

Mapping The Credit Cycle

21 December 2017

Credit Recovery To Be An Uphill Climb

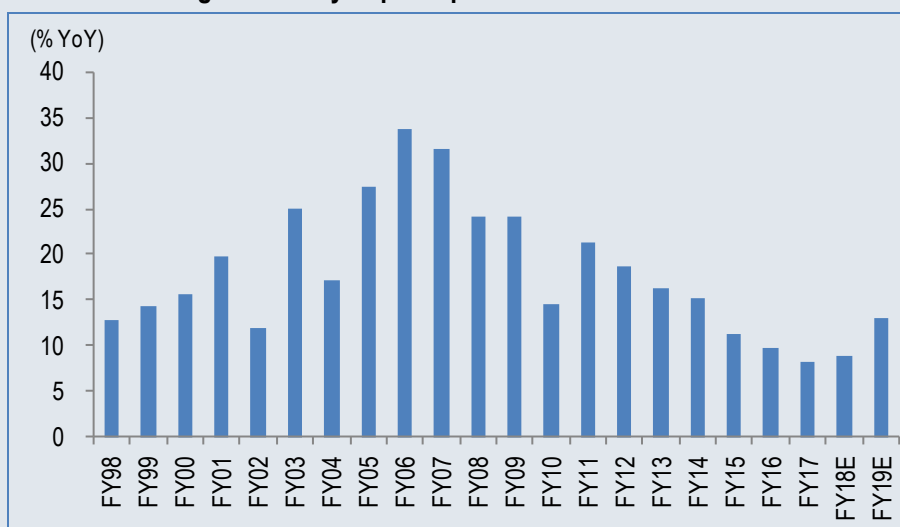
We are witnessing signs of an uptick in bank credit growth in India. We expect credit growth to pick up to around 12%-13% in FY19, after a couple of years of single-digit growth. Against this backdrop, we have assessed as to what are the likely drivers of credit growth. Firstly, as we had highlighted in our earlier report: [Credit Growth Decoded](#) the share of the banking sector in the flow of resources had declined on account of disintermediation by the corporate bond and commercial paper market. This was partially on account of better transmission of lower interest rates by the market when compared to bank-lending rates. However, now with interest rates having bottomed out, and in all probability likely to edge up on declining liquidity and higher inflation, we expect some of the credit demand to return to the banking system. Secondly, rising commodity prices are likely to push up working capital demand for credit. Thirdly, lending to medium-sized enterprises and mid-sized corporates is likely to witness a turnaround, albeit slowly. Rating upgrades as the economy improves should also help. Finally, while the recently announced recapitalisation of public sector banks is positive, we do not believe this is going to spur aggressive recovery in credit growth. Estimates by our banking analyst suggest that capital infusion by the government will fall short of provisioning requirements for most public sector banks including the second and third-largest state-owned lenders - Punjab National Bank (PNB) and Bank of Baroda (BoB). The only exception is likely to be State Bank of India or SBI where capital infusion will be marginally higher than the provisioning requirement.

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Recovery in bank credit in sight, likely to pick up to around 12%-13% in FY19

We are witnessing signs of an uptick in bank credit growth. We expect credit growth to pick up to around 12%-13% in FY19, after a couple of years of single-digit growth.

Exhibit 1: Credit growth likely to pick up to 12%-13% in FY19



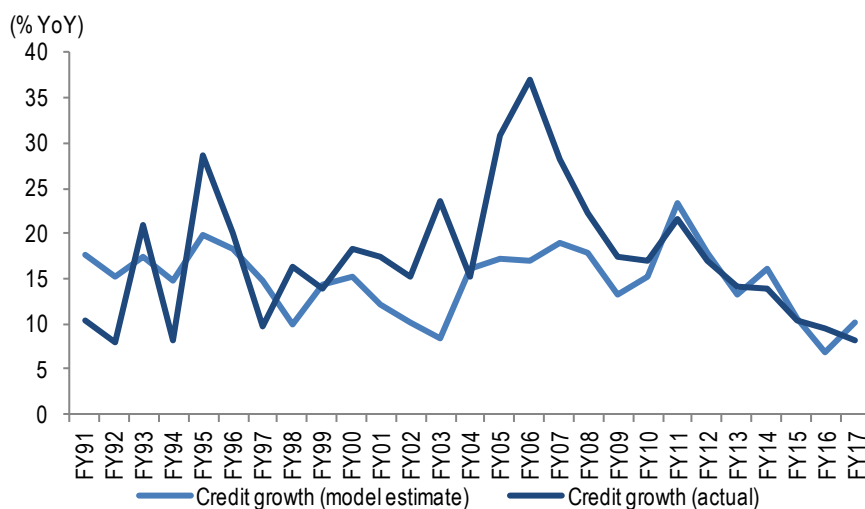
Source: Reserve Bank of India or RBI, Nirmal Bang Institutional Equities Research

Credit demand estimate: We have built a simple model to estimate credit demand using data for the post liberalisation period spanning the past 27 years.

