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A NEWSLETTER OF THE FINANCE LAB

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Editorial

The Union Budget for 2016 is just a month away. This budget is significant in many ways- the present government is almost completing two anniversary; the global economic scenario is not promising; China is a big worry and domestic demand is sluggish. Therefore the budget this year should be more strategic than operational. Lower crude prices can both be a boon or pain for the country. If rupee slide continues, the gain in crude import bill due to lower prices would be partly offset by weaker rupee. Weaker domestic currency is also affecting the overseas investors' confidence in Indian currency. The RBI is doing a commendable job so far by withstanding pressure from all quarters for lowering interest rates. The RBI Governor is more right than wrong on most occasions. The country expects a strong and positive direction from the Finance Minister on 29 February.

The New Year issue has only two articles- most of our authors are busy with the thought of budget! The first article deals with an innovative financial instrument called Masala Bond. These are Indian rupee denominated bonds issued in offshore capital markets. The author discusses the features, issue, pricing of these bonds and concludes that the success of masala bonds would demonstrate overseas investors' confidence on Indian currency. The second piece analyses RBI's Debt Management Strategy for India. In this article, the author deals with the debt profile of the Central Government and discusses the medium term debt strategy.

You may send your comments and feedback on this issue to ashok@iimcal.ac.in

I wish you a very happy and colourful 2016. Happy reading!

Ashok Banerjee

Masala Bonds: An Innovative Financial Instrument

Ashok Banerjee



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Indian corporate sector borrowed around USD 20 billion in the first nine months of 2015 through external commercial borrowing (ECB) route and none through foreign currency commercial bond (FCCB) route. These borrowings have maturity anywhere between three and ten years. The major risk that a borrower availing ECB faces is currency risk and Indian banks have, of late, refused to bail out many Indian corporate by way of refinancing. A couple of year ago (2013) a study by CRISIL had put the outstanding foreign currency loan of Indian corporates at over USD200 billion. What was more alarming was about half of such foreign currency exposure was unhedged.

Corporates typically make use of currency swaps and similar financial instruments to manage currency risk. With the Indian rupee depreciating, the currency risk looms large and this may trigger possible default. In the past Indian firms were able to roll over their foreign borrowings owing to the willingness of the lenders to do so triggered mainly by easy liquidity conditions in the US. However, with the tapering of quantitative easing by the US Fed, such option may no longer be available. With the devaluation of Chinese currency (Yuan) and fall in Indian currency, the burden of foreign currency borrowing is felt even more now.

Indian firms (mostly financial institutions) have issued US dollar-denominated foreign currency bonds in to the tune of about US\$3 billion in the last six months of 2015 (Table) and a much lower number (102 million Yuan) in Chinese Yuan. One can easily notice that the main motivation for issuing such bonds is very low coupons. But as mentioned earlier, the impact of falling rupee may overwhelm lower coupon rates.

Table: Issue of US Dollar Bonds.

Issuer Name	Cpn	Issue Date	Maturity	Amt (\$ Million)
IDBI Bank Ltd/DIFC Dubai	4.25	30/11/2015	30/11/2020	350
Videocon Industries Ltd	4.30	30/12/2015	31/12/2020	97.2
ICICI Bank Ltd/Dubai	3.13	12/08/2015	12/08/2020	500
Adani Ports & Special Economic Zone Ltd	3.50	29/07/2015	29/07/2020	650
Reliance Industries Ltd	2.51	26/08/2015	15/01/2026	225
Prakash Industries Ltd	5.35	30/09/2015	01/10/2020	17.85
Adani Ports & Special Economic Zone Ltd	3.50	29/07/2015	29/07/2020	650
Export-Import Bank Of India/London	2.13	06/11/2015	06/11/2020	42.8
ICICI Bank UK PLC	1.45	28/09/2015	28/03/2017	50
ICICI Bank UK PLC	1.10	30/12/2015	29/06/2016	12
Axis Bank Ltd/Dubai	1.63	29/12/2015	29/12/2017	9
ICICI Bank Ltd/Dubai	1.56	04/12/2015	04/12/2018	100
Axis Bank/Hong Kong	0.00	27/07/2015	27/01/2016	20
ICICI Bank UK PLC	1.10	16/12/2015	16/06/2016	10
ICICI Bank UK PLC	1.05	22/12/2015	27/06/2016	10
ICICI Bank UK PLC	1.77	29/09/2015	29/09/2018	5
ICICI Bank UK PLC	1.42	19/11/2015	19/11/2018	5
ICICI Bank Ltd/Hong Kong	0.85	24/09/2015	24/03/2016	20
ICICI Bank UK PLC	1.77	29/09/2015	29/09/2018	5
ICICI Bank UK PLC	0.98	04/09/2015	06/09/2016	10
Total				2788.85

