India's New Stock Exchange

Research Digest

Monetary Base vs. Capital Markets Turnover – A Comparative Perspective

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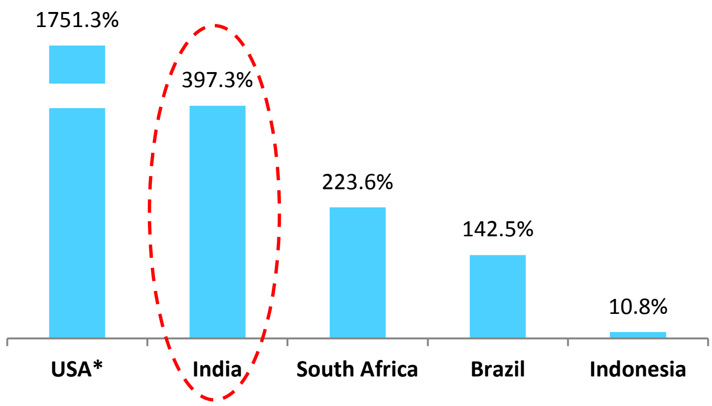
Monetary Base vs. Capital Markets Turnover – A Comparative Perspective

India's capital market turnover (including equity and equity derivatives) as a percent of GDP is healthy among the select group of countries. However, compared with the US, Indian capital markets (CM) have significant scope for further growth. From where should it come ?

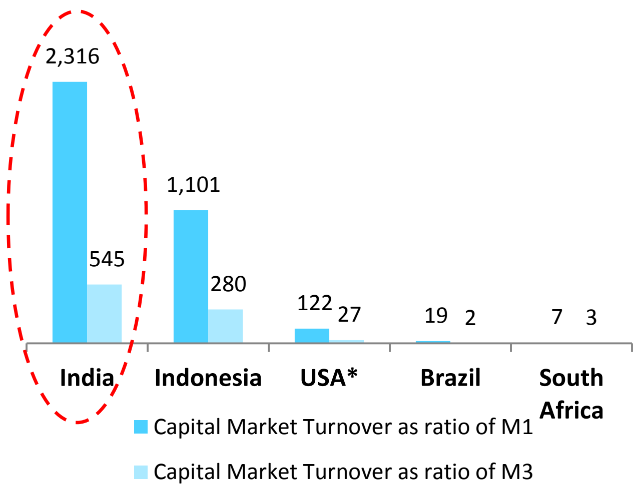
Chart#1: Capital Market Turnover as a percent of GDP (2012) – A Cross Country Comparison



*Source: WFE and World Bank; Note: * 2011 data considered for USA*

The only way India's CM turnover can be so high compared with M1 and M3, despite the higher inflation and interest regime, is by way of augmenting FII flows. No wonder, WEF's Financial Development Index puts India just ahead of Indonesia and below all other countries of comparison taken up despite the higher turnover.

Chart#2: Capital Market Turnover as ratio of M1, M3 (2012)



Table#1: Cross Country Comparison – Policy Rates; Financial Development Index (2012)

Rank*	Country Name	Policy Rate 2003	Policy Rate 2012	Financial Development Index- Overall Ranking
1	USA*	1.00%	0.25%	2
2	South Africa	8.00%	5.00%	28
3	Brazil	16.50%	7.25%	32
4	**India**	**7.00%**	**7.75%**	**40**
5	Indonesia	12.75%	5.75%	50

Chart#2: Source: Bloomberg and WFE;
**Note: M2 has been considered for USA and Indonesia; Turnover for capital market includes cash and derivatives; USA2011 data*

Table#1: Source: Table#1: World Economic Forum- The Financial Development Report 2012
**Note: Lower rank indicates better performance; For all countries it's the policy rate except for Germany the rate considered is refinancing rate; Indonesia's Policy rate is for 2005*

Is the monetary base the reason? – The below comparison of M0 as a percentage of GDP for the select group of countries clearly reveal that India's monetary base is relatively better. However, the higher inflation and interest rate regime could be a dampener in leveraging the narrow money for churning it further.