Growth in banking system credit = 1.34* real GDP growth + WPI inflation- disintermediation factor ¹

Exhibit 2 below illustrates that our model has been largely correct directionally, and the correlation of actual credit growth with our model estimate has been 0.86 over the past decade, indicating that our model is an effective predictor. Over a longer period, the model has performed less well, likely on account of a structural break in the data around FY03.

Exhibit 2: Our model has been an effective predictor of banking system credit growth in recent years

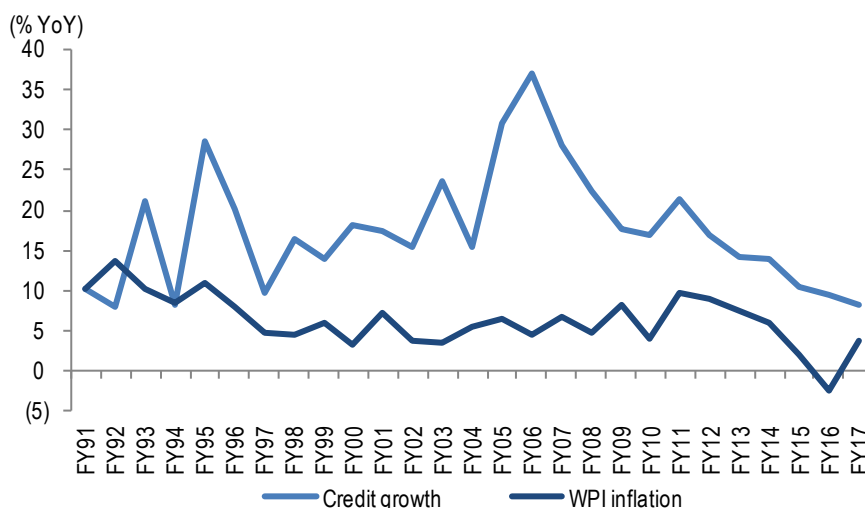


Source: RBI, CEIC, Nirmal Bang Institutional Equities Research.

We have used Wholesale Price Index or WPI-based inflation in our model, as it is more reflective of commodity prices and relevant to industry.

Exhibit 3 below illustrates banking system's credit growth has largely tracked WPI inflation.

Exhibit 3: Credit growth moves in tandem with WPI inflation



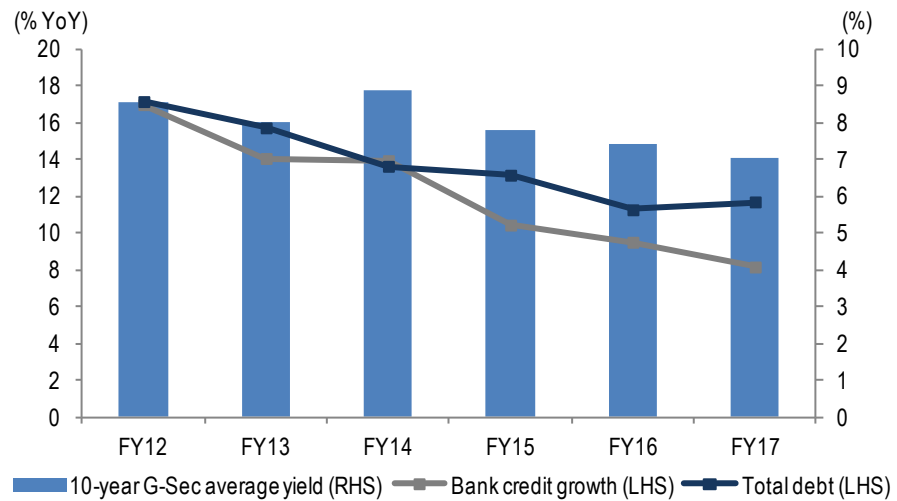
Source: RBI, CEIC, Nirmal Bang Institutional Equities Research.

The **disintermediation factor** in our model accounts for the share of bank credit, which has been captured by non-banking sources, primarily the commercial paper (CP) and corporate bond market. We have assumed the disintermediation factor to be zero up to FY12, as the CP and corporate bond market witnessed meaningful growth only in the past five years.