Source: Bloomberg

Therefore, Indian corporate sector was looking for an option to raise money in foreign currency without necessarily bothering about currency risk. Enter Masala Bond!

Features

Masala bond is a term used to refer to a financial instrument through which Indian entities can raise money from overseas markets in the rupee, not foreign currency. These are Indian rupee denominated bonds issued in offshore capital markets. The rupee denominated bond is an attempt to shield issuers from currency risk and instead transfer the risk to investors buying these bonds. Interestingly currency risk is borne by the investor and hence, during repayment of bond coupon and maturity amount, if rupee depreciates, RBI will realize marginal saving. Experts believe that Indian currency is still a bit overvalued. In a way masala bond is a step to help internationalize the Indian rupee. Investors in these bonds will have a clear understanding and view on the Indian rupee risks. Therefore, a stable Indian currency would be key to the success of these bonds. It is believed that as the investors in a masala bond will bear the currency risk, they would demand a currency risk premium on the coupon and hence borrowing cost for Indian corporates through this route would be slightly higher. It may still be cheaper if one considers the currency risk. Though raised in Indian currency, these bonds will be considered as part of foreign borrowing by Indian corporate and hence would have to follow the RBI norms in this regard. Under the automatic route, companies can raise as much as \$750 million per annum through Masala bonds.

Issue of Masala Bonds

The International Finance Corporation (IFC), an arm of the World Bank, issued the first masala bonds in October 2013 as part of its \$2 billion dollar offshore rupee programme. However, no Indian corporate has yet issued any masala bond.

Two prospective issuers, India's largest mortgage lender Housing Development Finance Corp. Ltd (HDFC) and the nation's largest power producer NTPC Ltd, have been on the road to secure investors for such bonds since last month but are yet to launch their respective issues. HDFC began talking to investors early November while NTPC concluded its marketing a week ago. HDFC initially wanted to raise USD 750 million. However, following its meeting with the investors, HDFC has decided to raise about USD 300 million in the first tranche with a maturity of five years. NTPC has not yet announced the date and size of its issue.

Pricing of Masala Bonds

The critical factors for the success of such bond are two: (a) coupon rate and (b) liquidity of Indian currency. India is rated BBB- by global ratings agencies—a notch above junk rating. Sovereign rating

will influence pricing of these bonds. HDFC, for example, had recently borrowed in the domestic market through a three-year bond at 8.35%. HDFC expects to fix a coupon rate at least 10 basis points lower than the domestic rate for the masala bonds. It was observed (see Table) that Indian banks were borrowing US dollar-denominated loan at under 4% in later half of 2015. If HDFC were able to issue masala bonds at 8.25%, it would imply a currency risk premium of above 4% per annum. Overseas investors are yet to decide their preferred coupon rate for the Indian masala bonds. Generally, given the view on Indian currency, investors are expecting a higher coupon from the issuers, which may make these bonds costly for Indian borrowers. This is the main reason holding back issue of masala bonds. If US Fed increases interest rate, that would make Indian masala bonds less attractive.

Allowing Indian firms to raise rupee-denominated loan from overseas market is a step towards full convertibility of Indian currency and the Indian central bank is supportive of this experiment. Despite initial glitches on pricing, masala bonds have potential to raise \$5 billion in next two years. British government is wooing masala bond issuers and would like to position London as the global hub for offshore rupee financing. The success of masala bonds would demonstrate overseas investors' confidence on Indian currency. In other words, successful issue of these bonds by Indian corporate would imply faith on country's macroeconomic fundamentals and the central bank's role in currency management.

