

Edited Transcript of Panel Discussion on  
Non-Government Fixed Income  
Securities Market in India

Mumbai, July 29, 2013

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## *Preface*

India's financial system is characterized as a bank-dominated financial system with vibrant capital market but with a relatively underdeveloped corporate bond market.

In the last decade or so, it has been acknowledged that India has no option but to develop its corporate bond market, particularly if it has to finance its growing infrastructure needs. Infrastructure requirements are too large for the risk of associated financing to be concentrated directly or indirectly in the banks. Further, Basel III requires banks to have increasing provision for bad debts as well as have larger capital. Against this backdrop, India's increasing reliance on banks for financing infrastructure would have to be given up and this role could potentially be taken up by the corporate bond market.

Toward this end, a lot of efforts have been made by the regulators as well as the market participants during the last decade. Several committees have been set up and their recommendations implemented. As a result, the corporate bond market has improved in its market design, regulations, products etc.; but it is nowhere close to the desirable scale or efficiency. The limited impact of past reforms however must not discourage new initiatives to find a breakthrough. The debate must continue.

As part of our effort to continually facilitate the development of a stable and efficient securities market in India, NSE had organized two panel discussions on the topic 'Non-Government Fixed Income Securities' as a part of the NSE-NYU Stern School of Business Capital Market Conference comprising prominent academics and practitioners who discussed the issues facing the corporate bond market and some potential measures that could be taken to help the market take off. The deliberations in this panel revealed some road blocks faced by issuers and investors in accessing these markets and some useful lessons from the developed markets. The refreshing aspect of the debate was that it benefited from the inputs of both academics and practitioners.

I would like to thank all the panellists for their valuable contribution. I am also grateful to Prof. Viral Acharya of NYU who moderated both sessions remarkably. The deliberations of both the panels have been captured in this edited transcript and we believe that the transcript would be useful for industry participants, academics and policy makers.

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## Panel Discussion I: Non-Government Fixed-Income Securities

**Panellists:** **Raghu Sundaram**, Professor, NYU Stern School of Business

**Suresh Sundaesan**, Professor, Columbia Business School

**Nachiket Mor**, Sughavazhvu

**Gangadhar Darbha**, Nomura Securities

**Moderator:** **Viral Acharya**, Professor, NYU Stern School of Business

**Viral Acharya**

All of us have heard about the need for infrastructure finance. Almost every year, there is talk of commissioning a project on corporate bonds in India. It has been observed that there are many opportunities that could be unlocked either by making a few changes to the regulations or by creating relevant products. We start the panel discussion with opening remarks by Raghu Sundaram.

**Raghu Sundaram**

I will set the tone for what the three speakers following me are going to talk about. The topic of today's panel discussion, *Non-Government Fixed-Income Securities*, is rather vast. The first question that strikes one when faced with a topic of this sort is: What products are we talking about? Subsequent questions include: Why these products? How do we get to where we want to go? These are essentially the kind of questions that my colleagues are going to be talking about. I will make some introductory comments and then introduce the specific topics that each of them is going to discuss.

When we talk about non-government fixed-income products, the one product that always comes to mind is corporate bonds—they form a natural completion of the market when you think about equity products and treasuries as the two staples. Corporate bonds automatically bring to mind, related products in the derivatives side, particularly credit default swaps. When you begin talking about investment products, risk management products naturally follow; once you start with derivative products, you would probably end up discussing volatility products, volatility futures and options, and so on. Thus, it is not clear where one actually draws the line.

There are models like the U.S. where everything is permitted unless something is explicitly prohibited. On the other hand, most countries draw a line and say "We like these products, we don't like these products" and

so on. This brings us to the second question: *Why* these products? When you want to introduce and promote a product, the natural questions to ask are: Why do we want to do this? Why *this* product and not another one? What form of this product? Corporate bonds are a single category of products, but there is a huge variety of corporate bonds—including the enormous variety of hybrid instruments such as convertibles. A further aspect of this question is from whose standpoint we are looking at these products—from the standpoint of a regulator who is interested in economic policy and economic growth; or from the standpoint of markets that want to know which products will make more money; or from the standpoint of investors who may be interested in speculative activities on certain products? This question is particularly hard to address because economic theory has failed to give us an adequate framework for one issue: What role do financial markets actually play in economic development? Without a clear answer to this question, it is not plausible to want these markets on the grounds that they promote development; however, it becomes a lot easier to do so if the motivation is from an investor standpoint or other perspectives such as easing pressures on the banking system, allowing investors such as pension funds access to long-term instruments for managing their risks, or from the standpoint of companies seeking long-term funding. There are many such reasons why we might want to do this; but then, why stop here? Why not go on to other products that these parties might want? These are difficult issues to handle.

As I mentioned earlier, any time we talk about corporate bonds, the one derivative product that automatically comes up is the credit default swap market. Today, the credit default swap market has become a natural complement to the corporate bond market; in fact, the former is the primary information generator for the latter market. In a scenario where one wants a vibrant corporate bond market, it is almost necessary to have a default swap market that can provide the information flow on default risk estimation as well as other aspects to the corporate bond markets for pricing. One could go on from here and talk about the whole range of products that are linked to one another in terms of either investments or risk management, but here is what we are going to do in this session. Suresh is going to talk about the “what” and the “why” of the design of products in a context that most countries face, namely, a bankruptcy system that is not optimal or efficient because of incomplete information or other inefficiencies in the process. Nachiket is going to talk about the

“how” of the market development, with a number of suggestions on why we want to do certain things and how we want to get there in terms of developing a corporate bond market; he will also discuss securitization. Gangadhar will conclude with a discussion of a class of inflation securities that is of particular interest in this context.

**Suresh Sundaresan**

That was an informative overview of the link between financial instruments and the development of the economy. Given this framework, I will be taking a rather narrow perspective. Conditional on the bankruptcy code being inefficient, how should one think about designing debt securities? This is something that has been looked at in the developed markets in some detail and some structures have evolved over time. Before I address the question of what value debt securities add, I would like to say that if the code is really inefficient and there are dead-weight losses associated with the financial distress resolution process, then perhaps by being innovative about the design of debt securities, we can escape some of those dead-weight losses, which should improve the debt capacity. This ought to have some real effects in terms of increased investment as a consequence of debt financing; this is the kind of link that I want to investigate. The first approach is to say that if the code is inefficient, I should move the assets out of the balance sheet. I should put them in a special purpose vehicle (SPV) that is a true sale so that the outcome of the underlying entity in financial distress doesn't matter; the fact that assets are backing the debt claims is the only thing that matters. Then how do we deal with creditor protection? It would be done through over-collateralization and subordination, the waterfall structures, and so forth. There have been a lot of such securities abroad, such as asset-backed commercial paper, asset-backed securities (ABS) and covered bonds in Europe, where not only do you have the rights to the collateral in the SPV, you could also have recourse to the underlying borrowing entities' assets. For example, in a case that I developed with IFMR Trust, similar ideas were used to develop debt security in microfinance. So this is clearly possible in India.

