leaders this would predict the financial sector crisis and they should try to protect the financial investors and adverse leadership because when the leader of the financial sector could not understand the behaviour of the financial market that create that create more risk in the financial sector.

The real economic shock, another drivers of financial sector instability. There will be some event that leads to what is what is called depositors and investor become more credit anorexia trigger the panic. Economic real shock, economy real sector of the economy that is the growth of the industrial product, the growth of the economy, the growth rate of GDP, inflation interest rate make sometime what is called give some signal to the financial sector instability and we as a investor, as a depositors, as a players in the financial sector could not understand this and this lead to panic behaviour. When IIP index of industrial production decline because every month IIP may come the figure may ups and downs will take place and when there is up the investor in the financial sector take more risk in the financial investment, when there is down they become panic and this lead to panic and optimism together lead to crisis in the financial market.

The real’s economic sector or real sector shock may created some kind of financial instability and nowadays when the real sector and the monetary sector are interactive with each other and the real sector phenomenon has been generating financial crisis in recent years. Effectiveness of collective action, there are another drivers of financial sector instability. Depth and duration of financial crisis determine by the effectiveness of collective action. When there is a financial sector crisis, collectively you have to take measures and the depth and the duration of this financial crisis is determined by the effective collective action. When collective actions are taken by the leader by the regulator of the financial sector, they generally see the duration of financial crisis. The duration of financial crisis can be reduced, when collectively we fight with the financial sector instability. Such action include organisation of pools of liquidity, the rescue of institution and generally effective efforts to restore confidence.

The financial sector instability, generally reduce the confidence business confidence in the economy and business confidence may can only be possible to increase when collective actions are taken. When collective actions in the form of reorganisation of financial market the collective action may be in the form of pumping of liquidity, collective action may be in the form of buying of what is called rotten assets, collective action may be in the form of reorganisation of financial institutions and market by by what is called pump priming program of government. May be confidence in building measures, all these thing possibilities are there when collectively you can fight with financial sector instability.

The effectiveness of collective action may reduce the financial sector instability or duration of the financial sector instability, this also one of the drivers of financial instability. When there is collective actions are not there financial instability spread much many years.

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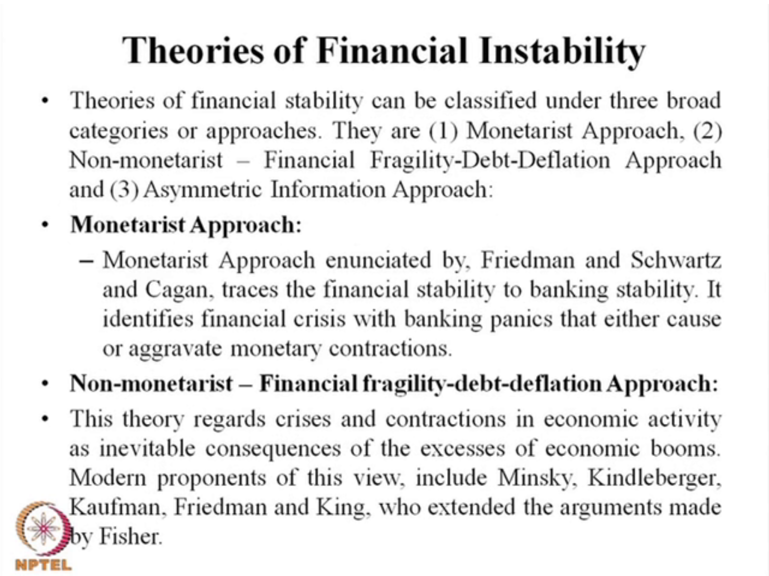

If you see other drivers are there are there like drivers of what is called the monetary sector real sector integration side, the monetary sector real sectors are not integrated. So, the pulls and prime programs of government like fiscal policy, the monetary policy, may not may not give some kind of signal to financial sector. There should be cooperation between the monetary sector and the real sector to reduce the burden of the financial sector instability and once the financial sector is unstable or financial crisis is there how to overcome it. That overcome from the financial sector financial sector instability is possible only, there should be collective action both from the monetary side and also from the real sector side.

Then question is here, there are many theories of financial instability. The question what are the theory over the period developed to to define the financial sector instability, to create what is called some kind of programs or some kind of collective action to fight with financial sector instability. The theories are primarily, broadly defined in the form of what is called monetarist approach, non monetary approach and also asymmetric information approach. We will be discussing each of the three approaches of financial stability theories. So, monetarist approach the here, monetary sector regulator particularly. The central bank central bank play leading role in in reducing the financial sector instability and because they play the they play the prime roles in developing financial sector and developing the liquidity system in the economy the payment system in the economy.

So, many theories developed through the monetarist approach side. So, monetarist approach enunciated by Friedman, and Schwartz that it traces the financial stability to banking stability. They consider the financial sector stability as a banking sector stability. It identify financial crisis with banking panic and either cause or aggravate monetary contraction. When there is a banking sector crisis it leads to financial sector crisis because banks are the backbone of payment system, banks are the backbone of providing liquidity in the system. When banks are run bank banking panics are there, it create financial sector instability and the monetary theories. Monetary theory particularly that developed by Friedman and Schwartz they define the financial sector instability in the form of banking sector instability because banking sector is the major play the major role in monetary sector development in that transmission of monetary sector signals to financial sector.