Debt Management Strategy for India

Suryanshu Bhoi

(Senior Executive Officer in at CCIL)

In the aftermath of the Fourteenth Finance Commission and Seventh Pay Commission reports, debt management has assumed critical importance for the Government to meet its fiscal deficit target. With developed countries being the latest victims of sovereign debt crisis, debt management has come to the forefront of major political and economic discourse. Keeping this in view, RBI has come up with a Debt Management Strategy for the creation of a more vibrant and robust debt market for the benefit of both the investors and the Government.

The fallout of financial crisis compelled the Central Government to augment the issuance of short term securities so as to provide a knee jerk stimulus to the economy. Securities profile of outstanding debt indicates that 63.04 per cent of the debt fell into the 1-10 years maturity buckets in end-March 2011. However, the outstanding debt in this maturity bucket has plummeted to 58.59 per cent in end-March 2015. This is evident from Average Time to Maturity (ATM) falling from 10.59 years as on end-March 2008 to 9.60 years as on March-end 2012. With recovery we saw a gradual reversal of ATM to 10.23 years by end-March 2015 (Table 2). This can be attributed to the strategy of elongation pursued by the Government from 2010-11 onwards. At the global level, India falls into the category of countries having high ATM of domestic debt. Based on this criterion, India can breathe easy on the subdued rollover risk facing the debt market.

Objective of debt management has been to mobilise financial resources for the Government at low cost with prudent levels of risk attached to the debt portfolio. Scope of debt management strategy is restricted to active elements of domestic debt, marketable debt of the Central Government. With time, there will be a conscious effort to include entire stock of outstanding liabilities such as State Development Loans. External Debt as well as General Government Debt will also be included into the ambit of this debt management strategy. Section I deals with the debt profile of the Central Government while Section II will discuss the medium term debt strategy.

Section I: Debt Profile of the Central Government

The Central Government has accrued internal debt of Rs. 52,78,217 crore as of 2015-16 BE (37.4 per cent of GDP). Dated securities (Rs. 44,17,787 crore, 31.3 per cent of GDP) happen to be the major component accounting for 78.09 per cent of public debt and 83.70 per cent of internal debt. External debt stood at Rs. 3,79,331 crore as in 2015-16 (BE), 2.7 per cent of GDP (Table 1). Too much reliance on internal debt gives the Government space to consider foreign investors in the years to come.

Table 1: Central Government Debt (in Rs. Crore)

	2010-11	2011-12	2012-13	2013-14	2014-15 (RE)	2015-16 (BE)
Public Debt (A+B)	2945992	3553519	4096570	4615250	5142284	5657548
A. Internal Debt	2667115	3230622	3764566	4240767	4775900	5278217
Marketable Debt (i+ii)	2283720	2860805	3360932	3853594	4351684	4838152
(i) Dated Securities	2148851	2593770	3061127	3514459	3961381	4417787
(ii) Treasury Bills	134869	267035	299805	339134	390303	420365
B. External Debt	278877	322897	332004	374483	366384	379331

Cost of Borrowings

The weighted average coupon of outstanding debt of GoI has gone up from 7.81 per cent in 2010-11 to 8.09 per cent in 2014-15. Despite increased borrowings over the years, the weighted average coupon has remained broadly stable.

Weighted Average Maturity/Average Time to Maturity

A higher weighted average maturity will help in curtailing rollover risk. This is amply evident with the strategy implemented by the Government since 2010-11. WAM has gradually increased from 9.64 years in 2010-11 to 10.23 years in 2014-15 (Table 2).

Table 2: Weighted Average Maturity (in years)

Year	Weighted Average Coupon (%) of outstanding stocks	Weighted Average Maturity (in years) Outstanding as on end-March
2010-11	7.81	9.64
2011-12	7.88	9.60
2012-13	7.97	9.67
2013-14	7.99	10.00
2014-15	8.09	10.23

Risk Analysis

Recent events have brought forth the importance to identify the different types of risk the sovereign debt profile is exposed to and take appropriate measures to prevent them from aggravating. Some of them are discussed below:

Rollover Risk: It is the risk associated with rolling over debt under trying circumstances. This could be juxtaposed with harsh clauses for the Government like higher cost. Increasing the share of short-term debt to total debt reflects rise in rollover risk. Elongating the maturity has been the common practice to manage rollover risk.