What are some of the challenges and safeguards one should think of while putting together such debt securities? The most obvious one would be the “skin in the game” for borrowers to set the right incentives. Appropriate underwriting standards as well as the originator-servicer relationship and compensation structure are some of the other things that we need to keep in mind. Of course, we need to pay attention to the way in which the collateral is managed over a period of time as well as the production and

dissemination of relevant information about the underlying collateral, once the structure is in place.

A second approach, which we have seen in the U.S. for instance, is to say that certain lenders will have “super priority” rights. Lenders demand collateral and the collateral can be seized by the lender upon default; so their claims will not be subject to automatic stay. An example of this would be the repurchase agreements or repo contracts with treasury collateral since July 1985; courts in the U.S. have ruled that this collateral is not subject to “automatic stay”. Thus, we are escaping the inefficiency of the bankruptcy code and we are telling the lenders that if something were to happen to the borrower, you would walk free with the collateral. This encourages them to lend more than they would have done otherwise. In 2005, the change in the Bankruptcy Reform Act also permitted the repurchase agreement with mortgage-backed security (MBS) as collateral to be given these super priority rights and exemption from automatic stay.

What are some of the things that we should be cautious about in this approach? As we all know, the money market mutual funds (who are the biggest cash lenders in the repo market) took the first opportunity during the credit crisis to run; this can exacerbate the macroeconomic crisis. Therefore, we need to produce information about the extent of super priority debt that is out there so that other lenders can protect themselves appropriately *ex-ante*, by charging the appropriate spreads or by enforcing appropriate governance. Again, collateral management and information about the collateral would be important considerations in this approach. This pertains to managing counterparty risk and clearing.

One of the things that the Dodd Frank Bill focussed on was the design of the liability structure of banks so that in the event of a crisis, the losses associated with the failure of a bank would be internalized. How do you internalize these losses? You essentially look at the possibility of mandatory conversion—if the stock price of a bank were to fall to a certain low threshold, the debt would automatically convert into equity. These are the so-called CoCo bonds, i.e., contingent capital bonds, or convertible debt securities (reverse convertible). Quite a few banks including Lloyds, Credit Suisse, Barclays, and Rabobank have issued such CoCo bonds. Conversions could be driven by market triggers such as stock prices or they could be conditioned on accounting-based triggers or regulatory triggers. There is a problem with market triggers—when you use market

triggers to trigger the conversion of debt, you are not giving either the CoCo investor or the equity investor the rational choice to convert. The market trigger chosen by the regulator is likely to differ from the optimal conversion strategy of the CoCo owner as well as the equity owner, leading to no equilibrium or multiple equilibriums. This can lead to manipulation or undesirable outcomes. Therefore, mandatory conversion is probably not a good choice. How about regulators looking at the market prices and choosing a conversion strategy? This turns out to be bad as well, because if regulators are observing the market price and taking some action based on this, the market price itself ceases to be informationally inefficient. Thus, mandatory triggers could be problematic.

How could we then think about designing a debt security that avoids undesirable outcomes such as no equilibrium or multiple equilibriums? You can issue reverse convertible debt securities where the lenders/borrowers have the choice to convert into equity in bad states. For example, imagine issuing a debt security where you basically tell the lender that you have the right to convert the debt security into the equity, but you're not going to get anything more than the par value. This is why it is reverse convertible—you will not be able to convert in a good state but can convert in bad states.

Some of the key design questions are: What is the right trigger for conversion? What are some of the issues associated with conversion? How do we fix the conversion ratio so that there is the right incentive for the borrower *ex-ante*? For example, if the conversion ratio is dilutive, equity holders will know that when these debt securities are converted, their claims will be very heavily diluted; so they will not take risky projects *ex-ante*. Several such issues come up while designing debt securities.

One of the ways these debt securities can be designed is to say that payoff to lenders at default could be a fraction of the outstanding equity. When you design the equity this way, a special case of this could be bail-in, where you basically say that at a certain trigger, you wipe out the old equity holders, and the bond holders become the equity holders. This would set very strong incentives *ex-ante* because the old equity holders would not want this day to come about, and so they would be appropriately conditioned in taking this *ex-ante*.

Another strategy might be to give the lenders the option to put the bond back to the bank at par. The design could be a floating-rate debt security

that can be put at par. You want this option to kick in only when there is an increase in the credit spread. By making the debt security a floating-rate debt security, its price is not going to be very sensitive to movements in the interest rates; at the same time, the price could be quite sensitive to credit spreads between reset periods. When the lender decides to put the bond back to the bank at par, additional stock will be issued, diluting the claims of the old equity holders. This provides appropriate incentives *ex-ante* for the original shareholders.

To conclude, when the code is inefficient, we can enhance the rights of the creditors by moving the assets of the borrowers to an SPV or by according super priority rights to some secured lenders, giving them exemption from some of the onerous provisions of the bankruptcy code. Debt securities can be also be designed so that they convert the equity in some bad states; examples include a floating-rate note (FRN) that can be put at par and a floating-rate note that is convertible at the lenders' option into a fixed percentage of equity. For each of these proposals, a great deal of thought has to go into the design of the security and the regulatory oversight in order to mitigate some of the potential undesirable outcomes.

#### Nachiket Mor

I'm going to start with the assumption that some of the questions that Raghu asked (from an Indian perspective) have been already been concluded (rightly or wrongly) to be good things. For example, we do need financial markets and financial systems; they are good for development. To summarize the objective reality of India, the size of our GDP is about INR 84 trillion and the size of our banking system credit is INR 53 trillion. One could argue that INR 53 trillion (60–65%) is not a bad number. However, when you start to look at it on a state-to-state basis, there are states like Bihar and Orissa and the North-Eastern states that show a financial depth ratio of only 15–20–22%.

Unless one takes the view that these are not useful things and that they don't actually support growth, we have a very serious problem. All the other parts of the financial sector are small as well; it is not that the insurance sector is that much bigger. The size of the insurance sector is INR 29 trillion, which is relatively small. On the supply side, the financial assets held by individuals are falling quite rapidly. There is something going wrong here because you see real estate holdings going up. I do a lot of work in rural India, and there are worries that perhaps there is too much gold being held by them. Actually, 60–70% of the assets of

these households constitute low quality land, which they are continuing to acquire as they build their assets. Here is a problem that needs to be addressed and I'm assuming right now that the bond markets have a role to play here. One can have a debate as to what their right role should be; but clearly, there seems to be a role for them.

What is the problem with bond markets? We all know it is very small in size. To give you one interesting number, the size of the loan book on the bank's balance sheet is INR 53 trillion, while the size of the bond book on the same balance sheet is about INR 3 trillion, without including government bonds. The bond market is also very narrowly focused on triple-A assets, but it is not necessarily because investors are risk averse. For instance, the Life Insurance Corporation (LIC) is a massive investor in equity markets. The underlying issue seems to be that these investors believe that they can create a superior portfolio by investing in a combination of equity and triple-A bonds/government debt than by investing in lower rated fixed income bonds. In a market like India, where it has been hard to recover loans from defaulting borrowers, there are concerns that they may be stuck with "lemons" at a higher rate than is implied by the extra credit spread that they may earn on these lower rated bonds.

