Masala Bonds: A Viable Option for Capital: Starved Indian Public Sector Banks

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Abstract
The paper estimates the capital requirement of Indian public sector banks till March 2019, when Basel III capital regulations are fully implemented, using certain assumptions of RWA growth. This comes out to be much larger than the estimate by Government of India (GoI) as per Indradhanush plan in August 2015. Also, this estimated requirement is greater than the amount planned to be infused by GoI till March 2019. Then, the potential of Masala Bond market is estimated by the end of this period by comparison with the Dim Sum bond market. Finally, the paper establishes that the Masala bond market may be the most viable option for capital starved Indian public sector banks after exploring the inherent characteristics of all the alternatives (internal generation of equity through surplus/common equity issuance/domestic bond market being the other alternatives) available to Indian public sector banks for raising the estimated required capital. This research is of importance to the Indian public sector banks, the Reserve Bank of India as well as to individual banks to formulate their capital raising plans, so that the possibility of banks falling below minimum regulatory requirement can be avoided. This research will also help readers gain greater understanding about the capital requirements of Indian PSBs and about the Masala bond market, which remains largely unexplored till now.

Keywords: basel III, masala bond, dim sum bond, capital requirement, capital conservation buffer.

INTRODUCTION
Basel III capital regulations were released by the Basel Committee on Banking Supervision (BCBS) in December 2010. The Basel III regulations bring with them, among other things, higher requirements for capital adequacy, while at the same time focusing on maintaining higher quality capital. The regulations aim to make banking institutions more resilient, especially in times of stress.

Subsequently, the Reserve Bank of India (RBI) released the Basel III capital regulations for India in May 2012. As per the extant regulations and guidelines given by the RBI, Basel III capital regulations have been implemented in India since April 01, 2013 and would be fully implemented by March 31, 2019. While the Basel III regulations by BCBS require a minimum Common Equity Tier 1 (CET1) ratio of 4.5% to be maintained by banks, the RBI guidelines are stricter and require CET1 ratio of 5.5%. The requirement for Capital Conservation Buffer (CCB) is the same for both the regulations, at 2.5% after full implementation. As a result, the minimum Capital to Risk-weighted Assets Ratio (CRAR) as per BCBS regulations is 10.5% after full implementation, while it is 11.5% as per RBI regulations, after full implementation.

While the Indian Private Sector Banks (PvtSBs) operate at a higher level of capital adequacy, the capital position of Indian Public Sector Banks (PSBs) has been affected in recent times due to high provisioning requirements as a result of heightened impairment levels. The asset quality position of PSBs has deteriorated since 2011, and as a result of higher provisions, the profit levels have declined, subsequently affecting the internal generation of capital and capital adequacy levels. Another reason for lower level of capital adequacy of PSBs is the low amount of fresh capital raised through market issuances, especially the common equity capital.

Ministry of Finance, Government of India (GoI) had released Indradhanush plan for revamp of PSBs in August 2015. In the plan, GoI had estimated the capital...
requirements of PSBs to be Rs.1.80 lakh crore (Rs.1,800 billion) in the period remaining till full implementation of Basel III in India. This estimate was based on 12% growth in Risk Weighted Assets (RWAs) in Fiscal Year (FY)16 and 12-15% growth in RWAs in FY17, FY18 and FY19. GoI had proposed to infuse Rs.70,000 crore (Rs.700 billion) through budgetary allocations during this period. It had also estimated that PSBs would be able to raise the rest Rs.1.1 lakh crore (Rs.1,100 billion) from the market.

However, since the release of the Indradhanush plan by GoI, RBI has conducted an Asset Quality Review (AQR) of 36 banks (including all PSBs) to assess the asset quality position of the whole banking system in India and to uniformly deal with cases of divergence in identifying NPAs. As a result of this exercise, the Gross Non Performing Advances (GNPAs) as a percentage of gross advances increased from a level of 5.1% at the end of September 2015 to 7.6% at the end of March 2016. Consequently, many PSBs reported net loss for FY16 and net loss in subsequent half year ended September 2016 (H1FY17). As a result, the capital requirements for PSBs has increased since the time when GoI released the Indradhanush plan.