They act as a intermediation between real sector and monetary sector. When banks are in panic it create financial sector instability. The non monetarist theories, non monetarist approach is nothing but the financial fragility debt deflation approach. The non monetarist approach also known as financial fragility debt and deflation approach. Here the theory regards crisis and contraction in economic activity as inevitable consequences of excess economic boom. Modern proponent of these views are in Minsky, Kindleberger, Kaufman, Friedman and King who extended the argument made by Fisher. Actually the Fisher the first developed the what is called non monetarist approach or the fragility fragility debt deflation approach or towards financial sector instability and this theory has been further developed by Minsky, Kindleberger, Kaufman, Friedman and King. They consider the economic activity in the form of contraction, in the form of expansion that contribute to financial sector instability.

Because the banking sector act as a intermediation between the real sector and monetary sector, the real sector expansion the real sector contraction lead to rising of debt and when the debt in the economy increases, it creates financial sector panic and financial sector instability. So, the expansion or contraction of economic activity that actually contribute to financial sector instability. As per the non monetarist approach consider financial sector instability as a financial sector fragility debt inflation side which contribute to financial sector instability.

So, monetarist approach monetarist approach consider banking sector fragility that contributes to financial sector stability instability and non monetarist approach consider real sector instability that actually give provide that actually create financial sector instability.

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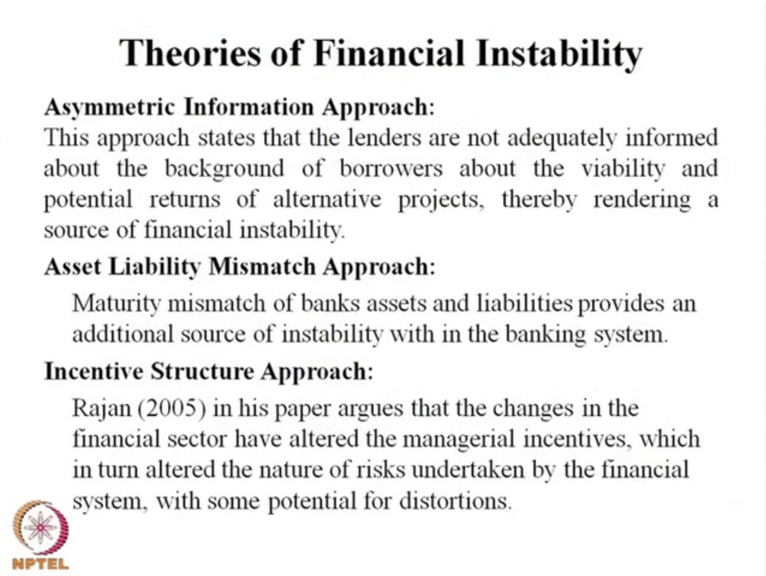

So, if there is other theories are there that are asymmetric information theory also there. Asymmetric information because the financial sector, the major players the main two different players in the financial sectors are the buyers and sellers or you can call investors and borrowers. The buyers and seller, when there is a a symmetric information's are there between buyers and seller, that create a that lead to financial sector instability. So, asymmetric information approach states that lenders are not adequately informed about the background of borrowers and the viability of the borrowers lead to this which lead to potential return of alternative project, thereby rendering a source of financial instability.

So, in the economy there are borrowers are there, the lenders are there. So, lender provide money and borrowers take the money for deployment of the different kind of project and growth of the real sector. When the lender do not know about the quality of the borrowers, the viability of the borrowers and there is a in asymmetric information. Information's are lagged between the borrowers and lenders that is lenders are not not sufficiently provide different kind of information about the borrower. When the borrowers become default it lead to financial sector instability.

So, here the economy is defined in the form of lenders and borrowers and lack of information with about the borrowers with the lender leads to financial sector instability. At the same time also when the lender provides borrower for financing different kind of investment project, the investment lack of information about the success and failure of the information about the investment project, leads to financial sector in crisis. So, when lenders do not have sufficient information about the project viability of the project, the viability of the borrower, this lead to financial sector instability.

The also asset liability mismatch approach, when asset liability mismatch approach provide particularly that it lead to banking sector crisis and banking sector crisis leads to financial sector crisis. When banks created assets through the liability or the depositors money and the assets are not giving income to the borrower and to the banks, asset become non-performing asset. The, it lead to financial banking crisis which further lead to financial sector crisis. Similarly, recent approach like incentive structure approach. What is incentive structure approach?

Rajan Rajan 2005, the Raghuram Rajan recently 2005 in his paper in his research paper argue that changes in the financial sector have alter the managerial incentive, which in turn alter the nature of risk, undertaken by the financial system with some potential for distortion because the financial sector are ruled or the managed by the what is managerial managers. When manager incentive the salary, perks, incentive of the manager depends upon the returns what they are getting from the financial market. The potential it create, in the manager take more risk because when they take more risk there will be more return and when there is more return they will get more managerial incentive and this lead to distortion in financial side system and the distortion lead to creation of potential risk and this lead to further financial crisis.

So, what Raghuram Rajan argue, he argued at the managerial incentive leads to more risk in the financial system and when the financial system is on the top of the higher risk potential risk, there will be financial crisis. Is there is any other approach? This three approach, the four approach define what is called the financial sector instability or what is called different different theories of financial sector. The financial sector theory argue that if the monetary activity or the banking crisis, there that lead to financial sector instability. The non monetary approach mention that is a over optimism expansion, contraction of the real sector that lead to financial sector crisis.

Then asymmetric information approach mention us that it is the lack of information with the lender about the borrower about the investment project, that lead to financial sector crisis. The asset liability mismatch or the when the assets the banking assets are do not create income and become non-performing, it lead to financial sector crisis and Raghuram Rajan recently argue that it is the managerial incentive lead to financial sector crisis because manager take more risk for more incentive and when the economy or the financial system on the top of a financial more risk it create financial crisis. So, these are the theories of financial instability or financial crisis.