Moreover, bond-maturity is quite low in the market. We don't really have longer term debt. For instance, if you are a Hydel power plant, the equated tariff has to be computed over a 25-year period for it to make sense. One reason for the switch from defined benefit to defined contribution pension plans is that we don't have a bond market that can actually allow us to hedge and guarantee returns over such a long period. We are forced to go to defined contributions because we don't have enough maturity. I think that short maturities are another significant problem in the bond markets.

The way I see it, very limited risk transfer happens between firms, via either the derivatives or straight sales. I have been involved with ICICI for many years and I watched the DFI system collapse. The principal reason for the collapse was that DFIs had highly concentrated exposures, which they could not rebalance by trading out of them. The only way to get rid of them was to change the origination strategy, which moved extremely slowly, and therefore, they could not diversify their portfolios adequately.

What I have said thus far was in response to the question Raghu asked: "Is it useful or necessary?" We have been working on and thinking about

some ideas to change the existing situation. Prof. Sundaresan referred to one of them—securitizations. The Reserve Bank of India (RBI) took a long time to develop its own securitization guidelines, which are now robust and of high quality. We now have a separate challenge from the Ministry of Finance on the revenue side: how to go about cleaning up that market. We have learnt a great deal from international markets about skin in the game and other issues that need to be dealt with. We have to work with the Ministry of Finance and persuade them to take a larger view of the market. There are also some operational issues that I hope will get resolved over time.

The other issues are related to the loan-bond arbitrage. Why is it that banks have such a high proportion of loans and such a tiny proportion of bonds? Loans can be held at cost almost in perpetuity. You don't need to mark to market on the basis of either expected losses or market risk movements. Of course, there is an overall asset liability management constraint that you have to adhere to; but on an asset-to-asset basis, you do not need to do that. My understanding is that in India, we have resisted the notion that a bank's balance sheet has to be fair valued on the basis of expected risk. Banks use historical risk criteria and I think RBI committees have now recognized this. IFRS 9 discussions are also going to propel us in this direction. I am assuming that this will allow us to build more liquid bank balance sheets and allow banks to restructure their assets much better on the basis of risk perceptions and concentration risks. In the process, they could also potentially emerge as market makers for the bond market.

Another approach could be as follows. Instead of trying to get banks to become active players in bond markets, is it possible for bank loans to acquire some bond-like characteristics (as a first step)? Can we, for example, start to develop loan trading and loan sales? There seems to be some amount of anxiety associated with the word "bond". Is there a reverse direction that one can go along? Ultimately, both are just claims on a future set of cash flows.

Another area that seems attractive and needs more work (and may not be very hard) is the retail savings market. I'm talking about mainstream middle-class investors who are investing today in a variety of asset classes. Is there something we can do to bring some of them into the bond market? In ICICI, we had launched a 25-year deep discount bond. The retail reaction to that was extremely positive, far more positive than we



had expected it to be. This suggests that perhaps these are seen as assets that have a real estate/gold kind of character. I am very eager to see what the response to the new inflation-indexed bonds is going to be. I think it is a very nice product that I feel will have a fair amount of response from the retail side.

Another shorter-term idea is that if the investors (such as LIC) will not enter the single-A market, how can we increase the supply of triple-A securities instead of forcing them to go down the rating curve (given the issues of bankruptcy and so on, which will take long to resolve)? Can any of these institutions—new ones that can be created as well as the older ones such as the National Housing Bank and NABARD—who are entering the market today as refinancers help make this happen? The refinancing function in some way distorts the incentives of the originator. Part of the reason for the problems in the cooperative sector is that refinance is automatic and does not actually go about doing this in any risk-graded manner. Instead, if that were turned into a second-loss guarantee and you had to issue a bond against a partial guarantee from NABARD or from NHB, these institutions could use their refinance resources five or six times over and could certainly create a much bigger market. There is always the anxiety: Will the government under-price these guarantees in order to boost markets or credit flow? I feel that the government is already under-pricing refinance in any case. In fact, it is implicitly giving away guarantees virtually for free and may be creating institutions underneath that are not of high quality.

These are a few ideas that could be worked on over the next 3–4 years.

#### **Gangadhar Darbha**

This discussion about non-government fixed-income products reminds me of a very interesting quotation from Kautilya's *Arthashastra*, where he says that the best and most stable kingdom/state is one where two private parties can contract without the intervention of the king. In an almost Marxian way of withering away of the state, Kautilya mentions that in such a society, the king only does a policing function because the contracts are such that private parties can create products and infrastructure on their own. In the current context, it is quite interesting to know that with regard to the various products of the fixed-income markets in particular and the financial markets in general, the government steps in only when a massive failure happens. Every financial product that we can think of originated between private parties, with very little government involvement.

One question that we could think of in the context of non-sovereign fixed-income products is: Do they always have to be sovereign products? Does the risk-free rate (that we talk about in all our valuation formulae) have to be related to the products of the government? Have the contracts or products designed between private parties historically ever acted as better benchmarks than the sovereign products themselves? The answer to this last question is “yes”. In Japan, in the fifties and sixties (and even in the seventies, perhaps), the Nippon Telegraphic Corporation bonds that were issued were considered to be better credit risk than those of the Japanese government, and a great deal of valuation is based on the implied yields of those bonds. If you look at the government bond curve and the swap curve in India, the swap curve has consistently remained way below the government bond curve over the last 5–6 years (or longer). How is it that the swap market curve—which has inter-bank spreads as their credit risks—is below the government bond curve? Some people would say there is a kind of bubble in the swap market or the futures market, as a result of which the rates are artificially pushed down. In my opinion, when the government bond markets are not sufficiently liquid, it is equally likely that another liquid product between non-government parties can potentially generate a better benchmark valuation. So the first point I would like to raise is that in certain circumstances, we can easily think of non-government fixed-income products providing a better benchmark valuation.

My second point is in the context of the corporate bond markets. I have a different view about the development of non-sovereign markets, specifically in the context of the current drive for financial inclusion. One aspect that is not frequently highlighted is that the development of corporate bond markets relieves the burden on the banking system to reach a much wider population. For example, there are high quality borrowers who can potentially issue corporate bonds but are dependent on banks. If they move out of bank financing and go to market financing, there would be a significant amount of resources in the banking system that can reach a much wider population. So from an inclusive growth point of view, we should perhaps think of encouraging financial contracting outside the purview of the regular governmental contracts that we talk about.

I now come to my third point, which is much more contemporary. The inflation derivative market has significantly expanded in Europe and the U.S. in recent years. For example, over the last four years in the U.S., the

growth on the inflation swap market is about 350%. The market went up from nowhere to half a billion dollars per day now. This is not huge compared to what was seen with the treasury market or inflation-indexed bonds; still, the growth is phenomenally high. Coming to the emerging market context in India, we have a fundamental bias towards high inflation in our economic policies. As a result, if an investor does not get a sufficiently flexible opportunity to hedge against inflation risks, he/she would choose other kinds of investments (like Nachiket had mentioned) and gold. If he/she were to think about the creation of inflation instruments that would act as a hedge and if he/she were to look towards the government alone, there are certain issues. This is where non-sovereign inflation swaps (for example) as an instrument can come into the picture.

