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A NEWSLETTER OF THE FINANCE LAB

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A NEWSLETTER OF THE FINANCE LAB



Indian Institute of Management Calcutta

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GUEST COLUMN: The Fundamental Reason for Drop in Bank Deposit Growth

Deep N Mukherjee

Editorial

I am pleased to inform you that Indian Institute of Management (IIM) Calcutta in association with Stern School of Business of New York University (NYU – Stern) has successfully concluded the first ever India Research Conference on 20 May, 2016 at NYU – Stern. Event was sponsored by the Finance Lab of IIM Calcutta and co-hosted by the Center for Global Economy and Business and Salomon Center for the Study of Financial Institutions of NYU – Stern. The uniqueness of the event was that all papers presented were on Indian financial markets and institutions. The India Research Conference will be an annual event and it is expected that this conference will generate greater interest in India centric research by academicians in the US and Europe.

The fifth issue of Volume 3 of *aṛṭha* has four articles. The first article analyses the time series data on direct and indirect tax collection in the country, which was published by The Central Board of Direct Tax (CBDT) for the first time. The author concludes that the decision of CBDT in publishing direct tax data is commendable however, a more granular data would help researchers. In the second piece, the author discusses the idea of Bank Bureau Board (BBB) and its accountability. The third piece is on Debt Financing in India. The author studies the changes in India in the light of policy transformations taking place across emerging economies. In the fourth piece, the author tries to find out the main reason for drop in Bank Deposit Growth and concludes that poor credit growth will translate to poor deposit growth.

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

Happy reading!

Ashok Banerjee

Tale of Direct Tax Collections in India

Ashok Banerjee¹



Ashok Banerjee is a senior Professor in the Finance and Control group at IIM Calcutta. He takes several advanced courses in Finance like Corporate Financial Reporting, Corporate Finance, Corporate Restructuring, Quantitative Applications in Finance and Trading Strategies. He is also the faculty in-charge of the Financial Research and Trading Laboratory at IIM Calcutta.

The Central Board of Direct Tax (CBDT) has published², for the first time, time series data on direct and indirect tax collection in the country, including number of tax payers and pending income tax cases. The publication also provides data on state-wise tax collections. The period covered (2000-2015) includes pre-crisis and post crisis period. For example, the direct tax-to-GDP ratio reached a peak of 6.3% during 2007-08 (immediately before global financial crisis) and then witnessed continuous decline reporting only 5.47% in 2015-16. Globally, similar trend was observed (Table 1). Tax revenue (% of GDP) was 27.8% in UK during 2008 and the figure was only 25.4% in 2013- five years after the crisis. In other words, the UK economy was struggling regain its business buoyancy. Brazil reported more than 1 percentage point drop in the ratio after recession. There are two principal reasons for rise or fall in this indicator: (a) changes in economic activity (affecting levels of employment, commercial transactions); and (b) changes in tax legislation (affecting tax rates, exemptions, tax base etc.) In order to boost revenue, several governments (e.g., Greece) have increased the tax rates thereby improving the ratio. The tax revenue (% of GDP) of Greece was lower in post-crisis. However, if such steeper tax rates are not backed by improved economic environment it does not augur well for the economy. Latest results show that lower tax regime may fuel economic growth. The argument for higher tax-to-GDP ratio, on the other hand, is to support infrastructure development. Tax revenue (% of GDP) of European Union (aggregate of 28 countries) was 40% in 2014- marginally up by 0.1 percentage point from 2013³.

¹ The author acknowledges the help of Ms. Reshma Sinha Ray, TTA of IIM Calcutta in tabulating data.

² www.incometaxindia.gov.in/Documents/Time-Series-Data-Final.pdf

³ http://ec.europa.eu/eurostat/statistics-explained/index.php/Tax_revenue_statistics

Interestingly number of income tax cases did not change much over the last one and half decade. The figure was 32.7 million in 2000-01 and the final count of number of assessments in 2014-15 was marginally lower to 31.8 million. Number of cases reached a peak in 2009-10 at 52.2 million. The efficiency of the income tax department, measured by the proportion of cases disposed during the same year, has reasonably improved during this period. It was 59% in 2000-01 and rose to 68% during 2014-15. Data also show that tax payers were making significant part of tax payments before assessment. Post assessment tax as percentage of total direct tax (excluding other receipts) receipts was 10.8% in 2000-01 and the figure remained almost same at 11.1% in 2014-15. Another interesting feature in the data set is cost of collection of direct tax. It has declined from 1.36% (2000-01) to 0.59% (2014-15). This has been possible mainly due to use of technology in tax administration. During the last four years (2011-12 through 2014-15), number of assessees has increased by around 8 million driven mainly by Individual assessees (7.8 million). Growth in number of corporate and partnership firm assessees during this period was, however, only 13% and the growth rate for Individual assessees was close to 20%. This implies that economic activity in the country was sluggish during the first four years of the present decade.

Table 1: Tax Revenue (% of GDP)

Country	2007	2008	2011	2012	2013
Australia	-	24.3	20.4	21.3	22.2
Brazil	15.8	15.5	14.9	14.1	-
China	9.8	10.2	10.4	-	-
Denmark	35.1	33.5	33.0	33.6	35.1
Germany	11.3	11.4	11.4	11.6	11.6
Greece	20.2	20.2	21.7	22.9	22.8
India	11.9	10.8	9.0	10.8	-
Japan	-	-	9.8	10.1	10.9
Netherlands	21.9	21.4	20.4	19.6	20.0
Russia	16.6	15.8	15.0	15.1	14.3

Singapore	12.9	13.9	13.3	13.8	-
South Africa	27.6	26.8	24.6	25.0	25.5
Sweden	28.4	27.0	26.5	26.1	26.3
Thailand	15.1	15.4	16.4	15.4	17.3
UK	26.6	27.8	26.2	25.5	25.4
US	11.5	10.0	9.6	9.8	10.5

Source: World Bank [<http://data.worldbank.org/indicator/GC.TAX.TOTL.GD.ZS>]

Tax revenue refers to compulsory transfer to the central government for public purposes.

Distribution of Total Tax Collections

Total (direct and indirect) tax collection has grown at a compound annual rate (CAGR) of 14.6% in last fifteen years (Table 2). The growth is not caused entirely by inflation. The real growth in total tax collection was 10.4% suggesting buoyancy in economic indicators during this period. Share of direct tax has increased over the period and the same for indirect tax declined. Wider tax base and rationalization of indirect tax rates have led to fall in the share of indirect taxes. The fall in indirect tax share is more noticeable after 2007-08 when the government had announced financial stimulus package to boost productivity and growth. One interesting feature of indirect tax, which comprise of excise duties, customs duty and service tax, is that the share of service tax is on the rise with the increase in service tax rate and more services being brought under service tax net. In order to promote growth in manufacturing sector, one may witness further reduction in the share of excise duties and increase in the share of service tax. For example, during 2014-15 excise duties contributed 1.52% of GDP and service tax is fast catching up with 1.35% of GDP. Personal tax (% of direct tax) has declined suggesting that share of corporate and (partnership) firm taxes have increased over the past fifteen years. The indirect tax component is steadier with a coefficient of variation lower than direct tax during the past fifteen years.

Table 2: Nominal and Real Tax

Financial Year	Direct Tax			Indirect Tax			Personal Tax		
	Nominal	Real	Percentage of Total Tax	Nominal	Real	Percentage of Total Tax	Nominal	Real	Percentage of Direct Tax
2000-01	68305	68305	36.31	119814	119814	63.69	31764	31764	46.5
2001-02	69198	66795	37.1	117318	113245	62.9	32004	30893	46.25
2002-03	83088	77559	38.52	132608	123783	61.48	36866	34413	44.37
2003-04	105088	93020	41.42	148608	131542	58.53	41386	36633	39.38
2004-05	132771	110371	43.72	170936	142097	56.28	49268	40956	37.11
2005-06	165216	131514	45.32	199348	158684	54.68	63689	50697	38.55
2006-07	230181	173808	48.8	241538	182384	51.2	85623	64653	37.2
2007-08	314330	226789	52.98	279031	201321	47.02	120429	86890	38.31
2008-09	333818	222212	55.34	269433	179353	44.66	120034	79903	35.96
2009-10	378063	242340	60.78	243939	156366	39.22	132833	85147	35.14
2010-11	445995	275124	56.47	343716	212030	43.53	146258	90223	32.8
2011-12	493987	294350	55.82	390953	232956	44.18	170181	101405	34.45
2012-13	558989	324031	54.17	472915	274136	45.83	201840	117001	36.11
2013-14	638596	362133	56.64	495347	280900	43.36	242888	137736	38.03
2014-15	695792	391676	56.16	543215	305787	43.84	265772	149608	38.2
2015-16	742295	421723	51.05	711885	404446	48.96	286801	162941	38.63
S.D	233312	119748	7.94	174765	80991	7.94	86215	43476	3.96

Nominal and Real tax figures are in Rs. Crore. Real tax figures are WPI-adjusted.

Top Tax paying States

The state of Gujarat has figured in the top five list for the first time in 2014-15 toppling Andhra Pradesh (including Telengana). The other four states have retained their positions over the past five years (Table 3). The top five states have consistently been contributing about three-fourths of national direct tax. Maharashtra led the show with close to 40% share and the next state (Delhi) is way behind with about 14%-16% share. In fact the share of Delhi has declined over the years, whereas Tamil Nadu and Karnataka have maintained their share.

Table 3: Contribution of Top Five States to Direct Tax

2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
Andhra Pradesh (5.31)	Andhra Pradesh (5.07)	Andhra Pradesh (5.27)	Andhra Pradesh (5.37)	Andhra Pradesh (5.46)	Andhra Pradesh (5.15)	Gujarat (5.25)

Karnataka (8.30)	Karnataka (7.92)	Karnataka (8.17)	Karnataka (8.74)	Karnataka (8.94)	Karnataka (9.54)	Karnataka (8.86)
Maharashtra (39.40)	Maharashtra (39.42)	Maharashtra (39.88)	Maharashtra (37.84)	Maharashtra (36.84)	Maharashtra (36.62)	Maharashtra (40.62)
Delhi(16.6 2)	Delhi(16.1 5)	Delhi(14.6 4)	Delhi(14.6 0)	Delhi(14.4 25)	Delhi (14.06)	Delhi (13.34)
Tamil Nadu(6.27)	Tamil Nadu(6.57)	Tamil Nadu(6.48)	Tamil Nadu(6.04)	Tamil Nadu(6.02)	Tamil Nadu(6.81)	Tamil Nadu (6.54)
Total(76.3 3)	Total(75.1 3)	Total(74.4 4)	Total (72.60)	Total(71.7 0)	Total (72.18)	Total (74.62)

Figures in bracket denote percentage share. Figures do not include collections of Union Territories.