¹ Refer Appendix for methodology

Moreover disintermediation is higher in an easing cycle, and lower in a tightening cycle. Exhibit 4 below compares total debt (including non-banking sources) and bank credit, along with market interest rates as measured by the 10-year G-sec yield. We find that the increase in total debt is significantly higher than bank credit growth, when rates are falling, while it is a tad lower than bank credit growth when rates are rising. We have thus **assumed the disintermediation factor to be 1.5% in a tightening cycle and 3% in an easing cycle, after FY12.**

Exhibit 4: Disintermediation is higher when interest rates are falling



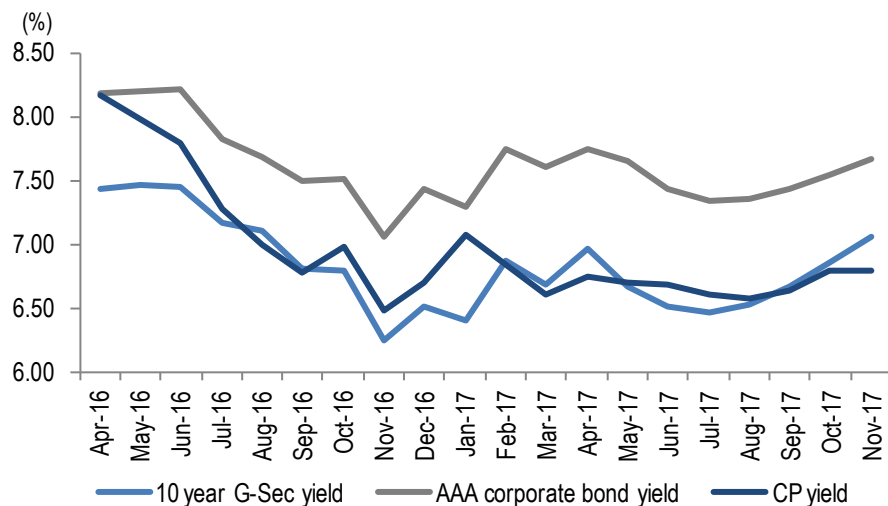
Source: RBI, CEIC, Bloomberg, Nirmal Bang Institutional Equities Research.

What will be the drivers of recovery in banking sector's credit growth?

1. Disintermediation likely to slow as interest rates edge up

G-Sec yields have moved up ...: Disintermediation by the corporate bond and CP market rises in an easing cycle, and falls in a tightening cycle. We have already seen G-Sec yields move up on concerns over rising inflation, higher fiscal deficit and declining systemic liquidity, but the movements in corporate bond yields and CP yields have been much more benign. G-Sec yields have risen by over 53bps between August-end and November-end 2017, but the rise in yields on AAA-rated corporate bonds has been much more subdued at around 32bps. Similarly, the yields on CPs rose only by a modest 23bps (Exhibit 5).

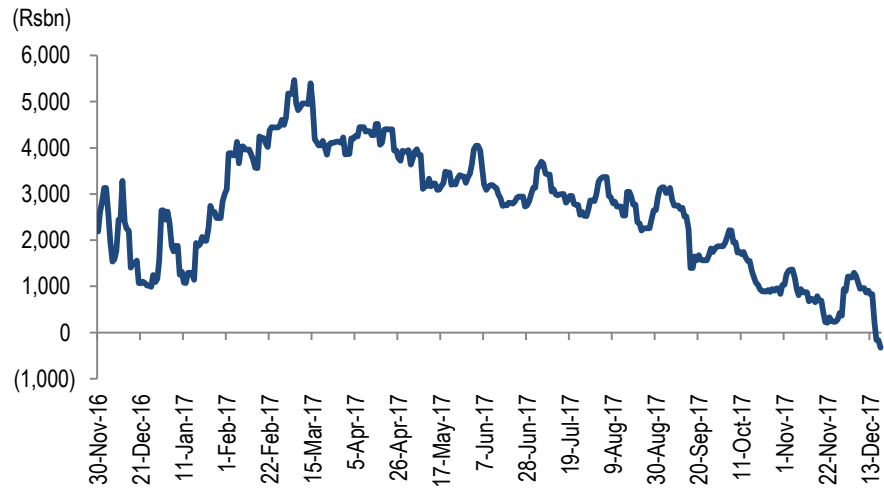
Exhibit 5: Government bond yields have risen faster than corporate bond and CP yields



Source: Bloomberg, Nirmal Bang Institutional Equities Research.

....banking system's liquidity is declining...: Banking system's liquidity, which witnessed a surge in the aftermath of demonetisation, has been declining, and is likely to decrease further going forward (Exhibit 6). With declining liquidity, CP yields as well as corporate bond yields are likely to edge up.

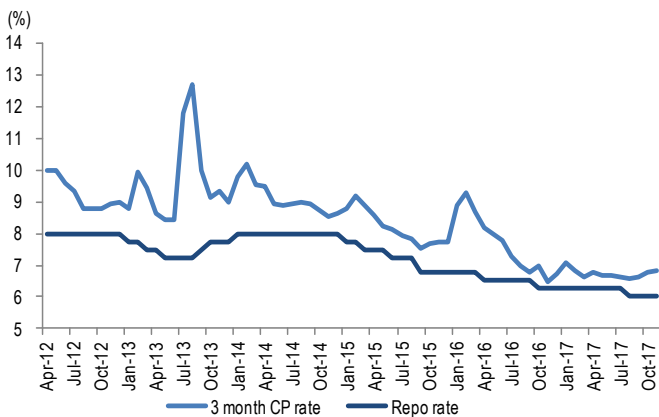
Exhibit 6: Banking system's liquidity is on the decline



Source: RBI, Bloomberg.

