

# A Newsletter of **Finance Lab**

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# a₹tha



Indian Institute of Management Calcutta

## Editorial

### Chief Editor



**Prof. Ashok Banerjee**

India is going through a phase of political and economic uncertainties. While we cannot bet on the direction Indian politics will take, we are quite sure that unless some bold and urgent steps are taken to bring the economy back to its track, we are heading for serious trouble. Financial markets are backbone of any economic reform process and this sector is suffering from policy paralyses. We hope that the government will take some policy decisions in the next one year to bring back the “animal spirit” in the financial markets.

### Editorial Team



**Prof. Partha Ray**



**Dr. Golaka C. Nath**

The second issue of aṛṥtha has three articles covering equity, credit and bond markets. The first piece explores whether sentiments expressed in the social media contain useful information and whether these sentiments move stock markets. The article finds reasonably strong association between social network sentiments and stock market reactions. The second piece raises a question- How bad is the current situation in build-up of non-performing loans in Indian banking? The article argues that Indian banks are well capitalized as compared to other emerging market counterparts. The third piece looks at the impact of withholding tax on Indian bond market. The article suggests that there is a need to have a relook at the current level of withholding tax in India.

I hope you'll enjoy reading this edition. Please offer suggestions for further improvement to [ashok@iimcal.ac.in](mailto:ashok@iimcal.ac.in)

Editor

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## Social Media and Stock Returns

**Prof. Ashok Banerjee**



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In my earlier article on news (aṙṙtha, August 2012), we had mentioned that examining the impact of social media news on asset returns could be an interesting subject. There are over one billion users of social media worldwide and the number is growing every hour. Most of the users access social media network through mobile. Facebook is clearly the leader in social network followed by Tweeter and LinkedIn. With the increased accessibility to mobile broadband, there is significant potential for growth in the use of social media network.

Empirical studies have shown that it is the quality of news which is more important than the quantity. There is a huge debate on the quality of content in the social media. Sometimes social media is alleged to be abused by people with ulterior motives. Anyone can tweet, create a blog, and post messages in the bulletin board on any topic. It is argued that social media data are more useful to gauge customers' sentiment on a newly launched product. Studies have shown social media's "word-of-mouth" power in capturing consumer sentiment about a brand or a product. However, it is not clear whether sentiments expressed in the social media can be equally useful in predicting stock returns. Software firms have already started developing trading algorithms using tweeter messages. A Harvard Business School doctoral candidate has studied the significance of social media sentiment in predicting fluctuations in stock market volume. Researchers at the Financial Research and Trading Laboratory are working in developing social media analytics. This paper presents some preliminary findings.

### **Social Media Analytics**

It is difficult to get historical social media data. Only tweeter allows downloading of select data of a firm for a limited time period. The social media data is collected from Twitter using R-software. Only authorized tweets are downloaded. While downloading data from twitter, the maximum number of tweets each day is restricted to 1000 and the language of tweets chosen is English. The geographical location of the users posting tweets is restricted to the circular area of 900 miles radius from 22 degree N Latitude and 82 degree E longitude. This is to filter tweets which are mostly belonging to India. Tweets about a particular company are searched using keywords. For example, tweets on Bharti Airtel Ltd are searched using the keyword *airtel*. Tweets are posted round the clock. Tweets of any particular day during the (stock) market trading hours are classified as *trading hour tweets* and tweets of any other time period are classified as *non-trading hour tweets*.

A dictionary was developed with positive and negative words. A simple algorithm is used to estimate sentiment score of tweets. Each positive word in a tweet is assigned a sentiment score of +1 and similarly each negative word a score of -1. The sentiment scores of all tweets relating to a keyword during trading hours of a particular day are summed up to get the sentiment score during trading hours of that day for the keyword and all sentiment scores from tweets coming

during non trading hours are summed up to get a score for non trading hours. Our analytics can be applied to any social network.

Tweets during trading hours were downloaded for a period of 16 days (2-17 August, 2012) for 18 companies (Table 1) across sectors. Although non-trading hour tweets were available for a longer period (18 July-17 August, 2012), the number of companies for which data were available was only six (companies with \* in Table 1). It is also observed that stocks in the oil and gas sector are hardly talked about in the non-trading hours. The tweet traffic was not uniform across firms. Contrary to popular belief that people use social media after working hours, we have observed no significant difference in the number of tweets between trading and non-trading hours.