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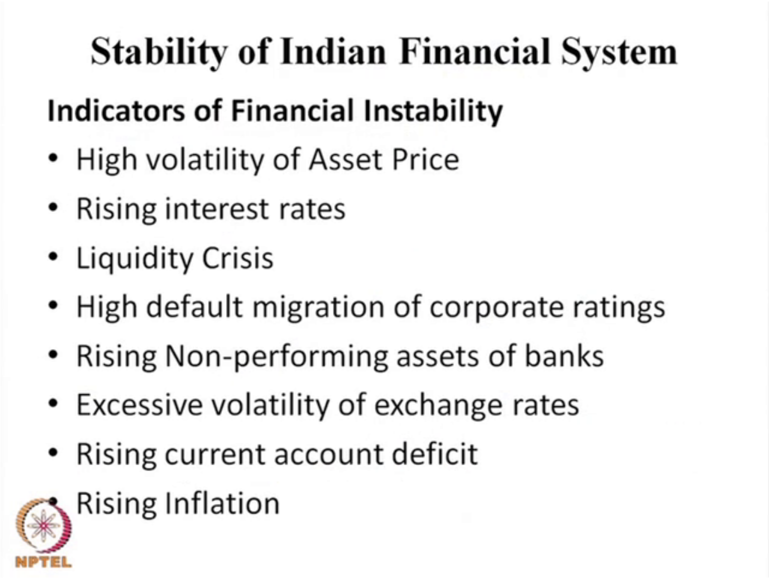

Let us find, define actually in Indian financial system what is the level of stability? Which are the factor or indicator that define stability in Indian context and how this factor develop over the years? How the this factor or the variable have migrated to different phases of economic activity and how the we can define with what is the level of financial stability in India at present. Let us define what is called financial sector stability indicators. So, what we may, what we understand from the theories of financial crisis or financial instability, that from there you can derive the variables or indicators of financial stability or instability in general.

So, high volatility of asset prices, rising interest rate, liquidity crisis, high default migration of corporate rating, rising non-performing assets of the bank, excessive volatility of exchange rate, rising current account deficit of the government of governments then rising inflation. All these things contribute or the leading indicators of financial sector stability or instability. Let us discuss each of this indicator in the Indian context.

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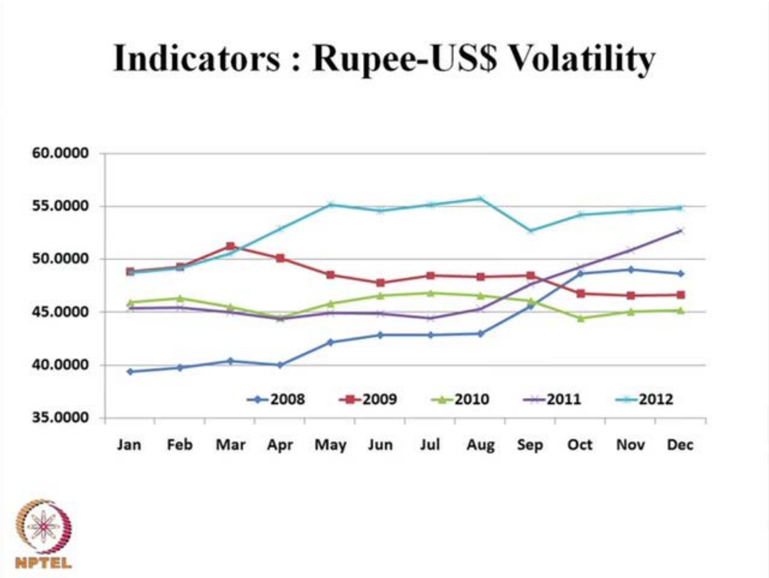

So, if you see first thing in in this slide about the volatility of the exchange rate. Here I have given you the graph what is called 2008 when the financial sector international or the world financial sector crisis started. In 2008 till now it is continuing also till 2012 13 it is continuing. What is that, the fluctuation of in rupee Indian rupee against the US dollar the volatility of the spot rate. I have taken the monthly volatility of the spot rate from 2008 to 2012. If you see January month 2008 it was exchange rate something around 38 39 rupees in 2012 January.

It is now, something around something around 49 48 49 rupees. So, this graph 2012 graph and 2010 2008 graph the you see how the rupee has become highly fluctuate and depreciated. Over the year because of what is called instability of the world economy, which actually started from 2008 onwards. So, the graph indicate the rupee has been depreciating over the year because of the financial sector instability and also at the same time rupee is fluctuating or volatility volatile over the periods. This indicate the volatile and the depreciation together indicate the Indian economy not so much stable as compared to 2008 and 2012.

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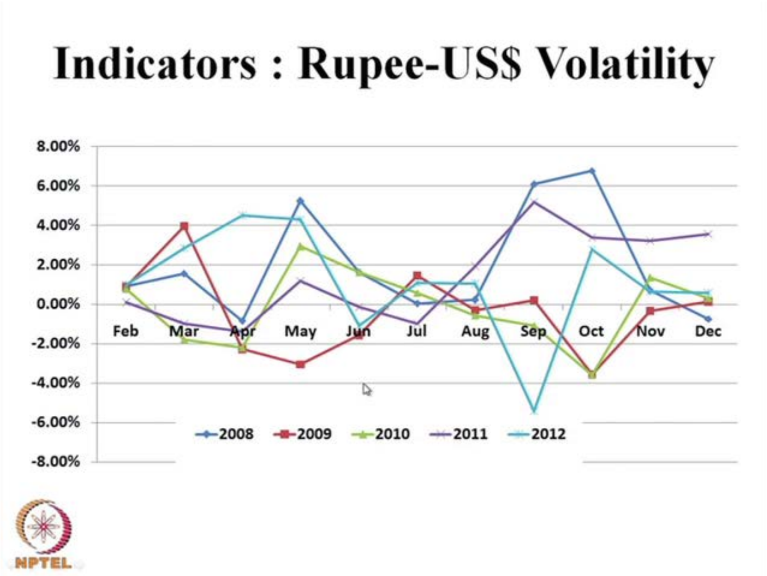