In September 2015, RBI had released the framework for issuance of rupee denominated bonds overseas. As per the framework, Indian corporates could raise capital from overseas markets through rupee denominated bonds. In August 2016, RBI permitted Indian banks to also issue rupee denominated bonds overseas. These rupee denominated bonds issued overseas have since been termed as Masala bonds.

Capital requirements of PSBs till full implementation of Basel III regulations have remained very high, and banks not been able to raise large amount of capital through market due to (i) low market valuation, and (ii) limited appetite of the domestic bond market. As a result, this paper argues that Masala bonds could be one of the most viable alternative for PSBs to raise the required capital.

Problem Statement and Significance of the Research
This paper tries to estimate the capital requirements of PSBs for the position at the end of September 2016 using assumptions regarding RWA growth for the second half of FY17 (H2FY17), FY18 and FY19. Then, this paper examines the potential of Masala bond market through comparison with the more established Dim Sum market and finally examines the possibility of Masala bond market being the most viable option for PSBs to raise the required capital till full implementation of Basel III regulations.

This research is of importance to the Indian public sector banks, the Reserve Bank of India as well as to individual banks to formulate their capital raising plans, so that the possibility of banks falling below minimum regulatory requirement can be avoided. This research will also help readers’ gain greater understanding about the Masala bond market, which is still at a nascent stage and remains largely unexplored.

LITERATURE REVIEW
The estimation of potential of the Masala bond market is dependent on the causal relationship from economic growth to financial market development, and specifically bond market development. There has been plenty of research on relationship between economic growth and development of financial markets. Gurley & Shaw (1967) had found causality from economic growth to financial development in case of developing countries as they argued that economic growth leads to greater demand for financial services. Goldsmith (1969) was also successful in showing that as national output increases, the size of financial centres increase. Hassan, Sanchez & Yu (2011) found evidence of causality that runs from growth to finance. The greatest amount of evidence was found by Shan, Morris & Sun (2001) that in case of three countries, economic growth leads to financial market development and in case of five countries, the relationship was found to be bi-directional.

For the specific case of economic growth leading to increase in bond market capitalization, Fink, Haisss & Hristoforova (2003) found some evidence of growth leading to bond market development in case of one country.

Estimated Capital Requirements Of Psbs Till Full Implementation Of Basel III Regulations
As mentioned above, GoI in August 2015 had estimated the capital requirements of PSBs to be Rs.1.80 lakh crore (Rs.1,800 billion) in the period remaining till full implementation of Basel III in India. However, many PSBs had reported net loss for FY16 and net loss in subsequent H1FY17. As a result, the capital
requirements for PSBs has increased since the time when GoI released the Indradhanush plan.

This paper has tried to estimate the capital requirements of PSBs for the position at the end of September 2016. In this estimation, the following assumptions have been used:

- RWA growth has been assumed for H2FY17, FY18 and FY19, based on the observed historical trend in RWA growth. The RWA growth for H2FY17 has been assumed to be equal to the growth observed in H1FY17. The growth in FY18 has been assumed to be equal to CAGR in RWAs from Mar-14 to Sep-16. The growth in FY19 has been assumed to be equal to the CAGR in RWAs from Mar-10 to Sep-16. These assumptions have been taken with a general view that the credit cycle may have turned towards the healthier part, beginning with H2FY17 and may return to normalcy by FY19.
- No internal accruals of capital have been assumed. The capital requirement estimated in this paper is the total requirement and may be met by all possible capital raising alternatives, including internal accruals as well.
- The estimated capital requirements have been calculated for the scenario where each PSB maintain a capital adequacy level of 150 bps above the minimum regulatory requirement (including CCB). This has been done as some PSBs would like to operate with CRAR at a higher level than regulatory minimum, keeping in view their risk appetite.

Based on the above assumptions, it is estimated that PSBs as a bank group may require Rs.2.44 lakh crore (Rs.2,440 billion) additional capital from September 2016 position till March 2019, when Basel III regulations get implemented fully. This estimation is significantly greater than the August 2015 GoI estimate of Rs.1.8 lakh crore (Rs.1,800 billion) due to the deterioration of capital adequacy position that has occurred since the August 2015 estimate. However some PSBs may decide to maintain a higher or a lower level than 150 bps above the minimum regulatory requirement, and as a result the capital requirement may vary from the above estimate.