**Table 1: List of Companies**

Company	Keyword(s)	Industry
Bharti Airtel Ltd.	airtel	Telecom
Bharat Heavy Electricals Ltd	bhel	Heavy Manufacturing
Bharat Petroleum Corporation Ltd	bpcl	Oil & Gas
Cairns India Ltd	cairns	Oil & Gas
Cipla Ltd	cipla	Pharmaceutical
GAIL India Ltd	gail	Oil & Gas
HCL Technologies Ltd	hcl	Information Technology
Hindalco Industries Ltd	hindalco	Aluminium
Hindustan Unilever Ltd	hul	FMCG
ICICI Bank Ltd*	icici	Banking
Infosys Technologies Ltd*	Infy, infosys	Information Technology
ITC Ltd*	itc	Tobacco/Diversified
Maruti Udyog Ltd *	maruti	Automobile
NTPC Ltd	ntpc	Power
Oil and natural gas corporation Ltd	ongc	Oil & Gas
Ranbaxy laboratories Ltd	ranbaxy	Pharmaceutical
State Bank of India	sbi	Banking
Tata Consultancy Services*	tcs	Information Technology
Wipro Ltd*	wipro	Information Technology/Diversified

The relationship between sentiment score and stock market reactions are examined separately for trading and non-trading hours. The results for the trading hours (Table 2) are quite interesting. We observe that the correlations between sentiment score and stock returns (and excess returns) are quite significant, excepting for infy and ongc. Generally, it is found that the correlation between sentiment score and returns are poor for all the stocks in the oil and gas sector. It is true that these correlation results are to be considered with caution in view of small sample size. Yet it shows the linkage- a promise that social media contents are not based on rumours. Also it is observed that returns of stocks, for which there are enough interests in the news media, show strong relationship with social media sentiment scores. In other words, companies which are in the “news” generate greater interests in the social network.

Results for non-trading hours are not very encouraging. Excepting maruti, the correlation between sentiment score and stock returns are very poor. During the period of our study, maruti was in the news for all wrong reasons (the tragic episode in its Manesar plant is well known). Hence, maruti was ‘hot’ in the news for both formal media and social media. So, maruti was covered and analysed continuously throughout the entire period.

When one compares the correlation coefficients of other five companies (excepting maruti) in trading and non-trading hours, one finds reversal in the trend. Stocks (e.g., tcs, itc) with high



correlation between sentiment scores and stock returns during trading hours perform poorly in the non-trading hours. It may be inferred that stocks which are already in the “news”, are equally talked about in the social network during trading hours. Companies which are not discussed enough in the formal media (perhaps due to lack of sensitive news) are written about in the social media outside office hours (non-trading hours).

An interesting area of investigation could be to examine the correlation between formal news traffic and social media traffic for a particular company. Similarly, asset pricing models can be developed using social media news as a proxy for liquidity of the asset. It may also be tested whether information from the social media can augment the predicting power of stock returns after controlling for information flows from the formal news media.