Market Risks: It is on account of fluctuations in interest rate and exchange rate. This will have a direct impact on the repaying capacity of the Government. Market risks can be analysed through the following parameters:

- a) Fixed-Floating Rate Debt Ratio: While banks and financial institutions prefer to invest in floating rate bonds (FRBs), insurance companies, provident funds, pension funds prefer to invest in long-term bonds, inflation indexed bonds (IIBs) and zero coupon bonds.
- b) Percentage Maturing: This reveals the amount of debt maturing in the next 12 months as a percentage of the outstanding amount. The amount of market debt maturing in the next 12 months has fallen from 4.95 per cent in 2011 to 4.17 per cent in 2015. There has been a significant reduction in the magnitude of debt that needs to be funded at current rates over the last couple of years.

Concentration Risk: Due to the sensitivity of foreign investors to global macroeconomic performance, debt portfolio is dominated by domestic players. In view of getting more foreign participation, investment limit for the Foreign Portfolio Investors (FPIs) has been expanded in a phased out manner to \$30 billion in G-sec.

Domestic investors are predominately captured by the commercial banks in short to medium tenor securities (Table 3). They have however reduced their share of Government security holding since 2008. On the other hand, insurance companies and provident funds have a strong hold in the long-dated Government securities market.

Table 3: Ownership pattern of GoI Dated Securities (% of total)

Category	Mar 2008	Mar 2014	Mar 2015
Commercial Banks	51.26	44.46	43.30
Non-Bank PDs	0.34	0.11	0.31
Insurance Companies	24.78	19.54	20.87
Mutual Funds	0.79	0.78	1.89
Co-operative Banks	3.22	2.76	2.62
Financial Institutions	0.41	0.72	2.07
Corporates	3.48	0.79	1.25
Foreign Financial Institutions	0.52	1.68	3.67
Provident Funds	6.38	7.18	7.58
RBI	4.78	16.05	13.48
Others	4.38	5.92	2.96

Currency/Foreign Exchange Risk: Easy monetary policy carried out by developed nations has resulted in a fierce currency war with the developing nations running for cover. In the current scenario, exchange risk has acquired limelight due to globalization and interconnectedness. External debt as a percentage of public debt has decreased from 9.5 per cent in 2010-11 to 6.7 per cent in 2015-16 (BE).

Section II: Medium Term Debt Management Strategy (2015-2018)

For the given period of debt strategy (2015-2018), India is expected to continue on the growth trajectory, stay within the range of 4 +/- 2 per cent with regards to flexible inflation targeting as envisaged in the Monetary Policy Framework and stay resilient to international shocks due to sound macroeconomic environment. Medium Term Debt Management Strategy (MTDS) is based on the following assumptions:

- 1) MTDS has been prepared keeping internal debt into perspective since external debt forms only a small fraction of the total debt. A major part of the external debt is held by multilateral/bilateral agencies like, e.g. IMF, World Bank, which do not pose any serious risk.
- 2) As per the Medium Term Fiscal Policy Statement (MTFPS), Government of India (GoI) would be on the path of fiscal consolidation by reducing its Gross Fiscal Deficit from the current 3.9 per cent of GDP in 2015-2016 to 3 per cent of GDP by 2017-2018. This will help in restoring investor confidence especially among the foreign investors.
- 3) Nominal GDP is expected to be at 12.2 per cent and 12.4 per cent in 2016-17 and 2017-18 respectively as per forecast presented in the Union Budget 2015-16.
- 4) Borrowing cost in domestic market is expected to decline in the coming year in the backdrop of RBI pursuing easy monetary policy due to dwindling commodity prices internationally and clearing of bottlenecks on supply side at home.
- 5) Consumer Price Index (CPI) inflation will meet its target of 6 per cent in January, 2016 and 4 +/- 2 per cent by the end of 2016-17 thereafter.
- 6) Exchange rate risk is assumed to be a minor player in the GoI market.