Further, it is observed that many PSBs have a significant amount of scope to raise Additional Tier-1 (AT1) capital. This is part of high quality Tier-1 capital and may appeal to PSBs who do not want to issue large amounts of equity capital.

### Potential of Masala Bond market

RBI had released the framework for issuance of Masala bonds in September 2015. This facility was later made available to Indian banks as well in August 2016. With Indian corporate bond market still very small as compared to many other countries, the Masala bond option has huge potential.

Even when the above mentioned guidelines and frameworks were not in place, several multilateral agencies and foreign banks had issued rupee denominated bonds in overseas markets, though at the time they were not called Masala bonds. London Stock Exchange (LSE) has been the most popular destination for entities to issue Masala bonds thus far.

The first such bond was issued by Barclays Bank PLC in April 2007 and amount raised was Rs.200 crore (Rs.2 billion). Since then, international issuers such as European Bank for Reconstruction & Development, Inter-American Development Bank, Morgan Stanley and World Bank’s arm International Finance Corp have raised large amounts through issue of such bonds at LSE.

Still the Masala bond market is at a nascent stage. This paper tries to estimate the potential of Masala bond market through comparison with the more established Dim Sum bond market (Chinese Renminbi (RMB) denominated bonds issued outside China).

The Dim Sum bond market started in 2007 and has grown at a rapid pace, in line with the growth of Chinese economy. At the end of December 2016, it is estimated that the total par value of the Dim Sum bonds outstanding was about 166 billion RMB. This value has increased very significantly since 2011, more than doubling in 2012 and following high growth levels in 2013 and 2014 as well. Since 2014, the par value of Dim Sum bond market has declined slightly though. This also is in line with the decline in China’s GDP growth rate in recent periods. Still, the bond market capitalization of Dim Sum market to China’s current price GDP ratio has increased from roughly 0.1% in 2011 to about 0.4% in 2016. These results are consistent with the evidence found by Fink.

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5 The par value of Dim Sum market was roughly 45 billion RMB.
Haiss&Hristoforova (2003) that economic growth leads to increase in bond market capitalization.

The Masala bond market offers two key advantages for issuers, (i) with most countries having very low interest rate regime currently, they can reduce their cost of borrowing vis-à-vis domestic bond borrowing as India’s interest rate levels are still very high as compared to western counterparts, and (ii) the bonds are denominated in rupee, so there is no exchange rate risk for the issuers as is the case with External Commercial Borrowings (ECBs).

Currently in 2016, the Masala bond market with market capitalization of about Rs.140 billion, stands at roughly 0.1% of India’s current price GDP, similar to the ratio for China in 2011.

So as China was growing at a rapid pace during 2008-13 period, the Dim Sum bond market flourished. Similar story could pan out for Masala bond market as India is expected to grow at a high rate for the next few years.

If conditions are made lucrative for investors and issuers, the Masala bond market could follow a similar trajectory as Dim Sum bond market. Ministry of Finance (MoF) has recently cut down the withholding tax on interest income from Masala bonds from 20% to 5%. This should attract more number of investors and also encourage issuers to approach this market.

If it is assumed that India’s current price GDP will grow at 7% for the next three years and the Masala bond market capitalization to GDP ratio increases at a conservative 3basis points (bps) per year for the next three years, the Masala bond market capitalization could more than double in the next three years to roughly Rs.300 billion.

Further, while most of the listings so far have been on LSE, other stock exchange are trying to woo issuers. Singapore Stock Exchange recently opened The Global Masala Bonds Hub at its exchange. If stock exchanges other than LSE are successful in attracting issuers and investors, the Masala bond market could grow even larger in next three years.

**Masala Bond market as a viable option for PSBs**

As estimated earlier, the capital requirements of PSBs may be very large in the next two and a half years till full implementation of Basel III regulations. The possible options to raise this large amount of capital are:

(i) **Option 1:** Generating internal equity capital through surplus profits, and/or

(ii) **Option 2:** Government infusion of capital as CET1 capital, and/or

(iii) **Option 3:** Raising of CET1 capital from market, and/or

(iv) **Option 4:** Raising AT1 and Tier-2 capital through domestic bond market, and/or

(v) **Option 5:** Raising AT1 and Tier-2 capital through overseas bond market (Masala bond market)

In an ideal scenario, every bank would like to go for option 1. However, with PSBs reporting high levels of impairment, the resulting credit costs are expected to dampen the profitability for most of the period left till Mar-19. As a result, many PSBs will have to look beyond option 1 to raise the required capital.