**Table 2: Social Media Scores- Trading Hours**

Company	Date	Tweets	Score	Stock Return	Excess Return	Company	Tweets	Score	Stock Return	Excess Return
airtel	2-Aug	1	0	-0.003	-0.001	maruti	104	9	-0.004	-0.003
	3-Aug	289	-23	-0.005	-0.009		43	12	0.001	-0.003
	6-Aug	276	-45	-0.008	-0.012		170	-17	0.003	-0.001
	7-Aug	431	-79	-0.014	-0.022		143	-38	0.006	-0.002
	8-Aug	85	-52	-0.069	-0.068		44	-3	0.000	0.001
	9-Aug	456	-121	-0.071	-0.066		41	-21	0.002	0.007
	10-Aug	270	-45	-0.010	-0.012		29	-1	0.019	0.017
	13-Aug	211	-45	0.012	0.006		115	11	0.005	-0.001
14-Aug	293	-112	-0.005	-0.012	73	18	0.001	-0.006		
16-Aug	235	-67	-0.005	-0.001	105	-55	-0.016	-0.012		
<b>Correlation</b>				<b>0.429</b>	<b>0.462</b>				<b>0.382</b>	<b>0.215</b>
sbi	2-Aug	0	0	-0.009	-0.008	tcs	5	0	0.002	0.003
	3-Aug	53	-26	0.007	0.003		12	4	0.007	0.003
	6-Aug	38	11	-0.008	-0.012		16	0	-0.013	-0.017
	7-Aug	33	11	0.020	0.012		61	37	0.020	0.012
	8-Aug	38	5	-0.006	-0.005		42	-1	-0.013	-0.011
	9-Aug	87	-67	-0.049	-0.044		53	15	0.006	0.011
	10-Aug	359	-166	-0.039	-0.041		16	-1	0.019	0.017
	13-Aug	128	-29	0.008	0.002		23	6	-0.010	-0.016
14-Aug	35	8	0.000	-0.007	17	3	0.007	0.000		
16-Aug	22	0	-0.012	-0.008	29	-6	-0.005	-0.001		
<b>Correlation</b>				<b>0.690</b>	<b>0.756</b>				<b>0.545</b>	<b>0.405</b>
ranbaxy	2-Aug	3	0	-0.002	-0.001	ongc	1	0	-0.010	-0.009
	3-Aug	25	3	0.014	0.010		3	1	0.017	0.013
	6-Aug	2	-1	0.001	-0.003		2	0	0.003	-0.001
	7-Aug	7	4	-0.014	-0.022		8	1	0.010	0.002
	8-Aug	3	-1	0.011	0.012		12	-7	-0.001	0.000
	9-Aug	43	-41	-0.036	-0.031		21	-20	-0.008	-0.003
	10-Aug	10	-4	-0.020	-0.023		16	0	-0.004	-0.006
	13-Aug	9	0	-0.002	-0.008		118	22	-0.016	-0.021
14-Aug	1	0	0.036	0.029	20	14	0.017	0.010		
16-Aug	2	0	0.014	0.018	4	-2	-0.009	-0.004		
<b>Correlation</b>				<b>0.636</b>	<b>0.530</b>				<b>0.091</b>	<b>-0.238</b>
infy	2-Aug	41	-21	-0.006	-0.005	itc	16	15	0.006	0.007
	3-Aug	69	17	0.006	0.002		6	-2	-0.002	-0.006
	6-Aug	52	-16	-0.002	-0.007		18	6	-0.008	-0.013
	7-Aug	220	20	0.009	0.002		37	42	0.011	0.003
	8-Aug	110	-13	0.010	0.011		8	10	0.002	0.003
	9-Aug	143	-9	-0.004	0.001		12	14	0.016	0.021
	10-Aug	11	-49	0.015	0.013		11	2	0.012	0.010
	13-Aug	112	8	0.008	0.002		23	33	-0.002	-0.008
14-Aug	19	0	0.007	0.000	15	9	0.003	-0.004		
16-Aug	48	3	-0.005	-0.001	128	-81	-0.034	-0.030		
<b>Correlation</b>				<b>-0.091</b>	<b>-0.360</b>				<b>0.825</b>	<b>0.660</b>

*Note: The author acknowledges contribution of Ms. Muktomala Chakraborty, Fellow Student, IIM Calcutta in data support and development of tweet sentiment scores. Excess returns are calculated with respect to NIFTY returns.*