Factors driving Tax Collections

There are several factors that affect tax collection. Notable among them are trade openness, per capita income, tax rates, economic buoyancy, inflation and even corruption/leakage. Most studies find that per capita GDP and degree of openness is positively related to revenue performance, but a higher agriculture share lowers it⁴. Any emerging economy has to calibrate the tax rate very

⁴ Abhijit Sengupta, 2007, *Determinants of Tax Revenue Efforts in Developing Countries*, IMF Working Paper No. WP/07/184

careful in order not to hurt the sentiments of foreign investors, particularly the FDI. Though higher tax mop is desirable for any developing country committed to build social infrastructure, greater tax incidence is generally accompanied with tax avoidance, lower capital formation by private sector etc. Ideally, lower tax rates and surge in economic activities should generate higher tax collection. The dataset published by the CBDT has details on three indicators that may have bearing on direct tax collection- indirect tax (% of total tax), cost of collection and buoyancy. The first indicator would imply general economic activity in terms of industrial output, services, and international trade. Cost of collection would naturally have negative impact of tax collection. Tax buoyancy indicates elasticity of direct tax with respect to GDP. It is observed (Table 4) that indirect tax and cost of direct tax collection are highly correlated. There is no rational for such correlation. Hence, in the regression analysis, the indirect tax variable is dropped.

Table 4: Correlation Matrix

Variables	Indirect tax (%)	Buoyancy	Cost of collection
Indirect tax (%)	1	0.461	0.872
Buoyancy	0.461	1	0.216
Cost of collection	0.872	0.216	1

Note: Buoyancy indicates growth in tax revenue for per unit growth in GDP.

We run a regression using the following model:

$$\Delta \text{Direct Tax}_t = \alpha_0 + \beta_1 * \text{Cost of Collection}_t + \beta_2 * \text{Buoyancy}_t$$

Direct tax time series is non stationary and even a (log) transformation of the same does not make the series stationary. Hence, we have considered change in (log) direct tax as dependent variable. The signs of coefficients explain the relationship with the dependent variable. Buoyancy has a significant positive relationship with the growth in tax collection. The model explains about 80% of variations in direct tax collections with an adjusted R^2 of 0.8.

Table 5: Regression Results

Variable	Coefficient	t-stat	p-value
Constant	0.084	2.145	0.053
Cost of collection	-9.05	-2.017	0.067
Buoyancy	0.108	7.51	0.000

The decision of CBDT in publishing direct tax data is laudable as one gets great insight into the growth in tax collection, contribution of states and effectiveness of income tax department in disposing cases. However, a more granular data would help researchers. For example, information on state's contribution to indirect tax, and service tax collections.

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Bank Board Bureau: A Bold Step or the Old Wine in a New Bottle?

Partha Ray



Partha Ray, Ph.D., is Professor, Economics, Indian Institute of Management Calcutta. Prior to joining Indian Institute of Management Calcutta, Prof. Ray, a career central banker, was the adviser to Executive Director, International Monetary Fund, Washington D.C. during 2007-2011.

The issue of selection of senior management in the public sector banks has attracted quite a bit of attention in recent times. As part of the *Indradhanush* proposal for public sector banks announced on Aug 14, 2015, the Ministry of Finance (Department of Financial Services) has decided to separate the post of Chairman and Managing Director. It prescribed that in the subsequent vacancies, the CEO will get the designation of MD & CEO and there would be another person who would be appointed as non-Executive Chairman of PSBs. The proposal also emphasized that the selection process for both these positions would be “transparent and meritocratic”. Consequently, private sector candidates were also allowed to apply for the position of MD & CEO of the five top banks (such as, Punjab National Bank, Bank of Baroda, Bank of India, IDBI Bank and Canara Bank). But what would ensure professionalism in selection of the senior management of the public sector banks? It is in this context, that idea of Bank Bureau Board (BBB) has been floated in recent times.

To put the matter in perspective, it may be useful to recall that the idea of Bank Bureau Board came from a key recommendation of the Report of the RBI Committee to Review Governance of Boards of Banks in India (Chairman: P J Nayak), which was submitted in May 2014. The Nayak Committee Report mentioned categorically,

“The process of board appointments, including appointments of whole-time directors, needs to be professionalised and a three-phase process is envisaged. In the first phase, until

BIC (Bank Investment Company)⁵ becomes operational, a Bank Boards Bureau (BBB) comprising former senior bankers should advise on all board appointments, including those of Chairmen and Executive Directors. In the second phase this function would be undertaken by BIC, which would also actively strive to professionalise bank boards. In the third phase BIC would move several of its powers to the bank boards. The duration of this three-phase transition is expected to be between two and three years.”

Subsequently, the Finance Minister Mr Arun Jaitley in his 2015-16 Budget Speech (February 28, 2015) announced an intention to set up an autonomous bank Board Bureau (BBB). It was mentioned, “The Bureau will search and select heads of Public Sector banks and help them in developing differentiated strategies and capital raising plans through innovative financial methods and instruments. This would be an interim step towards establishing a holding and investment Company for Banks.”

Later the *Indradhanush* proposal for public sector banks of August 2015, it was further announced that, “The BBB will be a body of eminent professionals and officials, which will replace the Appointments Board for appointment of Whole-time Directors as well as non-Executive Chairman of PSBs. They will also constantly engage with the Board of Directors of all the PSBs to formulate appropriate strategies for their growth and development.” The structure of the BBB was conceived to be as follows: a Chairman and six more members of whom three will be officials and three experts (of which two would necessarily be from the banking sector)”. It was categorically stated that the Search Committee for members of the BBB would comprise the RBI Governor, Secretary (Financial Services, Ministry of Finance) and Secretary (Department of Personnel & Training, Government of India) as members and that the members would be selected in the next six months and the BBB will start functioning from the April 1 2016.

More recently, in end February 2016, Vinod Rai, former Comptroller and Auditor General of India, was named the first chairman of the BBB. Finally, the government set up the BBB in April 2016. The other members of the board included, Anil K. Khandelwal, a former chairman of Bank of

⁵ Nayak Committee recommended that Government should setup a Bank Investment Company (BIC), under Companies act, 2013 as a “Core investment company” and then should transfer its shares of public sector banks, to BIC. Finally, all public sector banks would be registered as ‘subsidiary companies’ of BIC, under Companies act. Since BIC would held more than 50 per cent shares in those company, BIC will be the parent “Holding” company and those banks became BIC’s subsidiary companies.

Baroda; H.N. Sinor, a former joint managing director of ICICI Bank; and Roopa Kudva, a former managing director of rating company Crisil. The tenure of the Chairman and other members of the BBB will be of two years. Besides these members, as announced in the Indradhanus proposals, there are two representatives from the government: Secretary, Department of Financial Services (Ministry of Finance), and Secretary, Department of Public Enterprises. The Deputy Governor of the RBI will also be there in the BBB.

While members of the BBB are people of eminence with impeccable integrity and reputation, there are issues about its potential effectiveness. Illustratively, presence of a large number of Civil Servants could be an issue. More interestingly, inclusion of the Secretary (Financial Services) both a member of the Selection Committee of the members of the BBB as well as a member of BBB may appear to be odd. After all, how different is the BBB from the current practice of Appointments Board? How can government interference be minimized in the appointment process? Such questions seem to be blowing in the wind.

More fundamentally, at the current juncture when the Indian public sector banks are plagued with the problem of non-performing assets and there are allegations of governance issues in select banks as a factor behind formation of such NPAs, there is an imperative for making the Bank Boards more accountable. But can that accountability come with the formation of BBB? Or, will such accountability need more fundamental reforms like divestiture of public sector banks that can make the banks subject to more market disciplines? Till such accountability process appears, formation of BBB can be a second-best solution. Nevertheless, to drive balance sheet improvement and consolidation in the banking sector, at the current juncture we need to wait for further actions of the BBB.

The Changing Dynamics of Debt Financing in India

Payal Ghose and N Aparna Raja[‡]

Debt financing basically refers to a business raising capital (operating or other) by borrowing. The global financial crisis (GFC) that originated in the credit markets of advanced economies (AEs) and the massive liquidity enhancing measures taken by the major central banks to counter, it has ironically resulted in higher levels of borrowing in all major economies relative to GDP than they did in 2007. The GFC has also altered the financing decisions of corporates in emerging economies (EMEs) like India with increasing debt financing accompanied by slackening in bank financing.

As per the International Monetary Fund (IMF), gross debt of governments globally has increased significantly since the crisis (end of 2007). General government gross debt as percent of GDP in G20 advanced countries have elevated by 46% between 2007 and 2015 to 112.54% and is expected to peak to 114.60% in 2016. IMF, in its World Economic Outlook (April 2016), had expressed deep concern about debt rising to an unsustainable levels in some countries following stagnation in world economy.

General government gross debt as Percent of GDP

Country	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Australia	9.96	9.68	11.74	16.76	20.50	24.24	27.86	30.72	34.26	38.08	40.15	41.38	41.58
Brazil	65.84	63.80	61.91	65.04	63.03	61.23	63.54	62.22	65.22	69.90	74.48	75.78	76.53
China	32.23	34.64	31.59		36.01	35.60	37.05	39.42	41.14	43.20	45.98	48.27	50.04
France	64.24	64.19	67.85	78.76	81.46	84.95	89.23	92.42	95.14	97.01	98.06	97.93	96.94
Germany	66.26	63.46	64.90	72.39	80.25	77.64	79.04	76.86	73.11	69.50	66.63	64.11	61.64
India	77.11	74.03	74.54	72.53	67.46	68.10	67.45	65.81	66.07	65.26	63.89	62.80	61.72
Japan	186.0	183.0	191.8	210.2	215.9	229.8	236.7	242.5	246.4	246.1	246.9	248.5	249.5
	0	1	1	5	5	4	6	9	2	4	6	8	5
Russia	10.50	8.61	7.98	10.63	11.35	11.64	12.66	14.03	17.82	20.40	21.04	21.94	22.78
United Kingdom	42.53	43.63	51.78	65.81	76.39	81.83	85.82	87.31	89.54	91.15	91.65	90.75	88.95
United States	63.64	64.01	72.83	86.04	94.76	99.11	102.3	103.4	104.7	105.0	104.9	104.2	103.6
							9	2	7	6	1	5	2

*Estimates Start after 2015.

International Monetary Fund, Fiscal Monitor Database, April 2016

‡ Ms. Payal Ghose is Manager and Ms. N Aparna Raja Deputy Manager, Economic Research and Surveillance Department, CCIL

According to Bank for International Settlement (BIS), while public debt has increased significantly in AEs, private debt has also increased in EMEs. The debt of non-financial companies in EMEs has grown so rapidly that in 2013 it overtook that of AEs, as a proportion of GDP. Since then, the corporate debt of EMEs as a proportion of GDP has pulled ahead of that in the AEs even further. Corporate leverage in EMEs has risen in general while simultaneously the general profitability of EME non-financial companies has fallen. Following tables provide the glimpse of such developments over the years.