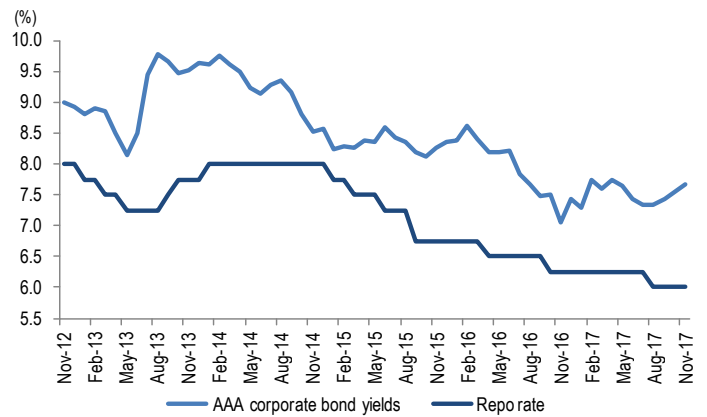
...and the RBI is likely to raise interest rates; Moreover, we expect the RBI to hike rates in the next six to nine months, most probably in 1QFY19. Transmission of interest rate changes by the central bank has typically been much faster to market interest rates i.e. corporate bonds and CP yields rather than bank-lending rates (Exhibits 7 and 8). In fact, market interest rates rise and fall ahead of policy rates. Therefore, with interest rates rising, we expect disintermediation by the corporate bond and CP market to slow down.

Exhibit 7: CP yields rise faster in a tightening cycle ...



Source: RBI, Bloomberg, Nirmal Bang Institutional Equities Research

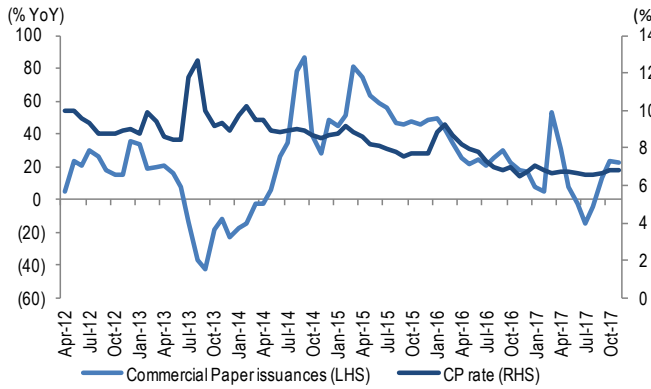
Exhibit 8:like in case of corporate bond yields



Source: RBI, Bloomberg, Nirmal Bang Institutional Equities Research

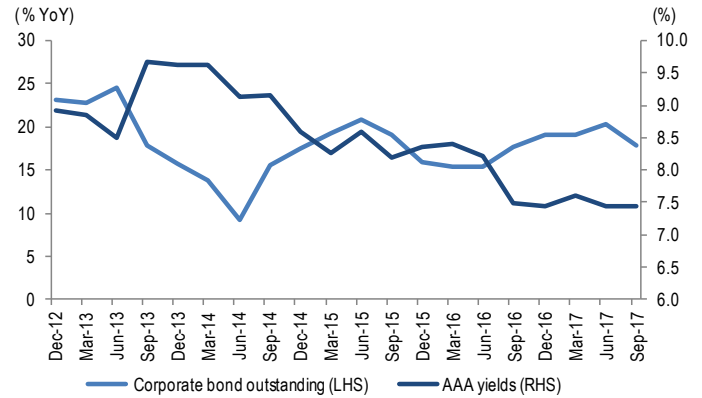
Credit demand likely to return to the banking sector, at least partially: Consequently credit demand is likely to return to the banking system, at least partially, aiding recovery in credit demand. This will be particularly true of lower-rated corporates who have been accessing the CP market to meet their working capital requirements on the back of ample liquidity and benign rates. Exhibits 9 and 10 illustrate that CP and corporate bond issuance move inversely with interest rates as one would expect.

Exhibit 9: CP issuance typically rises on falling rates...