Is it in the interest of the Government of India (GoI) or the RBI to issue large-scale inflation-indexed bonds? From an investor's perspective, the obvious answer is "yes", in order to reduce the demand on gold, and so on. If the government is not in a position to control its fiscal deficit, the issuance of inflation-indexed bonds would lead to a significant cost of funding public finance. This leads us to a more provocative theoretical point: Is it optimal to keep markets repressed without issuing certain instruments in an environment where the government itself does not behave with discipline? Many people in the RBI and the GoI feel that this is the optimal thing to do.

The point I wanted to highlight is that governments may issue products under very specific, narrow incentives that would allow you to hedge, because they are the producers of inflation, and the cost of inflation can potentially go up. In this context, if you actually look at non-sovereign inflation-indexed bonds or non-sovereign inflation swaps (which are far more standardized), with the existing infrastructure that we have in the equity markets (the trading, microstructure, and clearing-settlement infrastructure, for example) one could easily think of designing inflation products that could be traded much like index futures or index options between private parties, or inflation swaps that you could trade and settle using some common indicators. Of course, this would lead to the questions: What is the index on which we need to design the contracts? Who would maintain this index? In the context of stock markets, stock index options, or stock index futures, this is not a problem because you have a fully electronic limit order book, a visible, transparent price system, and so on.

When you want to do it with consumer prices or wholesale prices, the entire superstructure that is required may not look obvious. But if you look at the situation in the U.S., from 1790 onwards, there were many occasions where corporations issued bonds or swaps that were linked to their revenue streams, which were linked to a select set of commodity price indices, and trading was allowed on them. This essentially gives an opportunity for retail investors to channel their savings from relatively unproductive sectors to a relatively formal financial system.

I would like to conclude by saying that a set of inflation products is one great opportunity where (using the existing infrastructure) we can design products between institutional investors or institutions versus retail investors, where the pricing and risk management of these are fairly standard. It is not that we require a new theory to deal with them; we simply have to come out of the traditional thinking that inflation-indexed bonds need to always be issued by the government. When you talk of aggregate inflation, the government may be necessary; but if you think of commodity sector inflation and so on, we can easily devise many fixed-income products that would provide the necessary wherewithal. Without really getting into the regulatory overlap—which the corporate bonds have got into in India, to a certain extent—you can devise products outside and let them go through the trading, clearing, and settlement mechanism that other index futures contracts in the country are going through.

We need to change our attitude towards financial innovation as the means of channelizing household savings into productive activities. In my view, the creation of non-sovereign inflation products is very important in the context of high and persistent inflation. Figuring out the regulation of such products would be a challenge, but this is something we need to deal with.

**Suresh Sundaresan**

I disagree with Gangadhar's position on the inflation index. First of all, a nominal government bond with short maturity has to be renewed or rolled over, and therefore, it does capture the expected inflation rate. Even a nominal bond that gets rolled over on a short-term basis provides some compensation to inflation risk. The government-issued inflation-indexed bonds are typically regarded as default-free, which is unique to government-issued bonds. As an investor, when I invest in an inflation-indexed government bond, I do not have to worry about the default risk (in principle); but if a private party were to issue an inflation-indexed bond, I would have to worry about defaults. If you want long-

dated protection—about 20 or 30 years' maturity—default risk becomes especially worrisome. This is an issue to be considered. If you talk about inflation-indexed bonds in the U.K. (where they are extensively used), the argument has always been that if the right kind of incentive is given to the government (i.e., if they know that their cost of borrowing is going to balloon when the unexpected inflation goes up), they would think twice about pursuing hyperinflationary policies. Having about 20–25% of the outstanding debt index would provide the appropriate discipline to the government to behave in an anti-inflationary way. This is the alternative point of view that I wanted to present.

### **Gangadhar Darbha**

For illustrative purposes, let us say that most of the inflation is driven by oil prices because we have a high oil import bill, and there is a company, say Reliance, whose revenues go up with oil prices. If Reliance issues an inflation-indexed bond and if I am a rational investor, I would trust Reliance rather than the Government of India in terms of credit event, because I know their revenues are actually positively correlated with the inflation with which I am dealing. This would be the case if there was an inflation swap that was linked to the rate of inflation, which in turn was linked to oil prices. I am not saying that governments are risk-free by default, in the sense that they can print the money to pay the liabilities. What I am saying is that if you have credible private parties whose income flows are linked to certain identifiable, well-documented inflation series (much like in swap transactions), you can always innovate a product around that.

You were saying that having about 20–25% of the outstanding stock of government debt denominated in inflation-indexed bonds would set the right incentive for the government and provide the required market discipline. This is true in theory. Purely from an economic perspective, if you were to look at the more than INR 160,000 crore Food Security Bill that was being debated in Parliament (as of July 2013), given that the economy is tottering under fiscal deficit problems, I personally do not feel confident that marketable instruments would automatically discipline governments. What you are saying is that you need rational governments to react to appropriate signals. In the current scenario in India, I am not too sure that the issuance of inflation bonds per se would generate this kind of signalling, and hence, the cost of public financing would be far higher with the government issuing these bonds. That is my counter argument.

**Viral Acharya**

I would like to ask one question before we throw open the session for questions from the audience. In many ways, Europe was a very interesting example for this debate, with limited corporate bond markets and with bank-financed economies in the most part. While in the short run, the banking problems there are very severe and highly problematic, one thing that happened over the last five years is that the corporate bond market finally took off in Europe because banks were not healthy and capitalized enough to fund most of the real sector; many large firms started reaching out directly to the corporate bond markets (like in the U.S.).

Is it possible that the reason we have not had such a big take-off in the corporate bond market yet in India (and in many other parts of the world) is that maybe we actually need banks to occasionally go through some upheaval? And when they do, it is time for the savings to go directly to the corporations; but maybe when banks are capitalized, it is more efficient for banks to do it because they provide certain kinds of services and they could be linked to origination, bundling, and efficient risk transfer (through banks as institutions). When banks are impaired or they are not able to provide the required intermediation, maybe it would be best to send money directly to the corporation even though it might not be as efficient as the overall banking solution.

In short, how important is it that we are still very heavily bank financed and that we have not had a significant banking crisis? We may have come close to a banking crisis once or twice, but through state ownership, we have a lot of vehicles to avoid a banking crisis in the first place.

**Raghu Sundaram**

I would like to add one point with reference to Nachiket's discussion about why we need a corporate bond market. I think we all know that this market is not going to do any harm and there are probably very many good reasons for having one. I am merely cynical about the idea that the mere existence of a corporate bond market is somehow going to change the way people invest. Nachiket mentioned that everybody in India today is investing in housing and gold. Those who invested in housing and gold 10 years ago have done extremely well, while those who did not do so have not done as well. It is hard to argue with these results and to argue that this behaviour by investors is not rational. I do not know to what extent the economic policies that we have created are to blame, because this is a worldwide phenomenon. If you look at Indian cities, nobody wants to live away from the city, away from their place of work because it takes so

much time to commute into the city. There is virtually no infrastructure once you leave the main part of the city, which pushes up land prices in the cities and makes land in the cities a very good investment. Our financial investments are tied to our economic policy. So I do not know whether having corporate bond markets alone is going to cause investors to want to invest in 30-year infrastructure bonds. I am not sure whether that aspect would get resolved with the existence of this market.