Total Credit to the Non-financial Sector as a Percentage of GDP

Country	2011	2012	2013	2014	2015 (till Q2)
Australia	203.7	211.0	220.0	231.5	238.4
Brazil	122.1	130.4	132.8	138.5	142.9
China	187.7	203.0	220.0	234.2	243.7
Euro area	253.9	265.2	263.9	270.8	269.8
India	125.0	126.9	126.4	125.4	126.8
Japan	369.1	374.1	382.4	392.7	387.3
United Kingdom	273.0	276.7	261.9	265.7	260.9
United States	250.5	250.9	247.3	250.0	247.5

Source: Bank for International Settlement

Amount Outstanding of Debt Securities (in \$ billion)

	India			China			US		
	Q4-2007	Q4-2014	Q3-2015	Q4-2007	Q4-2014	Q3-2015	Q4-2007	Q4-2014	Q3-2015
Domestic debt securities	425.1	684.4	NA (699.4 till Q2)	1688.1	5772.2	NA (6524.7 till Q2)	28384.7	35797.3	NA (36278.4 till Q2)
International debt securities by National Issuers (in USD)									
a) Banks	14.0	35.6	35.4	5.0	79.3	90.8	497.8	395.1	432.5
b) Other financial corporations	0.0	2.6	2.6	5.8	32.8	46.0	1279.2	1319.0	1359.0

c) Non-financial corporations	21.2	36.3	39.3	14.0	191.8	229.8	291.3	396.5	453.3
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Source: Bank for International Settlement

The GFC in AEs has been accompanied by changes in the financial set-up in EMEs. New sources of finance and investor bases have been opened up for them while the traditional sources like domestic banks have turned more cautious. At the same time proactive measures taken by regulators based on lessons learnt from the experience of AEs has led to increasing confidence in the local debt markets. Curtailment of banks' easy money policies in countries like India following increased regulatory requirements on account of rising bad loans and corporate defaults has enhanced the importance of alternative sources of funds for corporates. The process is also supported by banks themselves as it helps them to save on capital requirements while at the same time enabling them to maintain relationships with their clients as well as opening up new lucrative sources of revenue in the form of fees earned on advising on and arranging the raising of capital in the markets. The rising reliance on non-bank sources of funds especially in EMEs is proving to be a double-edged sword with reducing reliance on the banking system on one hand and increased market volatility and contagion spillover on the other adding to the complexity in policy making. This write-up studies the changes in India in the light of these transformations taking place across EMEs.

Developments in EMEs

The accommodative monetary policies in major AEs coupled with record low rates has enhanced the interest towards EMs in the search for yields, thereby increasing the demand for debt securities issued there. There is evidence that domestic banks have faced increased competition from debt securities markets in financing some EME borrowers, particularly after 2008 (BIS November 2015). The share of bank credit in total credit has generally declined over the past decade. There has also been a structural shift in the balance sheets of EME banks as sources of their funding and recipients of their credit have changed. While the growth of loans has declined, investments in corporate papers have been rising.

The Indian Banking Scenario

Historically the Indian banking sector has been the major driving force supporting the country's growth by channelizing domestic savings towards capacity creations and the size of the banking

sector in terms of assets and earnings has grown in line with the entire economy. However, over the past decade, Indian financial system has undergone many changes; a higher volume of debt financing, opening up of more venues to borrow funds. Bank credit is gradually losing steam in meeting the funding requirements of the Indian corporate sector with the rising risk averseness of banks and expansion of capital markets. Corporates are no longer hesitant in approaching the market to raise funds either through equity or debt. It has been a beneficial relationship with a wider choice for financial planning for corporates on one side and more choice for diversification for investors including banks themselves on the other. Increasing ease in the primary issuance process for various instruments has benefitted both sides and so has increased awareness and risk appetite among investors. This type of structural shift is likely to have significant implications on the transmission of policy measures as well as financial stability in an increasingly open financial system.

Select Aggregates of Scheduled Commercial Banks - Growth Rates (%)

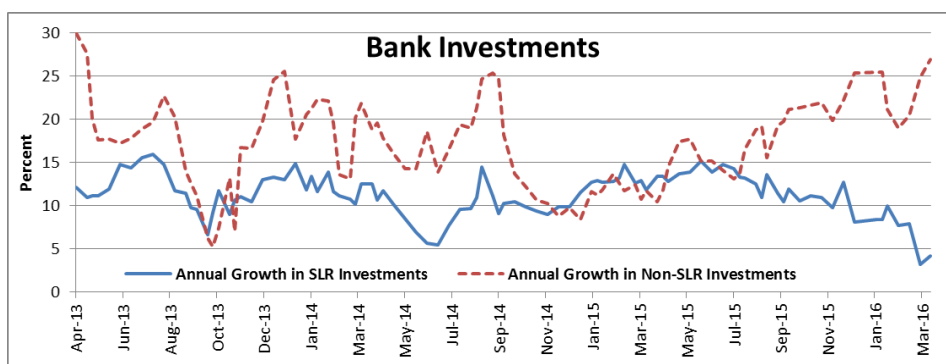
Year	Demand Deposits	Time Deposits	Aggregate Deposits	Investments in Government Securities	Investments in other Approved Securities	Investments	Food Credit	Non-Food Credit	Bank Credit
2012-13	5.9	15.2	14.2	15.5	-11.5	15.4	18.6	14.0	14.1
2013-14	7.8	14.8	14.1	10.4	-33.6	10.3	2.1	14.2	13.9
2014-15	11.2	10.7	10.7	12.6	27.5	12.6	-4.1	9.3	9.0
Trends									

Source: RBI and CCIL

As can be seen clearly, the growth in aggregate deposits with the Indian banking system has witnessed a sharp decline in 2014-15 which is also mirrored in the slowdown in bank credit. In fact, Non-Food Credit (NFC) grew at the slowest pace since 1993-94. Industrial sector which has over one fourth of share in total NFC witnessed gradual decline in the credit disbursal since 2014. Higher lending rates had an adverse effect of the credit directed to economic sectors like industries and services. Credit directed to industries fell continuously from 24% in FY10 to a single digit in FY15 and FY16 to 5.61% and 2.75% respectively. Service sector too have been witnessing declining y-o-y growth in the credit disbursal from banks, touching multi-year low of 3.19% till December 2015 (picking up in the last quarter of FY16 to take year-end growth to 9.06%). The accelerated growth in the “Personal Loans” has been the driving force in the historic low pace in the total bank credit to the positive territory especially housing and credit card outstanding. Banks’ reluctance to lower the lending rate because of the increasing stressed assets in the system and availability of cheaper sources of funds in the market is acting as a major deterrent to its growth.

However, revival is anticipated as average base rate has fallen by 35 bps following constant reminders from the RBI Governor to banks for passing on the advantage of lower policy rates to the economic agents, further monetary policy easing during its First Bi-Monthly Monetary Policy by the RBI in April 2016 along with reducing interest rate on small saving schemes and switch to base rate calculation on the basis of the marginal cost of funds.

Banks in India still follow traditional business models and are less engaged in investment banking activities than are their AE counterparts. As a result, slowdown in NFC is mirrored by an increase in the share of investments in total bank assets, especially non-SLR holdings which majorly comprise of debt instruments issued by the private sector. Banking sector investments remained at record levels in FY16 resulting from continuous growth in banks' non-SLR investments. Thus, Indian banks are indirectly supporting the corporate sector by subscribing to their debt instruments rather than extending direct credit to them.



Source: RBI

Debt Financing Options in India

Corporate Bonds

Bond markets help diversify the sources of financing and avoid credit risk concentration in the banking sector. A liquid corporate debt market can play a crucial role by supplementing the banking system to meet the requirements of the corporate sector for long-term capital investment and asset creation. Since bank credit has remained prime source of funding for corporates over the years indicates that banks are getting stretched to finance the growth of the economy.

In India, various recommendations announced by numerous committees (R. H. Patil committee 2005, Percy Mistry committee 2007, Raghuram Rajan Committee in 2009 etc) have resulted in a list of reforms to deepen and develop the corporate bond market as listed in the subsequent table.

Impact of Measures Taken by the GoI, the RBI and the SEBI to Develop CB Market in India		
Intended outcomes mostly achieved	Intended outcomes partially achieved/ too early to say	Intended outcomes not achieved
1) Setting up of reporting platform for post-trade transparency	1) Banks and PDs allowed to become members of stock exchanges to trade in corporate bonds	1) Introduction of Repo in corporate bonds to meet the funding needs
2) Introduction of DvP in settlement of OTC trades to eliminate settlement risk	2) Investment norms for banks and PDs relaxed to facilitate investment in corporate bonds	2) Introduction of Credit Default Swaps to facilitate hedging of credit risk by the holders of corporate bonds, reissuance of bonds permitted by SEBI
3) Issue of long-term bonds by banks (exempted for NDTL computation) with a minimum maturity of 7 years to raise resources for lending to (a) long term projects in infrastructure sub-sectors, and (b) affordable housing.	3) Final guidelines issued for partial credit enhancements by banks to corporate bonds	
4) The investment limit for Foreign Portfolio Investors (FPI) has been increased to USD 51 billion during the last few years.	4) Measures taken to encourage investor interest/participation in the corporate bond market in terms of liberalizing the listing	

Withholding tax rate has been reduced from 20% to 5%. They are allowed to invest only in CBs having residual maturity of at least 3 years.	requirements; simplification in procedures and processes, simplified disclosure norms and standardisation of market conventions	
5) International financial institutions like IFC were permitted to float a rupee linked bond overseas to deepen the off-shore rupee bond market, to raise rupees to invest in India.	5) Rationalisation of FPI regulations has been put in place for easier registration process and operating framework for overseas entities seeking to invest in Indian capital markets	
6) SEBI has allowed setting up of dedicated debt segment on the exchanges		

Source: RBI. Speech by Shri Harun R. Khan, Deputy Governor on Corporate Bond Markets in India: A Framework for Further Action - November 06, 2015.

The amount of corporate bonds issuance has increased by 76% between 2010-11 and 2014-15, while number of issues leaping by 82%. Net outstanding too amplified by 99% during the same period under consideration. If we extend the period by one more year, bond issuances between 2010-11 and 2015-16 rocketed 101%, issuance amount by 114% and net outstanding by 128%.

Issues and Total outstanding Corporate Debt (Amount in Rs. Crore)						
Year	Issuance details		% change in issuance	Net outstanding (As at end-March)	No. of outstanding instruments	% change in outstanding amount
	No. of issues	Amount				
2012-13	3,023	380,411.62	27.48	1,261,717.15	8,859	23.79
2013-14	3,136	383,320.05	0.76	1,446,057.68	9,186	14.61
2014-15	4,257	466,247.13	21.63	1,702,756.47	10,810	17.75
2015-16	4,696	564,099.70	20.99	1,956,445.64	12,624	14.90

Source: Securities and Exchange Board of India, RBI.

