India Credit Spotlight

Opportunities and Risks in the Face of Reforms

S&P Global Ratings

CRISIL
An S&P Global Company

Contents
August 2017

India Set To Ride Recent Reforms To Higher-Quality Growth

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(Editor's Note: The views expressed in this article are those of CRISIL Ltd., the India-based subsidiary of S&P Global Inc.)

The fiscal year ending March 2018 has been an eventful one for India. The Narendra Modi-led National Democratic Alliance (NDA) government completed its third year of a five-year term and consolidated its political power by winning several state elections. It took several standout economic moves—chiefly the monetary experiment of demonetization and the rollout of goods and services tax (GST). The country stands tall today, with stable macroeconomic fundamentals, prudent monetary and fiscal policies, and gradual but steady reforms.

We believe a sensible approach by the government is raising the quality—although not so much the rate—of economic growth. Inflation-targeting is providing an institutional framework to rein in prices even as India modernizes its central banking. Fiscal policy has also been mildly growth-focused, even as India gradually reduces its budget deficit. Such measures have improved the country's resilience to global shocks and lent stability to the rupee.

Overview

- Aligning incentives to take a life-cycle approach to operating and maintaining the asset to maximize useful life;
- Sharing or transferring risks to the private partner;
- Reducing pressure on public budgets; and
- Enabling innovation.

To be sure, good luck, mainly from lower oil and commodity prices, have played a big role too. India is a net—and a huge—importer of oil and commodities; lower prices therefore reduce inflation, merchandise imports, and fuel subsidies.

But not everything is hunky dory. Tackling the non-performing assets, or bad loans, in the banking sector, and reviving private investments continue to challenge policymakers.

While steps taken by the Modi government do not create an immediate and strong upside to growth, cumulatively they improve India's ability to achieve faster and, importantly, sustainable growth over the next few years. How much the trend rate will improve is a function of how the repairs and reforms are implemented, particularly in the remaining two years of the government's term.

The Demonetization Gambit: No Clear Verdict Yet

The surprise "8/8"—at 8 pm on Nov. 8, 2016—announcement by Mr. Modi withdrawing banknotes of Indian rupee (INR) 500 and INR1,000 denomination as legal tender, and their not-so-smooth replacement with currency in other denominations, has had an adverse impact on the economy.

GDP growth fell to 7.1% in fiscal 2017, or 80 basis points below CRISIL's initial estimates. In the fourth quarter, the number slid to 6.1%, dragged down by industrial production growth, which fell to 3.8% (6.5% in the first half), as cash-intensive sectors such as real estate and construction struggled.

One of the key objectives of demonetization was to tame ubiquitous tax evasion or "black" money. We believe that, while demonetization may have temporarily reduced the stock of black money, it may not have materially changed the flow. Other avenues for hoarding black money, such as real estate and funding of political parties, need to be rigorously monitored too. Although electronic payments picked up sharply after demonetization, their pace of growth slowed as banknotes got replenished. Cash-less transactions, will, therefore, need to be incentivized further. It remains to be seen whether the increase in tax collections due to demonetization can be sustained. A steady increase in India's tax-to-GDP ratio would indicate success.

Two positive spillovers of demonetization were an increase in taxpayers by more than 9 million, and a massive surge in bank deposits, which lowered lending rates.

Goods and Services Tax: A Game Changer

After more than a decade of and intense deliberations, GST was finally implemented in India on July 1, 2017. A five-tier tax rate structure—0%, 5%, 12%, 18%, and 28%—is in vogue, with essential items of daily use attracting the lowest rate and "demerit" and luxury goods the highest. Additionally, there is a cess above the peak rate on luxury and demerit goods such as tobacco.

In our view, while the GST structure is not optimal, it is still a significant improvement over the earlier system of multiple and cascading taxes. It can easily be dubbed as the most fundamental and far-reaching indirect tax reform in India in decades.

While full implementation of the GST would result in efficiency gains and lead to higher tax compliance in the longer run, it could lead to disruptions and a likely loss of revenue in the short run. The successful rollout of GST requires smooth functioning of a gargantuan information technology (IT) ecosystem and educating stakeholders on compliance and bringing them on board. The good news is, early signs indicate the process is going smoothly.

We believe GST will be a game-changer for India's economy, with logistics costs reducing for manufacturers, although they will increase for the services sector. In addition, GST will help narrow the gap between unorganized and organized firms as input sourcing from compliant firms will be needed to claim tax credits. While short-term hiccups cannot be ruled out, efficiency gains arising out of GST over the long term will ensure India is a net gainer in terms of growth, inflation, exports, and fiscal health.

One fear about GST is that it can disrupt consumer prices. This could linger for a long while because of asymmetry in transmission—where tax increases are passed on faster than tax cuts.

We don't expect GST to have a significant impact on inflation and maintain our CPI-based inflation forecast at 4% for fiscal 2018. We found that, for about half the items in the consumer price index (CPI), taxes were unchanged; they were lower for 30%; and higher for 20%. But the impact on inflation will depend on the extent to which businesses pass on the tax changes to consumers. Where the tax incidence falls, passing on the benefit to the end-consumer is at the discretion of the manufacturer, which may choose not to do so. The government intends to tackle this through an anti-profiteering legislation.

Political Consolidation: A Sure Benefit

Recent victories at state elections directly translate into more seats for the NDA in the Rajya Sabha (the upper house of parliament) in the coming years. Currently, the NDA has a majority in the Lok Sabha (the lower house) with 339 of 543 seats. However, in the Rajya Sabha, it has just 74 of 245 (including 233 elected and 12 nominated members), well short of the 123 required to secure a majority.

Our analysis suggests that, even if the NDA wins all state elections and the 2019 general elections, it would get majority in both the houses of the parliament only by 2020.

The NDA's lack of majority in Rajya Sabha can be an impediment to strong legislative action, as in the case of land and labor reforms (the onus of which has now been shifted to the states). However, the GST and bankruptcy legislations were rolled out with the government arriving at a consensus with the opposition parties.

One of the most important lessons from demonetization is that the government can make hard decisions without eroding political capital, as reflected in the NDA's victory in recent state elections.

Consumption To Drive Economic Growth

We expect India's GDP growth to rise by 30 basis points to 7.4% in fiscal 2018, driven by consumption demand (see chart 1). A normal monsoon (which is progressing well), benign inflation, and softer interest rates would help in this regard. Investments, especially by the private sector, would be subdued (see chart 2).

CHART 1: CRISIL's Outlook For India in Fiscal 2018

	2013-14	2014-15	2015-16	2016-17	2017-18F
GDP growth (%)	6.6	7.2	7.9	7.1	7.4
Inflation (%)	9.5	6.0	5.0	4.7	5.0
CAD / GDP	1.7	1.3	1.1	0.9	1.3
Fiscal deficit / GDP	4.6	4.0	3.9	3.5	3.2
Exchange rate (Rs/$, March)	61.0	62.4	67.0	65.9	67.5
10-year yield (March-end)	8.8	7.7	7.5	6.8	6.9
Investment / GDP	32.6	31.7	31.1	29.2	~29
NPA / Advances	3.8	4.3	7.5	9.5	10.6

F-Forecast. CAD- Current account deficient. NPA - nonperforming assts.
Source: Central Statistical Office, Reserve Bank of India, and CRISIL

Inflation To Stay In Comfort Zone

The sharp decline of retail inflation (CPI) to 1.5% as of June 2017, from 5.8% a year back, has created room for a cut in interest rates by the Reserve Bank of India (RBI). We attribute the fall in retail inflation to high base effect, a bumper crop, and a slow rise in global crude prices. We expect retail inflation to average 4% in fiscal 2018.

Fiscal Situations Of The Centre And States To Diverge

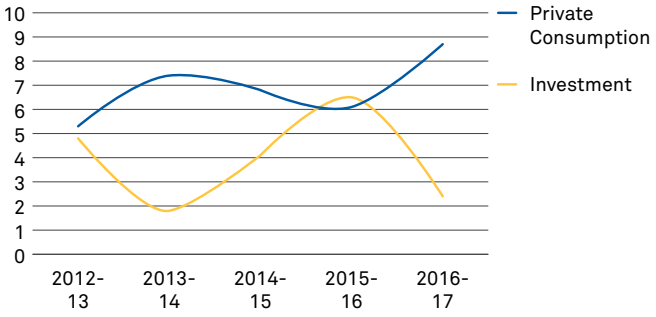
Finances of the central government have improved over the past couple of years, and we expect the government to meet its fiscal deficit target of 2.3% of GDP in fiscal 2018.

In contrast, the financial health of states has worsened. Their consolidated fiscal deficit worsened to 3.6% in fiscal 2016 and 3.4% in fiscal 2017, from 1.9% in fiscal 2012. The weakening deficit was because of huge debt from electricity distribution companies (after signing up for the Ujwal Discom Assurance Yojana [UDAY]). States have breached their fiscal target of 3% of GDP for the first time since 2005 (see chart 3).

Farm-loan waivers announced by some Indian state governments will only put additional pressure on their fiscal deficits. Our calculations show that, if other states were to follow suit, the aggregate farm loan waiver burden would be at least INR2.5 trillion. States such as Kerala, Madhya Pradesh, Uttar Pradesh, Telangana, and Rajasthan, with fiscal deficits hovering above 3% of GDP, would be the most affected. And, because such waivers are spread over three to four years, the fiscal burden will be spread too.

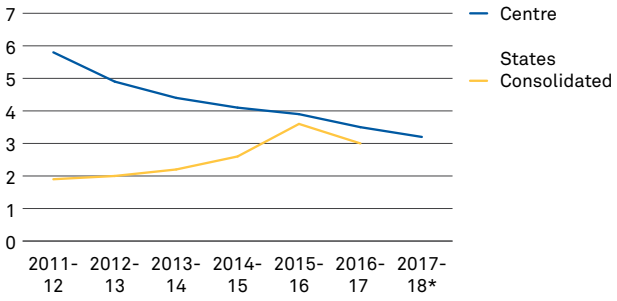
The implementation of the GST will reduce the burden to an extent because it will likely improve tax compliance and raise tax buoyancy.

Chart 2: Oh Fish! Private Consumption Vs Investments
%Growth



Source: Central Statistical Office

Chart 3: Fiscal Pressures Mount For Indian States



** Budget estimate*
Source: Reserve Bank of India, 2017

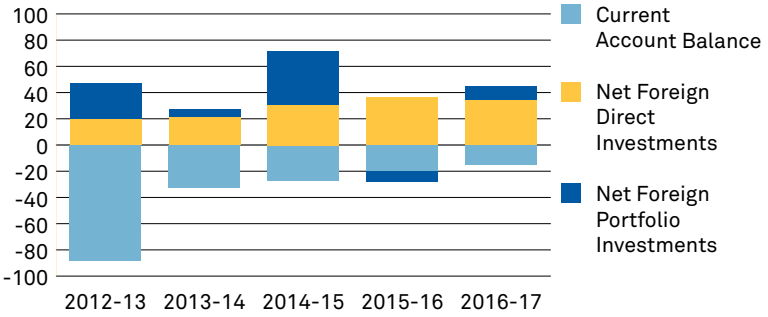
External Position Has Improved

One of the prominent features of India's improving macroeconomic fundamentals has been the consistent reduction in its current account deficit (CAD). After surging to 4.8% of GDP in August 2013, India's CAD fell to 0.7% in fiscal 2017. The financing of the deficit has also become more robust. That said, we expect external risks to push India's CAD up mildly to 1% of GDP in fiscal 2018.

Buoyant capital flows and their improving mix are another supporting factor for India. The increasing share of foreign direct investment (rather than portfolio inflows) in capital flows reduces risks to the economy.

We expect India's balance of payments to remain healthy over the next 12-24 months, with moderate and adequately financed CAD (see chart 4).

Chart 4: India's External Accounts Are Healthy
(US$ Billion)



Source: Reserve Bank of India.

Bad Loans, Reviving Private Investment Are Top Challenges

The bad loans in India's banking system continue to remain high, although the pace of increase is reducing. Moreover, overall investments as a percentage of GDP are still headed south. Reversing this trend is critical if India's growth trajectory is to shift sustainably higher.

We believe reviving private investments is a tough ask at this juncture, given the overcapacity and high leverage in the manufacturing and infrastructure sectors. The private investment dynamics have not changed in the past two to three years, with low capacity utilization and weak balance sheets continuing to deter investments.

Capacity utilization in India's manufacturing sector has languished since fiscal 2011. It fell to 72.7% in the quarter ended December 2016, according to data from the RBI. CRISIL's surveys show capacity utilization to be well below the threshold required to trigger fresh investments in a number of sectors.

We believe the government lacks the muscle to kick-start the investment cycle. It can only help increase infrastructure investment in areas where it plays a dominant role. The manufacturing sector is dominated by private players, so it will take a sustained pick-up in consumption demand to spur investments.

The fourth and fifth year of the Modi government's current term will be crucial, in our view. Efficient implementation of the reforms and repairs initiated in the first three years could trigger further gains for the economy.

Domestic And Heavy Industrial Sectors To Take Over India's Growth Baton

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India's stock market indices are scaling new peaks, with the National Stock Exchange's Nifty 50 touching 10,000 for the first time in its history on July 25, 2017. India's biggest tax reform, the goods and services tax (GST), has been finally implemented. Several estimates peg India as one of the fastest growing large economies in the world. The ruling government continues to strengthen its political mandate. One would expect these factors to trigger mass celebrations across corporate India. However, the companies in India seem to be recuperating rather than celebrating.

S&P Global Ratings expects large Indian companies to boost revenue growth and maintain improved profitability in the next two years, the last two years of the current government led by Prime Minister Narendra Modi. However, corporate revenue growth will still lag nominal GDP growth.

Overview

- We expect revenue of large Indian corporates to grow around 10% annually in fiscal years 2018 and 2019. Rising demand and moderate inflation will support profitability too.
- The credit profiles of these companies are likely to stabilize or improve.
- Lower capex and acquisitions are the keys to deleveraging, and any sharp uptick in spending will hurt the credit profiles of these companies.
- We believe competitive pressure will continue to drive consolidation and acquisitions across industries.