A second point I want to make concerns Suresh's point about discipline. Even in the U.S., where governments have a lot more public pressure to be disciplined, local governments had granted pension schemes and kicked the can down the road to the point of bankruptcy, such as in Detroit, Stockton (California), San Bernardino (California), and many other cities in the U.S. I am not convinced that governments actually respond to discipline if they can kick the can down the road and issue long-term inflation-indexed bonds where the principal is going to be repaid a full 15 years later. I do not think discipline is going to be a major factor in such cases.

**Suresh Sundaresan**

You are right in some ways. A lot of the defined benefits plans in the public sector in the U.S. are under water; but it is also the case that many of the states are very aggressively working to change it. A crisis always gets the attention of politicians, which would not happen under normal circumstances. The plain fact is that inflation can affect the voting outcome. So if you are going to have instruments that naturally respond to the inflation rate, it would have an outcome, which can hurt the ability of a politician to get re-elected. This is the sense in which I was talking about discipline. If it is not market discipline, what are we talking about? What is the alternative?

**Nachiket Mor**

This issue of banking crisis is a matter of where in the economy you see the impact. An economy like Europe (where banks were not able to provide money) could bypass the crisis, perhaps because other intermediaries existed and the corporate sector was where the growth impulse was. In a sense, we do have a crisis. We have an INR 53 trillion banking system that is delivering 25% financial depth in Bihar and 15% financial depth in some other states. This is a natural opportunity for somebody to issue bonds, but the intermediation infrastructure is not there. So in some sense, you are paying the price in increased poverty and reduced growth, rather than in the natural development of the bond market.

I feel we have to be more proactive in order to make it happen. I'm not sure whether creating 25-year bonds is the answer; what I am saying is that we cannot wait because otherwise the growth costs will be pretty large. While it may be true on a national level that India has several policy bottlenecks (related to power, infrastructure, and so on), there are several states where the absence of finance is the major policy bottleneck that prevents the region from realizing all of its growth potential.

Coming to the issue of real estate, in remote parts of rural India, prices are falling; as far as real estate is concerned, there is just no movement because out-migration is going on. In rural India, the bulk of people's assets are in low-quality land and un-irrigated agricultural land; and they are buying more of such assets. The risk-adjusted real estate returns are not that high. For the first time, NHB has started publishing the retail price indices; you will see that there is a lot of volatility and enormous illiquidity. You do not see the shock because there is a reduction in the supply of the assets, which is why it looks as if the prices are being maintained. Interestingly, if you look at the Bandra-Kurla Complex, this area has not seen the same kind of price inflation. In fact, people who bought these high-priced properties are now quite anxious because supply has increased quite dramatically. So some cities have seen these numbers, and if you happened to be on the right side of the bubble, you were fine; otherwise, you have seen 30% corrections in many of these markets. Even in these so-called nice markets, we are seeing a lot of volatility. If slum dwellers are given slum rehabilitation housing, they immediately sell it and go back to being in a slum. They are doing a very rational portfolio adjustment. It makes no sense for them to be holding this highly risky asset with massive leverage on the other side; it is better for them to enter the market as a renter.

**Gangadhar Darbha**

We have to be careful not to build in a policy bias against any financial innovation because it is risky. If you think of the design of a financial instrument (corporate bonds, inflation bonds, or gold bonds), financial innovation by nature is risky. In India, there is a cosy equilibrium with the banking system acting as a very important conduit for macro policy, unlike in the West. If banks are an alternative financing system, it is fine. In a situation where banks are dominating the system, the state dominates the banks; hence, banks are the conduits for certain types of policies, which will be difficult to do in an environment where markets are free or financial innovation is taking place. If you look at things in this manner, no financial innovation would ever come about, because one can always



come up with counterfactuals (such as if I open up the markets, the cost of that to the public exchequer is  $X$ , and so on). What we do not typically discuss are the comparative dynamics of not having financial innovation. I think we should really see the overall impact on a longer-term basis and we should be far more courageous in dealing with new products. If we only look at not allowing financial volatility, we will probably get one or two instruments with INR 1000 crore issuance, which will not solve the problems that Nachiket was talking about. In order to benefit from new products and new instruments, the policy approach towards those products would have to be far more positive. In general, if there is a policy bias that such instruments are risky, we will not get very far.

**Viral Acharya**

Let us take some questions from the audience.

**Audience**

I think the debate is not debt versus lack of debt, because there is a lot of debt in the corporate sector in India; it is about institutional debt versus liquid debt that is traded in the secondary market. And from the financial crisis, we know that imparting liquidity to debt is not costless. Going back to Suresh's point, institutional debt dominates in India mainly due to the weak bankruptcy regime, which is why companies need to be screened and monitored and a lot of coordination is required to resolve financial distress. If you disperse debt among secondary investors, coordination becomes difficult, which is why insurance companies are not willing to take on this debt. In short, I disagree with the point that developing a corporate bond market is costless. Imparting liquidity to debt, especially where debt is information intensive, can prove costly.

**Viral Acharya**

Suresh agrees with this point. One of Raghu's observations was that there are countries where the bankruptcy codes are not as dysfunctional (they are efficient, in fact), and yet, they have not had flourishing corporate debt markets; they have also been highly bank-financed. Of course, it could be that there is some other margin at work in these countries. What I'm saying is that it does not seem to be true that efficient bankruptcy regimes have necessarily led to the development of flourishing corporate bond markets.

**Nachiket Mor**

I would like to make a slightly different point. First of all, it is not obvious to me that there is adequate debt in the market. We are living in one of the poorest countries in the world with massive bid-offer spreads. If I go to a small city and ask about the rate at which you can deposit money easily into the system, the answer I get is that 2–3.5% is roughly the yield

that you can expect. On the other hand, the rate at which you can borrow money would be 35–40% on average. This is roughly the bid-offer spread you have in the system today on a nationwide basis. So it is really a system where I get either 100% equity finance or 0%; I do not grow at all.

Since the underlying risk of all businesses is not equity-like, if you are going to get all businesses financed by equity, you are going to have less business and less growth than what you might have had if you had properly assigned risk and reward. So my sense is that we have a serious problem; but I do not know what the right solution is.

Coming to the bankruptcy code, the notion that banks are in a better position to do resolution needs to be examined carefully. I have been a banker for a long time. The reason that we set up ARCIL is that we are not in a very good position to do this. An old joke goes that when you borrow INR 100 from a DFI, it is your problem; but when you borrow INR 1000 crore from a DFI, it is the DFI's problem. There are massive soft budget constraints. A lot of additional debt comes out of the institution because it is compromised now. And in the absence of a market, it cannot sell or distribute its risk. It builds concentrated exposures in two or three sectors, and if those sectors go down, there is no choice for the institution but to go down. I clearly recognize that resolution is an issue, but I would argue that in many countries where creditor rights, rights of employees, and so on are complicated, this problem would exist. Maybe the right answer is to say that it is reflected in the pricing and in the portfolio construction, and is treated as a necessary cost that we have to bear.