Source: RBI, Bloomberg, Nirmal Bang Institutional Equities Research

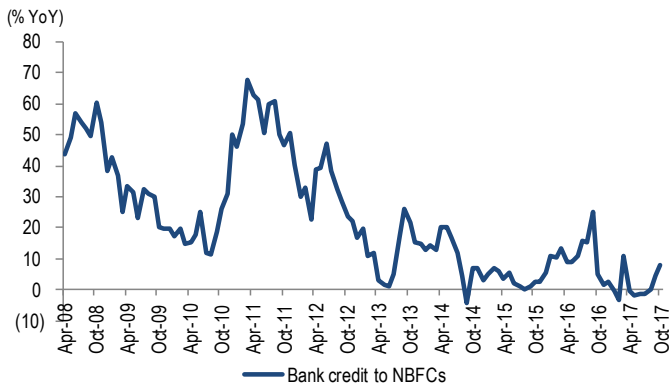
Exhibit 10: ...like in case of corporate bond issuance



Source: RBI, Bloomberg, Nirmal Bang Institutional Equities Research

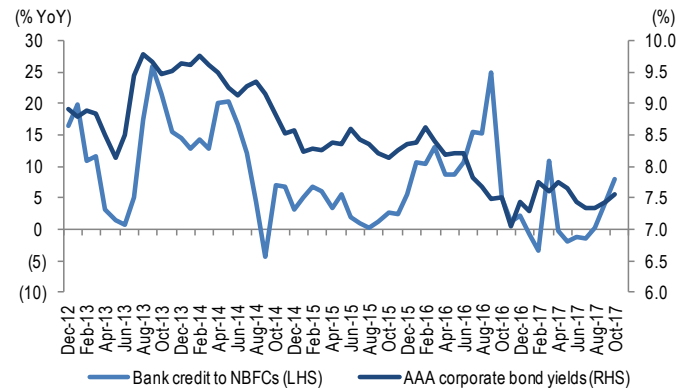
Bank credit to NBFCs could witness a pick-up: Non-banking financial companies (NBFCs) were among the main beneficiaries of corporate bond issuance in an environment of falling rates. With interest rates edging up, some NBFCs are likely to return to the banking system for their credit needs. Bank credit to NBFCs is already showing signs of bottoming out (Exhibit 11). Exhibit 12 illustrates that bank credit to NBFCs typically falls with falling corporate bond yields and vice versa.

Exhibit 11: Bank credit to NBFCs bottoming out...



Source: RBI, Nirmal Bang Institutional Equities Research

Exhibit 12: ... and should pick up with rising bond yields

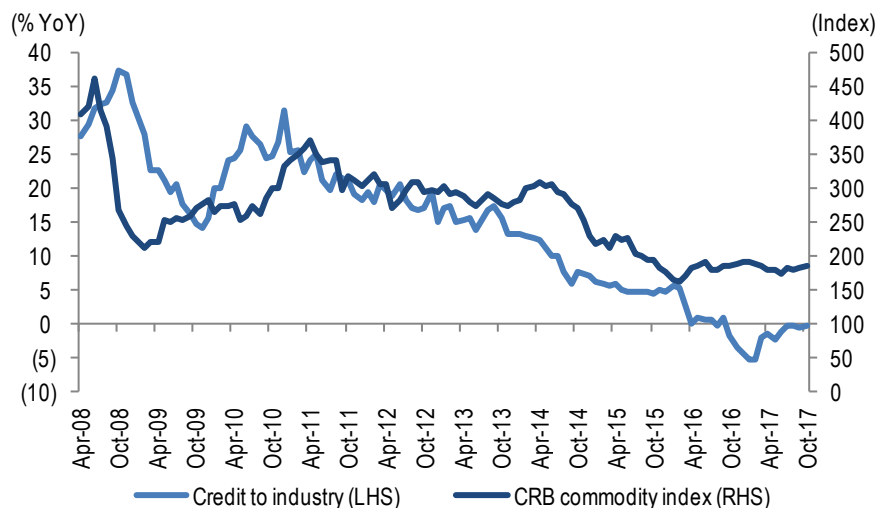


Source: RBI, Bloomberg, Nirmal Bang Institutional Equities Research

2. Higher commodity prices likely to aid working capital demand

Credit growth to industry has largely moved in consonance with commodity prices (Exhibit 12). However over the past one year, despite some improvement in commodity prices, credit did not witness much improvement as demonetisation and the implementation of Goods and Services Tax or GST weighed on credit growth. Nevertheless, with synchronised global recovery expected to sustain in 2018, commodity prices are likely to find support. This implies higher working capital demand from industry, which is likely to aid credit growth.