We attribute the stronger operating performance to slowly rising commodity prices and increasing utilization of unused capacities, rather than to a strong unbridled upturn in demand. However, the somber mood of Indian companies possibly holds the key for improvement in their credit profiles. We expect relatively muted capital expenditure (capex) over the next couple of years, and this will likely help these companies reduce debt leverage. Any sharp pick-up in capex spending or debt-fueled acquisitions can put pressure on their financial strength.

We believe the credit quality of Indian companies has been stabilizing and will improve over the next two years. Sectoral differences continue to be significant, but the broad trend is toward a recovery. Benign inflation with gradually rising commodity prices, falling interest rates, and good access to capital markets will provide relief across sectors.

The tables have turned as far as recovering industries are concerned, and that is a welcome trend. The improvement in heavy industries (such as steel, infrastructure, power, steel etc) is set to be more pronounced, while asset-light industries (such as information technology [IT] and pharmaceuticals) will face headwinds. IT services and pharma companies are debt-light and can stomach the pain, in our view. Steel, infrastructure, and power utilities have borne the brunt of the economic woes, and the recovery is a welcome relief.

In our analysis, we have considered the top 100 Indian companies based on market capitalization. We acknowledge some survivorship-bias, where poorly performing companies might have been pushed out of the sample. However, we believe the top 100 companies provide a good reflection of corporate India.

Commodity Focused Sectors To Outshine Exporters

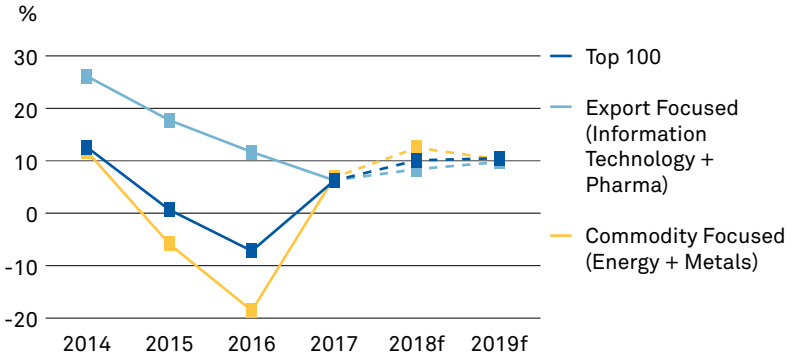
We expect strong economic growth and cash generation from new projects to support higher revenue growth for Indian companies. We estimate around 10% annual revenue growth in the fiscal years ending March 2018 and 2019 (fiscal 2018 and fiscal 2019). This compares favorably with the trend in fiscals 2014-2017, when revenues were largely flat due to lower energy and commodity prices.

The revenue growth in fiscals 2014-2017 was around 24% if we exclude the impact of commodity-focused sectors (such as oil and gas, and metals and mining). This growth was led by export focused sectors like IT services and pharma. The commodity focused sectors account for nearly half of the revenues for top 100 companies, significantly affecting the growth trajectory.

We believe the growth trends are reversing, with commodity focused sectors set to outpace export-focused industries (see chart 1). Revenue of oil and gas (including refining) companies is likely to grow a strong 25% in fiscals 2018 and 2019, helped

by higher oil prices and increasing capacities for major players such as Reliance Industries Ltd. and Indian Oil Corp. Ltd. This contrasts sharply to a nearly 23% drop in revenues for this sector in fiscals 2014-2017. We see a similar trend for the metals and mining sector, with higher commodity prices supporting growth, after flat revenues in the past three years. We expect consumer focused sectors to continue to hum along, supported by fairly robust consumption demand. However, export-driven sectors will have slower revenue growth due to increasing competition and a stronger rupee.

Chart 1: Revenue Growth Trend Is Reversing



f—Forecast. Data are for the fiscal years ending March 31. Source: S&P Global Ratings estimates, CapIQ consensus, Bloomberg estimates, company reports.

Improving Profitability Is Likely To Sustain

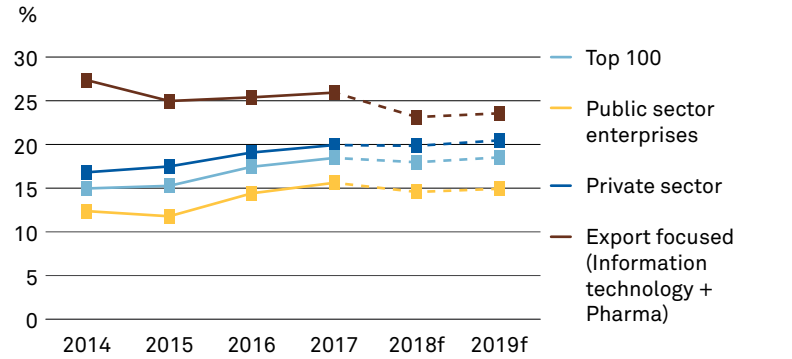
We believe top Indian companies will sustain improved profitability over the next two years. In our view, stronger operating leverage from higher revenue growth, improved cost position, and benign commodity prices will be the key supporting factors. Profitability of these companies continued to improve over fiscals 2014-2017 despite flattish revenue. EBITDA margins expanded by around 300 basis points (bps) during this period.

We also expect private sector entities to maintain their edge over public sector enterprises (PSEs), with stronger margins. However, this is partly a reflection of the relatively greater presence of PSEs in asset-heavy industries.

We expect the oil and gas sector to maintain its vastly improved EBITDA margins, supported by fairly robust refining margins despite lower fuel prices. The telecommunications industry is likely to see a compression in EBITDA margins due to intense competition.

We anticipate that the pace of margin erosion for IT services and pharma companies will increase. We estimate a 250 bps fall in margins for these sectors in the next couple of years, after a 150 bps fall in fiscals 2014-2017. Slowing global demand is leading to pricing pressures while regulatory and protectionist measures are increasing the cost of doing business. Nevertheless, we believe Indian IT services and generic pharmaceutical companies will maintain healthy margins of 23%-24% (see chart 2).

Chart 2: EBITDA Margins Are Improving



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Containing Capex Will Be The Key To Deleveraging

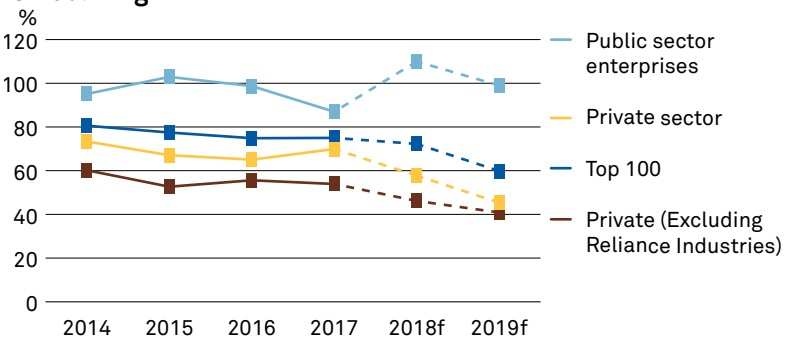
While we expect lower capex for the top Indian companies, there is a clear divergence between the private sector and PSEs. We expect private sector entities to continue to contain capex; redeploying only about half of their annual funds from operations in capital spending. On the other hand, PSEs will likely continue to invest most of their funds from operations back into business (see chart 3).

Over the past few years, policymakers have been struggling to revive private sector investments, which have been down largely due to corporate concerns on overcapacity and leverage. Excluding the large capex program that Reliance Industries is completing, private sector capex has been largely muted, growing only 5% per year over fiscals 2014-2017. However, improving economic sentiment, higher growth, and rising cash flows may bring back private investments.

We believe the key for deleveraging for Indian companies is lower capex. Any unexpected negative surprise on cash flows due to weaker growth or profitability could be offset by controlling capex.

Indian companies will likely think of the next phase of capex with focus on improving capacity utilization. This will be in line with our assumption. However, additional capex in anticipation of strong demand growth could lead to a repeat of the trend seen five to seven years back. Heavy capex amid aggressive competition and elusive growth could derail improvement in credit profiles for these corporates.

Chart 3: Capex As A Percentage Of Funds From Operations Is Declining



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Consolidation Is Likely To Continue

We expect increasing consolidation in domestic focused sectors, asset sales in infrastructure and power utilities, and outbound acquisitions in export-focused sectors over the next two years. We anticipate most companies to exercise financial discipline when looking at these opportunities without any significant impact on their financial health. The business position of some companies may also improve from such deals.

We believe domestic-focused companies will increasingly embrace acquisitions to remain competitive. For instance:

- The telecom industry has gone through accelerated consolidation, which is not surprising given the overcrowded industry and hefty spectrum costs. We expect some weaker players (such as Tata Teleservices Ltd. and Reliance Communications Ltd.) to exit, while the top three companies will continue to play active roles in consolidation.

- The fragmented Indian steel industry has faced significant pressure due to a fall in prices and high debt leverage. We expect some larger players to benefit from consolidation, although high leverage and global overcapacity may make it viable only at distressed valuations.
- In our view, the proposed merger of some government-owned oil companies (such as Oil & Natural Gas Corp. Ltd. and Hindustan Petroleum Corp. Ltd.) is driven by business rationale, rather than political pursuits. However, we don't expect any significant impact on the credit profiles of these companies from the merger.
- India's airlines industry has also undergone significant consolidation over the past few years and the government seems keen to explore possibilities of privatizing Air India, the loss-making national flag carrier.

We expect asset sales in the infrastructure sector to continue, given the financial pressure on some overextended groups and key players. We believe selective assets in the power sector may attract investor interest if supported by strong power purchase agreements (for example, Sun Edison India's solar assets that Greenko Energy Holdings acquired). The appetite for completed and operational assets is healthy, but we see hesitation in acquisition of stranded assets due to lingering uncertainties.

In our view, IT services and pharma companies will continue to make opportunistic acquisitions. Increasing competitive pressures and slowing growth in traditional businesses will give a further impetus to such deals. We expect the pace and size of acquisitions to increase. The fairly conservative leverage of these companies allows them to have moderate cash outflows to strengthen their business positions without hurting their credit profile.

Borrowings To Stay Under Check

We expect large Indian companies to keep their debt levels in check. We expect the ratio of debt to EBITDA for the top 100 companies to trend toward 2x in 2019, from a peak of 2.7x in 2016. The pace of growth in debt from 2014-2017 has been slower than that of EBITDA and funds from operations. Lower capex should also help. Leverage has declined in 2017, supported by rising earnings and controlled capex. However, the leverage of government-owned entities is likely to rise on the back of continuing investments. We believe Indian companies will seriously contemplate next phase of investments if their leverage trends closer to 2x (see chart 4).

We estimate EBITDA interest coverage to be healthy at about 5x for the top Indian corporates. We expect the wide divergence in interest coverage among sectors to reduce. Sectors such as metals and mining should improve their coverage ratios, while those for public sector entities should decline owing to ongoing investments. The EBITDA interest coverage of the metals and mining sector fell sharply in 2016 to about 2x, a level more seen with utilities companies (see chart 5).

Foreign Investor Interest In Indian Debt Is On The Rise

We believe increasing investor interest and understanding of Indian issuers will continue to provide Indian issuers good access to foreign currency bonds. The spread of issuers across sectors and rating categories tapping the international debt capital markets has widened in the past few years. We expect this trend to continue. This trend compares favorably to the past, when the majority of the issuances were from issuers rated in the investment grade (see chart 6).

The extent of investor interest in Indian debt can be gauged from the fact that Securities and Exchange Board of India, the Indian capital market regulator, has notified that issuance of rupee-denominated debt to offshore investors will be put on hold until the foreign ownership in corporate debt falls below 92% of the allocated quota of about US$38 billion.

Negative Surprises Can Derail Deleveraging

The report card of Indian companies from 2014 to 2017 has been mixed. We believe the credit quality of these corporates is improving with the top companies cutting the flab to get into shape. Good cost positions, moderate inflation, and tight cost control support improvement in profitability despite growth challenges.

However, India remains exposed to changing global trends. The revenue of Indian companies was stagnant in 2017, compared to 2014, due to lower oil and commodity prices. A slowdown in domestic consumption and delays in revival of industrial demand can hit growth. Ongoing global economic and geopolitical uncertainties add to the complexities. Any unexpected fall in commodity prices or intense competition can hurt profitability.

We believe larger Indian corporates are globally competitive or enjoy good domestic market positions. Healthy domestic economic growth, a stable currency, adequate funding, and falling interest rates provide further support. Stability in government policy and continuity of transformative reforms such as GST can enhance the currently stable credit trends for these companies.

Only a rating committee may determine a rating action and this report does not constitute a rating action.

Chart 4: Falling Leverage: Debt/EBITDA

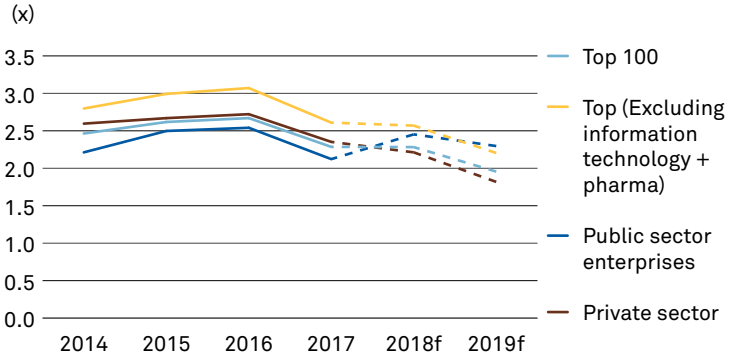

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Chart 5: Interest Coverage

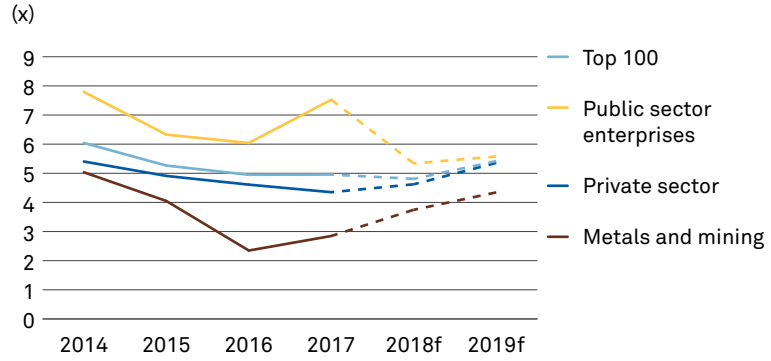

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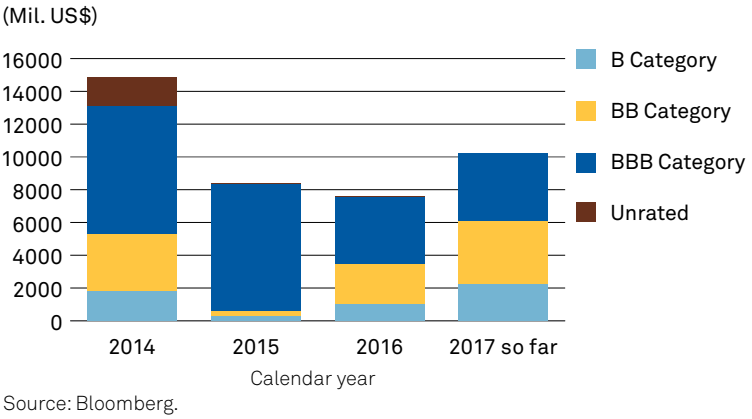
Chart 6: Foreign Currency Bond Issuers



Source: Bloomberg.