In the corporate bond market, funds are raised through either public issues or via private placements. In the prior scenario, an offer is made to the public in general to subscribe to the bond. On the other hand, private placement is an issue of securities to a select group of persons (less than 50). While the private placement disclosure and documentation requirements are viewed by the market to be comprehensive, disclosure requirements for public issuance of debt are viewed by the market as being extremely arduous and difficult to comply with. Since the market for public debt does not exist, it does not make any economic sense to spend a good part in issuance. Hence, this market is dominated by the private placements. The limited disclosure, customized structures to cater the requirements of both issuer and investors and the fast speed of raising funds have made this route more attractive for the corporates to raise funds from the market.

Modes of Debt Issues Used by Corporate Sector					
Year	Debt Issues (Rs. Crore)				Total
	Public		Private Placement		
	Amt	Share (%)	Amt	Share (%)	
2012-13	16982	4.49	361462	95.51	378444
2013-14	42383	13.31	276054	86.69	318437
2014-15	9713	2.35	404137	97.65	413850
2015-16	33812	6.87	458073	93.13	491885

Source: Securities and Exchange Board of India

Slowly and steadily this market is developing in terms of volumes and number of issuances. Over the last couple of financial years, banks rigidity towards lowering of its base rate in line with the easy monetary policy adopted by the RBI has helped corporate bond market to establish itself as an alternative to bank credit as one of the sources of funds for corporates. For example, while RBI slashed LAF Repo rate by 50 bps between December 2014 and March 2015, banks' inability to replicate this change led corporates to tap the bond market as evident from higher number of issuances (2371 in 2014-15) and lower average fixed rate coupon (from 11.34% in 2012-13 to 11.09 in 2014-15%).

Issuances of Fixed Rate Corporate Bonds				
Year	Number of Issuances	Avg Coupon of fixed rate CB Issuances	Avg Base Rate	LAF Repo at the end of fiscal
2012-13	1142	11.34	10.13	7.50
2013-14	1717	11.34	10.05	8.00
2014-15	2371	11.09	10.13	7.50
2015-16	2549	11.13	9.68	6.75

Source: NSDL

Out of total corporate debt issuances, high rated bonds considered to be the safest bet has lion's share. AAA and AA rated bonds has combined share of over 72% in total CB issuances over the years.

Rating Analysis of the Issuances of Fixed Rate Corporate Bonds									
Year	AAA	AA	A1	A	BBB	BB	B	C	NA
2012-13	433	470	13	117	24	9	0	3	73
2013-14	481	846	9	125	41	26	7	3	179
2014-15	789	929	11	241	126	53	5	0	217
2015-16	907	963	47	204	103	50	8	0	267

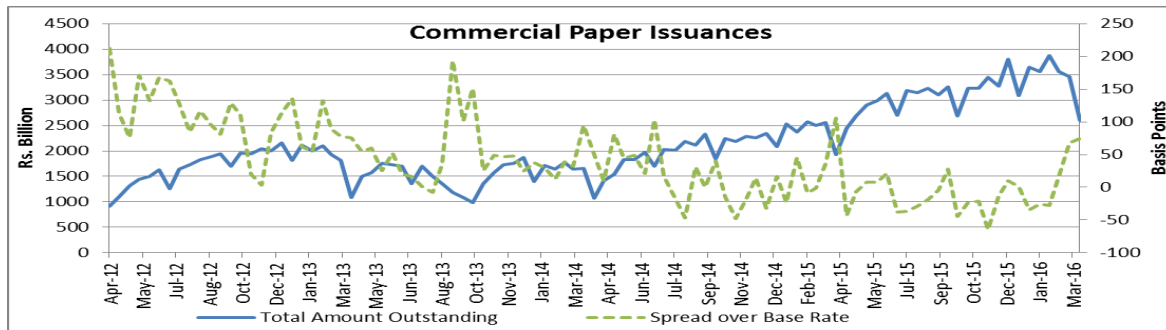
Source: NSDL

Apart from bonds, corporates as well as banks themselves are also increasingly using shorter term instruments like CP/CD that are generally considered to be part of the money market as the maturity is within a year.

Commercial Paper (CPs)

Indian companies generally issue CPs for meeting short-term fund requirements without collateral mainly to purchase inventory or to manage working capital. CPs may also be issued to take advantage of falling interest rates and retiring expensive bank loans and other debt on the companies' books. CPs can thus, help corporates to diversify their liability books. Since their introduction, primary and secondary market activity in CPs in India has had a chequered history reflecting the overall pace of economic activity and the prevailing interest rate regime or liquidity

conditions. Over the years, the segment has gathered support from various regulatory measures especially the delinking with working capital requirements in 2000, changes in the issuer and investor base, reduction of stamp duty in 2004 and other taxes, changes in maturity profile, etc. However, the pace of activity in the CP market has grown rapidly in recent years following the implementation of the base rate system for banks which restrict them from lending at rates lower than their base rates. Banks can bypass these guidelines by investing in the CPs of their corporate clients at lower rates rather than extending them loans directly.



Source: RBI, CCIL

CP issuance has ballooned up in the last two years primarily as a reaction to the delay in banks' passing on interest rate cuts. Highly rated corporates often found it cheaper to raise funds directly from the market through issuing CPs rather than borrowing from banks while CPs also gave corporates the advantage in terms of tenor of issue and flexibility of end-use. The spread between average interest rate of new CP issuances and the average base rate of banks has come down gradually falling from 101 bps in FY13 to 50 bps in FY14, further declining to 17 bps in FY15 before turning to (-) 8 bps in FY16 implying the market driven movement of CP rates as against the stickiness of base rates. The spread remained mostly in the negative territory in FY16 till mid-February 2016, rising significantly thereafter as the latest SEBI norms restricting mutual fund investments in debt instruments such as commercial paper and corporate bonds started weighing in on the yields along with the liquidity shortage during the fiscal year ending. This largely explains the substantial issuances over the past year. Apart from corporates even NBFCs and financial institutions also resorted to enhanced issuance of debt papers such as CPs instead of borrowing from banks at higher rates.

CPs are purchased primarily by institutional investors such as banks and mutual funds which generally invest money from their liquid/short term funds in CPs. Insurance companies also invest

in CPs to diversify their portfolio. Retail investors can indirectly participate in this market by buying short term debt funds. Commercial banks have gradually started to increase their investments in CPs, with their holdings of CP exceeding their mutual fund holdings since September 2015. On an average they have held almost 23% of the total outstanding CPs during FY16 which was an increase over their average holding of 15% of the outstanding during FY15. Trading activity in the secondary market has also picked up with issuances as participants try to take advantage of falling interest rates.

Commercial Paper – Trading

Analysis

Residual Maturity (Months)	2012-13			2013-14			2014-15			2015-16		
	Share (%)	WA (%)	Spread over G-sec (bps)	Share (%)	WA (%)	Spread over G-sec (bps)	Share (%)	WA (%)	Spread over G-sec (bps)	Share (%)	WA (%)	Spread over G-sec (bps)
1	64.59	8.65	58.77	71.98	8.86	30.31	75.07	8.56	29.50	68.91	7.86	68.48
2	15.35	8.87	75.39	13.60	9.11	52.34	11.11	8.76	42.79	12.39	7.97	72.09
3	11.04	9.04	93.72	5.77	8.85	65.79	5.70	8.75	36.33	8.51	7.82	52.44
4	2.13	9.37	128.04	1.49	9.58	91.90	2.24	8.87	50.10	2.02	7.96	61.36
5	1.47	9.29	124.95	1.16	9.80	87.20	1.06	8.99	52.31	1.52	8.14	74.97
6	0.98	9.51	144.31	1.03	9.64	112.26	1.04	8.91	40.64	1.00	8.22	82.28
7	0.52	9.79	167.24	0.75	10.38	120.16	0.31	8.96	45.56	1.22	8.24	66.82

8	0.79	9.78	170.7 3	0.55	9.89	107.8 2	0.36	9.08	55.57	0.97	8.27	72.41
9	0.63	9.73	162.7 3	0.27	9.75	104.0 3	0.31	9.18	90.22	0.44	8.28	73.06
10	0.54	9.41	128.3 5	0.89	9.49	111.3 4	0.48	9.24	93.71	1.17	8.35	89.07
11	0.43	9.27	128.8 3	0.63	9.63	111.0 3	0.86	9.17	92.02	0.96	8.47	95.58
12	1.52	9.37	124.5 0	1.88	9.81	113.6 1	1.45	9.15	85.53	0.88	8.59	117.0 2
Total (Face Value in Rs. Crore)			513864			416598			544449			614951

Excluding Inter Scheme Transfers. Source: CCIL

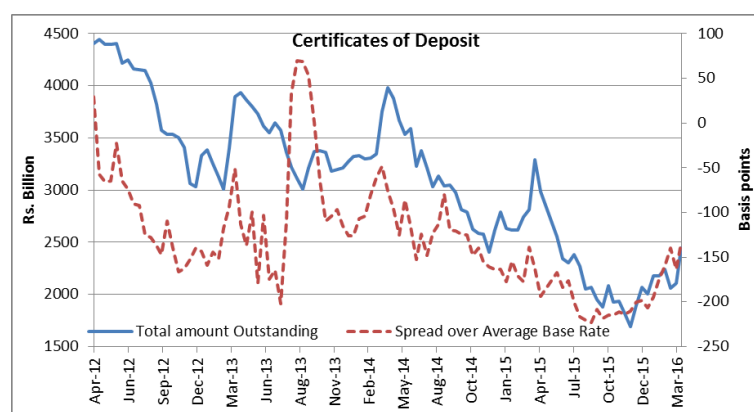
Secondary market trading is primarily concentrated in CPs rated as A1+, the highest credit quality rating assigned to short-term debt instruments. Wary of the increasing NPAs and the high provisions required to address them while at the same time in an attempt to keep highly rated corporate accounts in their books, banks are increasingly investing in their debt instruments such as CPs and bonds instead of directly lending to them even as corporates are opting to raise funds directly from the market rather than borrowing funds from banks at higher rates. This trend is stronger for public sector banks which have emerged as the largest net buyers of CPs in the secondary market. In terms of overall activity in the secondary market, the Mutual Funds followed by Corporates are the most active participants. Secondary market trading is mostly concentrated in the up to 3 months maturity papers.