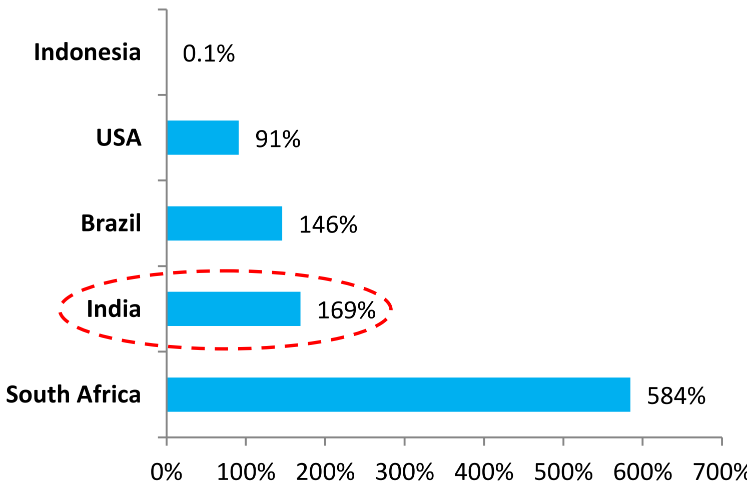
Table#2: Cross Country Comparison – Monetary Base (M0), Inflation and Reserve Requirements

Rank*	Country	M0 as % of GDP (2012)	Inflation (2012)	Cash Reserve Requirements (CRR)
1	USA	17.1%	2.4%	Depending upon the size of net transactions accounts, the reserve requirements can range from zero to 10%.
2	**India**	**14.5%**	**8.2%**	**4.0%**
3	Indonesia	8.0%	4.5%	4.0%
4	South Africa	5.6%	5.5%	2.5%
5	Brazil	5.1%	5.3%	20.0%

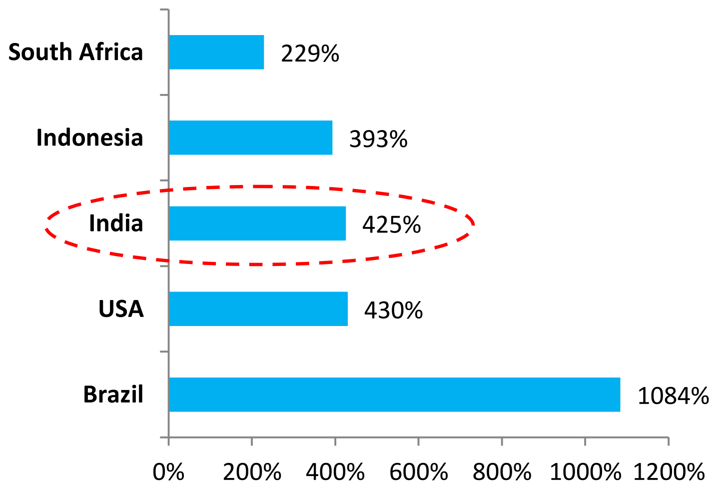
Source: World Bank; Bloomberg; Central Bank Websites

On the Trail of Conversion from M0 to M3 - Among the countries compared in this brief, it is found that India's ability to convert its M0 into M1 is second to South Africa and is relatively healthy while converting its M1 into M3.