Exhibit 13: Improvement in commodity prices likely to aid credit growth

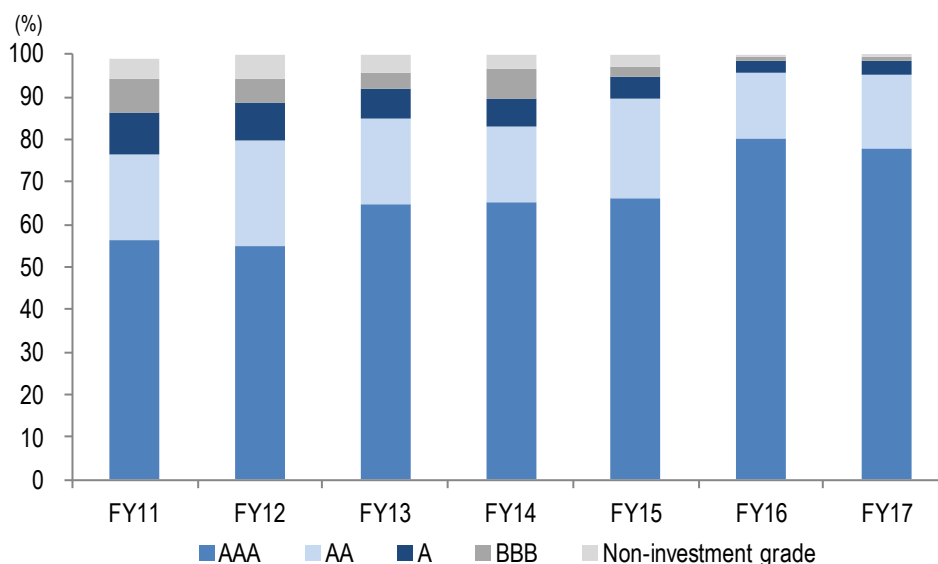


Source: RBI, Bloomberg, Nirmal Bang Institutional Equities Research.

3. Credit flow to medium-sized enterprise and mid-corporate segments may witness a slow pick-up

Bond market focused on AAA-rated corporates....: As we had highlighted in our earlier report: [Credit Growth Decoded](#), most of the corporate debt issuances are rated AAA, while issuances rated BBB or below are negligible (Exhibit 13).

Exhibit 14: Most corporate debt issuances have AAA rating

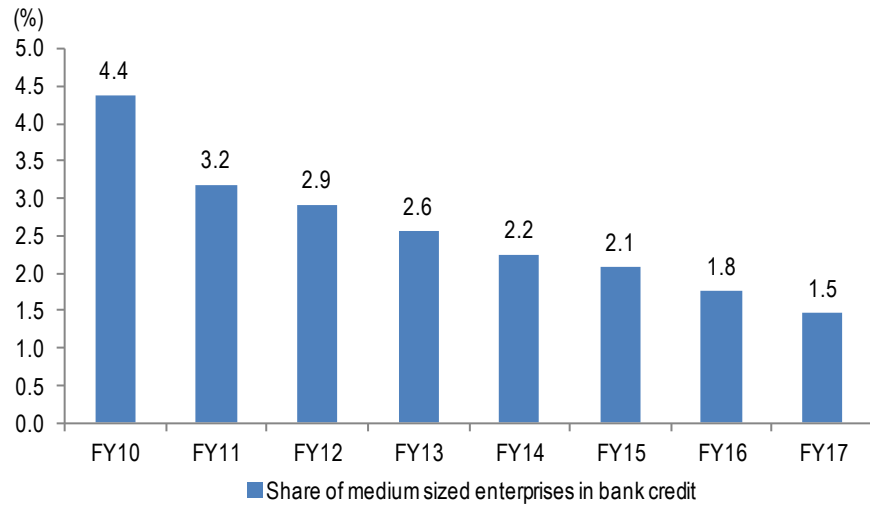


Source: SEBI, Nirmal Bang Institutional Equities Research

.... and incremental credit flow from banks has also been to better-rated corporates: Moreover, at a time when banks - both private and public - have been under stress on account of non-performing assets (NPA's), 80%-90% of incremental credit flow has been to corporates internally rated A- and above in case of private sector banks. In case of public sector banks, 50%-60% of incremental credit flow has been to better-rated corporates.

Medium-sized enterprises have witnessed a dip in credit growth: On the other hand, the share of medium-sized enterprises (investment in plant and machinery of Rs50mn to Rs100mn) in bank credit has fallen from around 4.5% in FY10 to around 1.5% in FY17 (Exhibit 14).

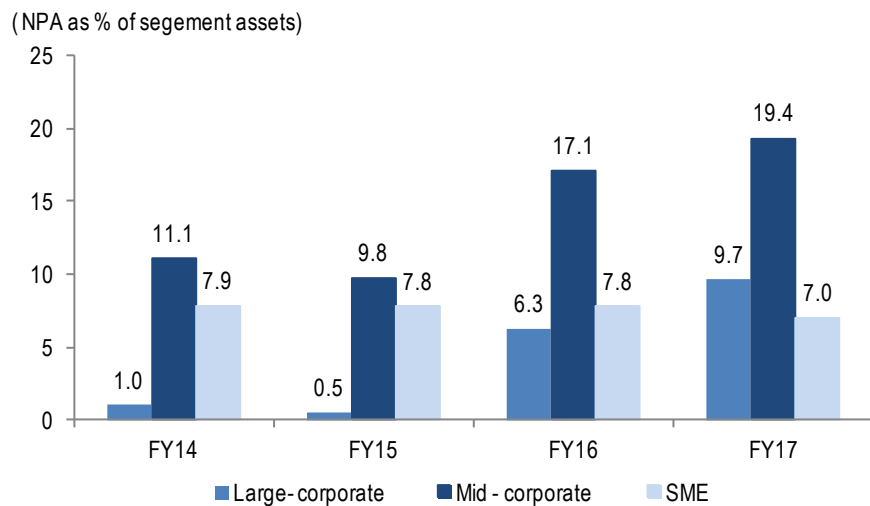
Exhibit 15: Share of bank credit to medium-sized enterprises has been falling consistently