TABLE 1: India Industry Report Card—Aggregate Of Top 100 Companies

(Mil. Indian rupee)	2014	2015	2016	2017	2018F	2019F
Revenue	37,458,477.0	37,705,162.0	34,993,430.0	37,173,610.0	40,924,363.0	45,217,334.0
Growth (%)	12.6	0.7	(7.2)	6.2	10.1	10.5
EBITDA	5,605,981.0	5,754,894.0	6,105,119.0	6,860,480.0	7,397,226.0	8,424,161.0
EBITDA margin (%)	15.0	15.3	17.4	18.5	18.1	18.6
Debt	13,813,310.0	15,064,310.0	16,298,495.0	15,680,233.0	16,886,026.0	16,474,999.0
Debt/EBITDA (x)	2.5	2.6	2.7	2.3	2.3	2.0
Interest	927,914.0	1,093,182.0	1,233,797.0	1,384,390.0	1,517,156.0	1,533,675.0
EBITDA/Interest (x)	6.0	5.3	4.9	5.0	4.9	5.5
FFO	4,540,240.0	4,504,511.0	4,769,192.0	5,418,997.0	5,382,993.0	6,160,275.0
FFO/Debt (%)	32.9	29.9	29.3	34.6	31.9	37.4
Capital expenditure (capex)	3,658,393.0	3,489,304.0	3,570,559.0	4,064,173.0	3,846,929.0	3,648,557.0
Capex/Revenue (%)	9.8	9.3	10.2	10.9	9.4	8.1
Capex/FFO (%)	80.6	77.5	74.9	75.0	71.5	59.2

f—Forecast. FFO—Funds from operations. Source: S&P Global Ratings estimates, CapIQ consensus, Bloomberg estimates, Company reports.

No Quick Cure For India's Banking Blues

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The stress in India's banking industry won't ease anytime soon. S&P Global Ratings believes that weak asset quality and shrinking capital cushion will continue to ail the country's public sector banks, which dominate the industry.

We estimate that the Indian banking industry's total stressed assets will increase to 13%-15% of total loans by March 2018. The government has taken various initiatives to strengthen banking regulations to improve the sector's asset quality. However, there is little progress on two keys issues: improving risk management practices; and raising fresh equity capital to make large "haircuts" on loans to unviable stressed projects. Banks also need capital for meeting their regulatory requirements, and many public sector banks are approaching close to the minimum thresholds.

The performance of the Indian public sector banks that we rate was dismal in the fourth quarter of fiscal 2017 (year ended March 31, 2017)—but also in line with our expectations. Year-over-year increase in nonperforming loans (NPLs) led to higher provisions and lower profits, and the capital available to absorb unexpected losses remained thin. In addition, loan growth was among the lowest in a decade. Low loan growth is largely a result of a down cycle in the infrastructure and metal sectors, low corporate capital expenditure, and demonetization. On the upside, the proportion of deposits in these banks' overall funding increased, helped by demonetization. But that won't be enough to improve these public sector banks' financial profiles.

Overview

- The quarterly performance of India's public sector banks remained weak.
- Asset quality woes persist even though the new NPL formation cycle may have peaked.
- Eroding capital buffers poses a risk to stability.
- Government support continues to underpin the ratings on these banks.

Asset Quality Remained Weak

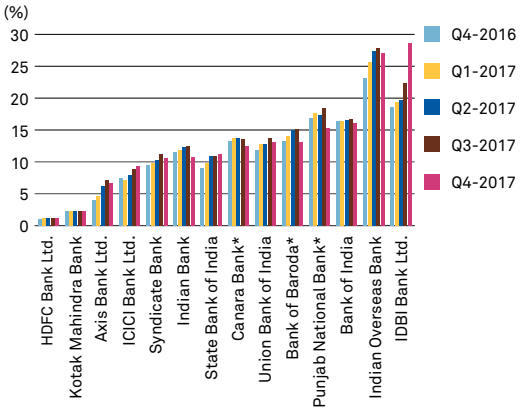
We expect weakened asset quality to continue to constrain Indian banks' performances in fiscal 2018. Overall, we estimate that Indian banks' ratio of gross NPLs plus standard restructured advances to total loans will increase to 13%-15% by the end of fiscal 2018, compared to 12.3% in the first half of fiscal 2017.

In line with our expectations, Indian banks ended fiscal 2017 with significant stressed assets on their balance sheets. The asset quality of most banks deteriorated year over year, but improved sequentially in the fourth quarter. Overall, new NPL formation (slippage) in 2017 was lower than that in 2016. IDBI Bank Ltd. and State Bank of India (SBI) were among the exceptions to the trend. IDBI Bank's NPLs spiked to 21.3% as of March 31, 2017, from 15.2% in the previous quarter, and its nonperforming assets ratio (NPL + standard restructured loans) of about 29% is the highest among our rated Indian banks. We attribute this to the bank's customer concentration and sizable exposure to the highly vulnerable corporate and infrastructure segments. SBI's NPLs at a consolidated level increased to 9.04% from 8.65%. The bank had been recognizing and providing for the stressed assets at its subsidiaries before consolidating them from April 1, 2017, leading to this trend.

As of March 31, 2017, the NPL ratio for the public sector banks that we rate ranged from as low as 7.5% of gross receivables for Indian Bank to as high as 22.4% for Indian Overseas Bank. Moreover, in some instances the quarterly improvement was due to aggressive write-offs. For example the large public sector bank Canara Bank (unrated) wrote off Indian rupee (INR) 24.7 billion of loans, the bank's highest in the past eight quarters. Additionally, slippage, though lower than the peak, is still higher than usual and provision levels remain low.

Some private sector banks, especially HDFC Bank Ltd. and Kotak Mahindra Bank, performed better than their public sector peers (see chart 1). The NPL ratio for HDFC Bank remained the lowest among the Indian banks we rate at 1.1% followed by that for Kotak Mahindra Bank at 2.25%. Both these banks benefitted from superior risk management practices and because they stayed away from project loans to the infrastructure sector, which is under stress. Axis Bank Ltd. and ICICI Bank Ltd. had infrastructure loans and their asset quality was hit, though not as badly as that of their public sector counterparts, given these private banks' larger exposure to the relatively low risk retail segment. NPLs were stable for HDFC Bank in the fourth quarter and increased sequentially for Kotak Mahindra Bank and ICICI. NPLs declined for Axis, partly due to a huge write-off.

Chart 1: Stressed Assets Ratios



Note: Restructured data is on a stand-alone basis. For ICICI and Axis, restructured figures are net of provision. For HDFC Bank, because the restructured data for Q3 and Q4 2017 was not available, we assume it to be the same as in the previous quarters. *Unrated. Source: Banks' financial statements and S&P Global Ratings' calculations.

Difficulties in certain corporate sectors have been spilling over to banks

The power, iron and steel, and textile segments remain pain points for Indian banks because they continue to account for a sizable portion of banks' stressed assets. The risk associated with these sectors remains high despite the government's steps to contain it.

The iron and steel sector has recovered somewhat on the back of the government's import protection mechanism and the increase in global prices. Also, banks have already recognized a sizable chunk of NPLs in this sector. But the power sector will still need to pare down debt, increase capacity utilization, and resolve unviable power purchase agreements to revive it. Banks' outstanding loans to the power sector declined by 9.4% in fiscal 2017. A significant portion of this decline could be a result of the conversion of loans given to state electricity boards to state government securities, as part of the government's Project Uday, a financial turnaround and revival package for electricity distribution companies. Difficulties in some other capital-intensive segments, such as construction, roads, and cement, are also likely to increase banks' NPLs from these segments. But the overall banking sector's exposure to these segments is limited.

Although the pace of new NPL creation is likely to abate somewhat, banks with sizable corporate exposures remain vulnerable. That's because resolution of stressed assets is work-in-progress and banks need to make up the provision backlog.

New regulations are likely to be marginally positive

On May 5, 2017, the government passed an ordinance giving powers to the central bank, Reserve Bank of India (RBI), to push banks to deal with their bad assets. The ordinance authorizes the RBI to issue directions to any bank to initiate the insolvency resolution process in respect of a default under the provisions of the Insolvency and Bankruptcy Code, 2016. This measure aims to push banks to resolve NPLs through "haircuts" without fear of investigation from agencies such as Chief Vigilance Commission, Central Bureau of Investigation, and the Comptroller and Auditor General of India. However, it's unlikely that the regulator will take on the operational role of deciding fair values and the "final haircuts." Also, this ordinance and the other measures announced so far fail to address the structural issue that affects public sector banks—the lack of capital that restricts these banks' ability to write down NPLs to more accurate levels.

On the same day, the RBI tightened rules related to the "joint lenders forum" to speed up decisions to resolve stressed assets. Likewise, it tightened thresholds for triggering prompt corrective action (PCA; see "India's Tighter Risk Thresholds For Corrective Action On Banks Could Spur Capital Infusions And Consolidation," published April 18, 2017, on RatingsDirect). Under the revised norms, the RBI initiated PCA on IDBI Bank and UCO Bank because of the banks' high net NPLs and negative return on assets (ROA). And more banks may fall under the purview of the PCA. In our view, these are steps in the right direction and the new regulations will force public sector banks to raise their generally low provisioning coverage, and likely accelerate the need for capital. But revised norms may not necessarily be effective as early warning signals amid the current industry down cycle as a number of public sector banks are already knee-deep in NPLs.

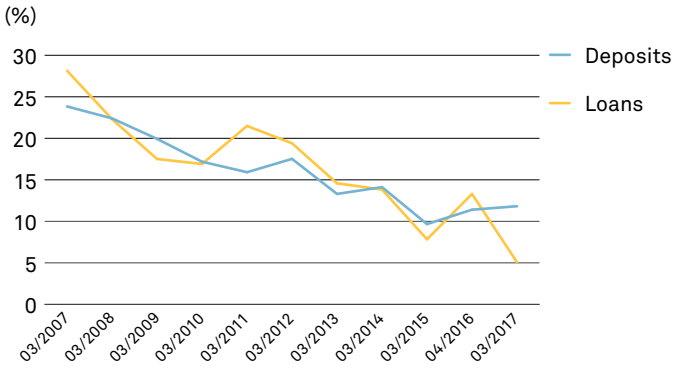
Loan Growth Was Low Despite Good Liquidity

The banking sector's loan growth in fiscal 2017 was one of the lowest in at least a decade (see chart 2). Loan growth recovered marginally to 6% in the fourth quarter after remaining subdued in the first three quarters of the fiscal year. A major part of this growth was seasonal. Part of the pick-up is also likely to have been influenced by pent-up demand arising after the demonetization exercise. Full-year growth was mainly driven by growth in the services segment, specifically trade and exposure to nonbanking finance companies, and in the retail segment. Within the retail segment, while housing loans continued to dominate, personal loans increased a significant 27.6% year on year to constitute almost a fourth of the retail loan book.

Deposit growth also picked up sharply in fiscal 2017 due to the demonetization exercise, which led to a sharp surge in deposits. Aggregate deposits increased by INR4.7 trillion in the quarter ended Dec. 30, 2016. Banks were flush with liquidity and had to park most of this money in liquid assets, mainly government securities, because of weak credit demand. Banks' proportion of government securities increased by a whopping INR7.2 trillion in the third quarter, only to be largely reversed (INR5.4 trillion) in the fourth quarter. Given this surge in deposits, the banking industry's loan-to-deposit ratio improved to 73% from 78% a year ago.

Among the banks we rate, the performance of the private sector banks diverged sharply from that of most public sector banks. Given their stronger capital position, private sector banks were able to garner loan market share even as their public sector counterparts struggled to maintain their position. Given the weak capital position of many public sector banks, we expect public sector banks will continue to lose market share to private sector banks in fiscal 2018.

Chart 2: Aggregate Deposit And Loan Growth For The Industry



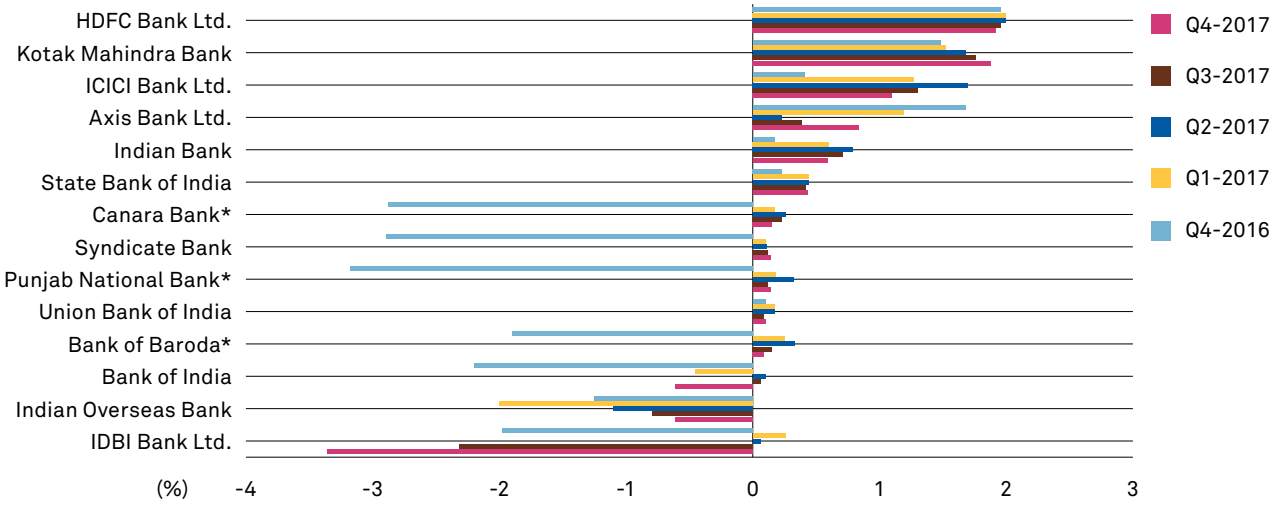
Source: Reserve Bank of India.

