A Newsletter of Finance Lab

January, 2013 Volume 1, Issue 6

a tha

Editorial

We are approaching the budget session of the Parliament. People are keenly waiting for the economic survey report and any further policy announcements before budget. It is expected that order will prevail during the budget session and we can see passage of some major bills affecting banking and insurance sector. The recent discussion on whether corporate should be given banking license raises concerns on 'conflict of interest'. While the Ministry of Finance, Government of India, is favourably disposed with this idea, the central bank (RBI) has not yet decided its mind. One should not bother too much for the capital market reactions as of now. It is believed that if the policy makers can take some bold decisions affecting the real sector (e.g., power, mining, telecom etc.), the capital market will respond.

Prof. Paul Embrechts of Swiss Federal Institute Swiss Federal InsMC P K MCID 4

Ashok Banerjee, Ph.D., is Professor, Finance and Control, Indian Institute of Management Calcutta (IIM-C). He is also the faculty in-charge of the Financial Research and Trading Lab at IIM-C. His primary research interests are in areas of Financial Time Series, News Analytics and Mergers & Acquisitions.

Market Microstructure

A financial market is a place where traders assemble to trade financial instruments. Such trades take place between willing buyers and willing sellers. The market place may be a physical market or an electronic trading platform or even a telephone market. The trading rules and trading systems used by a market define its market structure. Every market has procedures for matching buyers to sellers for trades to happen. In quote-driven markets dealers participate in every trade. On the other hand, in order-driven markets, buyers and sellers trade with each other without the intermediation of dealers. Garman (1976) coined the expression "market microstructure" to study about market making and inventory costs. Market microstructure deals with operational details of trade- the process of placement and handling of orders in the market place and their translation into trades and transaction prices. One of the most critical questions in market microstructure concerns the process by which prices come to impound new information. In a dealer-driven market, market makers, who stand willing to buy or sell securities on demand, provide liquidity driven marke,d21(li)-3(mi)-3(t

Thede wit4(k)-319(a)4e

(a)

Where r_t is the asset return and NOF_t is the net order flow ov o ɔ

Reference:

1. Garman, Mark. 1976. Market Microstructure. *Journal of Financial Economics*, 3, 257-275.
2. Madhavan, A. 2000. Market Microstructure: A Survey. *Journal of Financial Markets*, 3, 205-258.
3. Francioni, R., Hazarika, S., Reck, m. And Schwartz, Robert, A. 2008. Equity Market Microstructure: Taking Stock of What We Know. *Journal of Portfolio Management*
4. Ait-Sahala, Y., and Yu, J. 2009. High Frequency Market Microstructure Noise Estimates and Liquidity Measures. *The Annals of Applied Statistics*, 3(1) 422-457.
5. Harris, L. 2005. *Trading & Strategies*. Oxford University Press.
6. Black, F. 1971. Towards a fully automated exchange, part i. *Financial Analysts Journal*, 27: 29-34.
7. Aitken, M. and Carole Comerton-Forde. 2003. How should liquidity be measured? *Pacific-Basin Finance Journal*, 11: 45-59.
8. Kyle, A. 1985. Continuous auction and insider trading. *Econometrica*, 53: 1315-35.
9. Hui, B. and Heubel, B. 1984. Comparative liquidity advantages among major u.s. stock markets. *Technical Report*, DRI Financial Information Group Study Series No. 84081.
10. Hasbrouck, J. and Schwartz, Robert, A. 1988. Liquidity and execution cost in equity markets. *The Journal of Portfolio Management*, 14: 10-16.
11. Amihud, Y. and Mendelson, H. 1986. Asset Pricing and the Bid-Ask Spread. *Journal of Financial Econometrics*, 17: 223-249.
12. Amihud, Y. 2002. Illiquidity and Stock returns: cross-section and time-series effects. *Journal of Financial Markets*, 5: 31-56.
13. Acharya, V.V. and Pedersen, L.H. 2005. Asset pricing with liquidity risk. *Journal of Financial Economics*, 77(2), 375-410.
14.

Exhibit 1: Kyle’s L

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.

The International Monetary Fund (IMF) has recently published its Financial System Stability Assessment Update of India.[1] While noting that the India commercial banking system is well capitalized and profitable, it examined the amount of equity capital domestic banks would need over the next 8 years ending March 2019 to "support economic growth and to meet Basel III minimum common equity capital requirement of 7.0 percent (minimum common equity of 4.5 percent with capital conservation buffer of 2.5 percent)". Three hypothetical scenarios were considered:

1) **Low Growth**: Annual GDP growth rate of 7 percent with credit growth of 11.5 percent per year.
2) **Medium Growth**: Annual GDP growth rate of 8.5 percent with credit growth of 14 percent per year.
3) **High Growth**: Annual GDP growth rate of 10 percent with credit growth of 17 percent per year.

Basing their analysis on a sample of 30 banks (including public and private banks, and covering over 90 percent of commercial banking system's assets), the report arrived at a startling finding that, "in a mid-growth scenario with average earnings generation, 14 banks are expected to fall short of Basel III minimum common equity requirement with a capital buffer at 7 percent, of which 13 are public banks". As per IMF calculations, on average while in a mid-growth scenario, additional capital needs would amount to around US$19.6 billion, a high growth scenario would bring the capital needs to around US$50.6 billion and 23 banks would need additional capital, of which 20 are public banks. In totality, if the rate of economic growth were to exceed 7 percent, till 2019, between 9 to 20 public banks out of 21 could fall short of Basel III common equity capital requirements with average earnings growth (Table 1).

[1] India: Financial System Stability Assessment Update , IMF, January 15, 2013 (available at http://www.imf.org/external/pubs/cat/longres.aspx?sk=40231.0).

West Bengal remains the most indebted State closely followed by Maharastra. Some of the States like Orissa have not been borrowing from the market at all and managing their resources internally. Among the highly indebted States, West Bengal pays the highest yield spread followed by Uttar Pradesh and Maharashtra. States like Gujarat and Karnataka pay