**Table 3: Social Media Score- Non-trading Hours**

Company	Date	Score	Stock Return	Excess Return	Company	Score	Stock Return	Excess Return
maruti	18-Jul	40	0.001	0.000	tcs	25	0.008	0.006
	19-Jul	-361	-0.043	-0.049		11	0.006	0.000
	20-Jul	-810	-0.020	-0.018		3	0.000	0.002
	23-Jul	-928	-0.037	-0.029		44	-0.012	-0.004
	24-Jul	-449	0.006	0.003		-3	-0.005	-0.007
	26-Jul	-19	0.006	0.003		5	0.000	-0.003
	27-Jul	-59	0.015	-0.001		0	0.014	-0.002
	30-Jul	-205	-0.025	-0.031		27	0.008	0.002
	31-Jul	-25	-0.004	-0.007		0	0.003	0.000
	1-Aug	-128	-0.001	0.001		3	-0.004	-0.003
	2-Aug	-2	0.004	0.005		5	0.004	0.006
	3-Aug	-11	-0.005	0.001		-3	-0.004	0.002
	6-Aug	-17	0.012	0.003		44	0.007	-0.002
	7-Aug	-70	0.002	0.000		4	0.008	0.006
	9-Aug	8	0.002	0.000		-16	0.001	-0.001
	10-Aug	-32	-0.001	0.002		-9	-0.002	0.001
	13-Aug	41	0.012	0.012		24	-0.001	0.000
	14-Aug	34	-0.001	0.000		3	-0.005	-0.004
	16-Aug	15	0.006	0.005		-6	0.001	0.000
	17-Aug	-36	0.015	0.014		18	0.001	0.000
<b>Correlation</b>			<b>0.690</b>	<b>0.615</b>			<b>0.008</b>	<b>-0.010</b>
infy	18-Jul	-10	0.000	-0.001	itc	2	0.004	0.002
	19-Jul	0	0.010	0.003		-2	-0.001	-0.008
	20-Jul	45	0.000	0.002		4	-0.005	-0.003
	23-Jul	27	-0.008	0.000		-3	-0.006	0.002
	24-Jul	3	0.001	-0.001		-8	0.005	0.003
	26-Jul	-29	-0.001	-0.004		-3	0.004	0.001
	27-Jul	24	0.018	0.002		-25	0.021	0.005
	30-Jul	21	0.005	-0.001		25	0.004	-0.002
	31-Jul	1	0.002	0.000		7	0.001	-0.002
	1-Aug	-12	-0.005	-0.004		8	-0.001	0.001
	2-Aug	-87	0.000	0.001		-4	0.004	0.005
	3-Aug	-19	-0.004	0.002		-4	-0.006	0.000
	6-Aug	37	0.006	-0.002		1	0.005	-0.004
	7-Aug	53	0.007	0.004		3	0.001	-0.002
	9-Aug	0	0.003	0.001		1	-0.001	-0.003
	10-Aug	-1	-0.002	0.001		-26	-0.004	-0.001
	13-Aug	-1	-0.005	-0.004		33	-0.001	-0.001
	14-Aug	8	-0.003	-0.002		9	0.000	0.001
	16-Aug	10	-0.001	-0.002		8	-0.002	-0.003
	17-Aug	-49	0.004	0.003		-54	-0.001	-0.002
<b>Correlation</b>			<b>0.236</b>	<b>0.076</b>			<b>-0.165</b>	<b>-0.134</b>

*Note: The author acknowledges contribution of Ms. Muktomala Chakraborty, Fellow Student, IIM Calcutta in data support and development of tweet sentiment scores. Excess returns are calculated with respect to NIFTY returns.*

## Restructured Loans, Non-performing Assets and Indian Banking

**Prof. Partha Ray**



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

How bad is the current situation in build-up of non-performing loans in Indian banking? At the current juncture, this issue is increasing haunting Indian policy makers, bankers, corporates as well as informed public. A recent Issue of the Economist declared, “Indian public-sector banks are sitting on something unpleasant”.<sup>1</sup> Interestingly, the recently published *Annual Report* of the Reserve Bank of India (RBI) also noted, “The deterioration in asset quality of the banks emerged as a concern within and outside the Reserve Bank during 2011-12”. Are such sentiments erring on the right side of over-cautiousness? Or, is “something rotten in the state of Denmark”?