We expect loan growth in India's banking sector to recover to high single digits in fiscal 2018, from around 5% in fiscal 2017. We anticipate that better prospects for agriculture, somewhat improved exports, and completion of demonetization will support consumption demand in fiscal 2018. That said, investment demand should still be moderate given uncertainties related to the implementation of the goods and services tax, lack of a full assessment of the effects of demonetization, fiscal consolidation by the union government, and the absence of a sharp credit stimulus.

Earnings Continue To Suffer

In line with our expectations, most public sector banks reported low profits. Return on average assets (ROAA) for our rated banks and three large banks we do not rate—Bank of Baroda, Canara Bank, and Punjab National Bank—improved marginally to 0.31% in fiscal 2017, from 0.23% in fiscal 2016. Both these sets of banks together

Chart 3: Reported ROAA



*Unrated. Note: All data is based on stand-alone numbers and annualized. On a consolidated basis, State Bank of India made a loss in Q4-2017.
Source: Banks' reports.

form about 75% of the industry's assets. The low profitability is attributable to high provisions, declining margins, and support from one-off incomes. We expect profitability to remain bleak in 2018 as banks continue to provide for fresh slippages and increase provisions coverage. The reported provision coverage (ratio of provisions to NPLs) of most public sector banks is low at about 51%-61%. Many banks will need to increase provision to address the huge stressed assets on their balance sheets. We expect the banking industry's ROAA in fiscal 2018 to remain similar to the low of around 0.3% in fiscal 2016.

Fewer banks reported net losses in fiscal 2017 than in the previous fiscal. Nevertheless, their earnings remain very low and some of them have barely scraped through, supported by one-off income from profit on sale of investments, treasury income, or tax credits. For example, Union Bank of India's profit on sale of investments for the year more than doubled compared to the previous year. Even then, the bank would have made a loss in the fourth quarter but for income tax write-backs. Likewise, Canara Bank's profit for the quarter was a mere INR2.1 billion despite the bank booking INR7 billion of gain on the sale of its stake in its housing finance associate, M/s Canfin Homes Ltd., during the quarter. While SBI reported a profit (with ROAA of 0.43%) in the fourth quarter of fiscal 2017 on a stand-alone basis, the cleaning up exercise at the subsidiary level has meant that the bank reported a loss in the fourth quarter on a consolidated basis. On the other hand, HDFC Bank and Kotak Mahindra Bank, both of which maintained healthy asset quality, reported good profitability with ROAA of 1.9% and 2.2%, respectively (see chart 3).

Margins for the banking system were under stress due to falling interest rates, excess liquidity, and the non-accrual drag. Fourth quarter margins were 1.75%-2.8% for the public sector banks we rate and 3.6%-4.6% for our rated private sector banks. With the interest rate cycle coming closer to its end, the pressure on net interest margins (NIMs) should reduce going forward. However, non-accrual loans and stiff competition in the

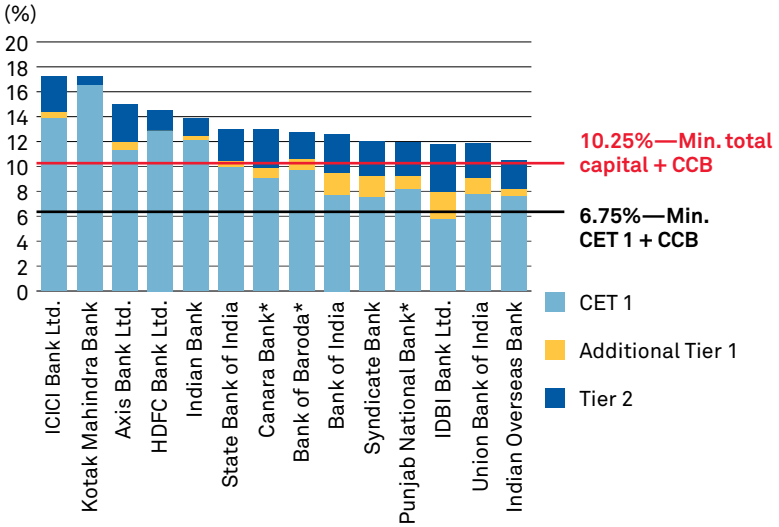
retail segment will prevent NIMs from improving in 2017-2018. As we had expected, credit costs also continued to be high in the fourth quarter as the stock of stressed asset remained large and the average provisioning coverage on Indian public sector banks stayed low between 51%-61%. We expect Indian banks' credit costs to remain high in fiscal 2018, especially for corporate lenders with weak provision coverage.

Capital Remains A Major Stumbling Block For Public Sector Banks

Weak profitability and rising capital demands from Basel III implementation will continue to pressure the capitalization of several public sector banks in India. So far, these banks have been able to meet minimum regulatory requirements largely because of the government's capital infusions, issuance of additional Tier-1 capital, and lower growth in risk-weighted assets. Most banks' total capital ratio improved marginally in fiscal 2017. However, since the requirement itself is rising, many public sector banks met the regulatory capital requirement with a slim margin. Besides, given their continued weak performance, a large number of banks saw a dip in their common equity Tier-1 (CET1) ratios. For example, Bank of India's CET1 ratio on a stand-alone basis declined to 7.17% as of March, 31, 2017, a 80 basis point dip from March 31, 2016. Bank of India's CET1 ratio is now inching closer to the minimum regulatory requirement of CET1 + capital conservation buffer (CCB) of 6.75% (excluding the CCB, the requirement is 5.5%). IDBI Bank has already drawn down from its CCB, and its CET1 ratio is 5.75% (5.64% on a stand-alone basis) (see chart 4).

In our view, India's public sector banks will have to continue to rely on external capital infusion to meet the Basel III capital requirements. That's because banks may be required to make large "haircuts" on loans to unviable stressed projects, the regulatory capital requirement will continue to rise till 2019, and profitability will remain subdued. The banks may also have to sell off their non-core

Chart 4: Regulatory Capital Ratios



*Unrated. Note: Data is for the consolidated entity. CET1—Common equity Tier 1.
Source: Banks' financial statements.

assets or investments to raise capital, like Canara Bank did. The Indian government has promised to infuse INR700 billion into its public sector banks over 2016-2019, with INR100 billion allocated for fiscals 2018 and 2019 each. In our view, these amounts won't be sufficient to fully resolve the public sector banks' looming capital shortfall. Therefore, we expect that reducing risk weights, selling non-core assets, and higher reliance on additional Tier-1 bonds may remain the near-term strategy for some banks. We believe that bankscloser to the minimum capital requirement may find it difficult to raise additional Tier-1 capital through the capital markets, given the need for significant write-off of stressed assets and the poor equity valuations for most of these banks.

The regulatory capital levels of some public sector banks are already close to the regulatory minimum requirement. The public sector banks we rate could face multiple notches of downgrades if their capital breaches the minimum regulatory requirement for a banking license. We cap the stand-alone credit profile of a bank that breaches regulatory capital requirements (and is still allowed to continue to operate) at 'ccc+'. This cap is applicable only if the bank breaches the minimum regulatory requirement for its license, i.e., the minimum capital requirement excluding the CCB. If a bank dips into its conservation capital, the bank may be required to take some action to contain the buffer such as stopping dividend payments. However, this dipping into the CCB does not lead to a breach of requirements for a bank's license in our view. Our base-case expectation is that the public sector banks will meet the minimum regulatory capital requirements. Our view is based on the government's public commitment as part of its plan to revamp public sector banks and help these banks to maintain a buffer over and above their Basel III requirements. For now, we see a very high likelihood that the government will provide extraordinary support to public sector banks, given the bank's majority government ownership.

On the other hand, the private sector banks we rate remain better placed than their public sector peers to meet Basel III capital requirements. These private banks benefit from better capitalization, higher internal capital generation, and greater investor appetite because of their stronger profitability. Kotak Mahindra Bank has the highest Tier-1 ratio among our rated banks at 16.5% as of March 31, 2017. Moreover, the bank raised capital to the tune of INR58 billion in May 2017 to dilute the promoter's stake to comply with the regulatory requirement.

Government Support Continues To Hold Up The Ratings

We see limited prospects for Indian banks' credit profiles to improve over the next 12 months. Factors that could speed up revival—such as, resolution of stressed borrowers, turnaround in select corporate sectors, and recapitalization of public sector banks—are still works in progress.

Capital shortfall and asset quality problems could pave the way for consolidation among the government-owned banks. However, this is fraught with significant execution challenges. Nevertheless, consolidation needs to be accompanied by significant improvement in risk management practices, efficiency gains, capitalization, and improvement in overall governance for improving the health of the sector. In the meanwhile, the government's capital infusion and extraordinary support will be a key rating factor for India's public sector banks.

Related Criteria And Research

- IDBI Bank Ltd. Rating Unaffected By Draw Down From Capital Conservation Buffer And Central Bank Intervention, May 18, 2017
- India's Tighter Risk Thresholds For Corrective Action On Banks Could Spur Capital Infusions And Consolidation,April 18, 2017
- Progress Will Be Slow For India's Banks In 2017, Feb. 28, 2017

Only a rating committee may determine a rating action and this report does not constitute a rating action.

Indian Pharma Companies Need To Pass The Trials, But Can They Shape Up?

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Indian pharmaceutical companies are learning the hard way that it's not enough to just check the boxes on the quality front. They need to keep a close watch on every aspect of drug manufacturing so that they can match the expectations of the U.S. Food and Drug Administration (USFDA).

The USFDA has in recent years increased its vigilance, toughened its stance on quality lapses, and seeks adherence to high standards of manufacturing from drug producers to resolve its negative actions. Persisting regulatory issues present growth challenges for makers of generic drugs because their growth is largely driven by new product approvals, which have slowed down.

Mounting pricing pressure on generic drugs in the U.S., intensifying competition, an appreciating rupee against the U.S. dollar, and the proposed policies of President Donald Trump administration could pose further challenges for Indian drug exporters to the U.S.

S&P Global Ratings believes Indian pharma companies will feel growing pains, at least over the next two to three years. The healthy growth in revenues and margins that these companies saw till 2014-2015 has been hit. However, companies that continue to invest in meeting compliance standards while growing are likely to emerge stronger over the longer term, thanks to their still-healthy margins, low leverage, and support from promoters. We have assessed 10 companies, which we believe represent the Indian pharma industry. These are: Aurobindo Pharma Ltd., Cadila Healthcare Ltd., Cipla Ltd., Dr. Reddy's Laboratories Ltd., Lupin Ltd., Sun Pharmaceutical Industries Ltd., Glenmark Pharmaceutical Ltd., Wockhardt Ltd., Jubilant Life Sciences Ltd., and Torrent Pharmaceuticals Ltd.

Overview

- Compliance with USFDA quality standards will be an absolute necessity for Indian pharma companies to survive and grow.
- Pricing pressure will likely continue for Indian drugmakers over the next two to three years. Continuous investments in research and development (R&D), and a focus on complex and specialty formulations could help restore margins over a longer term.
- Indian companies can benefit from government policies in the U.S. seeking to lower healthcare costs because this is likely to increase the use of generics.
- Maturing businesses, healthy margins and low leverage can help these companies withstand the headwinds.

Regulatory Checks Will Continue To Be Stringent

We do not expect any let up in the USFDA's scrutiny of Indian pharma companies. This is because of the rising number of regulator-approved facilities of Indian companies and growing exports of generics to the U.S. from India. India is already among the largest exporters of generic drugs to the U.S.

The rise in inspections comes against the backdrop of the implementation of the Generic Drug User Fee Act (GDUFA). The Act seeks to hasten approvals for generic formulations and bring parity in inspections of drug manufacturing facilities in the U.S. and overseas.

The nature and frequency of problems that the USFDA has found at Indian drug manufacturers are similar to those found around the world. Data reliability, non-adherence to standard operating procedures, batch failures, contamination, and insufficient investigation of problems identified in the quality process are some of the major non-compliance issues observed. More than two thirds of the disciplinary actions on Indian plants cite data integrity as a key adverse observation. Compliance lapses thus identified, if not resolved on timely basis, may escalate into warning letters and import alerts, affecting future revenue growth.

In our view, regulatory actions are not easy to resolve because they invariably mean restoring regulatory faith in a company's ability to adhere to quality standards. The warning letters, for example, have been taking longer to resolve than earlier—they require two years and beyond in some cases. The affected companies face potential delays in getting new product approvals.