NBFCs are important financial intermediaries in India playing a supplementary role to banks. NBFCs include not just the finance companies, but also a wider group of companies that are engaged in investment, insurance, chit fund, nidhi, merchant banking, stock broking, alternative investments etc. as their principal business. Traditionally bank loans were the source of funds for these firms. However, these firms are now increasingly raising funds through market-based

instruments such as CPs, debentures, or other structured credit instruments. NBFCs accounted for more than 55% of the total CP issues during FY16. Analysis of secondary market CP trading data indicates that CPs issued by NBFCs are the most traded in line with their share in issuances, with CPs issued by NBFCs accounting for 80% of the total traded volumes in FY16.

Certificate of Deposits (CDs)

CDs are an important source of raising funds for the banks themselves. CDs are used by banks to meet their temporary asset-liability mismatches. CD rates are higher than yields on government securities as investors are required to deposit funds for a specified term exposing them to credit risks as against the risk-free sovereign securities. CD rates are also higher than retail fixed deposit rates as they are raised when banks face liquidity crunch as well as to account for the stamp duties payable on their issuance. CD issuances fall amid easy liquidity. Institutional investors like mutual fund houses and banks are the key investors/buyers of these instruments.



Source: RBI, CCIL

CD issuances spike up during financial year ends as well as reissuances due to liquidity tightness. To address the spike in the CD rates at financial year-ends as banks rushed to meet targets, the Finance Ministry issued norms that required banks to reduce the proportion of bulk deposits and CDs to 15% of the total deposits by March 31, 2013. This led to a substantial decline in CD issuances with most public sector banks being near their issuance limits. Recognizing that bank investments in liquid schemes of mutual funds would, in turn, be invested in bank CDs, that could lead to systemic risks, RBI banned banks from holding more than 10% of their net worth in liquid schemes of mutual funds from January 2012. At the same time, Sebi's decision to reduce the threshold for mark-to-market requirement on debt and money market securities of mutual funds

from 91 days to 60 days also contributed to reductions in CD holdings. While the market lost some appetite due to the several restrictions imposed on the participants by regulators, the slow credit off take has also been a contributor to the contraction of the CD market. Secondary market trading in CDs has been in a declining trend in line with the decline in issuances.

Certificate of Deposit - Trading

Analysis*

Residual Maturity (Months)	2012-13			2013-14			2014-15			2015-16		
	Share (%)	WA Y (%)	Spread over G-sec (bps)	Share (%)	WA Y (%)	Spread over G-sec (bps)	Share (%)	WA Y (%)	Spread over G-sec (bps)	Share (%)	WA Y (%)	Spread over G-sec (bps)
1	22.16	8.49	40.17	20.23	8.75	19.69	26.50	8.37	6.46	28.24	7.61	37.67
2	18.12	8.68	56.55	25.08	8.99	44.04	27.15	8.56	18.01	22.90	7.62	30.66
3	25.87	9.03	87.89	22.18	8.87	53.42	24.64	8.63	25.04	28.76	7.75	41.88
4	6.45	9.05	92.82	3.09	9.00	71.83	4.15	8.70	27.51	2.10	7.69	35.55
5	3.04	8.88	75.30	2.02	8.86	57.19	2.11	8.75	24.89	1.46	7.66	30.11
6	3.97	8.93	83.59	2.93	9.05	56.04	2.24	8.75	25.13	2.99	7.78	47.12
7	2.42	9.10	95.33	1.54	9.73	73.54	1.10	8.75	27.01	1.60	7.79	32.36
8	1.94	9.17	104.51	2.28	9.06	69.07	1.05	8.89	28.67	1.64	7.84	31.04
9	2.16	9.20	108.76	2.82	8.50	74.65	1.17	8.82	30.10	1.54	7.95	37.84
10	2.18	9.46	128.52	2.26	8.59	79.57	1.50	8.92	31.59	1.96	8.09	41.58

11	2.01	9.45	129.0 0	2.96	8.71	77.20	1.72	8.94	39.50	1.89	8.18	46.30
12	9.67	9.20	118.1 9	12.6 0	9.41	72.55	6.67	8.75	46.93	4.92	8.04	69.33
Total (Face Value in Rs. Crore)	1733410			1501309			1322377			1084800		

*Excluding Inter Scheme Transfers. Source: CCIL

On an average nearly 80% of the total secondary market trading in CDs has been concentrated in CDs maturing within 3 months, although issuances are mainly concentrated in CDs maturing in 12 months or more. Mutual Funds, Public Sector Banks and Private Sector Banks are the most dominant participants in the secondary market. The spread over g-secs in the secondary market trading of CDs had been narrowing sharply till the last fiscal. However, the spreads have started inching up again in recent months owing to rising liquidity tightness as well as increasing uncertainty in markets due to global developments along with competition from other money market instruments offering higher yields.

CDs can get a boost from with the development of a benchmark Certificate of Deposit (CD) curve for inter-bank lending and borrowing based on dealt rates of various tenors of maturity up to a year. This measure will bring more transparency and lead to better pricing as CDs are currently priced through negotiations with the rates decided according to the demand, supply and credit risks involved.

External Commercial Borrowings (ECBs) / Foreign Currency Convertible Bonds (FCCBs) / Trade Credit

Indian corporates are tapping foreign money via ECBs, FCCBs or trade credits, taking advantage of lower global interest rates and the ability to borrow at longer maturities. ECBs are commercial loans taking many forms like bank loans, buyers' credit, suppliers' credit, floating rate notes, fixed rate bonds, non-convertible/convertible preference shares availed of from non-resident lenders

with a minimum average maturity of 3 years. There are two routes, through which ECB can be accessed, namely,

- Automatic Route – Do not require prior approval from the RBI or GoI. Eligible borrowers can raise funds for investment in infrastructure sector, specified service sector, industrial sector, acquisition of shares in the disinvestment process to the public under the Government’s disinvestment programme of PSU shares, import of services etc.
- Approval Route - Prior approval is needed from the RBI or GoI before availing the facility. Eligible borrowers can raise funds for investment in the real sector (industrial and infrastructure), for working capital for civil aviation sector, general corporate purposes from direct foreign equity holders. Low Cost Affordable Housing etc.

Note: eligibility for an ECB in respect of eligible borrowers, recognized lenders, end-uses, etc. to be read in conjunction and not in isolation (RBI).

FCCBs are bonds issued in foreign currency by an Indian company to be subscribed by non-residents. The principal and interest too is payable in foreign currency and its issuances are governed by the scheme "Issue of Foreign Currency Convertible Bonds and Ordinary Shares (Through Depository Receipt Mechanism) Scheme, 1993" as amended from time to time. This convertible bond is a mix between a debt and equity instrument as in bond subscribers receives regular coupon and principal payments. However, clauses under FCCB allow the issuer or bondholder to convert the bonds into shares during its term, at a pre-agreed price. The investors receive the safety of guaranteed payments on the bond and are also able to take advantage of any large price appreciation in the company's stock.

There are certain requirements that needs to be satisfied for the issuances of FCCBs. They are (as per notification FEMA No. 120/RB-2004 dated July 7, 2004);

- a) FCCBs shall have maturity of 5 years and above;
- b) the call & put option, if any, cannot be prior to 5 years;
- c) issuance of FCCBs only without any warrants attached; and
- d) the issue related expenses not exceeding 4% of issue size and in case of private placement, shall not exceed 2% of the issue size.

Since, issuance of FCCBs was brought under the ECB guidelines in August 2005 these are also subjected to all the regulations which are applicable to ECBs. RBI has also made provision for the refinance of FCCBs by Indian companies having difficulty in meeting the redemption obligations. Once terms and conditions set out by the RBI like the amount of fresh ECB/FCCB not to exceed the outstanding redemption value at maturity of the outstanding FCCBs; the fresh ECB/FCCB to be raised with less than six months prior to the maturity of the outstanding FCCB etc (Master Circular on External Commercial Borrowings and Trade Credits – July 01, 2013) are met, designated AD Category - I banks have been permitted to allow Indian companies to refinance the outstanding FCCBs under automatic route. Here, ECB/FCCB beyond USD 500 million for the purpose of redemption of the existing FCCB are considered under the approval route.

Trade credits refer to the credits extended by the overseas suppliers, banks and financial institutions for maturity up to five years for imports into India. Depending on the source of finance, such trade credits include suppliers' credit or buyers' credit. Suppliers' credit relates to the credit for imports into India extended by the overseas supplier, while buyers' credit refers to loans for payment of imports into India arranged by the importer from overseas bank or financial institution. These are a big source for funding for medium and small scale companies that have relatively less access to bank credit as this leads to the cost of working capital falling sharply. Over the past 2 years RBI has liberalized its policy providing greater flexibility for structuring of trade credit arrangements as well as conversion of trade receivables into liquid funds through setting up of an institutional mechanism for financing trade receivables. In November, RBI granted "in-principle" approval to three applicants to set up and operate Trade Receivables Discounting System (TReDS) under the Payment and Settlement System (PSS) Act 2007. TReDS will allow SMEs to post their receivables on the system and get them financed. This will not only give them greater access to finance but will also put greater discipline on corporates to pay their dues on time.

The following table provides the amount borrowed by corporates under ECB/FCCB from FY2012-13. Amount raised under FCCBs is very negligible - only 3 instances under automatic and approval routes amounting to USD 794 million each during the period under review and mainly for the purpose of redemption of FCCBs or refinancing of earlier ECB.

External Commercial Borrowing (Amt. in \$ Mn. Growth in %)			
Year	Automatic Route	Approval Route	Total

	Amount	Growth	Amount	Growth	Amount	Growth
2012-13	18395	-28.76	13651	34.57	32046	-10.90
2013-14	12347	-32.88	20892	53.04	33239	3.72
2014-15	19215	55.63	9170	-56.11	28385	-14.60
2015-16	13411	-30.20	10961	19.53	24372	-14.14

Source: RBI

Macro-economic developments, global integration and the experience of administering the ECB regime over many years led RBI, in consultation with the GoI, to review and revise the extant of ECB framework from time to time. RBI reviews and revises all-in-cost ceiling which involves every cost in a financial transaction and can be used to explain the total fees and interest included in a financial transaction. The ceiling for ECB having average maturity of 3-5 years and above 5 years is 350 bps and 500 bps respectively over the 6-month LIBOR for the respective currency of credit or applicable benchmark (A.P. (DIR Series) Circular No. 99 dated March 30, 2012). Similarly, all-in-cost ceiling for trade credits with maximum maturity of 5 years is 350 bps over 6-month LIBOR. The amount of borrowing from trade credit/ECB/FCCB under both the routes along with the average all-in-cost ceiling for different average maturity are listed in subsequent table. Here, for simplification, average maturity is categorized into 5 buckets.