### **Build-up of Non-performing assets (NPAs)**

How bad is the situation? Towards understanding this, Table 1 below reports the gross and net NPAs over the three-year period 2010-11. The deterioration is most pronounced in case of public sector banks, whose gross NPAs (as a proportion to gross advances) registered an increase from 2.28 in 2010 to 3.17 in 2012 - in net terms, too, this ratio has gone up (Table 1).<sup>2</sup>

Bank	Year	Gross NPAs to Gross Advances	Net NPAs to Net Advances	Restructured Standard Advance to Total Standard Advances
Public Sector Banks	2010	2.28	1.09	5.07
	2011	2.32	1.04	4.30
	2012	3.17	1.47	5.92
Foreign Banks	2010	4.26	1.82	0.54
	2011	2.54	0.66	0.23
	2012	2.68	0.61	0.14
New Private Sector Banks	2010	3.22	1.18	1.68
	2011	2.62	0.60	0.65
	2012	2.18	0.44	1.08
Old Private Sector Banks	2010	2.31	0.82	3.62
	2011	1.97	0.53	2.95
	2012	1.80	0.59	3.49

Source: RBI Annual Report, 2011-12.

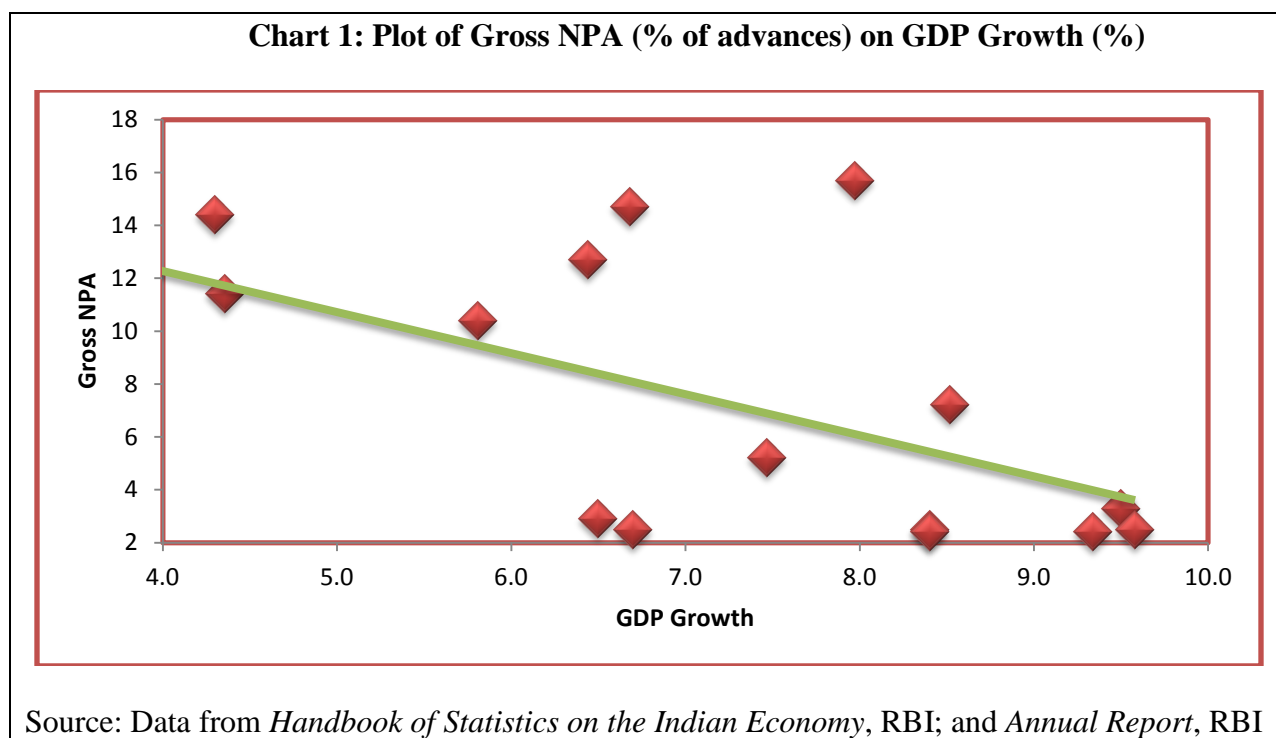
<sup>1</sup> The *Economist*, August 18 - 24, 2012, “Indian Banks: Hold Your Nose”; pp 56-57.