Similarly, next indicator the volatility indicator I have taken rupee in exchange rate volatility. You see the volatility in 2008, 2008 that is this graph indicate the, volatility of 2008 it is quite high because that time the actually world economy was unstable and the instability in the world economy started during 2008. This volatility over the period has decreased in 2010 and 12 also rupees is volatile, but not so much as compared to 2009 and 10. However, rupee has been depreciating over the year that also there over the period the volatility and depreciation indicator indicate, Indian economy is unstable in from 2008 onwards.

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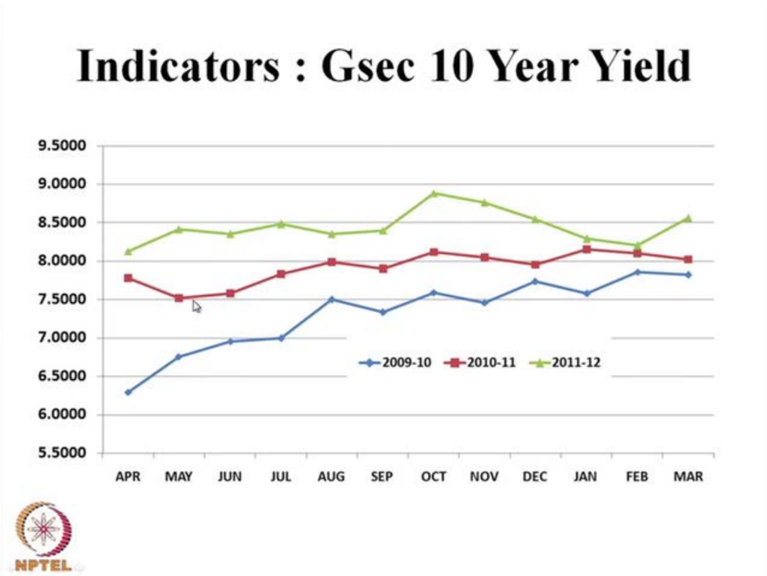

Next indicator is the interest rate. For interest rate I have taken the government of India 10 years yield and I have taken the data from 2009 10 to 2011 12. If you see the 2009 10 data, the yield was not so much, interest rate was not so high. With the progress of the financial crisis 2010 11, interest rate increased, a yield has increased, interest rate also rising over the year. At the same time 2011 12 interest rate further increase further increase the graph, green colour graph is slowly increasing, the interest rate further yield at further increase.

So, this indicate the from 2009 10 onwards the interest rate has been increasing and it has from 6.4 to in something in 2009 10 April, it is increased to something around 8.4 to nearly 200 basis point, nearly 200 basis point increased. Why the regulator has increased the interest rate? The primarily to control inflation, primarily to reduce the money supply in the economy, so as to arrest that instability in the financial sector.

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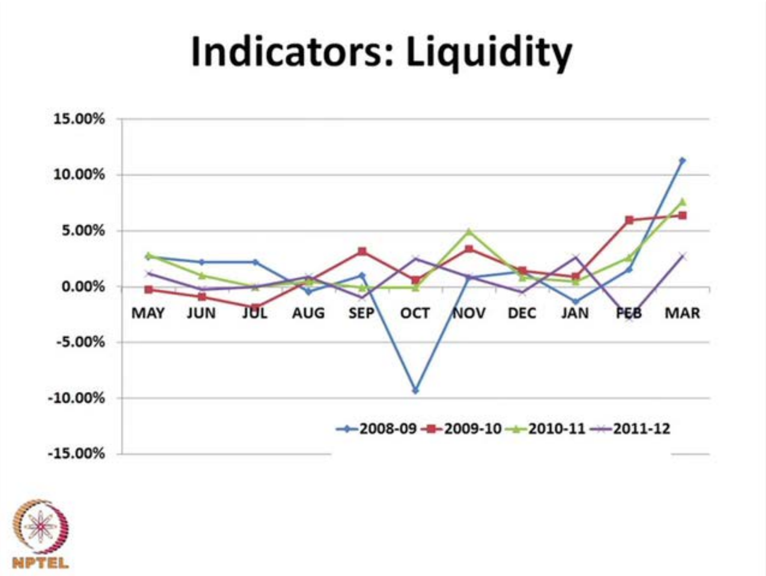

So, another indicators, the indicators of liquidity. Here, I have taken liquidity of the economy that is, m 1 I have taken. You see the liquidity was quite high quite high during 2008 9, which reduced to negative liquidity, you see 2008 9 something October November, actually September onwards the financial sector crisis started, 2008 September onwards and in October November 2008, the liquidity was negative in the economy. Economy was illiquid that time, that there is more demands of liquidity was not there in the system and this has revived little bit, and now at present liquidity also around 2 to 3 percent is there. Still it is not so much, as compared to compared to earlier years. This also indicates liquidity in the system lack of liquidity or the illiquid system also indicate what is called financial sector instability.