Given these assumptions under different scenarios, RBI will be looking into the strategy to raise debt at low cost, mitigate risk and attach strategic benchmarks to important parameters for sustainable debt management.

Demand Assessment

Banking sector has seen a secular decline of its share of holding Government dated securities (Table 3). Part of this reason could be attributed to the reduction in Statutory Liquidity Ratio (SLR) over the last couple of years (from 25 per cent in November 2009 to 21.5 per cent at present). In view of preparing to align itself with international best practices by the implementation of Basel norms, RBI has permitted the SLR to be lowered further to 20.5 per cent by March 2017.

With cash flows of insurance companies, mutual funds, etc. having improved in the recent past, the time is ripe to focus on long term debt instruments.

Borrowing Strategy

No market borrowing has been proposed in the 0-5 year time bucket with the view of elongating maturity profile. While the market borrowing in the 5-9 years bucket has been proposed to reduce, the market borrowing in the 15-19 years bucket has been increased. Apart from this, borrowing in the 20 years and above has been assumed to increase. All relevant details can be found in Table 4 given below.

Table 4: Borrowing Strategy for different maturity buckets (% of total)

Maturity Bucket	2013-14	2014-15	2015-16	2016-17	2017-18
Less than 5 years	0.4	0.0	0.0	0.0	0.0
5-9 years	24.5	19.4	16.5	16.0	15.5
10-14 years	41.8	45.3	44.5	44.0	43.5
15-19 years	16.5	16.6	19.0	19.5	20.0
20 years and above	16.9	18.8	20.0	20.5	21.0
Total	100.0	100.0	100.0	100.0	100.0

MTDS and Debt Sustainability

If the market borrowing strategy so laid out is followed, there would be an increase in average time to maturity from 14.9 years in 2014-15 to 16 years in 2017-18. Debt-to-GDP ratio would see a decline to 31 per cent by 2017-18 unlike many other countries that are facing a debt trap. Even interest-to-GDP would see a drop to 2.3 per cent (Table 5). These numbers are achievable provided the debt strategy is followed.

Table 5: Debt Sustainability Indicators (Baseline Scenario)

Year	Debt/GDP (%)	Avg. Time to Maturity (years)	Interest/GDP (%)
2013-14	32.7	14.2	2.6
2014-15	32.9	14.9	2.7

2015-16	32.7	15.6	2.6
2016-17	32.0	16.0	2.5
2017-18	31.0	16.4	2.3

There could be two alternate scenarios (Table 6). The first scenario portrays the Indian economy in a favourable situation while the second scenario projects the Indian economy to be in an adverse situation. While these two situations are based under certain assumptions, the baseline scenario is closer to reality.

In the first scenario, the nominal GDP is assumed to grow at the rate of 12.5 per cent, 14 per cent and 14.5 per cent in 2015-16, 2016-17 and 2017-18 respectively. Under these assumptions, debt-to-GDP ratio declines to 29.7 per cent, weighted average cost comes down to 7.08 per cent and the fiscal deficit as a percentage of GDP follows the path of fiscal consolidation.

The second scenario imposes harsh conditions on the Indian economy. This would result in counter-cyclical measures like the ones we saw after the financial crisis. This will lead to Government shoring up higher fiscal deficit in the face of distress thereby derailing the path of fiscal consolidation. This could erode investor confidence as well. As shown in the table below, there is a considerable strain on the major indicators of sustainable debt management.

Table 6: Assumptions and Sustainability Indicators (Scenario I and II)

Year	GDP Growth (%)		GFD/GDP (%)		Debt/GDP (%)		Wtd. Avg. Cost (%)		Avg. Time to Maturity (years)		Interest/GDP (%)	
	Sc.1	Sc.2	Sc.1	Sc.2	Sc.1	Sc.2	Sc.1	Sc.2	Sc.1	Sc.2	Sc.1	Sc.2
2013-14	13.6	13.6	4.4	4.4	32.7	32.7	7.98	7.98	14.2	14.2	2.6	2.6
2014-15	11.5	11.5	4.1	4.1	32.9	32.9	8.08	8.08	14.9	14.9	2.7	2.7
2015-16	13.5	10.0	3.9	4.3	32.1	33.1	7.58	8.58	15.7	15.7	2.4	2.8
2016-17	14.0	10.5	3.5	4.5	31.1	33.2	7.33	9.08	16.2	16.2	2.3	3.0
2017-18	14.5	11.0	3.0	4.8	29.7	33.7	7.08	9.58	16.4	16.4	2.1	3.1