<sup>2</sup> Net NPA = Gross NPA – (Balance in Interest Suspense account + DICGC / ECGC claims received and held pending adjustment + Part payment received and kept in suspense account + Total provisions held); where DICGC refers to Deposit Insurance and Credit Guarantee Corporation, and ECGC refers to Export Credit Guarantee Corporation.



## Pro-Cyclicality of NPA

It is well-known that non-performing assets (NPAs) of the banking sector often follows a counter-cyclical path. That is to say, when GDP goes down, NPAs have a tendency to move up. Can the current build up of NPAs in India be explained in terms of the nose-diving of GDP growth from 8.4 percent in 2010-11 to 6.5 percent in 2011-12? Chart 1 below reports the relevant data in the form of a scatter diagram plotting gross NPA on GDP growth (with the solid line as the linear regression trend). Admittedly, over the whole period there could be a strong counter-cyclical trend in NPAs as due to historical reasons, NPAs have come down and GDP have in general gone up over the last fifteen years or so.<sup>3</sup> This happened due to reasons and policy initiatives quite independent of each other. However, eyeballing the data does not allow one to discern a distinct trend with respect to the recent years. Furthermore, on a year-on-year basis, it is difficult to ascribe one year's development in NPA to GDP growth of that year.



## Restructuring of loans

The main responsibility of this increasing trend in NPA can be traced in restructured loans. While loan restructuring in India has a long history, in the aftermath of the global financial crisis, the RBI allowed certain special concessions and asset classification benefits in 2008. To begin with the restructuring guidelines were relaxed as one-time measure in December 2008. Subsequently, further one-time measure was granted in January 2009 wherein the period for implementing the restructuring package was extended from 90 days to 120 days. Instructions were also issued on restructuring of derivative contracts in October 2008 whereby banks were allowed to cash settle the mark-to-market value of a restructured derivative contract. All these led to build-up of NPA – so much so that the recently published Annual Report of the RBI in August 2012, went on say:

<sup>3</sup> The simple correlation coefficient between GDP growth and NPAs (gross or net) turned out to around (-) 0.6 over this period.

“Restructuring increased substantially during Q4 of 2011-12, taking the restructured loans at the end of 2011-12 to about 5 per cent of the loan book of the scheduled commercial banks (SCBs), up from 3.9 per cent a year ago. Aviation, state electricity boards (SEBs), textiles, telecom, shipping, power and steel were amongst the sectors that reported stress contributing to the restructuring.”

### How does India stand in a cross-country context?

But are these temporary aberrations or of permanent nature? As Woody Alan reminded us that it is difficult to make any prediction particularly for the future, I will resist any temptation to be futuristic. But a cross-country comparison of Indian banking sector is in order. Culling the data from IMF’s data-warehouse, Table 2 below reports some such indicators for the BRIC countries as well as select Asian countries like Indonesia, Korea and Malaysia. In terms of indicators like non-performing loans and presence of regulatory capital, Indian position seems to be quite sound among the comparator countries. Also India’s exposure to real estate and commercial real estate is not substantial

<b>Table 2: Select Indicators of Financial Stability: Cross Country Evidence</b>							
	Brazil	Russia	India	China	Indonesia	Korea	Malaysia
Regulatory Capital to Risk-Weighted Assets	16.9	14.6	13.1	12.7	18.2	14.0	17.2
Regulatory Tier 1 Capital to Risk-Weighted Assets	12.7	11.8	9.0	10.2	16.6	10.7	13
Non-performing Loans to Total Gross Loans	3.6	6.7	2.7	1.0	2.2	0.5	2.6
Interest Margin to Gross Income	48.2	...	71.8	80.7	59.2	73.6	47.5
Non-interest Expenses to Gross Income	65.8	...	46.3	33.4	46.1	63.9	49.1
Liquid Assets to Short Term Liabilities	109.6	81.2	25.2	43.2	33.5	109.3	38.9
Residential Real Estate Loans to Total Loans	9.1	6.1	8.8	...	5.2	21.8	...
Commercial Real Estate Loans to Total Loans	1.6	5.6	3.3	...	6.6	20.6	...