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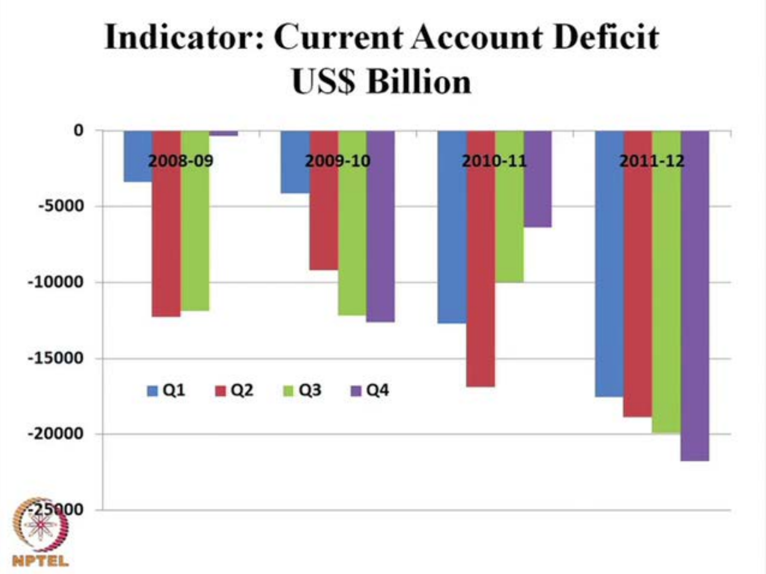

The another indicator is the current account deficit. Current account deficits of government of India, this is nothing but the export might have reduced, import might have increased, rupee dollar might have rupee might have depreciated further and at the same time FII flow may not be there and during this period, which lead to financial sector crisis or current account deficit. Rising current account deficit is another indicator of financial sector instability. So, if you see, I have taken the data of a 2008 9 to 2011 12 quarterly data and you see 2000, a quarterly data of 2008 9, the third quarter was negative started from the third second quarters onwards, up to first quarter the economy of 2008 9 that is the current account deficit was not so much, but deficit increased from the second quarters onwards and it has been increasing over the year and if you see Indian government of India, current account deficit something around more than more than more than something around 70 80 billion dollar, something around 80 to 90 billion dollars over the years.

So, so this indicate the deficit in the economy increasing or the current account deficit increasing and the, this is another indicators of financial sector instability or unstable. When current account deficit will increase when the export is not picking up, when rupee is become depreciating and net inflow in the form of FII become negatives or reduce over the year, this lead to the current account deficit and all these indicator that is a lack of a FII flow, export deduction or export competitiveness, depreciation of rupee all these indicate there is instability in the economy.

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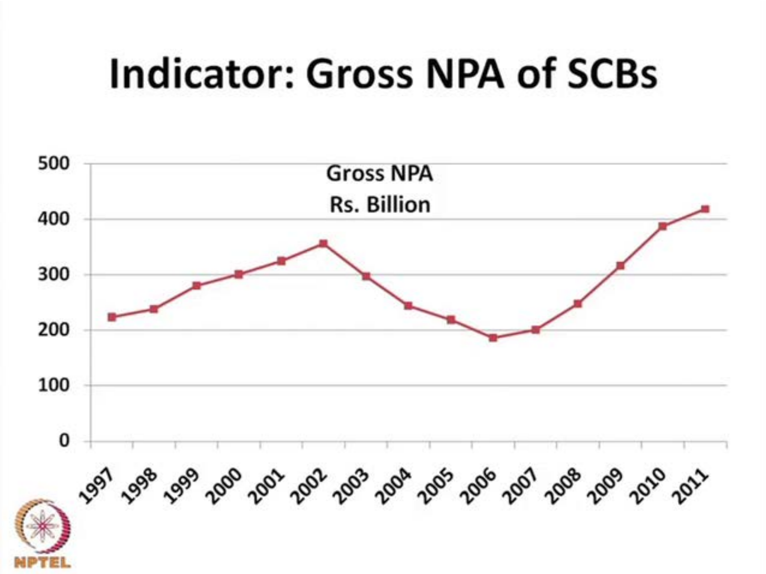

So, another indicator is the banking sector indicator. When banking sector asset become NPA, that leads to banking crisis and if you see 97 onwards, the gross NPA of the economy it was quite high up to 2002. After 2002 it declined and 2007 8 onwards that is the crisis year, the 2007 8 from 8, 9, 7, 8 onwards world economy become unstable or instability or world financial crisis started. That time onwards the NPA has been increasing over the year, gross NPA of banking sector in India increasing, this also indicated, indicate Indian economy is unstable.

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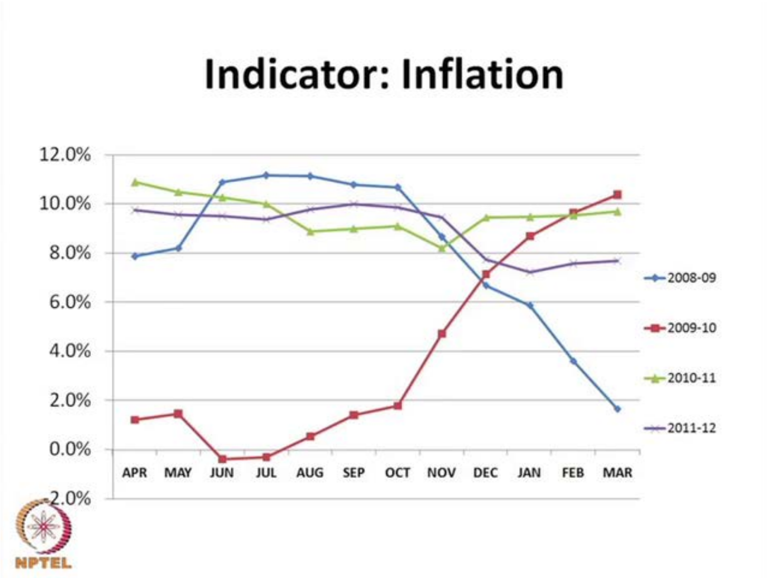

Another indicator is the inflation, rising inflation also another reason for the in financial sector instability and this is if you see, since I have taken the data from 2008 9 to 2011 12 and this also indicate, the how, 2011 12, if you see 2008-10 if you see a red colour data, we have a negative almost 0 or negative inflation and however, it increased over the year. You see from the 8 9 it was inflation was declining, but 9 10 onwards inflation has been increasing and it is more or less, more than 8 percent last 3 4 years.