The risk of warning letters escalating to import alerts could disrupt current revenues, and the remediation costs could dent margins. The success rate of Indian drug companies in their remediation efforts indicates that there is a lot of scope for improvement—only about 10% of the warning letters over the past two years have been resolved. The delay in remediation is often due to data integrity issues, which the regulator takes

TABLE 1: Regulatory Issues Faced By Top Indian Pharma Companies

Company	Unresolved regulatory actions	What's at stake?	Regulatory actions that are resolved
Sun Pharmaceutical Industries Ltd.	- FDA import alert on three plants inherited from Ranbaxy. - Warning letters for Halol and Karkhadi facilities are yet to be resolved.	Single-digit decline in revenue for fiscal year ending March 2018 due to pricing pressure and delay in product approvals in the U.S.	Import alert for Mohali plant lifted after three years. Marginal benefits to revenue.
Dr. Reddy's Laboratories Ltd.	Warning letter and negative observations for two plants.	Delayed product launches impacting growth. Company could slow down complex generic filings.	Active pharmaceutical ingredient (API) plants at two locations cleared. They contribute only about 5% to revenue. Complete resolution could take more than two years.
Cadila Healthcare Ltd.	No major outstanding issues upon recent resolution of warning letter for the Moraiya plant.	Moraiya accounts for about 60% of Cadila's U.S. sales and about 40% of pending generic filings. Delay in resolution would have hurt revenues in fiscal 2018.	Clearance for in all three plants. Resolution took 1-1.5 years. Key product approvals from Moraiya have started.
Aurobindo Pharma Ltd.	Negative observations on Hyderabad plant.	Meaningful products filings are from Hyderabad plants.	Few other plants with negative observations cleared.
Lupin Ltd.	Negative observations on Goa, Aurangabad, and Indore facilities.	Affected plants together contribute meaningfully to the company's U.S. sales.	Clearance received for Mandideep plant.
Glenmark Pharmaceutical Ltd.	No major outstanding issues upon recent resolution of negative observations for the Ankaleshwar API plant.	Not significant	- Clearance for Ankleshwar. Resolution took three months. - Goa plant (contributes nearly half of U.S. sales) has cleared inspections. We expect normal approval rate to resume.
Jubilant Pharma Ltd.	No regulatory action pending resolution.	Not significant	Warning letter to facilities in the U.S. caused a loss of customers and a drop in revenue in fiscal 2013-15. The issues have been resolved, resulting in a recovery in revenue and margins.

very seriously. Remediation may need greater automation to diminish the possibility of human errors and the recurrence of such violations.

We believe Indian companies will need to strengthen systems and controls to effectively address regulatory issues. That's because the USFDA seeks assurance on the reliability of quality across the company and plant network while resolving the observations and warning letters. Many companies have started automating processes in manufacturing units and laboratories to reduce human error and improve data reliability. However, they are yet to reach optimum levels. While ramping up quality and compliance machinery to match the regulatory requirements will cause some pain, we believe heightened regulatory scrutiny will only help strengthen the Indian pharma industry in the long term (see table 1).

Companies with multiple and geographically diversified plants, and with sufficient spare capacity have been able to offset revenue loss from regulatory action through site transfers. However, such a workaround has significant costs.

Larger companies such as Sun Pharmaceutical Industries Ltd., Lupin Ltd., and Dr. Reddy's Laboratories Ltd., with strong financial metrics,

have been better able to cushion the impact of regulatory actions. However, the adverse regulatory actions have dented their strengths—revenue growth, especially in the U.S. has slowed down and margins have faced pressures. Manufacturers with revenue concentrated in few plants have been worse hit. Cadila Healthcare Ltd., for example, gets about 60% of its U.S. revenues from its facility at Moraiya (in the Indian state of Gujarat). The company received minimal USFDA product approvals (hitting revenues) when it had a warning letter between December 2015 and March 2017. Revenue growth is likely to recover as the warning letter has been withdrawn.

Pricing Pressures, Appreciating Rupee To Dent Margins

We expect prices of existing generic drugs in the U.S. to dip by 10%-15% over the next 12-18 months, compared with a historical annual decline in low single digits. Pricing pressure has also hurt the Indian pharma sector's operating and financial performance, in our view. On May 25, 2017, we revised our rating outlook on Glenmark Pharmaceuticals Ltd. to negative from stable to reflect the company's weakening cash flows primarily due to a subdued performance in the U.S. owing to pricing pressure and limited new product launches. The reduced cash flows are likely to delay the company's deleveraging.

We attribute the renewed pricing pressure to two factors: intensified competition among generics companies after the number of products coming off-patent has reduced from the highs of 2012 and 2015; and continued consolidation of distribution channels in the U.S.

A lower number of drugs going off-patent will limit new product opportunities for generic drugmakers to pursue and will therefore increase competition. Drugs with sales of about US$51 billion are going off-patent in 2017-2020, against US$70 billion in 2013-2016. While new product approvals have seen some uptick after GDUFA, company-specific regulatory issues have arrested the rise and limited timely commercialization of those products.

We expect distribution channels in the U.S. to continue to consolidate, as has been the trend for the past three-four years. The top three buyers account for about 90% of wholesale generic drugs purchases in the U.S. Such consolidation gives the buyers more bargaining power, at times even for drugs with exclusivity, where competition is limited.

The appreciation of the rupee since the start of 2017 puts further pressure on drug exporters' pricing and margins. That's because the majority of these companies' costs are denominated in rupee while about 70% of revenues come from exports, mostly denominated in U.S. dollar. The rupee has appreciated (against the U.S. dollar and other currencies) by about 6% since the start of 2017, as against a depreciating trend over the past three-four years. We estimate a 4%-5% contraction in base export revenues in fiscal 2018 (year ending March 2018) for Indian drug companies due to the currency factor alone.

Focus On A Complex, Specialty Drugs Portfolio Could Help

We expect Indian drugmakers to continue to push into complex, specialty, and branded formulations, new chemical entities, and biosimilars to negate margin pressures. Nearly half of the spending on medicines in the U.S. is on such specialty therapies. New product opportunities in this segment are relatively lucrative and pricing pressure is lower due to limited competition and bargaining power for buyers.

TABLE 2: The Push Into Complex, Specialty, And Branded Drugs Has Increased

Company	Product acquired or being developed	Target Market, Potential Revenues
Sun Pharmaceutical Industries Ltd.	- Psoriasis specialty drug MK-3222 licensed from Merck is now in Phase III trials - Odomzo, used for treating advanced skin cancer	Odomzo can bring up to US$100 million revenues in three to four years. MK-3222 will compete with Roche Holdings AG's market leader Erivedge. The new drugs will help increase Sun's profile with dermatologists
Jubilant Pharma Ltd.	Nuclear imaging product Rubyfill has been approved by the USFDA and is in process of commercializing	- Very limited competition for Rubyfill. - Potential revenues from Radiopharma products to be US$100 million in the next two years.
Dr. Reddy's Laboratories Ltd.	- Zembrace SymTouch, a novel drug and device combo to treat acute migraine. - Advanced portfolio of Biologics to be commercialized in regulated markets	Target potential for proprietary and complex products is about US$500 million over five years.
Cadila Healthcare Ltd.	- Phase II trials for Saroglitazar for treating fatty liver disease - US-based specialty pharmaceutical company Sentynl Therapeutics Inc. that focuses on pain management for cancer patients	Sentynl targets oncology pain management market of US$24 billion.

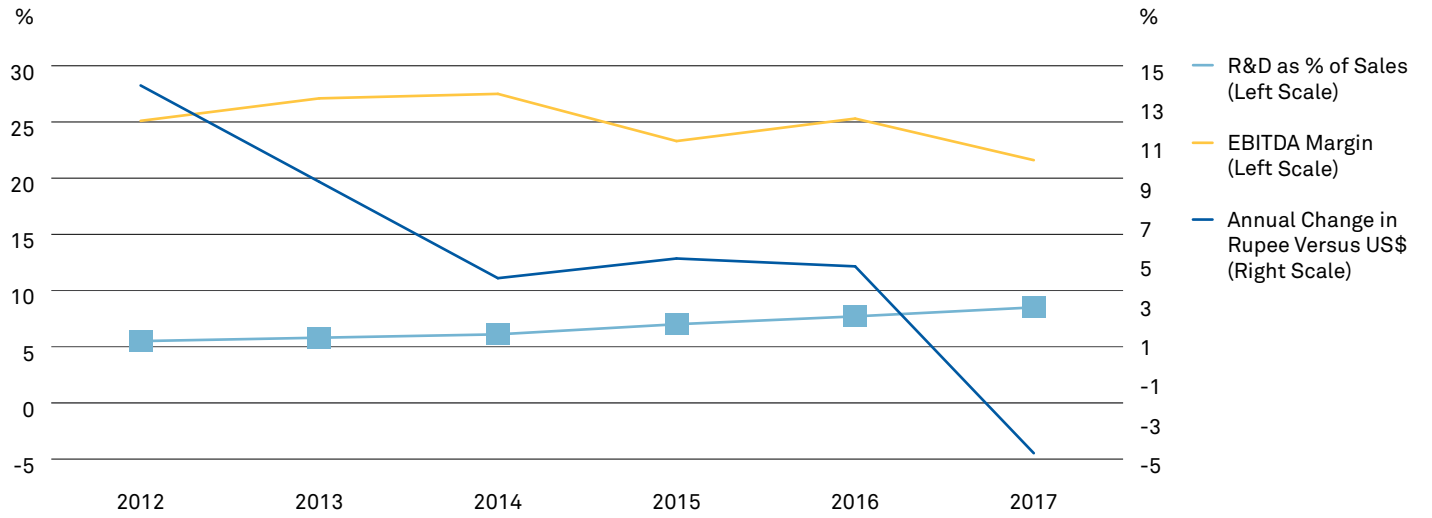
We believe the shift in focus of Indian pharma companies from undistinguished generics to complex and specialty formulations will push them up the value chain, sustain growth, bring in more predictable revenue streams, and result in a more balanced portfolio (see table 2).

There are a few initial success stories: Jubilant Pharma Ltd.'s radiopharma products will account for about 15% of the company's revenues by fiscal 2019. Glenmark has licensed out a few specialty products and new molecular entities. The company plans to invest 11%-12% of its sales on R&D for specialty products and new molecular entities and targets collaboration development with, or licensing out to, large global pharma companies.

However, such diversification has significant risks—in terms of time taken to develop and the cost involved. Complex generics drugs tend to have longer product development period. Indian companies could therefore benefit by acquiring such products in late stages of development (or already approved/ commercialized) and develop them in-house. However, timely commercialization will be important to capture opportunities from such products.

The cost of developing complex generics is at least 2x-3x that for the normal generic drug. R&D budgets of Indian drug companies have been rising for the past few years. This indicates drugmakers' willingness to make selective investments in developing complex molecules that could boost revenues in two to three years. We expect the trend to continue, and cumulative R&D spending is likely to cross 10% of sales over the next two to three years. We expect 30%-40% of the R&D budget to focus on developing complex and specialty drugs. However, the rising R&D expense will likely also put pressure on the EBITDA margins of Indian pharma companies (see chart 1).

Chart 1: Rising R&D Spend, Appreciating Rupee Have Dent EBITDA Margins

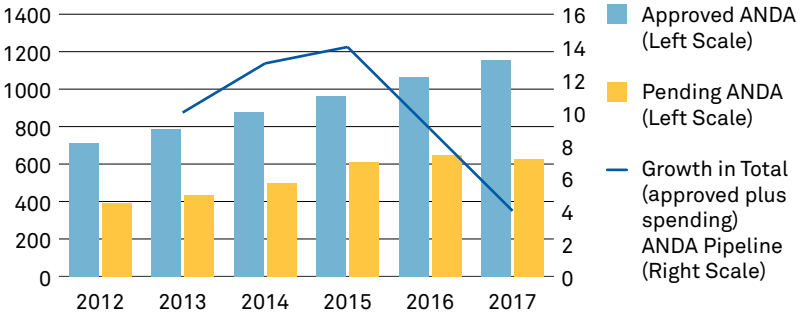


Companies include Aurobindo Pharma Ltd., Cadila Healthcare Ltd., Cipla Ltd., Dr. Reddy's Laboratories Ltd., Lupin Ltd., Sun Pharmaceutical Industries Ltd., Glenmark Pharmaceutical Ltd., Wockhardt Ltd., Jubilant Life Sciences Ltd., Torrent Pharmaceuticals Ltd. Years refer to fiscal years ending March 31.
Source: CapIQ data and company reports.

Indian firms may have been a little late to investment in complex drugs, which global pharma majors aggressively acquired in 2012-2015. However, Indian drugmakers could focus on specific therapeutic areas or products that supplement their portfolio strengths.

Acquiring approved brands or products in late stages of development is another area that a few Indian companies have explored, and the potential benefits of such acquisitions are yet to be seen. Such opportunities may be niche and have a limited market, but they fit well with the scale, and technical and financial capabilities of Indian companies.

Chart 2: Growth in ANDA Pipeline is Slowing



Companies include Aurobindo Pharma Ltd., Dr. Reddy's Laboratories Ltd., Lupin Ltd., Sun Pharmaceutical Industries Ltd., Glenmark Pharmaceutical Ltd.
Years refer to fiscal years ending March 31. ANDA—Abbreviated new drug application.
Source: Company reports.

Meanwhile, the growth in the normal generics product pipeline is slowing for Indian pharma companies (see chart 2). That's due to the high base and the decline in number of products going off-patent. These companies' focus on complex, high-investment products with high revenue potential would temper the impact to some extent. The number of pending Abbreviated

TABLE 3: Recent Acquisitions By Indian Drugmakers

Company	Acquisition Target	Price
Lupin Ltd.	US-based Gavis Pharmaceutical LLC that has a pipeline of more than 150 products	About US$900 million
Cadila Healthcare Ltd.	One commercialized product and an ANDA for transdermal patch from Teva Pharmaceutical Industries Ltd.	Undisclosed
Dr. Reddy's Laboratories Ltd.	Eight ANDAs from Teva	About US$350 million
Aurobindo Pharma Ltd.	- Loss-making operations in seven western European countries of Actavis PLC.	About Euro 30 million
	- Natrol Inc. (a U.S.-based nutraceutical company)	About US$135 million
Sun Pharmaceutical Industries Ltd.	- 14 branded formulations from Novartis International AG in Japan	US$293 million
	- Odomzo, acquired from Novartis	US$175 million
Intas Pharmaceutical Ltd.	Portfolio of products from Teva	US$ 769 million

New Drug Application (ANDA) is stagnating, which means timeliness in getting approvals and commercializing complex products will become more important to resume high revenue growth.

Focused Acquisitions Could Help Contain Leverage

We expect Indian drugmakers to seek acquisitions—not of entire companies but mostly of products in select therapeutic areas or geographic regionsvto support growth. This has been the trend in the recent past. So far such inorganic growth has been measured, barring Lupin's acquisition of Gavis Pharmaceuticals LLC and Intas Pharmaceutical Ltd.'s acquisition of a portfolio of products from Teva Pharmaceutical Industries Ltd. (see table 3).