Bucket-wise Summary of Total Amount Borrowed via ECB						
	Automatic Route			Approval Route		
	No	Total Amount Borrowed (\$ Mn)	Average All-in-Cost Ceiling	No	Total Amount Borrowed (\$ Mn)	Average All-in-Cost Ceiling
2012-13						
Upto 3 Years	25	181.30	4.0844	13	2275.57	4.0269
3 Years to 5 Years	264	3751.93	4.1284	16	1500.90	4.0756
5 Years to 7 Years	248	4546.74	5.6161	25	2466.28	5.5988
7 Years to 10 Years	192	4965.81	5.6131	16	1487.35	5.5656
Above 10 Years	96	4949.04	5.6070	22	5921.07	5.5986
2013-14						
Upto 3 Years	23	999.89	3.8835	22	6739.40	3.8686
3 Years to 5 Years	181	2465.94	3.8850	21	4434.33	3.8686

5 Years to 7 Years	174	3380.47	5.3805	33	3072.97	5.3712
7 Years to 10 Years	122	1942.83	5.3781	42	2584.99	5.3705
Above 10 Years	73	3557.07	5.3740	23	4059.95	5.3713
2014-15						
Upto 3 Years	37	3279.13	3.8435	11	761.93	3.8363
3 Years to 5 Years	186	4093.33	3.8437	13	2018.31	3.8362
5 Years to 7 Years	167	4942.28	5.3462	18	2493.27	5.3333
7 Years to 10 Years	230	3456.07	5.3469	29	609.62	5.3324
Above 10 Years	116	3444.79	5.3403	17	3285.11	5.3324
2015-16						
Upto 3 Years	47	2243.05	4.1577	3	1113.78	4.1600
3 Years to 5 Years	173	2035.50	4.1058	13	5531.25	4.1562
5 Years to 7 Years	144	2879.89	5.6773	9	547.37	5.6044
7 Years to 10 Years	217	3325.19	5.5890	13	229.90	5.5700
Above 10 Years	91	2927.04	5.6724	9	3539.61	5.5156

Source: RBI

Funds raised by corporates from foreign entities are used for different purposes like import of capital and non-capital goods, for working capital, infrastructural development, modernization, general corporate purpose, refinancing of old debts, redemption of FCCBs etc. Since interest rates in US are far lower than that in India, it seems profitable for an Indian company to borrow money from US or other countries like EU or Japan.

Despite regular modifications and simplification in ECB policies and procedures w.r.t. re-schedulement of ECB (RBI press release May 09, 2014), refinancing of ECB at lower all-in-cost (August 27, 2014), parking of ECB proceeds with designated banks (November 21, 2014), rescheduling/restructuring of ECB (January 23, 2015), inclusion of different sectors to raise ECBs etc, the amount raised failed to pick up over the years. It has remained around USD 32,000 million from FY12 till FY14, falling thereafter to USD 28,385 million in FY15. Till the first half of 2015-16, such borrowing was just 41% of the total amount raised during the previous year, improving during the next two months to reach USD 20,000 million. While ECBs help companies take advantage of the lower interest rates in international markets, the cost of hedging the currency risk can be significant. If unhedged, exchange rate movements can prove adverse to the borrower. Apart from that, lower all-in-cost ceiling (the all-in cost involves every cost in a financial

transaction and can be used to explain the total fees and interest included in a financial transaction such as a loan), restriction on end-uses did not make ECB as a favourable option to raise funds.

However, in a recent development, RBI has issued revised framework for ECB on November 30, 2015 by liberalizing end-use of ECBs, higher all-in-cost ceiling for long term foreign currency borrowings to make repayments more sustainable and minimizing roll-over risks for borrowers. It has also expanded the list of overseas lenders to include long term lenders like Sovereign Wealth Funds, Pension Funds as well as insurance companies, reduced the negative list of end-use requirements applicable to long-term ECBs and INR denominated ECBs and raised limits for small value ECBs with Minimum Average Maturity (MAM) of 3 years to USD 50 million from the existing USD 20 million along with few other changes. The revised ECB framework will work depending on the following three tracks:

- Track I : Medium term foreign currency denominated ECB with MAM of 3/5 years
- Track II : Long term foreign currency denominated ECB with MAM of 10 years
- Track III : Indian Rupee denominated ECB with MAM of 3/5 years

Revised ECB guidelines are expected to attract higher flow of funds from foreign entities to calibrate the policy towards capital account management in the changing dynamics of macro-economic conditions. While ECBs help companies take advantage of the lower interest rates in international markets, the cost of hedging the currency risk can be significant. This has given rise to the need for Masala bonds where the cost of borrowing can work out much lower.

Masala Bonds

Masala bonds are Indian rupee denominated bonds issued by Indian entities in offshore capital markets. In 2013, the International Finance Corp. (IFC), an investment arm of the World Bank launched the first ever “Rupee Linked Offshore Bond” programme. The programme created a rupee yield curve in the offshore market through issuances of various maturities i.e. 3, 5 and 7 years. These bonds provided global investors a substitute for other EME local currency bonds, such as Indonesian Rupiah bonds. In terms of the investor profile, the largest amount was subscribed to by the US investors followed by the European and Asian investors. Subsequently, IFC was permitted to expand the issuance program and it issued a 10-year, Rs.10 billion bond (equivalent to US\$163 million) in 2014. These bonds described as “Masala bonds” marked the first rupee bonds listed on the London Stock Exchange and are currently the longest-dated bonds in the

offshore rupee markets, building on earlier offshore rupee issuances by IFC. IFC named these “masala bonds” as “masala” is a globally recognized term that evokes the culture and cuisine of India. These proceeds were meant for investment in an infrastructure bond issuance by a commercial bank in India. The IFC has also issued onshore rupee bonds in India to be used for lending to the infrastructure sector. These bonds are referred to as “Maharaja Bonds”.

RBI permitted Indian corporates to issue rupee denominated bonds overseas and issued details guidelines for the same on September 29, 2015. While RBI barred Indian banks from packaging and selling the bonds, any domestic corporate, infrastructure investment trust or real estate investment trust can now issue up to \$750 million worth of masala bonds in any calendar year, with a minimum print maturity of five years. The guidelines allow a wide range of potential investors including retail investors as well as big institutions that currently lack a FII license to directly buy Indian securities a chance to tap straight into a relatively healthy and fast-growing market.

While the masala bonds are denominated in Indian rupees, they will be offered and settled in US dollars with international investors making it easier for foreign investors to participate in the issuances beyond the ceiling on their investments in corporate bonds issued onshore in India. The Indian issuers will not have to bear any currency risk as the borrowing and payment both are in rupees. The exchange rate risk thus is borne by the investors for whom the investment and settlement would happen in a foreign currency. Hence, unlike ECBs, in this case Indian companies can raise funds from foreign investors sans the currency risk. In a bid to promote the development of the market for these bonds the government clarified that a reduced 5 percent withholding tax will be applied on these bonds at par with that on ECBs and domestic corporate bonds. At the same time, Indian companies will be exempt from paying capital gains taxes for masala bonds sold by them abroad in case of rupee appreciation.

As of March 31, 2016, not a single masala bond had been issued by Indian companies. RBI has tried to address part of the problem by reducing tenure for these bonds to 3 years and bringing them under the overall limit for foreign investors in corporate bonds. The reduction in tenure is likely to reduce hedging cost for investors thereby reducing the cost of issuance for Indian firms.

Other Instruments

Indian companies are also actively borrowing directly from the general public primarily through corporate fixed deposits and non-convertible debentures (NCDs).

Corporate fixed deposits are basically the same as unsecured loans that do not guarantee anything to the investors in case of a default as these are not regulated by the RBI unlike bank deposits. These instruments are generally issued by NBFCs and corporate borrowers offering much higher interest rates than normal bank deposits and are best suited for investors with a risk appetite looking to diversify their portfolios and increasing their returns. Recent years have witnessed increased interest in these instruments as higher rated corporates can raise funds directly from investors through these deposits at relatively lower rates and at more ease than bank loans that are subject to several diligence checks by the bank. Investor interest has also increased in highly rated corporate deposits especially for the short-term tenors. Majority of these deposits are now being raised in the 12-60 Months basket. More than 80% of the offers for deposits rated AA or AAA although around 8% of the issues are unrated. There is an average spread of nearly 200 basis points between AAA and unrated deposits. Government housing companies typically offers the lowest rates while the highest are offered by lower rated corporates looking to raise funds for 1-3 years.

NCDs are like secured and redeemable bonds issued by corporates (including NBFCs) with original or initial maturity more than 90 days. Recent years have seen more and more corporates issuing NCDs and substituting bank loans. In fact of the 2988 new listings issued by Indian companies in 2015, 827 were NCDs and out of that 813 were issued on private placement basis. With increasing investor awareness, more and more NCDs are also being offered through public issues for retail investors. These NCDs are primarily issued by NBFCs as well as government companies linked to the infrastructure sector. Almost a third of all public issues of NCDs during the last three fiscal years were issued during the month of March. The highest number of public issues of NCDs was during 2013-14 after which the issuances declined significantly. In terms of amount raised, 2015-16 recorded the highest borrowing of funds through NCDs majorly for expansion, working capital requirements and general corporate purposes. Several companies approached the market multiple times for issuing NCDs. Funds were raised via the NCD route majorly by finance and few infrastructure companies, with many issues being oversubscribed at multiple times of the size of the base issue.

Public Issue - NCDs

FY	Number of Issues	Final Issue Size (Rs. Crore)
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2012-13	20	16982.05
2013-14	35	42382.97
2014-15	25	9713.43
2015-16	20	52089.60

Source: SEBI

Traditionally, infrastructure lenders comprised of a long-term big borrower group for bank loans. However, several budget measures in recent years have opened up alternate sources of funding for these companies in the form of tax-saving and tax-free infrastructure bonds with which they can raise money from the general public. These infrastructure bonds have been accepted as a good investment option in the fixed income category as these are generally issued by government backed infrastructure companies and offer a decent rate of interest plus tax benefits. These developments have also had an adverse impact on expansion of bank credit.

Conclusion

BIS research indicates that financial booms in AEs go hand in hand with a misallocation of resources, depressing productivity on the way. Optimism and the illusion of sustainability makes even large debt levels appear sustainable to both borrowers and lenders when credit conditions are easy and asset prices soar. The levels of debt begin to look much more challenging as the cycle turns with the combination of falling asset prices, decline of profitability and more turbulent markets. The same trend is also currently reflected in the substantial stressed assets of the Indian banking system, especially of corporates in the power and mining sectors. The changes in the balance sheet structure of Indian banks from being mainly lenders of working capital, to being major providers of long term capital for large industrial and infrastructure projects, along with the declining household savings are bound to have significant liquidity implications once the economic cycle turns and demand for credit goes up. With increasing reliance of Indian companies on foreign borrowings, attracted through the super low global interest rates, the exchange rate has taken on an amplification role in generating stress not only in the foreign exchange markets, but also the overall financial system. These changing times call for changes in the formulation of market regulations as well as the system of operation of monetary policy.