## **Audience**

I would like to make a couple of quick points. There are probably about 2000 firms all over the world and USD 5.5 trillion in the primary market. Only 267 firms out of the 2000 are trading in the secondary market, with only USD 326 billion out of USD 5.5 trillion in the secondary market. Globally, only a tiny amount is liquid in the secondary market. It is not surprising that markets are illiquid. What we need to be aware of is that even in the U.S., secondary market liquidity is pretty recent. In short, there is a cost to opening this up and the setting up of a system such as TRACE in the U.S. happened only recently.

The second point is with reference to an interesting study by Allen and Chakraborty that was published in the *Journal of Financial Intermediation* in 2012. According to this study, firms with access to bank or market finance are not associated with higher growth rates in India compared

to those with funding from non-traditional sources such as informal markets. That is, India has this strange situation where bank or market finance is not superior to alternative finance in fast-growing markets. This is an interesting finding that goes against what some of the speakers were saying. This study shows that these firms actually have higher Q ratios compared to firms that have financing through banks.

### **Viral Acharya**

Nachiket's point was not about comparing bank finance to other forms of finance; what he said was that because other forms of finance are not developed, there is a lot of exclusion from the market altogether. If you compare firms that are financed, maybe you would get the kind of results that this study reported. The point that was made in today's discussion was that we just do not have enough firms in the financing pool in the first place.

### **Audience**

I would like to make two points. The first is related to bank financing not getting into the corporate bond market. One of the reasons Nachiket mentioned for this was that when you give loans, you can keep them at book value throughout the life of the loan. Being a banker, I do not think this is the reason. The main reason banks do not finance the bond markets is that when you give a loan, you can customise it to your requirement and put covenants, whereas in case of bonds, everything is pre-designed and banks simply have to invest. The difference in interest rates is another reason. In India at least, we have found that corporates borrow through bonds not because they want to do financial inclusion, but because they want to have a lower rate of interest. Their argument is that it is liquid. The only incentive for banks is this liquidity, whereas the market is not liquid. So as a banker, it does not make sense for me to compromise on my ability to negotiate the covenants and get a 2% lower rate of return, and not have liquidity at the same time. If banks have to be made to invest in bonds, liquidity needs to be created.

My second point is related to financial inclusion. Arbitrage in the rural market is doubtless very high (35–40% as was discussed, sometimes even higher). I know cases where people have borrowed at the rate of 5% per month (annual rate of 60%). I do not know how the corporate bond market is going to resolve this problem because there are investors who do not have access to investing in the banks and get 4% returns on their savings account. How will they have the option to invest in corporate bonds? When corporate bonds raise money, they are not going to lend money to

the poor farmers or traders who need money. Thus, the corporate bond market is not the solution to this problem.

**Gangadhar Darbha**

When the alternative financing route opens, the banking sector can reach the farmers much more effectively.

**Audience**

The reason why the banking sector is not reaching out to the farmers is not because they have an alternative option; it is because they find the cost of financial inclusion to be too high. If alternative avenues are available, banks would be only too happy to reduce their book size. The high cost of operations is why the MFI business model has gotten into trouble. Once you have operating costs at 8–9% and inflation rate at 7–8%, you cannot lend below 20% and still be viable.

**Nachiket Mor**

I would like to make a broader point in this context. I disagree with the comment that we have an adequate banking/financial system. I would say that there is enormous opportunity out there in the system. Low-income housing, for example, is present in virtually every city. Why can a small housing finance company not grow larger? This is due to the absence of a bond market. It cannot go to anybody else because priority sector restrictions are very stringent. Even if we make priority sector restrictions much broader, the priority sector would have to be redefined very carefully. In a tiny banking system, how many priority sectors can there be? We need a broader investor set. On the savings side, we need the opportunity to access higher yields. How will the retail individual get it? Let us look at the insurance market. Investment returns on insurance products have collapsed because the asset base in which they are investing is really quite small. Pension funds are not significantly outperforming anything else because the suite of investments they can invest in is actually quite small. The transformation may not be that a microfinance client will issue a bond, and therefore, the bond market will give him/her the money. In a larger system, there are many players that will benefit.

**Audience**

I think the main reason for this is that in India, the majority of the corporates are owned by families; very few of them are owned by shareholders. There may be a shareholding pattern, but ultimately, it is the owner who does not want to give the money away at any cost. So lack of trust is preventing people from investing in the corporate bond markets. They are not looking at returns; rather, they are looking at the risks involved.

**Viral Acharya**

Thank you.

## Panel Discussion II: Non-Government Fixed-Income Securities

**Panellists:** Pawan Agrawal, CRISIL

Arvind Sethi, Tata Asset Management

Jayesh Mehta, Bank of America

Usha Thorat, CAFRAL

**Moderator:** Viral Acharya, Professor, NYU Stern School of Business

**Viral Acharya**

Welcome to the Second Panel Discussion on *Non-Government Fixed-Income Securities*. This discussion will focus on the perspective of the industry as well as that of an ex-regulator. The panellists are Pawan Agrawal from CRISIL; Arvind Sethi from Tata Asset Management; Jayesh Mehta from Bank of America; and Usha Thorat from CAFRAL, who previously served as the Deputy Governor of the RBI.

**Pawan Agrawal**

I would like to start by mentioning that if you look at the bond market in the Indian context, it would appear to be a relatively dormant kind of market, with not much activity happening. On a very broad level, this may be true; however, over the last 2–3 years, there have been signs of stirring up in the bond market. I will discuss the various aspects that reveal this growth in the bond market.

The first aspect is that during the last two years, there has been high growth, both in terms of issuances as well as the number of issuers. The second aspect is that innovations are happening; for instance, more sophisticated instruments are being issued. This is an important element in the development of a bond market. The third aspect is that despite the various constraints on the bond market, there is an expanding investor base—more and more investors are coming in. I will give you some examples of these developments.

There is sufficient data that indicates high growth in the bond market. On a year on year basis, the issuances grew by almost 40% to INR 3.5 trillion in the financial year 2012–2013 and 30 percent in the previous year (2011–2012). That is, we have had two consecutive years of high growth. Even though it is on a small base, I think it represents a very good performance. Further, the markets grew very well in the first three months of this financial year (2013–2014). There has been some amount of aberrations in the recent

months; however, when we look at the longer-term performance, the growth prospects appear to be very good. In terms of the number of issuers who accessed the bond market, 267 issuers accessed the bond market in 2012–2013 and this number has grown by almost 50% over the past two years, which is once again a very encouraging sign. One could argue that 267 is a very small number compared to the overall size of the economy, but I think the growth is quite encouraging. More importantly, it is interesting to observe that 200 of these 267 issuers are non-triple-A rated. There is clearly an increasing acceptance of non-triple-A-rated paper. Our preference is that the acceptance of the market goes down to single-A, given the superior risk-adjusted performance of CRISIL A-rated companies; there is some progress here as well, although very minimal at this stage.