Such a prudent acquisition appetite helps sustain the leverage of Indian pharma companies at a conservative level. The cumulative ratio of gross debt to EBITDA of the 10 companies we assessed is still healthy at 1.2x in fiscal 2017 despite a slight weakening from 0.9x in fiscal 2014.

Impact Of The U.S. And Indian Government Policies Is Untested

Some of the policies currently being discussed in the U.S., especially related to tax changes to lower trade deficit and bring manufacturing to the U.S., could affect margins of Indian drugmakers. For example, a proposed Border Adjustment Tax (BAT) that aims to tax imports into the U.S. could compress drug exporter's margins and lower their cost competitiveness.

However, the government's focus on lowering healthcare costs will benefit Indian companies. Healthcare services, innovator drugs, and biologics are the biggest components of healthcare costs in the U.S. The use of generics helps to slow the growth of healthcare costs. In that sense, Indian drugmakers are already aligned with the administration's vision of lowering healthcare costs. Still when there's a trade-off between lowering healthcare costs one hand, and lowering the trade deficit and bringing manufacturing jobs back to the U.S. on the other, it remains to be seen on which side the policies would incline.

We expect the Trump administration to seek to introduce different pricing models and drug procurement systems to make branded drugs more affordable. Such policies are unlikely to affect pricing for Indian drug exporters. President Trump has also sought to lower regulatory hurdles and decrease the time for drug approvals to lowering drug costs. The impact of such moves on the generic drug industry will be mixed: while the faster approvals will help, competition will also increase.

In India, where patients bear more than 90% of medical expenses, the government is also promoting affordable drugs. Implementing a law to ensure doctors prescribe medicines only by their generic names (and not by their branded names) is one such step. However, this regulation could lead to the proliferation of substandard medicines. Sun and Cipla Ltd., which have a large domestic presence and a significant branded generics portfolio, could be affected by the law. However, we believe the established domestic pharma companies will likely maintain their market share owing to their strong distribution networks and brands.

Other factors that will continue to influence pharma companies in India are the potential that more medicines would be brought under drug price control, and the implementation of the goods and services tax. While these factors could need temporary business adjustments, they are unlikely to have a long-term unfavorable impact.

Indian Pharma Companies Are Coming Of Age

Pricing pressures, demanding regulations, and political compulsions are not new to Indian pharma companies. They have a record of growing through such headwinds by adjusting their business models. We believe these companies may feel some pain as they adjust their quality ethos, invest to grow the business, and support the governments' vision of providing inexpensive healthcare.

However, these companies have matured enough to grow despite these testing times. Their margins are healthy and they can withstand some pricing pressures. Moreover, their leverage is generally low. These companies have good financial flexibility because they have been disciplined in acquisitions. They have also widened their funding base and reduced dependence on short-term debt. Additionally, the existing promoters are likely to remain supportive.

Related Research

- Glenmark Pharmaceuticals Outlook Revised To Negative On Weaker Cash Flow, Delayed Deleveraging; 'BB' Ratings Affirmed, May 25, 2017
- The S&P Pharma Dose Newsletter: The Pharma Industry Outlook Is Revised To Stable From Negative As M&A Momentum Slows, April 8, 2017

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India's 'Hunger Games'-Style Telecoms Battle May Eliminate The Weaker Contestants

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India's raging telecom battle has all the ingredients of a "Hunger Games" movie. The combination of rivalry, power plays, and elimination of the weak has investors, financiers, analysts, and the government on the edge of their seats. Is the new kid in the arena—Reliance Jio Infocomm Ltd. (Jio; not rated)—solely to blame? Or is it something more?

In S&P Global Ratings' view, Jio has acted merely as a catalyst to an Indian telecom market that was already in the midst of a drawn-out consolidation drama. Most of the 15 players that participated in a decade-long tussle were in tatters as early as fiscal 2014 (ended March 31). During the 2014 spectrum auctions, the muted participation of players such as Reliance Communications Ltd. (RCom; not rated), Tata Teleservices Ltd. and Tata Teleservices (Maharashtra) Ltd. (collectively Tata; neither rated), and Aircel Digilink India Ltd. (Aircel; not rated) already revealed their competitive weakness. We see Jio's late entry benefiting not only itself but also providing opportunities for market leaders like Bharti Airtel Ltd. (Airtel; BBB-/Stable/—) to consolidate their position faster.

However, Jio's aggressive tactics are a strain on the revenue, profitability, and cash flows of all the contestants in this game.

Overview

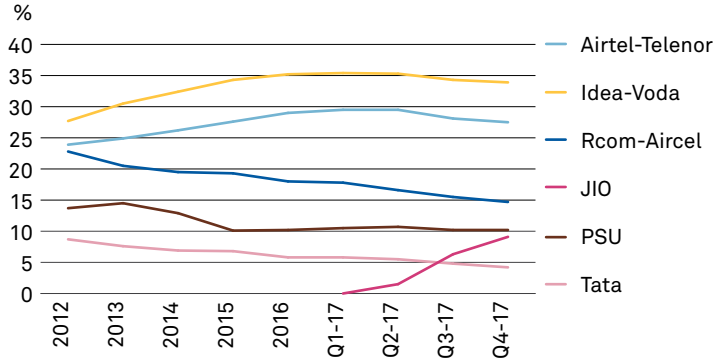
- S&P Global Ratings sees a sharp consolidation in the Indian telecom sector, with the top-3 telco's eventually controlling 75%-85% of industry revenues.
- Jio's aggressive push will keep the competition intense at least for the next 12-24 months.
- Leverage will remain elevated, as the industry faces revenue declines of up to 10% in 2018 and a dip in profitability of 300 basis points (bps) to 500 bps.
- We expect players to adopt a moderate approach to capital spending.

This Sector Is Hungry For Consolidation

In our view, the Indian telecom market is set to essentially turn into a four-player market with Idea Cellular Ltd.-Vodafone (currently in the process of merging; not rated), Airtel, and Jio being the key players, leaving the public sector units (PSU) of Bharat Sanchar Nigam Ltd. and Mahanagar Telephone Nigam Ltd. as a distant fourth. Looking at the numbers, it's difficult to spot the winner, but it's clear who's losing. We expect the remaining weaker players like RCom, Aircel and Tata to either merge with an existing participant or, like Videocon Telecommunications Ltd. and Loop Telecom Pvt. Ltd., consider shutting down their operations. This would leave Airtel, the Idea-Vodafone combine, and Jio to slug it out.

Jio is busy acquiring customers, but in our view the company cannot afford to lose sight of the ongoing consolidation led by Airtel (who is merging with Telenor India) and Idea-Vodafone (see chart 1). If Airtel and Idea-Vodafone are successful, they could cement the gap between themselves and Jio. Then we will see if the remaining smaller players merge with larger incumbents, eventually making this a true three-way competition.

Chart 1: Telco Subscriber Market Share (Pro-forma Consolidated)



Source: S&P Global Analysis, Telecom Regulatory Authority of India (TRAI).

Jio's Aggressive Discounts Add To Industry Disruption

Jio's latest market-rattling offer is a feature phone (a run-down version of a smart phone primarily used to make internet-based voice calls) with just a refundable deposit of Indian rupee (INR) 1,500 (less than US$25) but with no monthly handset fee. This, in our view, is yet another blow to an already disrupted Indian telecom market. This offer targets the voice-based (non-data) users, who form almost 65% of India's 1.2 billion subscribers. Most of these users have prepaid connections and live in rural areas with much lower purchasing power than their urban counterparts. As such, Jio is targeting a much bigger subscriber market share than the roughly 10% that it managed to rake up by July 2017, having only started this segment in September 2016.

The biggest losers from this aggressive competition have been the late entrants like RCom and Tata. They have been hit across

segments, and lost subscribers (see chart 2). Airtel and Idea-Vodafone did well to increase their overall subscriber base despite the Jio's acquisition campaigns. However, they too have lost subscribers to Jio in the narrowband (less than 512 kbps speed) segment. Part of it is also because these companies are converting a significant number of their existing 2G/narrowband subscribers to broadband customers.

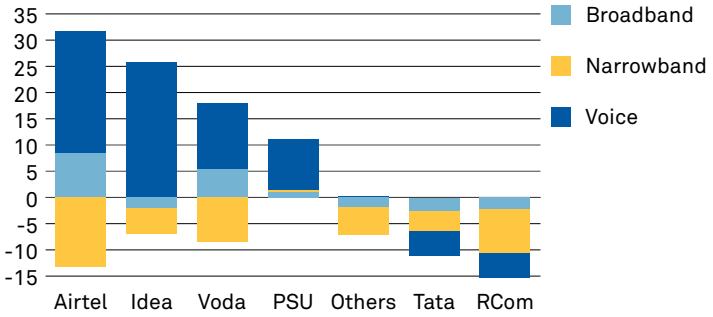
Though on the rise, at the end of March 2017, India's broadband subscriber share was still low at 35%. And the share of data revenue as a percentage of average revenue per user (ARPU) remained even lower at 21%.

We also believe it is difficult to sustain subscriber bases in the long term purely based on price competitiveness. Some 95% of Indian mobile subscribers remain under low-value prepaid plans, indicating a high propensity to switch service providers based on price.

In the near term, we see India's telecom industry bottoming out in 2018, and we expect industry revenues to decline 5%-10% in fiscal 2018. We believe the revenue declines for incumbents—Idea-Vodafone and Airtel—will be in the lower end of the range, while smaller players such as RCom-Aircel and Tata will see sharper declines. We expect the overall drop for Airtel to be in the lower 5% range mainly due to offsetting growth from its African operations and the recently acquired Telenor operations.

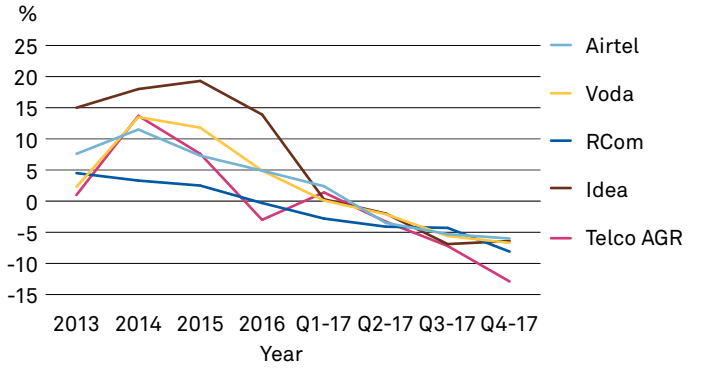
Declining revenue is also likely to take a toll on telcos' profitability, in our view. We expect Airtel's Indian operations to experience about a 300 bps decline in its EBITDA margin. However, improving performance in its African operations will somewhat temper the slide. We also believe EBITDA margin declines for Idea-Vodafone and RCom could be severe, at up to 500 bps. However, merger synergies for Idea-Vodafone could improve margins beyond 2018.

Chart 2: Subscriber Gains/Losses
(Mil. subscribers)



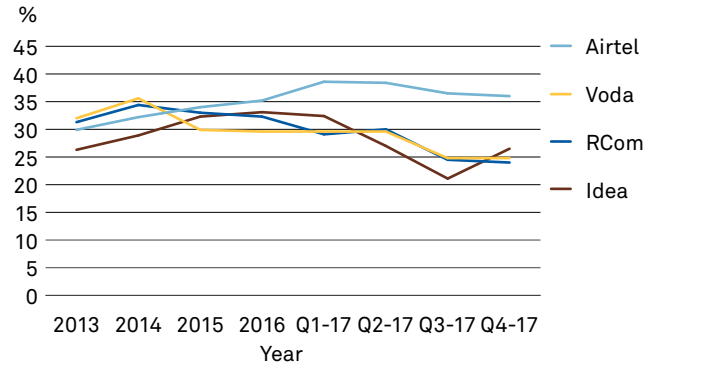
Mil.—Million. Source: S&P Global Analysis, TRAI.

Chart 3: Revenue Growth Trends (Reported)



Source: S&P Global Analysis, TRAI.

Chart 4: EBITDA Margins Trends (Reported)



Source: S&P Global Analysis.

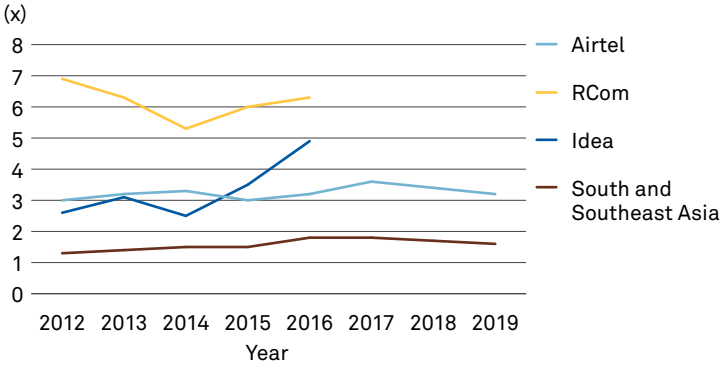
We expect Jio to rationalize its competitive strategy at some point over the next 12-18 months and start focusing on achieving sustainable revenue and margins. Once Jio starts pricing its offerings competitively, it's likely, in our view, that many of its 125 million customers, who are likely two-sim users, will dump one of the connections, resulting in a temporary subscriber decline for the industry. But that would also normalize overall ARPU (which is currently distorted by Jio's freebies) and improve the sustainability of telecom operations.

At the same time, we also expect the recovery to be gradual because the protracted competition won't let ARPUs quickly reclaim previous highs of INR126 achieved before Jio's entry in 2016. The industry took almost five years for APRUs to go from INR97 in 2012, a period of intense price competition, to INR126.

Is There A Further Downside To Telco Credit Profiles?

Indian telcos are stressed, with Jio's onslaught resulting in declining revenue and profitability. The ever-increasing burden of capital expenditure and spectrum payments isn't helping. However, it would be incorrect to paint the entire sector with the same brush. We believe some of the debt that struggling players like RCom, Aircel, and Tata owe could clearly be at risk, although we think Tata could look forward to ongoing financial support from parent Tata Sons Ltd., as in the past. We believe it's likely that the urgency for players like RCom and Aircel to be much higher than peers'. RCom has already been given extra time to repay debt.