GUEST COLUMN

The Fundamental Reason for drop in Bank Deposit Growth

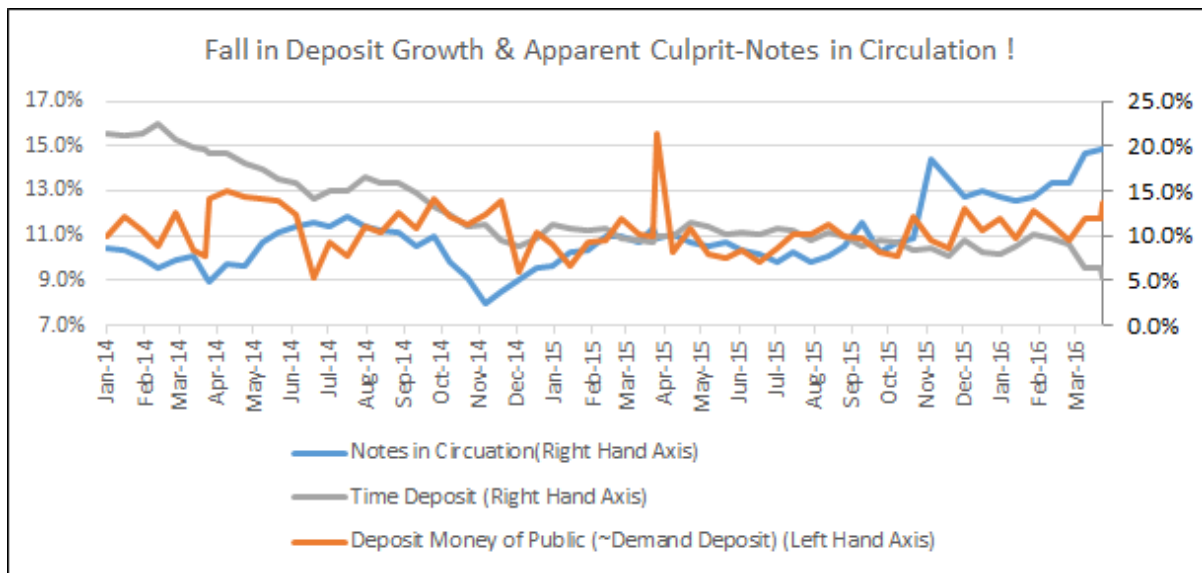
Deep N Mukherjee



Deep N Mukherjee is currently Chief Product Officer, handling product design and analytics in a Indian credit bureau. He has over 14 years of experience in Risk Management and Credit Assessment. Prior to his current role, within Fitch he was in structured finance team. Prior to his organization he was with American Express where he was heading the Institutional Risk Management Team focusing on quantitative risk management. He is also a visiting faculty in finance with IIM Calcutta. He has done his graduation in engineering from IIT, Kharagpur (BTech, 1999) and has obtained his management degree from IIM Lucknow (PGDM 2002).

From January 2016 onwards a fall in growth rate of deposits in Indian banking system has been observed. Some senior banking professionals claimed that this slowdown in growth of deposit has been among the reasons for limiting their ability to support high credit growth. Immediately economists jumped in with possible explanations for this slowdown in deposit growth. Most persons analyzing the event tended to conclude that the culprit was the public's preference for holding higher amount of 'cash' i.e. notes/currency in circulation.

Some advocated a cut in CRR ratio, with the argument that from whatever deposit growth is happening if a lesser amount is kept aside as reserve, more 'money' will be available for lending. It appears very few of such policy advocates may appreciate the fact that banking system creates money, when it disburses loan. Practically (and as per the Modern Monetary Theory-MMT) the constraint to bank lending is not quantum of deposits but availability of capital to the bank.



Hunt for explanations: In fact a cursory look at the data, and their correlations may prompt one to jump into the conclusion that increase in cash with public is causing the drop deposit growth. The ‘fundamental’ reason for the twin observations was ascribed to everything from election related spending, to public’s preference for holding cash since inflation has fallen, to avoidance of service-tax-payment by resorting to cash payment. Some discovered more interesting reasons such as public having prior knowledge of ‘demonetization’ and thus taking out deposit from bank to put aside in safe heaven assets such as gold!

Each explanation did its best to fit into the popular perception that deposit comes from currency-in-circulation and that gives bank the ability to extend credit. Some economists of course struggled to explain how, if real interest rate has improved (thanks to fall in systemic inflation, mostly the WPI), why was the savings growth rate falling?

Here some economists actually deflated the deposit growth, which is nominal, to calculate real deposit growth and suggest that the problem of deposit is not all that severe! Others argued that the relationship between real interest rate and savings is undergoing a change such that the increase in real interest rate is reducing the savings rate, because holding cash is becoming more attractive. So much for fitting the analysis results to provide an explanation that fits the dominant narrative- a classic case of confirmation bias.

Surprisingly, Credit is not identified as a reason: However, none of the reasons suggested that fall in credit growth is the reason for fall in deposit growth. As opposed to popular but incorrect

understanding, which unfortunately is also seen in several macroeconomic text books, deposit growth does not lead to credit growth. It is actually the other way round. Credit comes first and then deposit (both demand (M1) and Time (M3) deposit) happens.

To the extent CRR is taken out of deposits, reduction in CRR is unlikely to boost bank's ability to create credit ie; to lend. What a CRR cut does is to reduce the bank's own need for cash. Thus bank's overnight borrowing from each other and from the central bank is reduced. The improved liquidity condition, post CRR cut tends to bring down overnight interest rate. As per the 'conventional' thinking if one connects these dots (which are correct) and extends the argument that to the extent banks themselves would have to borrow less funds, at cheaper cost, for liquidity management, they conclude that the bank has more 'money' available for the purpose of lending. It is this conclusion which requires some rethinking. In this argument what is often missed is, as a banking system consisting of the central bank and all banking and lending institutions, the total money available has not changed in any meaningful way. So how is the banking system's ability to lend increasing post a CRR cut? But more on banking system's money creation ability later.

The Extent of Deposit Growth Problem

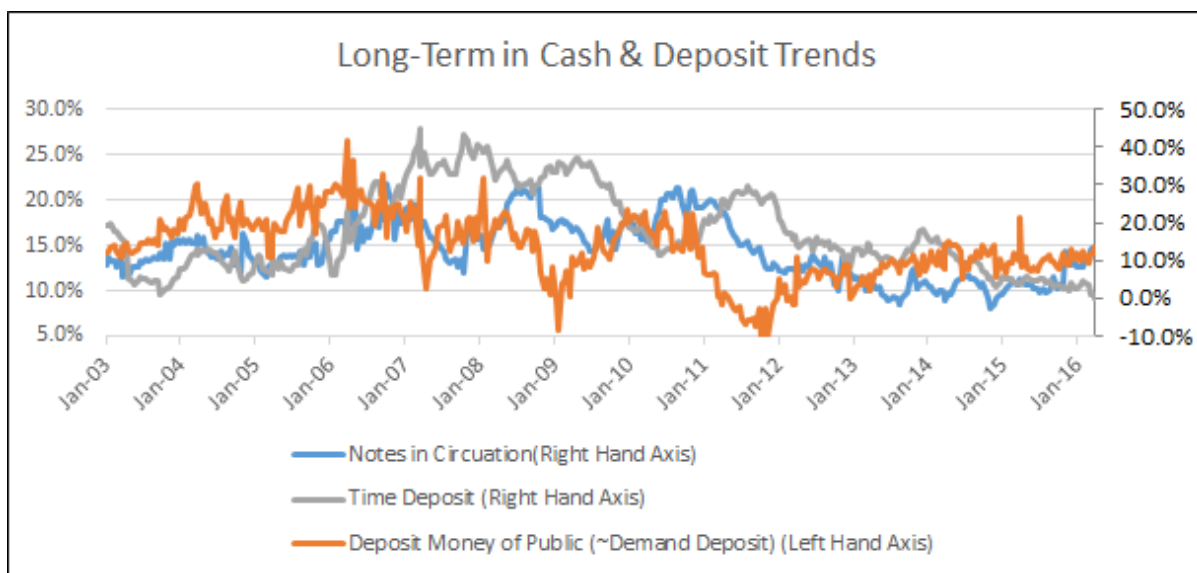
As of 31st March 2016, the growth rate in Demand Deposit (Component of M1) with bank was 11.8%(Y-O-Y). Though , the possible year end deposit collection drive , drove it to 13.7% in First week of April 2016. However, Time Deposit growth (Y-O-Y) for the same time frames were 9.5% and 9.1% respectively. As of 31st March 2016, the Notes in Circulation ie; Currency with Public grew by 14.9% (Y-O-Y). A year back, ie; 31st March 2015 the Y-O-Y growth of Demand Deposit, Time Deposit and Notes in Circulation was 10.7%, 9.8% and 11.3% respectively.

The 10-year average growth rate of Currency/Note in Circulation is ~14% and last 5 year average is ~ 12%. In that light the recent growth of Notes in circulation may also be seen as a reversion-to-mean, which moving back to long term growth of ~14%. It thus appears that the reasoning for crying wolf over increase in growth rate of currency/notes in circulation may be somewhat slim.

One can observe that post September 2015 there has been an uptick in growth of Notes in Circulation. However for the period April 2014 to September 2014, which is the period coinciding with the Lok Sabha election, the notes in circulation growth was around 10%. So the hypothesis that election causes notes in circulation is not supported by the data.