Chart#3: M1 as a percent of M0 (2012)



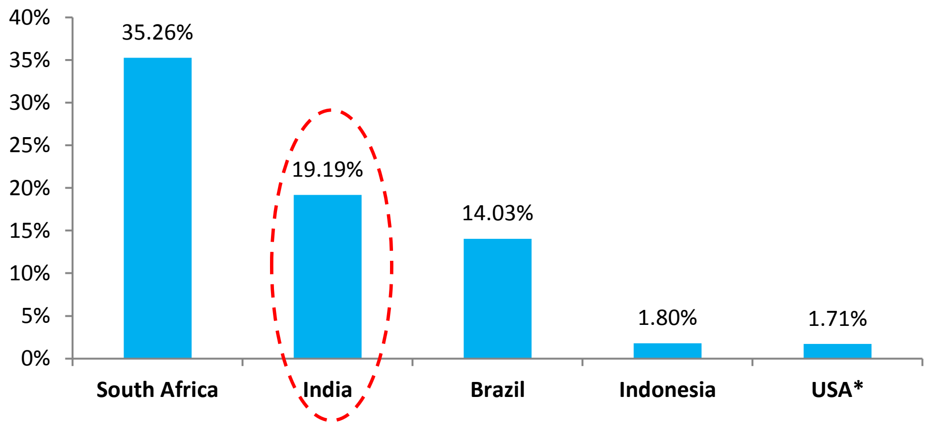
Chart#4: M3 as a percent of M1 (2012)



Source: Bloomberg; for USA and Indonesia, M2 has been considered instead of M3

High foreign participation augmenting cash equity turnover - Foreign participation in equity markets as a percent of cash equity turnover has India on a better footing as compared with other economies, lagging behind South Africa only. Looking at foreign participation in both equity and derivatives as a percent of CM turnover (including cash equity turnover, and equtiy and index derivatives market turnover), at 14.2% in India also signifies high foreign participation level.

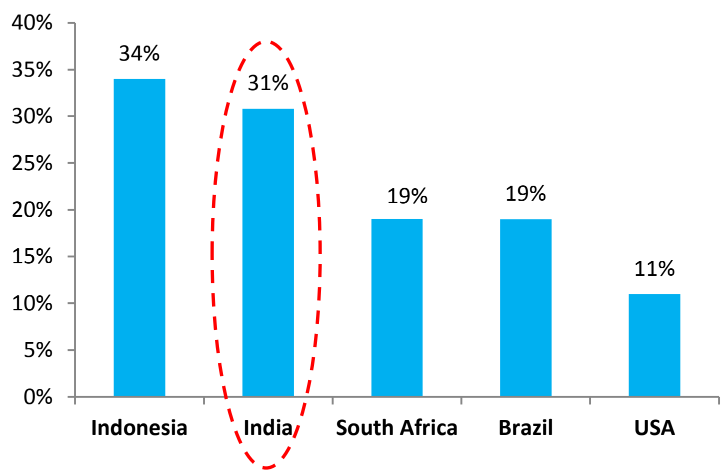
Chart#5: Foreign participation in equity markets as a percent of Cash Equity Turnover (2012)



*Source: Respective country's central bank and Bloomberg; Note: * 2011 data considered for USA*

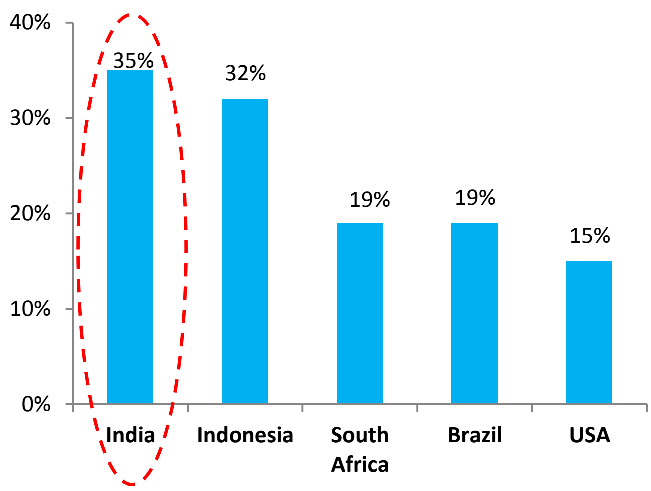
Despite healthy domestic savings - India fares better with healthy savings just lower than Indonesia. However, in abstract terms India's savings estimated at USD 571 billion is comparatively much better, provided most of it gets converted into efficient investment given the better gross domestic fixed capital formation. Under such a situation it is important to lower restrictions on banks enabling CM transactions/participation and providing other affiliated services, channeling India's domestic savings to sustain economic growth.