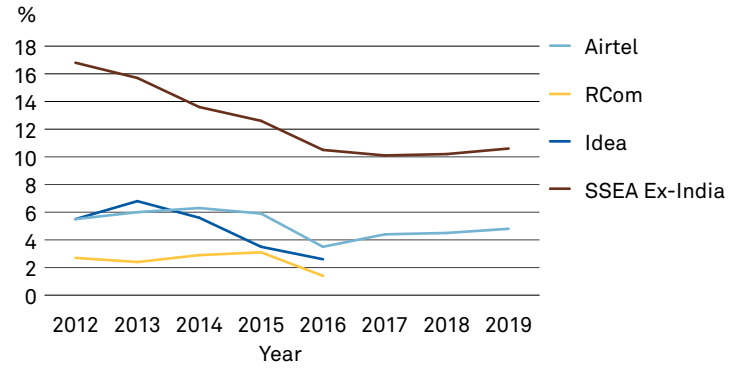
Chart 5: Leverage—Debt-to-EBITDA Ratio



Source: S&P Global Analysis.

Based on publicly available financial information, we also estimate Vodafone's 2017 leverage (debt-to-EBITDA ratio) to be 5.7x and Tata's to exceed 10x. In our view, leverage beyond 5x or EBITDA interest coverage ratio below 2x is generally unsustainable for telecom companies. On the other hand, the situation doesn't seem that bad for market leaders. Airtel, which is the only Indian telecom player we rate, has the lowest leverage among its domestic competitors, albeit with limited headroom for its investment-grade rating.

Chart 6: Leverage—EBITDA-to-Interest Expense Ratio



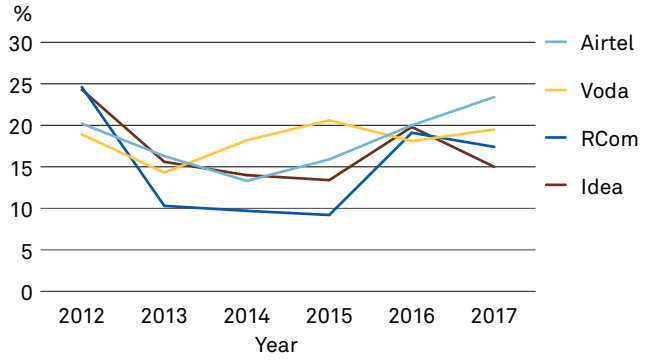
SSEA—South and Southeast Asia. Source: S&P Global Analysis.

We anticipate that the investment requirements and declining profitability of Indian telcos will keep their leverage elevated. We expect Airtel and Idea-Vodafone to take a measured approach on future capital spending, while Jio is in the final stage of its network rollout. Therefore, we project that overall industry capital spending will decline in absolute terms. This should help prevent leverage from rising significantly against the backdrop of declining revenue and profitability. Further, leading players can reduce their overall debt burden by monetizing cell-tower assets. However, any aggressive network expansion or spectrum purchases remain a risk to the credit profiles of Airtel and others.

The spectrum auction remains a risk in India because of the adverse impact it had on leverage of companies and the government is preparing for one more round next year. As can be seen from chart 8, during the 2012-2016 spectrum auctions, Airtel, Idea, Vodafone, and Jio accounted for more than 90% of purchases worth INR2.4 trillion (~US$37 billion) worth of spectrum.

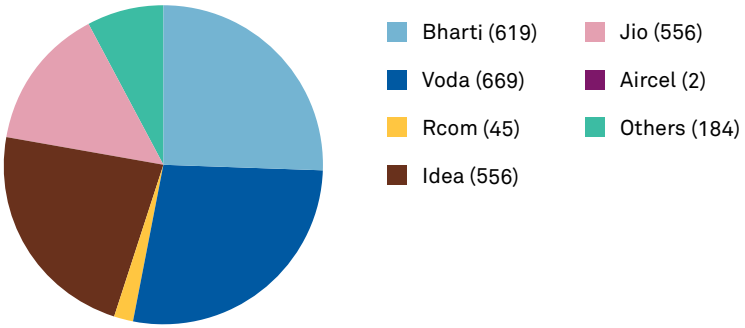
The companies report such spectrum obligation as either debt or deferred payment liability, a debt equivalent because it's interest-bearing and payable in installments. This has resulted in the share of spectrum obligations in the overall debt (see chart 9) of Airtel, Idea, and Vodafone to be much higher than that of RCom and Tata. Jio's estimated share of spectrum payables looks smaller because it acquired only 4G-related spectrum, and it also has debt from its energy business. In addition, Jio has a spectrum-sharing arrangement with RCom, which also resulted in lower spectrum spends.

Chart 7: Capital Expenditure (Excluding Spectrum) As Percentage Of Revenue



Source: S&P Global Analysis.

Chart 8: Spectrum Purchases During 2012-2016 (INR Bil.)



Source: S&P Global Analysis, TRAI.

How does Indian telcos compare to rest of South and Southeast Asia?

The leverage of Indian telco's is markedly higher when compared with other rated South and Southeast Asian (SSEA) peers. We acknowledge that most of the rated SSEA ex-India telcos have a much stronger and more consolidated position

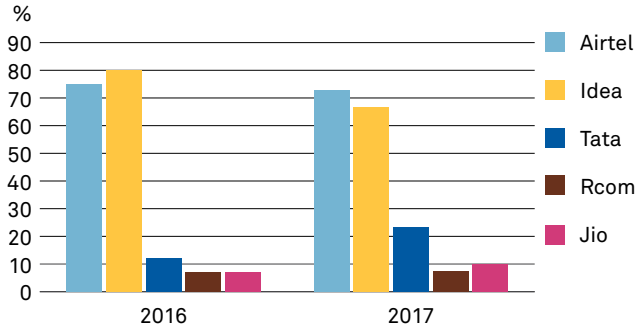
in their respective markets, which results in lower competitive intensity and better profitability compared with India. Further, much of the leverage for Indian players like Airtel, Idea, and Vodafone is attributable to the deferred spectrum obligations payable to India's government. The SSEA ex-India companies until now were shielded from competitive spectrum bidding because most of the countries followed need-based fixed-price allocations. However, we are increasingly observing that the Indian model of spectrum bidding is gaining traction in the SSEA region. The most recent examples are Thailand and Philippines, where we anticipate aggressive spectrum bidding to push the leverage of SSEA telcos higher in 2017 and beyond.

The Market-Share Battle Is In Its Final Stages

Jio's new feature phone is an impressive marketing strategy, but whether that will bring the game to an end is yet to be seen. We believe one more leg is left to this decade-long market battle. It could be at least 12-24 months before the dust settles. Until then, we believe the incumbents will aggressively protect their territory by responding to every move from Jio.

However, we also believe the revenue and profitability declines will bottom out in fiscal 2018, and the top-2 players—Idea-Vodafone and Airtel—will continue to take steps to maintain their credit profiles. For example, Airtel's international operations and plans to further monetize its cell tower assets will provide it financial flexibility to maintain its ratings, in our view, although with limited headroom.

Chart 9: Spectrum Liability as Percentage of Total Debt (Reported)



Airtel based on standalone debt. Source: S&P Global Analysis, TRAI.

Again, it remains to be seen if today's market leaders remain on top. Jio has made an impressive start and certainly has the wherewithal to keep upping the ante. However, no matter how large a startup it may be, Jio will not keep burning cash forever.

Only a rating committee may determine a rating action and this report does not constitute a rating action.

India's Government Still Plays A Key Role In Natural Resources, Although It's A Diminished One

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In India, the natural resources sector, including oil and gas, mining, and metals, has traditionally been under government control. But over the past three to five years, the government has been reducing its role in the industry, and markets have played a greater role in determining prices and having more sway over natural resource companies' credit quality. This is especially true for the oil and gas, iron ore, and coal; the last two sectors are closely tied to the steel sector. Still, government policies have a strong influence, with or without direct ownership of the sector companies even as market-determined commodity prices have a growing impact on these companies' financial performance, though more in a cyclical way.

The Indian government's vision of creating large integrated oil companies, by combining its stake in state-owned companies, will likely change the sector's landscape. The government's protectionist policies have helped Indian steel companies regain their profitability, while its liberalized oil and gas policies could increase investment in the sector.

Given these changing dynamics in India's natural resources sector, S&P Global Ratings is often asked about the factors that will influence operating performance and the financial ratios of these companies. Here are our answers to some of the questions we're hearing most often.

Frequently Asked Questions

Does the Indian government still play an instrumental role in the natural resources sector? If yes, in what way?

Yes. Although the Indian government's ownership in the natural resources sector is declining, its policies play a critical role over the sector's operating and financial performance. Take the oil and gas sector, for example. Since fuel price liberalization (in 2010 for petrol and 2014 for diesel and cooking fuel), fuel marketing companies in the sector have seen their leverage profiles improve materially.

The latest government move to consolidate companies in the oil and gas sector is aimed at creating large integrated companies with the appetite and balance sheet strength to take larger projects. We could see large-scale acquisitions among state-owned companies and that could have an negative impact on their balance sheets, if they use debt to fund such acquisitions. The government's move to more liberal exploration policies and market-determined gas pricing will likely bring private investments back into the exploration and production sector; an example is Reliance Industries Ltd.'s recent announcement of a US$4 billion investment over the next three to five years.

India's protectionist measures have helped its steelmakers, especially large ones, regain their profitability over the last 12-15 months. We believe the measures, in the form of anti-dumping duties, are long term and could help support the profitability—especially if global steel prices hold.

What's your view on the sustainability of top Indian steelmakers' improved profitability?

We believe the Indian steelmakers can sustain their profitability primarily on the back of protectionist measures designed to support domestic steel prices. Nevertheless, domestic demand needs to rise to avoid an oversupply, which may put pressure on prices and steelmakers' margins.

India's steel industry has indeed shown markedly improved performance over the last four quarters, thanks to the prompt trade protection measures the government took in 2016 that limited the amount of inexpensive imports. But the industry may be facing a new set of challenges. Domestic production growth continues to surpass demand growth, potentially putting pressure on domestic prices in the quarters to come. Indian steelmakers resorted to opportunistic exports when domestic demand was soft. However, increasing protectionism globally could limit export options and margins for Indian steelmakers, resulting in potential oversupply and lower prices domestically.

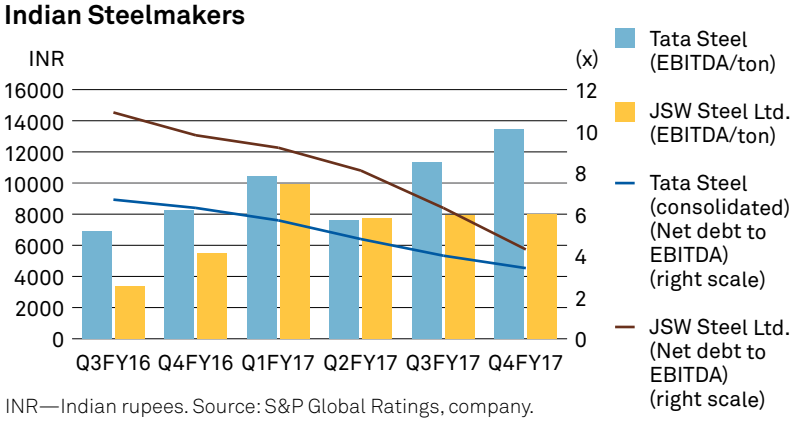
India's governmental action over the last 12-18 months also coincided with the Chinese government's substantial infrastructure stimulus when production there was largely unchanged. The result was global steel prices rose about 40% over 2016.

Top Indian steelmakers, Tata Steel Ltd. (BB-/Stable/—) and JSW Steel Ltd. (unrated), also delivered as they ramped up production from new capacity and contained costs by using a blend of imported and domestic iron ore and coal. In addition, the companies managed the trade disruption caused by demonetization, that otherwise might have resulted in inventory buildup due to slow offtake. (In the demonetization move, bank notes in denominations of Indian rupee [INR] 500 and INR1,000 were withdrawn as legal tender.) Overall cash flow leverage ratios have improved materially over the last 12 months for the top Indian steelmakers. For Tata Steel and JSW Steel the reported ratio of net debt to EBITDA has strengthened toward 4.0x as of the end of fiscal 2017 from more than 6.0x a year before. In addition, Indian steelmakers aren't planning major increases in capital spending, which bodes well for their debt levels.

The government's imposition of antidumping duties, which are long-term protectionist measures, has helped slow down steel imports. Domestic steel prices remain much healthier now compared to the weak period at the end of 2015. New capacity coming on line has lowered domestic steelmakers' operating leverage. Whether the resulting improved financial health is sustainable depends on domestic steel prices, given that steelmakers' debt levels remain elevated.

In our view, the Indian government's push for investments in physical infrastructure spurs higher growth in steel-intensive sectors, which could help support steel price. However, that's easier said than done. The government's investments (and those of government-owned companies) are largely fueling the current capex cycle in India. In addition, still-low inflation and dovish central bank policies could help sustain the domestic steel prices—and steelmakers' profitability—if they translate into higher private consumption in sectors such as consumer durables and real estate, especially in the affordable housing component.

Chart 1: Margin And Leverage Movement For Top Indian Steelmakers



INR—Indian rupees. Source: S&P Global Ratings, company.

How are commodity prices influencing the financial performance of mining and base metal companies?

For Indian miners and base metal (aluminum, copper, and zinc) producers, government policies have relatively less impact when it comes to defining credit quality compared to operational discipline, focused efforts to reduce debt, and resilient commodity prices.

Healthy copper and aluminum prices have been helping cash flows for Hindalco Industries Ltd. (Hindalco; unrated), an India-based copper and aluminum producer, over the last 12-18 months. Its operational discipline and debt-reduction efforts are boosting its credit profile. Improving coal supply that's economically priced, full ramp-up of its new capacity, increasing operational efficiencies at its manufacturing operations, equity raising, and sales of strategic stakes to repay debt are all helping reduce its debt-to-EBITDA ratio to below 4x now from more than 7x a year ago. With no new capex in sight, we expect Hindalco's leverage profile to be sustainable, given that we don't see aluminum and copper prices coming under large pressure anytime soon.