Sc.1 – Scenario 1; Sc.2 – Scenario 2

The above two scenarios along with IMF's Article IV Consultation Staff Report points in the direction of India's possible vulnerable situation in the event of slow- down of growth rate. Apart from this, India is poised in a comfortable situation with little downside risk emanating from debt unsustainability.

Raising Debt at Low Cost

Announcement for market borrowing is done in advance for each half year with details of the magnitude to be borrowed, maturity date, etc. put in the public domain. Transparency is a vital prerequisite for a vibrant debt market. Such efficacy promotes successful and competitive bidding thereby reducing the cost. It is necessary for RBI and the Government to engage with the market on a continuous basis. Opening up communication channels will help in faster dissemination of the debt management strategy.

The strategy to attenuate rollover risk by elongating weighted average maturity may seem appropriate but it carries with it the cost-risk trade off. Longer lifespan of debt would result in higher cost thereby increasing the burden on the Government to honour its commitment to stick to its path of fiscal consolidation. On the other hand, reducing WAM would result in an increase in rollover risk.

Risk Mitigation

Rollover/Refinancing Risk: The strategy to elongate maturity will help in truncating rollover risk. An issuance strategy to undertake buybacks/switches for debt with maturity less than 10 years of maturity will blend into MTDS. To take this strategy forward, 40 years bond were issued for the first time in October 2015.

Currency Risk: A diversified pool of investors is essential for the existence of a dynamic debt market. In view of this, a calibrated strategy to include a careful mixture of domestic and foreign currency debt is of paramount importance for the sustainability of the debt market. A careful watch needs to be kept on global macroeconomic factors which could impact domestic stability due to the sensitive nature of foreign investors.

Interest Rate Risk: Instruments such as FRBs and IIBs were introduced with the responsibility to cater to the needs of the investors with regards to alleviating interest rate risk.

Strategic Benchmarks

Strategic structure represents the composition of the important parameters in the liability portfolio of the Government. It sets realistic targets to achieve a well-diversified portfolio with minimum risk undertaking. The benchmarks mentioned below provide a roadmap to attain a sustainable debt portfolio (Table 7).

Share of Short Term Debt: The share of short term debt is set at 10 per cent of total debt. An additional leeway of +/- 3% is proposed to tackle unforeseen developments.

Average Maturity of Debt: In accordance with the strategy to elongate maturity, a benchmark of 10 years has been proposed for average maturity of the debt portfolio.

Indexed and Floating Debt: In view of the minimizing market risk by portfolio diversification, issuance of IIBs and FRBs has been proposed subject to existing market conditions.

Share of External Debt to Total Debt: To continue safeguarding sovereign debt from currency risk, the current level of external debt to total debt seems appropriate. A leeway of +/-3% has been provided due to volatility in currency valuation.

Table 7: Benchmarks for some important parameters

Indicator	Benchmark	Leeway
Domestic Marketable Debt – Short term debt	10%	+/-3%
Weighted Average Maturity of Debt	10 years	+/-2 years
Indexed and Floating Debt for Issuances during fiscal year	5%	+/-2%
External Debt	8%	+/-3%

Market Development

An efficient market is one which provides liquidity to market participants when required and provides Government debt at low cost. An efficient market as a precursor will go a long way in achieving this dual objective. It has been the Government's constant endeavour to deepen G-sec market.

Objectives of the MTDS strategy (2015-18) can be achieved by the following actions:

- 1) Transparent issuance process by public disbursement of information on borrowing programme thereby making a level-playing field among market participants and discarding information asymmetry;
- 2) Diversification of maturity and investor profile;
- 3) Issuance of different instruments such as IIBs and FRBs to help market participants to handle their portfolio more efficiently;
- 4) Undertake switches/buybacks for effective liability management.