This also indicate, the rising inflation also indicate financial sector instability, where rising inflation will be there because government want regulatory wanted to control money supply by increasing the interest rate, by reducing the money supply in the economy and also there has been growth in the economy is not picking up, this will lead to the inflation in the economy. High inflation is a indicator of financial sector instability and 2008 9 onwards inflation in Indian economy has been increasing.

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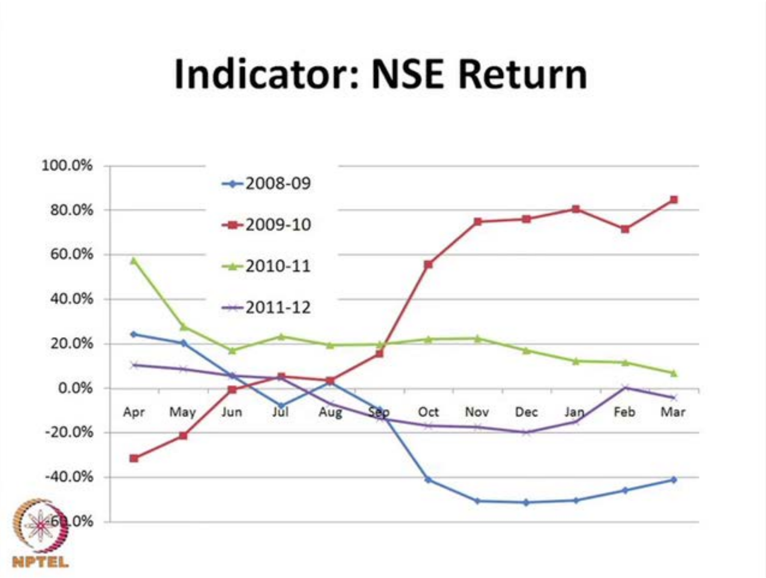

Another indicator is the assets price volatility, particularly the return volatility of national stock exchange. I have taken the return volatility of national stock in 5 years for 4 year data, I have 8, 9 to 10, 11, 12 and that is monthly returns of NSE national stock exchange monthly return, NSE nifty fifty monthly return I have taken into account month and from 2008 9 2011 12 data if you see the return is highly volatile. 2008 9 it was declined negative market almost down by 40 percent return, was down by 40 percent.

9 10 9 10 slightly increased because some FII inflow was there in the economy because which picked up domestic expansion, domestic market was there, so domestic expansion was there, but 10 and 9, 10, 11 onwards domestic economy also sink, growth rate declined and in the return again negative, about 11 12 again also, it was not so much and negative returns is there month return is negative. So, asset price volatility is there, asset price return also declining, this also indicate there is instability in Indian economy which unstable in over the period 2008 9 onwards.

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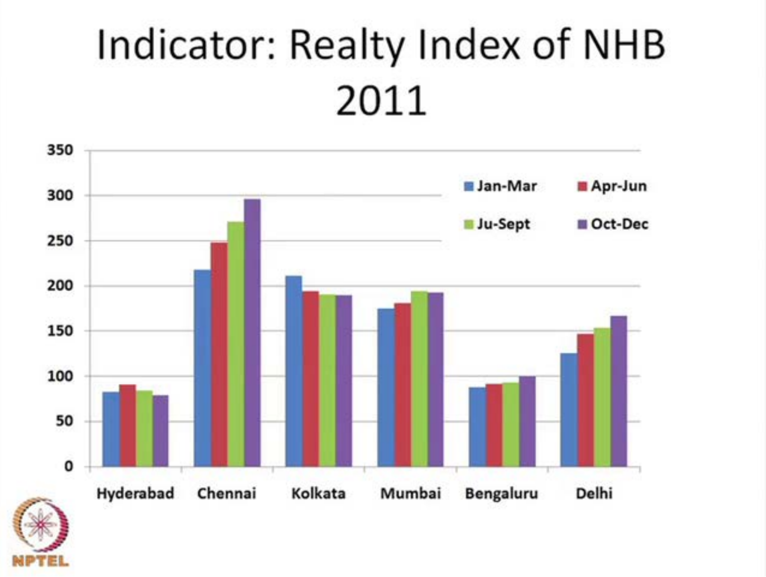

Another is a realty sector indicators. Realty sector indicator I have taken national housing bank indicators of 5 different city in the economy. National housing bank generally give quarterly realty index, that is demand in supply, the demand of the per square feet area, that NSE NS NHB (( )) national housing bank provide and do you see the Hyderabad, Chennai, Kolkata, Mumbai, Bengaluru and Delhi, the 3 6 prime city of the India. What is the indicators of per square feet, the price of the per square feet. If you see the data I have taken quarterly data from January to March, then April to June, July to September and October to December, the four in a year four different four different periods.