Chart#7: Gross Domestic Savings as % of GDP (2011)



Source: World Bank

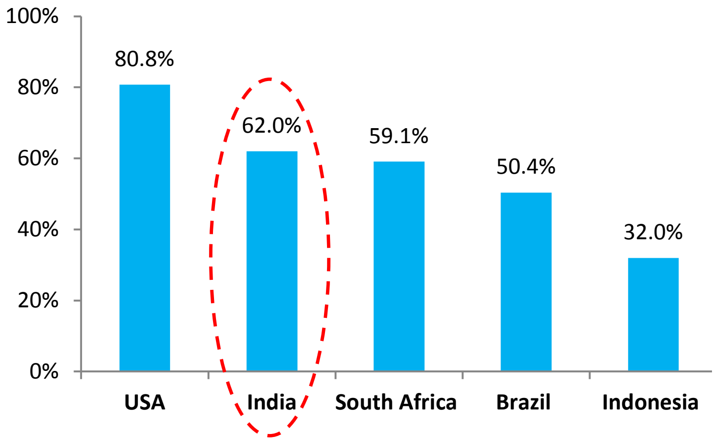
Chart#8: Gross Domestic Fixed Capital Formation as % of GDP (2011)



Source: World Bank

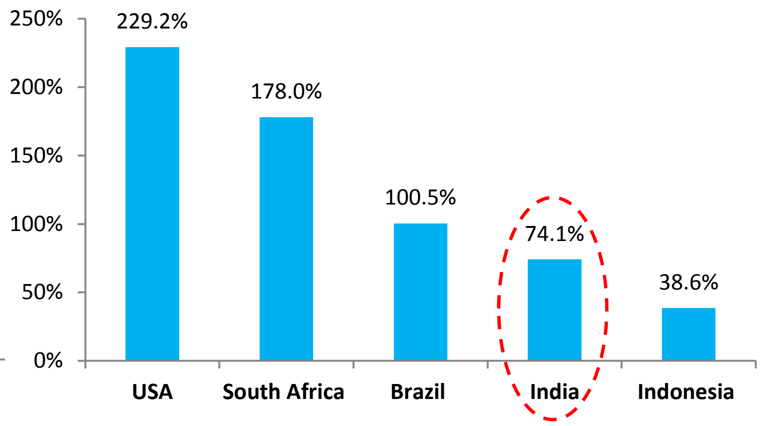
Low conversion into domestic credit to balme? - Despite healthy deposits scenario, its conversion into domestic credit remains relatively lower - Thanks to high reserve requirements and increasing investment in government securities to augment the fiscal scenario. Under this scenario the only way out is to channelise non-financial savings (64.1% of total household savings) for investing in future.

Chart#9: Bank Deposits as % GDP (2011)



Source: World Bank

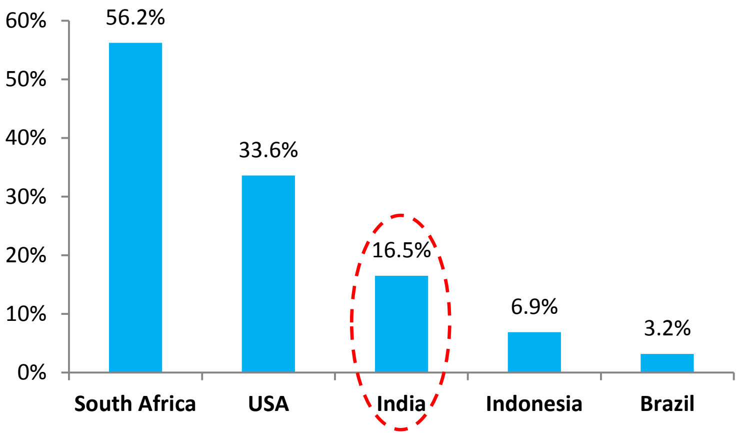
Chart#10: Domestic credit by Banks as % of GDP (2011)