The second element that I talked about is the sophistication or the innovation that is happening. There have been deliberations on inflation-indexed bonds issued by the government in India and abroad. In fact, earlier this year, we saw the first corporate sector issuance of inflation-indexed bonds by Larsen & Toubro. Because it is rated triple-A by CRISIL, we believe there is limited credit risk. I think this is a kind of major development in the bond market. We have also seen Tier 2 instruments (in Basel III parlance) being issued for the first time in India by the United Bank of India (which was rated by CRISIL). These instruments have new features that can, at a point of non-viability, trigger conversion into equity or a write down in value. This represents a significant step forward from a bond market issuance perspective. Additionally, there was the issuance by Mahindra & Mahindra of the 50-year corporate bond (again rated by CRISIL); it is for the first time in India that such a large tenor paper has been issued without any put or call option. There were previous instances of perpetual bonds being issued with a 60-year tenor, but most of them had put or call after 10 years.

Another important development that has happened is the assignment of a rating to India's first NBFC Infrastructure Debt Fund (IDF) promoted by ICICI, Citibank, LIC, and Bank of Baroda. In this, the IDF will borrow from bond markets and will lend to complete infrastructure projects based on the strength of an inbuilt credit enhancement; these projects will not be able to directly access the bond markets, given the investors' preference towards double-A or triple-A kind of securities. These are some of the developments in the recent months which have added to sophistication in the bond market. I believe that these developments indicate a very positive future.

My third point is related to the investor base. If we look at mutual funds as investors in the domestic corporate bond market, we see that nearly INR 2 trillion of the mutual funds corpus is invested in the corporate bond market currently, which represents nearly 25% of the total corpus. This is a substantial size, which indicates that a large number of investors have been attracted towards the corporate bond market. Foreign investments in Indian corporate bond markets have been growing, although there have been fluctuations in the trend. In 2012–2013, almost INR 28,000 crore worth of FII investments happened in the corporate bond market, as compared to the approximately INR 18,000 crore worth of investments two years ago. Another important aspect that highlights the developments in this space is IFMR's issue of pass-through certificates (PTCs) of a securitized paper—loans from eight MFIs were pooled together for this paper. For the first time, these PTCs were listed on the exchange. Listing essentially allows more investors to participate in the corporate bond market or in securitization instruments. These are the main elements that indicate the activity in the corporate bond markets; hopefully, something can further develop from here.

**Viral Acharya**

Jayesh, we would like to hear your views pertaining to the FII participation in this market.

**Jayesh Mehta**

I will talk about FII participation as well as local investor participation. If you look at the investor base, we have six categories of investors—banks, insurance companies, provident/pension funds, mutual funds, HNIs, and foreign investors. When you consider the banks in India, 10% of the banks constitute 90% of the banking segment. One insurance company constitutes 70% of the insurance segment and 4–5 large provident funds constitute 75% of the provident fund market. Thus, 15 end players constitute almost 75% of the market. Is there anything wrong with this situation? I would say not, but one cannot expect a lot of secondary market activity from them.

In my discussion, I will club mutual funds and individuals together because mutual funds are theoretically more of a pass-through of individuals. The example I will provide illustrates a point that we all miss. As of July 2013, government bonds' yield ranged between 8% and 8.25% (one month ago, it ranged between 7.25% and 7.50%). Corporate bonds' yield ranged between 8.25% and 8.50% and the yield of a nationalized bank deposit was at 9.50%. Given this situation, why would anybody buy a corporate bond? Since 1998, the bank deposit rates have been higher than any of the

bond rates and that is where the challenge lies. Wherever there is an active bond market, bank deposit rates are low, such as in the U.S. market, where buying a treasury or a corporate bond would be more profitable than putting money in bank deposits. Therefore, I think the biggest challenge for the bond market today is bank deposit rates. I think retail investors in India are very smart people; whenever something is mispriced, they take advantage of it. So if I can get a nationalized bank deposit at 9% or more, why would I invest in anything else at a lower rate? This is a big challenge and we should address this structural issue of pricing.

Coming to FIIs, we generally talk about foreign money in general when we talk about FIIs. Even in foreign money, there are two types of investors: one is the trader/arbitrageur and the second is the real money accounts such as provident funds, sovereign funds, insurance, and mutual funds. Unfortunately, when we started sometime in 1996–1997, the total debt ceiling for all FIIs put together was USD 500 million, which grew very slowly. By February 2011, the limit was approximately USD 25 billion, which was good enough for traders given their risk appetite. So traders really did not market that to real investors, who did not even get empanelled or registered. Thus, one issue pertains to the limit.

The second issue is related to withholding tax, which is a major problem as far as the non-sovereign is concerned. An insurance company based out of the U.S. is not going to switch every year just because the coupon comes in every six months, whereas traders would do that easily. Moreover, the size itself was very small (USD 25 billion) and the traders' risk appetite was much larger than that. However, some sovereign funds did start investing into Indian bonds in mid-2012. The major hurdles for people to even consider India as an investment option were the limit allocation and the issue of withholding tax. When both of these issues were cleared off on May 10, 2013, there was large-scale buying by FII traders in anticipation of the real money guys coming in. The latter would take 2–3 months because they were still not set up for India; they would need time to set up the custodian, get internal approval, maybe raise an India Dedicated Fund or Emerging Market Fund, and so on. Unfortunately for us, Bernanke's statement on tapering (May 22, 2013) threw the whole world into turmoil. At this juncture, the existing portfolio is in trouble. I think the real money will still come in, but it will take time (maybe until after the August holidays). The debt outflow—USD 1-2 billion bought between May 10



and 22, 2013—was in anticipation of the possibility of selling it to the real money accounts. For traders/arbitrageurs, it is about borrowing in offshore markets, hedging the currency, and earning a positive carry of 1–2%. If the forward goes up, there is no carry left. This could be the reason for the outflow that we saw. Therefore, I think we have to really categorize debt FII into two segments and both segments are required. The trader segment does not really help in the current situation because they are generally hedge based; only the real money segment would help in this context.

**Viral Acharya**

Arvind, we would like to hear your views about mutual funds.

**Arvind Sethi**

I have been away from the market for a while. I had played a role in getting the FIMMDA started and 15 years later, the discussions we are having are similar to what we had many years ago. Jayesh made the point that people will buy bonds at a certain yield; but what happens after that? You need an active secondary market. Maybe the recent increase in issuances is simply a function of the bull market over the last couple of years. Earlier, there were various issues, such as tax, lack of infrastructure, lack of a mechanism for clearing and settlement, and so on, which prevented the development of the secondary market. All of these issues have been addressed. Then why do we still not have an active secondary market?

There is credit and market risk associated with bonds. Lesser credits cannot come to the market because the risk of a downgrade is far too high. How would you deal with market risk in a corporate bond market? You would buy a corporate bond (say triple-A) at a 100 over the risk-free curve; you would short the risk-free curve, and then you would play for that spread to come in. Or if you thought that the triple-A was far too low in terms of the spread, you would short the corporate bond, buy the government bond and go long the spread. For this, you need a proper repo market—a repo market that is not a 5-day or a 3-day market, but a market in which you can repo for several months, a market in which you can go short easily and play these spreads. In other words, in the absence of liquid markets to go short and execute repos, we are unlikely to get a liquid secondary market.