Source: Financial Soundness Indicators, IMF

**Which Way Now?**

Does this mean we are unduly being over-cautious? While pessimism as futuristic philosophy has quite an attraction to the human mind, and hence we often try to err on the side of being over-cautious, in this case it seems the cautionary signals have ample validity. The indebtedness of the corporates (where in public or in private sector) needs to be borne by their stake-holders. The practice of restructuring of loans is amply justified as a war-time measure after the global financial crisis – but they should not suffer from a tooth-paste syndrome in the sense that once out, it is difficult to put it in. The recently submitted report of the RBI working Group to review the existing prudential guidelines on restructuring of advances by banks / financial institutions makes a number of timely and appropriate recommendations. Implementing them would a long to improve the situation. After all, we need to insulate the banking sector's balance sheets from corporate sector's vulnerabilities.

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## Withholding Tax and impact on Debt Market\*

### Dr. Golaka C. Nath



**Dr. Golaka C Nath is a Senior Vice President at the Clearing Corporation of India Ltd. (CCIL). He has over 21 years of experience in the banking and financial sector, having previously worked with the National Stock Exchange of India Ltd. and Vijaya Bank. In the past, he has worked on a World Bank Project on “Developing Bond Market in South Asia”. He has also provided secretarial service to the High Powered Committee on “Corporate Bonds and Securitization” appointed by the Ministry of Finance, Government of India.**

**Withholding Tax** is a requirement on the payer of an item of income to withhold or deduct a certain amount or percentage of the income from the payment, and remit the same to the government. It can apply to employment income, payments of interest or dividends, royalties, rent or even the sale of real estate, etc. Typically, it is used on foreign residents who receive income in a different Tax jurisdiction. It is treated as a payment against future Tax liability in a Tax jurisdiction. In India, withholding tax is levied on non-resident entities receiving income in India in various forms like interest, royalties, branch remittances, etc. Withholding taxes are often justified on revenue grounds, as a way to protect a country’s revenue base and to capture revenue from other countries.

Currently, India does not levy withholding tax on dividends. However, the company paying dividend is subject to Dividend Distribution Tax at 15% plus surcharge and cess. Interest paid to non-residents is generally subjected to 20% withholding tax plus applicable surcharge and cess. However, these rates can be reduced under Tax treaties. The withholding tax on royalties and fees for technical services are charged at 10% plus applicable surcharges and cess unless reduced by treaty. Branch remittances from non-resident companies are subject to 40% corporate income tax on Indian source of income earned.

FII investment in bond market get covered under withholding tax for the interest income and Bond dealers have been expecting the government to reduce such taxes to boost foreign fund inflows into India. Due to recent pressure on Indian Rupee, it was generally felt that the situation can be averted with higher level of foreign funds flowing into the economy. Since the foreign investment in equity market is slow due to poor global market conditions, emphasis should be on exploring higher foreign capital inflows in debt. The recent auction of debt limits for FIIs on July 4, 2012 evoked poor response from FIIs. Withholding tax is one of the key reasons why the FII (foreign institutional investor) auction did not get good response. The government is not likely to reduce withholding tax on Government bonds but is likely to reduce withholding tax from 20 percent to 5 percent on foreign investment in long-term infrastructure bonds and on external commercial borrowings in certain sectors like power, airline, roadways among others. These sectors require huge investment and reducing withholding tax is an effective way to woo the foreign investment in these sectors.

Currently, the discussion on impact of the general anti-avoidance rules (GAAR) is gaining momentum as it is likely to have far reaching impact on the investment climate in the country. The recently released draft guidelines on GAAR are being examined by a committee and are