Coming to option 2, while GoI had announced in August 2015 that it would infuse Rs.70,000 crore (Rs.700 billion) till Mar-19. However, it has already allocated more about two-thirds of this amount till Sep-19. The remaining portion will be very small as compared to the capital requirements estimated in this paper. Taking into account budgetary constraints, it is highly unlikely that GoI will infuse too much beyond the already announced plans.

Another alternative to raise the higher quality CET1 capital is option 3, i.e. raising capital by issuing external equity. A disguised benefit with this option is that it allows the banks to follow Minimum Public Shareholding (MPS) guidelines by Securities and Exchange Board of India (SEBI). However, the current market valuation of PSBs, as reflected through Price to Book value multiple, is quite low and any equity issuance will mean greater dilution. This has meant that no PSB issued any external equity during FY16 and in H1FY17. And going forward too, it seems highly unlikely that a large amount would be raised through equity issuance without significant dilution.

The above three options will take care of CET1 requirements of PSBs. While banks can raise the whole required amount through CET1 capital, it is not viable and feasible to do the same. Banks will have to raise AT1 and Tier-1 capital as well, primarily through bonds. Options 4 and 5 mentioned above will be required to take care of this.

As per the extant regulations (including CCB), banks are required to maintain minimum CET1 ratio of 6.125%, Tier1 ratio of 7.625% and CRAR of 9.625%. As a result, banks have scope to raise 1.5% AT1 capital and 2% Tier-2 capital.
With AT1 ratio low at 0.68% at the end of Sep-16, many PSBs have scope to raise additional capital through AT1 instruments upto 1.5% of RWAs. Based on the position as at the end of Sep-16, it is seen that PSBs have scope to raise about Rs.47,000 crore (Rs.470 billion) as AT1 capital. After applying the assumed RWA growth, it is observed that the scope for AT1 capital becomes Rs.66,000 crore (Rs.660 billion) till Mar-19. Further, banks can raise large sums through Tier-2 capital till Mar-19.

In view of the above, the potential and willingness of bond market gains importance for PSBs to issue large amount of capital. Yes the domestic bond market will have to be used, but the Masala bond market is an extremely useful development for PSBs due to the following reasons:

- Banks will have access to a larger set of investors thus increasing market appetite
- Lower borrowing cost in western economies
- No exchange rate risk for the banks, thus no hedging costs

The above reasons might make it very compelling for PSBs to issue Masala bonds in large amounts till Mar-19 and even beyond that. These benefits of Masala bond market were also highlighted by Anshika (2016).

Masala bond market does not suffer from any of the constraints related to depressed valuations, borrowing costs etc., which affects other capital raising options. With the Masala bond market still in very early stages of development, the scope for its growth is huge and can really help PSBs garner the large amounts of capital they need. And considering the positives and advantages that the Masala bond market has over other capital raising alternatives, this market is, the most viable option and a useful solution, to the capital related problems faced by Indian PSBs.

**CONCLUSION**

With Basel-III capital regulations fully kicking-in by March 2019, the capital requirement for Indian PSBs is huge. While equity raising is definitely a concern for these banks, they have large scope to raise capital through AT1 and Tier-2 bonds. In this regard, Masala bond market may be the most viable option for these banks to raise capital due to certain inherent characteristics of the market. The Masala bond market at present is at a very nascent stage, but has huge potential with a much wider investor base and greater appetite. This could come to the rescue of Indian PSBs and solve a lot of their capital raising related problems.

**Limitations of the study**

The estimation of the capital required by the Indian public sector banks is heavily dependent on the assumed growth of RWAs during the period in consideration. Due to scarcity of capital, some banks may decide to manage their RWA growth in order to minimise their capital requirements, and as such, the amount of capital required by Indian PSBs as a bank group will also vary accordingly.

Also, while many Indian PSBs do have some presence in other markets, some of the smaller PSBs don’t, and they may not be able to attract large amount of investors in Masala bond market. For such banks, accessing domestic bond market will remain to be a major source of capital raising.

**REFERENCES**