Ideally, you would have a risk-free curve and everything else would then be priced off that. However, there are instances where the swap curve trades below the so-called risk-free curve at times—Jayesh spoke about bank deposits that are paying higher returns in the risk-free curve. You simply cannot get a market in such a situation.

Since bonds are not fungible, the market by its very nature is fragmented. Single corporate bond issues may be INR 1,000 crore and even if it is a government bond, you may have INR 50,000 crore issue, but given the small size of these issues, there is a real risk of short squeezes. How do you short that market? And how do you short it without the risk of people who are on the other side squeezing you out of that position?

I feel there has to be a very active repo market for the market to develop. Even today, in the G-Sec market, there are 3 or 4 bonds that trade actively. What about the other 120 bonds? There are thousands of bonds in the corporate bond market; but once they have been issued, there is very little secondary market turnover. You need a deep market in which you can short, a deep market in which you can do the repo, which will help you develop a credit default swap market, because the credit default swap market is nothing but the spread between the risk-free and the corporate bond and the swap markets.

I think the focus should be on developing the market for going short and developing the repo market—even the G-Sec curve does not really reflect the actual interest rates. I think these inflation-indexed bonds are really a distraction, because if you had expected inflation, it should be reflected in your 10-year bond yield; you do not need an inflation-indexed bond to do that. Maybe we need proper capital account convertibility; in the absence of this, you do not get a proper yield curve, and if you do not get a proper yield curve, you do not get a proper corporate bond market.

**Viral Acharya**

Usha, we would like to hear your views on what has been discussed so far.

**Usha Thorat**

A whole range of issues have been discussed and it is interesting that so far, the conclusion seems to be that capital account convertibility is a prerequisite for the development of a liquid bond market.

The need for a bond market arises from the fact that there is a huge need for infrastructure funding which cannot come from the government. Bank exposure limits and ALM mismatches have been stretched beyond prudential limits. Issuers and investors need to be able to directly intermediate through the corporate bond market. Today, the corporate bond market predominantly consists of issuers in the financial sector and public sector, and investors are predominantly in the financial sector. The market micro-structure is in place; so what is it that inhibits the development of the corporate bond market?

First, looking at the size of the government's market borrowing programme (of the central and the state governments) in the primary market and the mandatory SLR of banks and the minimum requirement for financial institutions such as insurance companies and pension funds to invest in government securities, there is obviously a crowding out of demand from institutional investors.

Second, the demand is for higher quality bonds. Higher grade issuers have the option of accessing external funds and then coming back to the bank credit market or the bond market. They have the option to access whichever market gives them the best terms. When the base rate regime came in, the demand for corporate bonds increased as top quality borrowers could access funds at rates lower than sub-base rate only through the bond/commercial paper market.

Third, how do we enhance the quality of issues in the market? This was one reason why we thought of the CDS market—if banks are writing protection, one could have insurance companies and provident funds coming and buying protection through such credit default swaps. However, this is not happening either.

Fourth, I think transparency has always been an issue. We have come a long way in addressing this after the reporting arrangements have been put in place. However, in case of private placements by NBFCs, there are a number of issues relating to transparency and protection of investors rights. The role of the debenture trustee in this context is very important. The gaps in the regulation of private placements by unlisted companies and NBFCs need to be plugged.

When we talk about promoting the bond market for facilitating long-term financing, we need to be aware that except for some tax-free structures for state-owned infrastructure and infrastructure financing companies, the tax structure does not really promote longer-term savings significantly.

In this context, the healthy growth in the securitization market is important. There are interesting structures that have recently been promoted for microfinance lending by IFMR. The potential of this market learning the right lessons from the global crisis needs to be exploited.

The last point I would like to emphasize is the distortion in the interest rates. We have a situation where the banks are not able to penetrate and lower the intermediation costs in the non-bank markets. At the same time,

most of formal financial savings are with banks and, to a certain extent, with life insurance. The retail spread of the debt market is extremely limited. This needs to be enhanced for the healthy development of the corporate bond market. The mutual funds also need to widen and diversify their investor base as these funds are an ideal way of aggregating the risk-taking of individual investors.

**Viral Acharya**

We have time for a few questions.

**Pawan Agrawal**

I would like to add one quick point. From a credit risk perspective, rating is absolutely critical in order to give confidence to the investors about the quality. Our belief in this context is that not all ratings are equal. Investors need to look at ratings from each agency a little differently, in terms of what the quality of input and processes is, what the track record is, and so on. For instance, CRISIL has a history of 25 years. None of our triple-A-rated bonds have ever defaulted. Over the last 12 years (since 2000), none of our double-A-rated bonds have defaulted. This strong track record of CRISIL should give confidence to investors about the quality of our ratings.

**Audience**

I have a comment regarding what Arvind said about inflation bonds being a distraction. It has been documented worldwide that implied real yields from the nominal curve are higher than the break-even inflation rates traded in the real market. This effectively means that if inflation-indexed bonds are not being traded, the risk premium that is being built into the nominal curve is far higher. So from a systemic point of view, the availability of inflation bonds to hedge inflation risks would bring down the total cost of funding for public debt. So in my view it is not a distraction.

**Arvind Sethi**

Maybe that yield is higher because of the liquidity risk, i.e., a liquidity premium you would pay in an illiquid market. I appreciate the point you've made.

**Audience**

I would like to know Arvind's opinion on the banking valuation norms for available-for-sale and held-to-maturity securities, which actually disincentivizes the market to develop. Could you also discuss the risk weights that we assign in a bank's balance sheet on loans versus bonds?

**Arvind Sethi**

I worked in an American bank and before that in a British bank. In the British bank, there were just two categories—held-to-maturity and mark-to-market. Once you bought a bond for the held-to-maturity portfolio, there

were very few situations where you could move the bond out; normally, you could move it out if you perceived deterioration in the credit quality of the bond or (in exceptional circumstances) for liquidity. The available-for-sale securities came in as part of the American system, which I initially thought was quite a smart thing; but actually, there is no reason to have an available-for-sale bond. When you buy a bond, it should be either held-to-maturity or mark-to-market. This available-for-sale was sort of an in-between category, where it was mark-to-market but the losses were recognized below the line; when you wanted to show some profit they could be sold and accounted for as a realized gain, and then you show it above the line. This is something which the regulator could look into.

In terms of your other point related to a bank's balance sheet, maybe someone else could take it up.

**Jayesh Mehta**

Your second point was related to the risk weightage of bonds—bonds versus loans. Currently (as of 2013), the risk weights are the same; but this is going to change with Basel III. One of the things that we have been trying to fight off is the perception that loans are better for banks than bonds. With Basel III coming globally, I think market risk is one more factor that will add to risk weight on the bond side; everything else being equal, it will make loans more attractive compared to bonds. As of now, we have the same risk weight.

**Viral Acharya**

Thank you.

# Notes





*May prosperity always bloom*



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