Source: World Bank

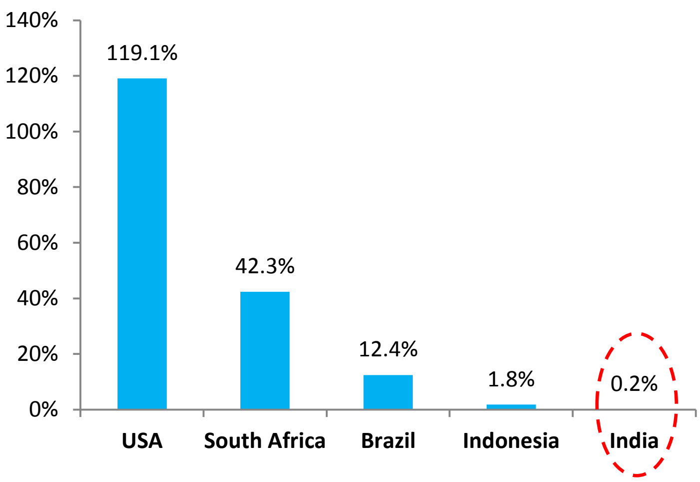
Need to incerease CM participation - Even in terms of other savings (than banks), i.e. mainly the insurance and pension funds, India is way below its counterparts in terms of assets managed by pension funds in relative GDP terms with a somewhat slightly better amount of assets under management by the insurance sector. To add to it, their participation in the CMs is hindered by their investment regulations (Table 3 below) and lack of financial products that match their investment objectives.

Chart#11: Insurance Sector's Total Assets as % of GDP (2011)



Source: OECD, World Bank

Chart#12: Pension Fund's Total Assets as as % of GDP (2011)



Table#3: Portfolio limits on pension fund investment in selected asset categories:

Country Name	Equity	Real Estate	Bonds	Retail Investment Funds	Private Investment funds	Loans	Bank deposits
Brazil	up to 60%	11%	Federal government bonds, treasuries - No limit Others bonds - 80%.	up to 60%	up to 60%	15% for loans	80%
India	-Equity: up to 15% Private Sector -Asset Class E: up to 50%	NA	Govt. Sector and NPS Lite Govt. Securities: up to 55% - Money Market Instruments: up to 5% Private Sector Asset Class C: up to 100%	NA	NA	NA	10% of the scheme corpus
South Africa	75% (overall limit)	25% (overall limit)	Government - No limit Otherwise -75%	Insurance Policies - No limit	Maximum overall limit of 15%	Employer of fund- 5% - Housing loans to members: 95%	Total Bank Deposits -No limit Per Bank - 25% limit
US	Negligible Restrictions	Some limits	Some limits on employer securities/bonds	NA	NA	NA	NA

Source: OECD- Annual Survey of Investment Regulation of Pension Funds 2013

MOOT POINT:

Question: Are we effectively churning our monetary base (M1 and M3) to achieve greater levels of transactions in India's capital markets to make fund raising and risk management easier and cost-effective?

Hypothesis: We seem to be leveraging our monetary basis relatively better.

Key Analysis:

- Though we do leverage our monetary base, ***not much of it is channelized into India's stock markets***. All what we see as higher comparative volume is created by *augmented foreign fund flows* which account for 19.2% of cash market turnover and 14.2 percent of the overal capital market turnover.
- Representing about 58% of financial savings, ***banks could be better agents for channelizing India's savings*** into capital markets provided existing restrictions are removed in a calibrated manner under an IT enabled environment which will enable effective management of risks.
- India shall follow the path of other nations in ***channelize long-term fund flow in to capital markets*** by further liberalizing/strengthening Insurance and Pension funds sector.

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