And in Hyderabad realty price almost remain stable, there is no growth, whereas in Chennai the realty price little bit increased last 3 years. However, Delhi, Bangalore, Delhi all remain constant because there is lack of demand over supply in the economy, lack of demand realty sector index also remain unstable and there is no increase in the realty sector prices. This also indicates there is no expansion in the Indian economy. Indian economy is a declining phase at present.

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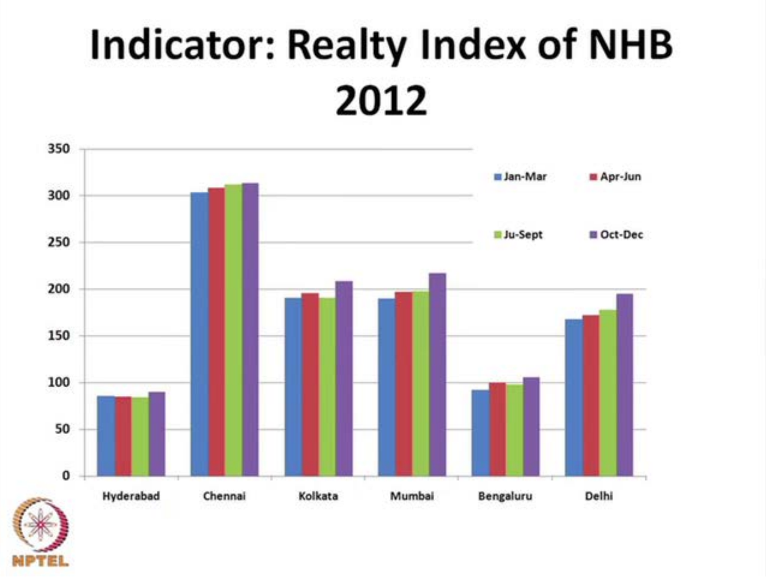

Similarly, I have taken 2011 12 data, it is 2011 data, this is a 2012 data, same thing reflect in both the year.

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So, what we have discussed the Indian economy on the basis of various variables and indicators of financial sector instability. And now question is, question arise what is the strength and strength of Indian financial system? So, Indian financial system despite world economy at present in the crisis Indian economy is growing around 5 to 6 percent. There may be some negative side of the indicators of the financial sector stability.

However, there are some positive feature or strength of the Indian economy. The strength of the Indian economy, I have identified through different kind of different kind of what is called different kind of financial sector segments or different kind of exposure limits.

So, if you see the strength of the Indian economy is the own domestic expansion, so despite Indian economic crisis, the world economic crisis Indian economy is growing around 5 to 6 percent the domestic growth potential the consumer base of the Indian economy is the prime indicators of strength. However, there are other segments of the strength also there. So, if you see Indian economy at present, significant government ownership in banks is one of the strength of the Indian banking sectors, despite deregulation of interest rate deregulation of financial sector governments take in the major banks of the major bank is significantly high, this is the strength of the Indian banking sector.

So, Indian banks also provide what is called depository insurance. The depositors money are insured this also one of the strength or indicator of the Indian banking sector. Compulsory investment in government bonds, despite the public sector bank and private sector bank need to invest in CRR SLR, in government bond a significant part of the deposit that is around 25 percent of the deposit, they need to invest in government bond. That is also a one reason or strength of the banking sector in India. There has been investment side on the part of the banking for commercial banks, the regulated investment in the equity market.

Banks are not allowed to freely invest in equity market so equity volatility may not affect the banking sector prices, banking sector asset so regulatory investment in a equity market from the banking sector side is also another indicators of or strength of the banking sector in India. Similarly, regulatory investment in other sensitive sector, sensitive sector in the economy like the realty sector, the exchange, the foreign international dimension of the derivative segment sector all these things are sectors are sensitive to Indian economy and all these sensitive sector investment are not allowed or regulated by the RBI by the reserve bank of India, which is the strength of the Indian economy.

Higher capital adequacy ratio, Indian banks having higher capital adequacy in the form of risk shrouded asset ratio, that is capital of the Indian banks is quite high so any crisis in the Indian economy or Indian economy or banking sector, the banks are over capitalised and they can absorb the risk of the crisis. Similarly, least exposure to international market or international banking system so Indian banks are very limited exposure to international crisis international market. So, international financial crisis may not affect significantly to Indian economy or Indian banking sector. Limited exposure to derivative and securitised segments so our derivative and securitised market is not so developed and also banks are not allowed to invest beyond certain limit in derivative and securitised segments, this also strength of the Indian economy.

Then what are the weaknesses are there? The weaknesses are also there in Indian economy Indian banking sectors. Banks are not adequately capitalised despite 9 to 10 percent 11 percent capital adequacy, this is not significant to bear any kind of significant crisis. So, non banking financial intermediary that is the mutual fund, the investment bankers, the insurance sector which are not properly regulated in India so non banking financial intermediary sector the NBFC are not properly regulated, this is the one of the significant weaknesses of Indian financial system. There are multiple regulators and different segments of financial market, the RBI, the government of India, the SEBI, security exchange board of India, the NHB then then also what is called the insurance sector regulator all these multiple regulators are there.

And whenever there is a crisis nobody own the responsibility. So, regulatory conflict also there which is the one of the significant weakness of Indian financial system, lack of secondary market of many instrument, debt market, many other market there is no secondary market so there is no such kind of windows to leave whenever there is a financial crisis for the depositors, for the investors side. The lack of secondary market for many instruments, one of the weaknesses of one of the weaknesses of Indian financial system. So, the rating agencies are not there, rating corporate rating segments are not deeply rooted in Indian economy and also availability of default premia not there in Indian economy so very difficult to price any kind of highly risky financial asset.