Source: RBI, Nirmal Bang Institutional Equities Research

Mid-sized corporates have also been under pressure: Data from the country's largest lender, SBI shows that NPAs have been highest in the mid-corporate segment. SBI defines mid-sized corporates as those with a credit limit of Rs.0.5bn-Rs5bn. NPAs of mid-corporate segment have been higher than NPAs of large corporate and SME segments, and consequently lending to this segment has been under pressure (Exhibit 15).

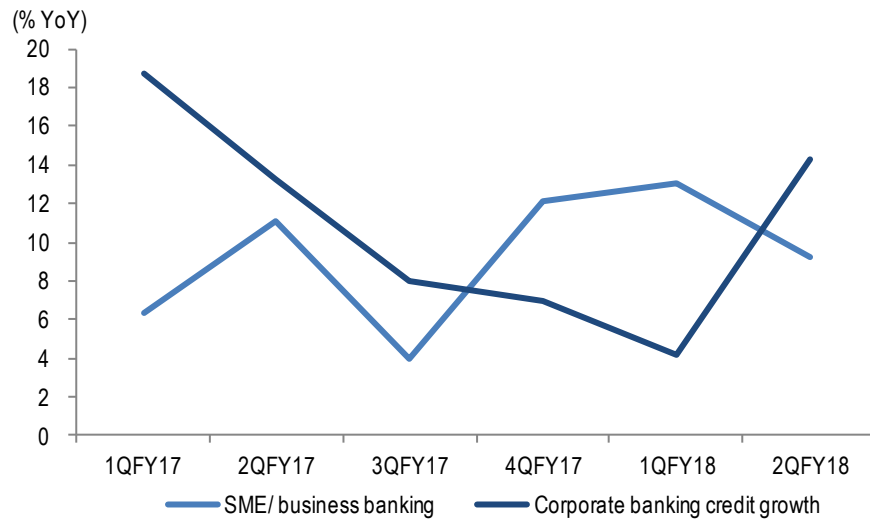
Exhibit 16: Share of NPAs is the highest in mid-corporate segment



Source: State Bank of India.

Signs of a turnaround in lending to emerging corporates and SMEs in case of private banks: However, there are signs of a turnaround. HDFC Bank, the country's largest lender, has been steadily growing its emerging corporate and SME/ business banking loan book. Other large private sector lenders are showing signs of bottoming out in corporate loan growth, while SME/business banking is recovering after the twin shocks of demonetisation and GST implementation. Nevertheless, as of now, the recovery is largely working capital-led.

Exhibit 17: Signs of turnaround in private sector lending to SMEs and corporates



* Calculated as the advances weighted average of ICICI Bank, Axis Bank and Kotak Mahindra Bank.

Source: Nirmal Bang Institutional Equities Research, Respective banks

The situation is more mixed in case of public sector banks with no definite signs of improvement.

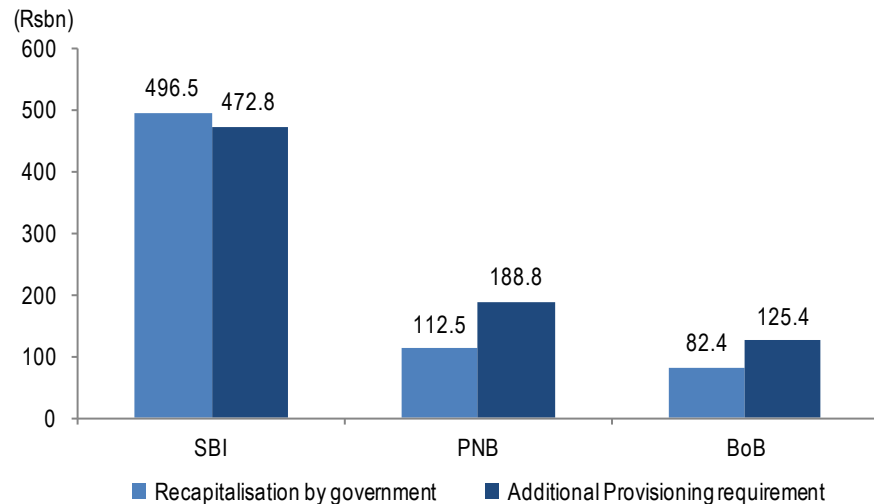
Credit upgrade should also help: As the economy recovers, credit upgrades should also spur lending. Rating agency Crisil's credit ratio (number of upgrades to downgrades) improved to 1.88 times in 1HFY18, compared with 1.22 times in 1HFY17. The debt-weighted credit ratio also surged to 3.19 times in 1HFY18, from 0.88 times in 1HFY17. There were 817 upgrades to 434 downgrades in 1HFY18. Another rating agency, ICRA, paints a more mixed picture. According to ICRA, although upgrades remained higher, the volume of debt downgraded increased significantly compared with the previous year and remained elevated while the average volume of debt downgraded per entity also increased. However, the stressed sectors - metals, power and telecom - were among the largest contributors to the volume of downgrades in case of ICRA. Nevertheless, as the economy improves we are likely to see more upgrades which bodes well for credit disbursal.