*\* Personal views of the author only and not the views of his organization*

likely to be finalized after consultation with all stakeholders. It is paramount to understand that greater clarity in taxation of international capital flows would facilitate in financing the current account deficit. Hence, it is necessary to put in place the right kind of legislation to support resource raising efforts of both private and public sector. Such tax reforms are likely to improve fiscal positions of the country by bring in higher level of capital flows. Implementation of GARR in its current form will possibly lead to foreign institutional investors (FIIs) pull out of the Indian debt market. Under GAAR, any income is expected to be taxable on a gross basis and the tax authorities will have sweeping power to ask any FII to pay levies on transactions they regard as having been tweaked to avoid taxes. Typically, FIIs sell bonds before coupon payment date to avoid the withholding tax regime. Under the new provision, such bond transactions could be brought under the “withholding tax” net at the discretion of the tax authorities. FIIs have managed to avoid paying this tax thus far. A 20% withholding tax comes into effect at the time of coupon or interest payment of the bond. FIIs typically avoid paying the tax by selling their bond holdings just before the coupon date and then buying them again. The trading gain is considered a “capital gain” and is not taxable in India, based on tax treaties with countries where the FIIs originate from. Implementation of GAAR in its current form may lead to will lead to losses on the bond portfolio of FIIs. The coupon receipt will be taxed at 20% and with this if we add the hedging cost, the new investment will not likely to come for bond investment and the existing FII investors are likely to sell their bond portfolios.

#### **FII investment in Debt and withholding tax implications**

For an FII to invest in Indian debt market, it needs to obtain first debt allocation limits through auctions. The auctions are conducted by SEBI from time to time at NSE or BSE. Post auctions the successful bidders are allocated limits up to which an FII is allowed to invest in Government or Corporate debt. FIIs pay fees to SEBI for the auction depending on the on-going premia rate. Prior to the recent change in SEBI guidelines on investment quota limit and expiry, the purchased quota limits remained with the FII till were able to reinvest the proceeds of redemption/ sale in a new debt instrument within five days of sale or maturity of a bond. The policy change will help in bringing new investors to the market as the limits will lapse or transfer to the buying FIIs if sold during the lock-in period. However, this sudden change in policy also has impacted the FIIs who had earlier obtained limits that were considered as perpetual limits (by paying high premia – Dec’11 premia was about 125bps or so).

All FII debt investments are subject to a withholding tax deduction on coupons. To circumvent withholding tax, FIIs typically sell the bond just before the coupon date and buy it back a few days later. This enables them not to lose coupon and at the same time manage to save tax. Under the changed regime, avoiding tax through the above mentioned arrangement will be difficult as selling would mean losing the limit quota forever. The cost of investment will rise for FIIs and this will translate into possible higher cost for the borrowing entities. The result was noticed in the last auction which received tepid response from FIIs in buying limits. Hence greater clarity is required in this area is required. Countries like Singapore have 15% withholding tax on interest and 10% on royalties that attracts foreign investment. Some countries like Switzerland and Sweden do not have any withholding tax. Hence, it is necessary to have a relook at the current level of withholding tax in India. The same can be aligned with other countries to make foreign investment more attractive.

<b>Withholding Tax Rates 2011*</b>				
<b>Jurisdiction</b>	<b>Dividends</b>	<b>Interest</b>	<b>Royalties</b>	<b>Notes</b>
Argentina	0%/35%	15.05%/35%	12.25%/21%/28%/31.5%	Dividends subject to withholding tax only if they exceed accumulated taxable income with certain adjustment
Australia	0%/30%	10%	30%	
Austria	25%	0%	20%	
Brazil	0%	15%/25%	15%/25%	Rate on interest 25% if recipient domiciled in tax haven. 25% rate also applicable to certain royalties.
Canada	25%	0%/25%	0%/25%	
China	10.5%	10%	10%	
Hong Kong	0%	0%	4.95%	
Hungary	0%	0%	0%	
India	0%	20%	10%	Dividend Distribution Tax is charged on the company distributing Dividend
Kenya	0%/5%/10%	15%	20%	
Luxembourg	0%/15%	0%	0%	
Malaysia	0%	15%	10%	
Mauritius	0%	0%	0%/15%	
New Zealand	30%	15%	15%	
Nigeria	10%	10%	10%	
Norway	0%/25%	0%	0%	
Singapore	0%	15%	10%	
South Africa	0%	0%	12%	
Sweden	30%	0%	0%	Qualifying payments to EU companies may be exempt or withholding tax rate reduced under EC Directives.
Switzerland	0%/35%	0%	0%	
Taiwan	20%	15%/20%	20%	
Thailand	10%	15%	15%	
UK	0%	20%	20%	
USA	30%	30%	30%	
* Rates apply to payments to nonresidents and may be reduced under the provisions of an applicable tax treaty.				
Source: Deloitte				