This is also one of the weaknesses of the Indian financial system. There are lack of debt in the long term debt market, Indian debt market, a long term debt market provides capital to system. So, the long term debt market is not debt in India so this is one of the reason of financial sector crisis in Indian economy also because there is no such kind of what is called capital availability, long term capital availability to absorb the risk.

Similarly, fragmented payment system, there are many fragments in banking system banking sector one payment system, realty sector another payment system, then what is called foreign exchange are another payment system, we have fragmented payment system. The fragmented payment system sometime also contribute to financial sector instability.

Unorganised cooperative banking sector or banking sector, though commercial banks are there they are regulated by the reserve bank of India, however unorganised cooperative banks have multiple regulator, regulated by the state cooperative act, regulated by the central cooperative act, banking RBI also regulate so there are multiple regulator in organised unorganised banking sector and this may also one of the weaknesses of the Indian financial system.

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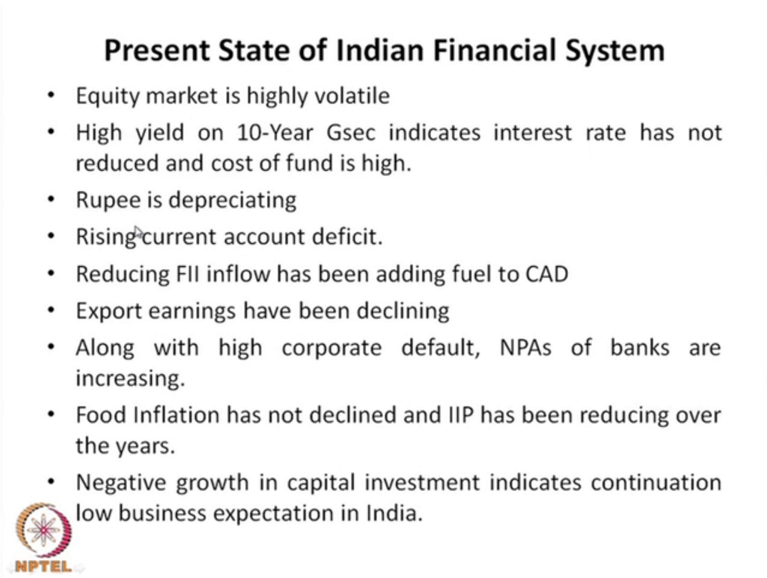

So, the at present what is the state of the Indian financial system. If you see equity market at present is highly volatile, the high yield on the government high yield on the government paper indicate the interest rate has not declined, rupee is depreciating rupee is depreciating and highly volatile over the year, rising current account deficit current account deficit government is increasing over the year, reducing FII inflow and FII inflow is some extent negative also. This also this has recently failed the current account deficit, export earning has been declining, along with high corporate default non bank that is NPA of the commerce banks are banks have been increasing, food inflation has not reduced over the year, negative growth in capital investment indicate business confidence is not there in Indian economy at present, all these thing indicate what is called the state of the Indian economy at present, which is not so good and we cannot say Indian economy at present is stable.

So, stability need to be achieved through further deregulation further deregulation of the Indian economy, giving confidence in the economy and also through the government efforts and collective efforts by the different sector of the economy to revive the Indian economy, and this this required urgent measure at present, to arrest the declining growth in the and increasing current account deficit at present.

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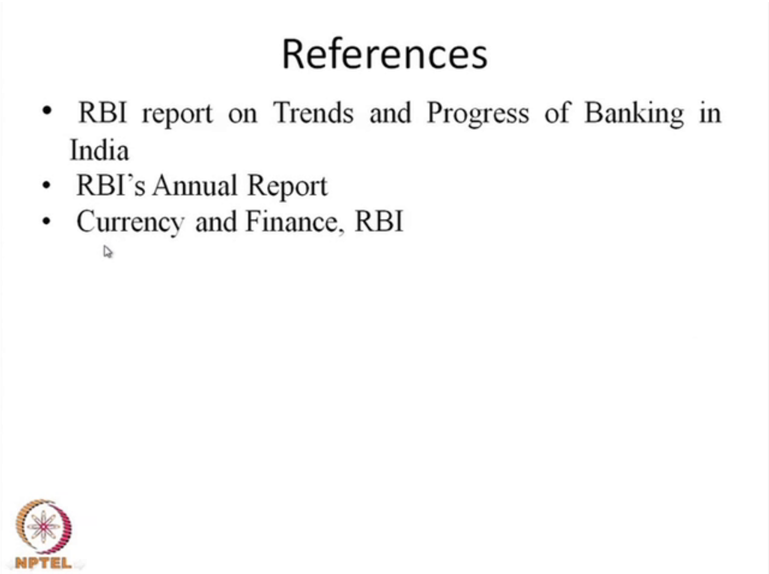

With this, let me complete this session and references for this is RBI trend and progress in banks, so that is published by the RBI. Similarly, RBI annual report you can see, various issues of 1 year RBI annual report, you can also see currency and finance published by RBI different years. These three references will give some kind of more reading material for you to understand the financial sector stability. Some question I have framed for you, the model questions here, define while defining financial stability outline various theories of financial stability. You first, you need to define what is financial stability and what are the theories of are there is a monetarist approach, non monetary approach, asymmetric information approach and the asset price assets liability approach all these thing you can discuss in this on financial stability side.

Second question is outline various indicators of financial stability, we have discussed monetary sector indicator, real sector indicator, financial sector indicator, you can identify all these indicators of financial stability and third question is describe the state of the Indian economy, Indian financial system as per the financial stability. First on the basis of various indicators of financial stability you first you judge, what is the present state of Indian financial system.

Thank you