4. Public sector bank recapitalisation unlikely to be a game changer for credit growth

In our view, public sector bank recapitalisation announced by the Central government on 24 October 2017 is unlikely to provide significant growth capital to public sector banks. Estimates by our banking analyst suggest that provisioning requirements are likely to exceed capital infusion by the government through recapitalisation bonds and budgetary sources in respect of second and third-largest state-owned lenders - PNB and BoB. The only exception is likely to be SBI where capital infusion will be marginally higher than the incremental provisioning requirement. Therefore, recapitalisation is unlikely to spur aggressive credit growth in case of public sector banks (Exhibit 17).

Our estimates, for simplicity sake, assume that the government's capital infusion will be allocated in proportion to the share of advances of public sector banks. Our banking analyst has assumed conservative provisioning, with a target provision coverage ratio of 75%.

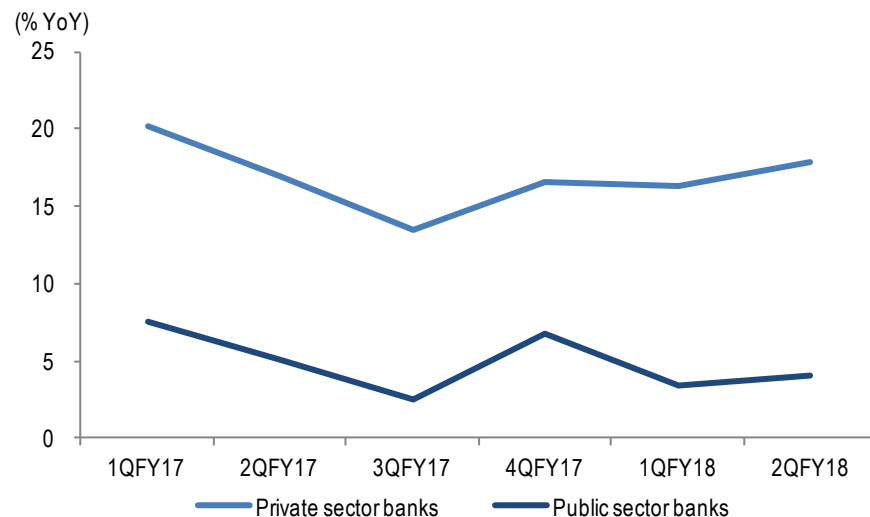
Exhibit 18: Public sector bank recapitalisation unlikely to provide growth capital



Source: Nirmal Bang Institutional Equities Research, Respective banks

On the other hand, private sector banks have been quite aggressive in raising capital from the market and gearing themselves for growth. Exhibit 18 below shows that credit growth of leading private sector banks has outpaced credit growth of public sector banks by a large margin, around 11%-13%. The turnaround has also been quicker in case of private sector banks. While credit growth of public sector banks may recover slowly, we see no significant threat of cannibalisation for private sector banks, on account of aggressive credit growth of public sector banks. Private sector banks are likely to continue to gain market share at the expense of public sector banks.

Exhibit 19: Private sector banks will continue to retain their edge over their public sector counterparts



* Calculated as the advances weighted average of three largest public sector banks.

* Calculated as the advances weighted average of four largest private sector banks.

Source: Nirmal Bang Institutional Equities Research, Respective banks

Appendix

Estimating credit growth

We have estimated credit growth through a simple linear regression using ordinary least squares. We have used annual data spanning the past 27 years.

Our predicted model is defined by the equation $y = a + bx + \text{error term}$.

The dependent variable (y) is credit growth, and the independent variable (x) is real GDP growth (statistically significant at the 5% level). We have used other independent variables such as lending rate and inflation to estimate credit growth, but none of the other independent variables were found to be statistically significant.

'a' is the intercept which can be approximated to WPI inflation, and an adjustment for disintermediation of credit through non-banking sources.

Our estimated model is this:

Growth in banking system credit = intercept + 1.336* real GDP growth (p value=0.046)

Which we approximate to:

Growth in banking system credit = 1.34* real GDP growth + WPI inflation- disintermediation factor.

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