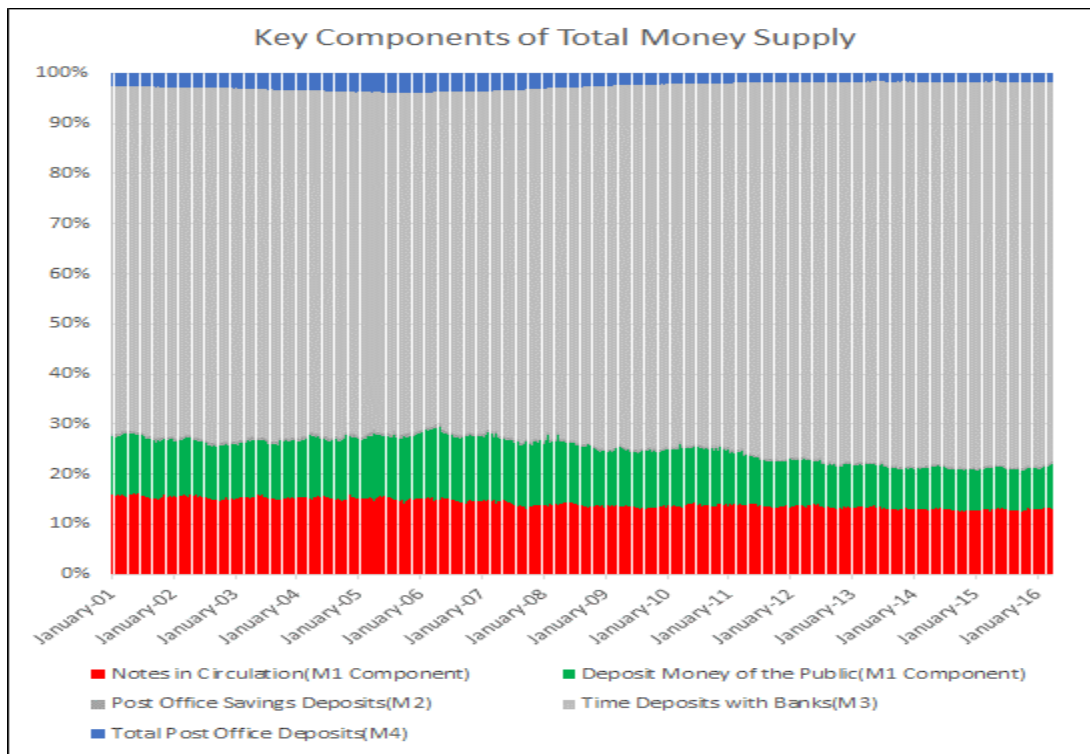
Volatile Nature of Demand Deposit Growth: Demand Deposits and Notes in Circulation typically constitute the M1 or narrow money. Bulk of demand deposit in India consists of current account deposits of businesses and to a smaller extent salary account. If businesses are undergoing liquidity stress, then demand deposit growth will suffer. If the corporates are over leveraged or bank's risk appetite is low, both of which may be reflective of the current situation, and then growth in working capital credit is limited. This in turn will be reflected as poor demand deposit growth.

As the long-term trends show demand deposit growth rate are very volatile and almost mimics systemic liquidity positions as well as business performance. So between September-December 2008 demand deposit growth was negative as well as during FY2012. For next 18 months it averaged a moribund 6%. These were periods of FX stresses and business uncertainty.



The trend in growth rate of Notes in circulation and Time deposit have been showing a long term falling trend since January 2009. Time deposit typically consists fixed deposit with the bank. So far we have seen nothing to conclude that the public is making structural preference shifts of holding cash as opposed to putting them in deposit.

No Structural Shift in preference for cash: In the overall money supply, the contribution of Time Deposit has actually been growing, while demand deposit has been falling. The proportion of Notes in Circulation has been broadly stable, or at any rate it is not showing a structural uptick.



As such the growth of Broad Money Supply; ie M4 has been showing a falling trend since 2007-08 with brief spurts in 2011 and then again in early part of 2014. In part it is due to falling inflation which is causing a slowdown in Nominal GDP.



As of now one may hope that the sequential fall in growth of money supply (M4) since 2007-08 is not a sign of something more ominous, such as a structural moderation of growth in India's economic activity.

Credit Creates Deposit, not the other way round

Joseph Schumpeter in his book 'History of economic Analysis' wrote "It proves extraordinarily difficult for economists to recognize that bank loan and bank investment create deposit." The text book definition of bank is so ingrained and well accepted that it has taken the form of an unquestionable dogma. And that dogma goes something like this-banks accept deposits from public, for the purpose of lending, repayable on demand or otherwise. As per Adair Turner, erstwhile Chairman of Financial Services Authority, UK the above description of banking in modern economies is "dangerously fictitious". That is because banks do not need deposits to extend credit.

The very process of disbursing credit creates money in the system, some of which remains in the banking system as deposit and some of it gets drawn out of bank deposit and circulate as cash in the hand of public. This is effectively endogenous money creation. Of course the entire money in an economy is not endogenously created. A portion of it is exogenous as well. Exogenous money is created when governments directly distributes subsidies or spends in the economy directly or when foreign savings get transferred into the economy.

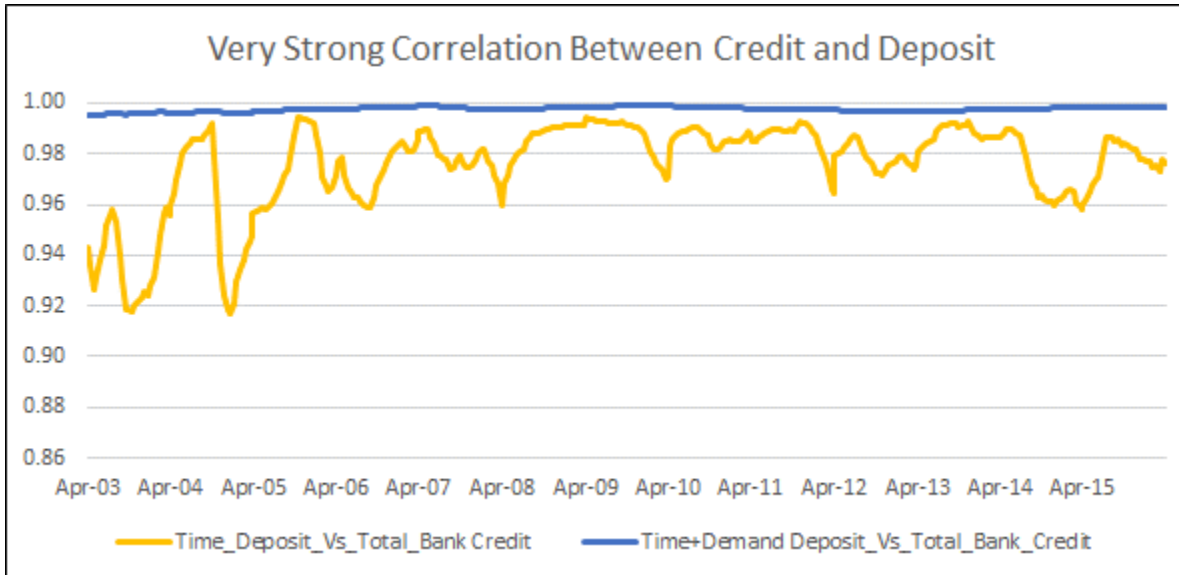
To appreciate, what happens at operational level when a credit is disbursed is key to understand how banks create money in the process of lending. When a bank lends, it creates an asset, by debiting the borrower. Simultaneously the borrower's deposit account is also credited with the disbursed amount. The borrower's account can be either in the same bank or in a different bank. If it is in the same bank of course it will become a liability for the lender(remember double entry book keeping!). If the borrower's account is in a different bank it will be a liability of that other bank. At any rate for the banking system as a whole a simultaneous credit creation as well as deposit creation occurs.

Now the borrower can write a check on that account and make payments, which will form deposit in the account of the receivers of that payment. Alternately the borrower can withdraw cash from cash counter of the bank or ATM and spend. In either scenario money gets created in an economy post credit disbursal. In one scenario it remains as deposit in another it adds to note/currency in circulation.

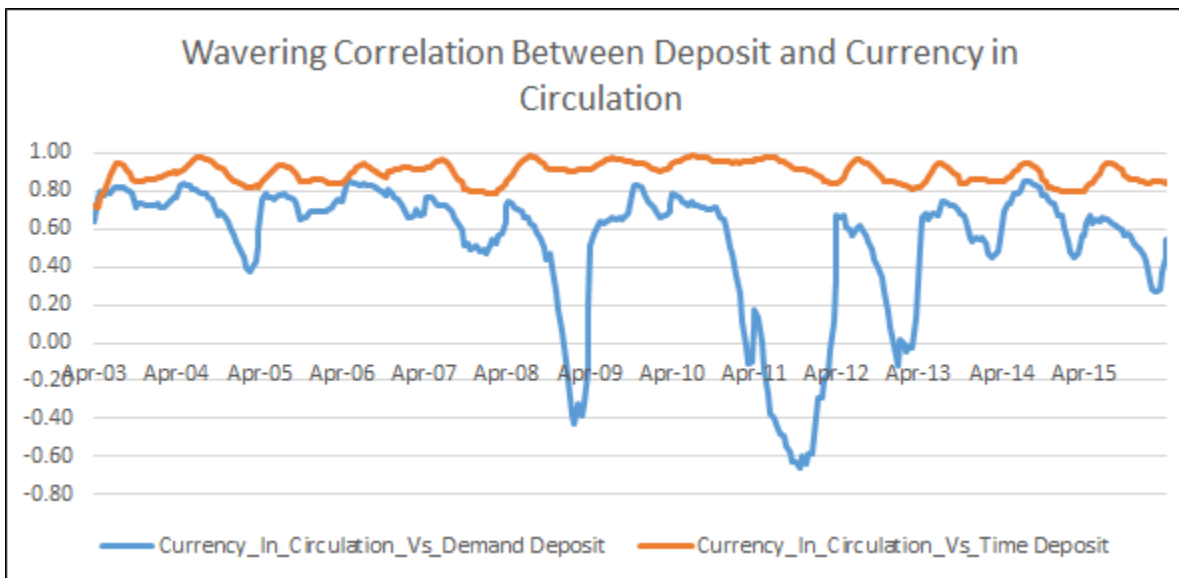
Specifically in India, since there is no long term shift in preference for cash it may be fair to assume that the deposit growth is falling because of slowdown in credit growth.

The relation between total credit and total deposit (demand plus time deposit) is functional or structural in nature and not stochastic. Thus when correlation is drawn on these two variables they are very close to 1.0 over a long period of time. So here is a case where a fundamental cause and

effect relation may be validated by correlation. Of course the author acknowledges that correlation is a dangerous statistical tool and is more often abused than it is used.



However, when one tries to correlate a relationship between Deposit and Currency in circulation the relation is more complex, definitely not straight forward and thus very high element of stochastics creeps in.



Given the wildly fluctuating correlation between Notes/Currency in circulation and deposits, analysts trying to explain the trajectory of deposit growth using notes/currency in circulation would sometimes have to resort to some interesting and unique explanations.

Conclusion

Indian banking system is currently struggling with NPA burden and huge credit losses. High amount of provision and write-offs is eroding profits for some banks while for others it is eroding their capital. As such it is not surprising that in general the banks may not have an appetite to lend. A combination of weakening risk appetite and in some cases constrained capital position, the supply of credit in Indian banking will remain muted for some time. The credit growth for next 18-24 months, is likely to be driven by retail lending. As such the overall credit growth is likely to be low since corporate credit accounts for bulk of the banking system loan book.

Corporates are either over leveraged or are struggling with over capacity issues and do not have investment requirement. The bespoke good corporates are unlikely to take credit now and the banks will not lend to over-leveraged corporates. To the extent bulk of the banks' credit creation, creates money in the economy a chunk of which enters the bank deposit, poor credit growth will translate to poor deposit growth.

However the bigger and possibly more worrisome problem may be there. If a section of senior banking professionals or persons who may have an influence in policy making, do not have an appropriate understanding of bank's money creation ability then they may cause sub-optimal decision making at policy or business levels. Ascribing inappropriate reason for the malady, will cause them to prescribe wrong medicine which will delay the patient's recovery.

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