In the case of Vedanta Resources PLC (Vedanta, B+/Stable/—), an India-based oil and zinc producer, its cash flow profile improvement is

primarily the result of buoyant zinc prices along with satisfactory zinc production levels. While the operational issues at Vedanta's aluminum business, input cost inflation, and a strong Indian rupee have kept cash flows below our expectations, operational and cash flow recovery over the rest of 2017 could help Vedanta's FFO-to-debt ratio reach 10%-11% by end of fiscal 2018 from below 6% in fiscal 2017.

Coal India Ltd.'s healthy production growth versus subdued demand growth (especially from power sector) has capped its profitability, even with the recently buoyant international coal prices. With demand staying soft, Coal India may resort to coal exports. However, lower profitability affects its credit quality minimally given its strong financial ratios, among the best of Indian corporations.

What do you think the impact on Oil and Natural Gas Corp. Ltd.'s (ONGC) credit profile would be from its proposed acquisition of the Indian government's stake in Hindustan Petroleum Corp. Ltd. (HPCL)? If ONGC were to make an open offer for an additional 26% stake in HPCL, would the impact be any different?

We believe ONGC's acquisition of the government's 51.11% HPCL stake is likely to be credit-neutral for ONGC, if it funds the purchase by selling its stakes in Indian Oil Corp. (IOC; unrated) and GAIL (India) Ltd. (GAIL). Based on the latest market capitalization of HPCL, ONGC will pay about Indian rupee (INR) 280 billion (US$4.4 billion) for that stake. ONGC's 13.77% stake in IOC, valued at INR254 billion (about US$4 billion), and its 4.87% stake in GAIL, valued at INR31 billion (about US$500 million) as of July 31, will be sufficient to fund the HPCL transaction without any impact on ONGC's credit profile. We believe this is likely to be ONGC's first choice for funding the acquisition. The rating on ONGC will remain unaffected as its higher stand-alone credit profile (SACP) of 'a-' will remain constrained by the lower sovereign rating on India (BBB-/Stable/A-3).

We expect ONGC's ratio of funds from operations (FFO) to debt to remain between 35%-40% over the next two to three years after the proposed HPCL transaction—similar to our expectations before the deal's announcement. This is because HPCL's financial metrics as of the fiscal year ended March 31, 2017, are comparable to ONGC's; HPCL's ratio of FFO to debt is 38%-39%.

We expect no material change in ONGC's business risk profile after the HPCL transaction. Combining HPCL will improve ONGC's cash flow stability and operating scale to an extent. ONGC has a majority stake in Mangalore Refinery and Petrochemicals Ltd., which has an annual capacity of 15 million tons. Combining this with HPCL's similar refining capacity and about 15,000 fuel retail stations could benefit ONGC. However, HPCL's EBITDA is relatively modest—about 25% of ONGC's. Also, we do not expect any significant synergy between ONGC's upstream operations and HPCL's downstream operations. That limits the benefits of HPCL to ONGC's business profile.

If ONGC funds the deal with debt of about US$4.5 billion, we expect the company's FFO-to-debt ratio to trend toward 30%—below our trigger for a lower assessment of ONGC's SACP—potentially resulting in at least a one-notch lower SACP. In addition, if ONGC makes an open offer for the additional 26% stake, ONGC will need to pay out a further INR145 billion (US$2.3 billion), potentially resulting in a two-notch lower SACP assessment.

We currently assume that ONGC will secure the necessary approvals from the government and regulatory bodies to avoid triggering a mandatory open offer to buy the additional 26% stake in HPCL and that it will sell its stake in IOC and GAIL to fund the HPCL purchase (see "Oil and Natural Gas Corp. Ltd.'s Stake Acquisition In HPCL Is Likely Credit Neutral; Funding Plan Is Crucial," published July 25, 2017).

Apart from the ONGC-HPCL deal, do you see any other transactions, such as creating an Indian oil major, being contemplated? If so, what impact could such a transaction have on the acquirer's credit profile?

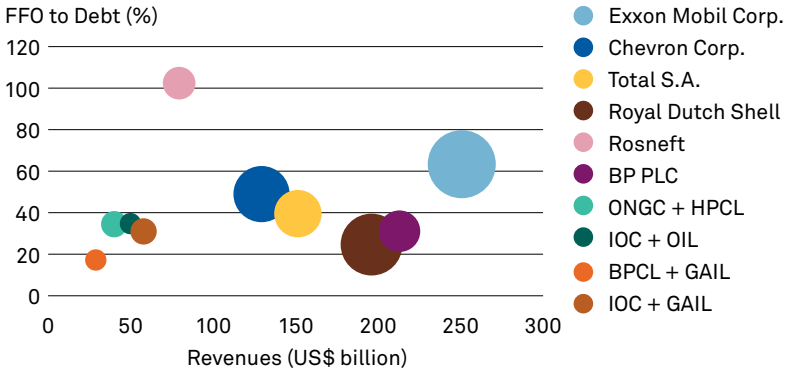
The proposed ONGC-HPCL transaction is a part of the Indian government's announcement to create integrated national oil major by combining several of its state-owned oil and gas companies. However, we believe the government's intention may be to have two or three relatively large integrated oil companies instead of one integrated national oil major.

In that regard, various media reports have suggested potential combinations that the government may be contemplating: IOC acquiring the government's 66.1% stake in oil producer Oil India Ltd. (OIL); refiner Bharat Petroleum Corp. Ltd. (BPCL) acquiring the government's 54.9% stake in gas transporter GAIL, or; IOC acquiring the government's stake in GAIL.

The combinations improve the acquirer's size (revenue, market capitalization, and overall debt capacity) and bring some cash flow stability, but the combined entities would remain small compared to global oil majors. Still, these benefits may not be enough for us to alter our views of the acquirer's business profile. Also, like in the ONGC-HPCL deal, target companies' EBITDA are relatively small when compared to acquirer's. While some synergies of integration and scale economies could come, large-scale operational synergies are indiscernible.

The impact on the acquirer's financial risk profile is mixed, in our assessment. An IOC-OIL deal wouldn't alter IOC's financial metrics materially, given its relatively small payout for OIL, whose leverage is similar to that of IOC. If IOC funds the stake purchase in GAIL using debt, IOC's leverage will increase somewhat but remain acceptable within our expectation for its financial profile. In a BPCL–GAIL deal, BPCL's leverage could increase materially if BPCL funds the deal with debt. The price for a stake in GAIL will be sizeable given GAIL's market capitalization is higher than HPCL's. Also, GAIL's own leverage is somewhat higher than BPCL's.

Chart 2: Indian Integrated Oil Companies Versus Global Majors



Bubble size indicates latest market cap in US$ billion.

A complete merger of acquiring and target entities is unlikely because we believe such transactions would have significant challenges integrating people, systems, and corporate culture.

Related Research

- Oil and Natural Gas Corp. Ltd.'s Stake Acquisition In HPCL Is Likely Credit Neutral; Funding Plan Is Crucial, July 25, 2017
- Vedanta Resources PLC Upgraded To 'B+' On Higher Commodity Prices And Increasing Production; Outlook Stable, Jan. 16, 2017
- Oil and Natural Gas Corp. Ltd.'s Stake Acquisition In HPCL Is Likely Credit Neutral; Funding Plan Is Crucial, July 25, 2017
- Tata Steel's Better Profit In India Is Credit Supportive, But Restructuring Of Europe Operations Is Crucial, Feb. 16, 2017
- India's Protection Measures Will Likely Support The Profitability Of Its Steelmakers, Aug. 3, 2016

Only a rating committee may determine a rating action and this report does not constitute a rating action.

Renewables In India Is There "Red" In This Green Story?

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India's power industry is being disrupted by a massive investment drive into renewables. The country plans to triple renewables energy capacity by 2022, to 175 gigawatts from 57 gigawatts now. This will require US$90 billion-US$150 billion in new investments, according to government and market estimates. Growth for renewables is a given. The question, for us, is whether the growth will be profitable and credit supportive.

S&P Global Ratings acknowledges many uncertainties in India's nascent renewables sector. In our view, the performance of Indian renewables companies will depend on diversity and operational performance. Many players in this sector are highly leveraged. They are growing rapidly from a low base, face stiff competition and falling tariffs, and must adjust to rapid technology advances.

In this environment, many renewable companies are seeking capital to pursue growth or refinance existing high-cost rupee loans. Investors in turn are seeking greater clarity for risk differentiation and investment decisions. India itself is competing with many other countries globally which are scaling up renewables investments.

Frequently Asked Questions

What is the biggest factor affecting operating stability for renewable-energy providers in India?

Resource risk. Operating performance due to lower-than-expected resources (e.g., wind, sun, water) can be a key credit differentiator for renewable companies in India. Many of India's emerging renewable-energy companies have limited operational track records and their operating performances were generally weaker than they estimated. This weighs on the ratings on renewables despite supportive regulations.

Renewables enjoy priority dispatch on India's grids, in that the segment is not subject to price-based merit order. However, operators only get paid when electricity is generated. So under regulated feed-in-tariffs they are shielded from price risk, but still exposed to volume risk, which can be pronounced without a sufficient resource track record. This is unlike fossil-fuel based plants which receive availability based payments to cover their fixed costs, even if they don't generate power. We believe regulations are supportive of renewables and provide visibility on tariffs, but weaker operating performance can negate the benefit of fixed long-term power purchase agreements (PPAs). This inherent volatility in cash flows due to resource risk can only be partly mitigated through diversification and stringent standards for site selection.

Because renewables supply is uncertain—dependent as it is on natural factors such as wind or water—we make our estimates based on expected probability of electricity generation based on the segment and, when available, the company's track record. We generally adopt P90 (level of annual generation that is forecasted to be exceeded 90% of the years) or P75 for solar, adjusting based on our experience of the company's operating track record.

We have seen variation between P75 and P90 electricity-generation estimates ranging from 3%-8%, which can translate to significant 10%-30% differences in revenue. Hydro and wind have experienced weather-related variations while solar has generally performed in line. One caveat is that many experts claim that India's weather patterns have been extreme for the past few years, which makes it more difficult to assign probability on a forward-looking basis. We believe that in the long run, the probability estimates if robust should be met, though they need to be regularly revised and recalibrated. For their own business plans, many industry players' use P50 estimates for solar and P75 for wind.

What matters more for performance: scale of operations or diversity of assets?

In our view, diversity trumps size for renewables. All else being equal, we consider renewables companies with a number of smaller projects spread across India to have a better business positioning compared with a company with a large renewables project in one state.

We believe credit profiles are negatively affected by concentrations of cash flows from single or limited:

- Projects—contributing a significant portion of cash flows.
- Resources—exposing producers of hydro, wind, etc., to weather vagaries.
- Counterparties—raising vulnerabilities to credit risk and payment delays.
- Geography—concentrating exposures to local weather conditions.

In our view, resource diversity could support more stable cash flows. Weather patterns—though equally unpredictable for each segment—have

been seen to offset some of the excess and shortfall of electricity generation across solar, wind, and hydro. Resource diversity also helps smooth out seasonality, since, for example, good monsoons drive hydro generation higher while dry seasons facilitate solar-power generation. We thus expect improved cash flow stability for companies like Greenko Energy Holdings (B+/Stable/—) with improving resource diversity. Companies such as Mytrah Energy Ltd. (unrated; wind), Azure Power (unrated; solar), NHPC Ltd. (BBB-/Stable/NR; hydro) on the other hand are largely exposed to single-resource risk.

The credit profile of Tata Power Co. Ltd. (B+/Stable/—), which is diversifying into renewables, is significantly affected by one large loss-making imported coal-based plant due to resource pricing/linkage issues. Given India's wide geography and varied weather patterns across the country, a presence across states can also limit volatility. For instance, wind patterns last year were good in Maharashtra though unfavorable in some other states. Moreover, payment track records also vary sharply, so diversity across states has generally helped in maintaining a relatively better collection record. Geography is increasingly relevant as projects and counterparties can be in different states (for instance NTPC Ltd. is the counterparty for Greenko's solar project in Andhra Pradesh).

What is the nature of counterparty risk for the renewables sector?

Weak, because the primary off-taker from India's grids are state electricity utilities (SEUs), whose own financial positions tend to be weak. Delays in payments by SEUs weigh on the operating efficiency of generators, causing adverse working capital movements and stretched financials. We have seen frequent delays but not payment defaults and we do not expect defaults. In most cases collections occur between 60 and 180 days, but some states have delayed payments for more than a year. For this reason, in our base cases, we assume negative working capital for many rated companies and companies themselves keep additional working capital banking facilities to cover for delays.

That said, the financial conditions and liquidity positions of many states have been improving under the UDAY (Ujjawal Discom Assurance Yojana) scheme from very weak levels. The UDAY initiative aims to improve the credit health of SEUs through refinancing debt and improving operating efficiency by cutting down on system losses. We have already seen the effects, with Maharashtra's payment schedule gradually improving, for example; however, delays in collection remain endemic. Curtailment risk is another cash-flow risk, particularly in states like Tamil Nadu. We believe risk of weak or absent evacuation infrastructure and curtailment should decline as the transmission network matures to handle renewables.

Constantly falling tariffs also pose a risk because they encourage states to delay signing PPAs , or to negotiate for lower tariffs. Andhra Pradesh is among the states that have approached the local power regulator to lower tariffs even under some existing PPAs, while states like Rajasthan have delayed payment of wind projects with tariff above 10 rupees per kilowatt hours (kwh), which is much higher than average. We expect existing PPA agreements will be honored, and the Supreme Court has upheld the sanctity of PPAs in recent decisions.

In our view, greater exposure to central government-owned entities such as Solar Energy Corp. of India Ltd. (SECI: NR) and NTPC Ltd. (BBB-/Stable/—) can improve the counterparty credit profile. For instance, Greenko's acquired assets from Sun Edison include PPAs with NTPC, which we expect to pay regularly within 90 days.

Similarly, Azure Power also demonstrates good collection record, which in our opinion is supported by significant exposure to the above central government entities.

What is the impact of increasingly competitive bids and falling tariffs?

The impact is negative, because both trends pose a risk to the financial health of renewable companies in India.

An increasing proportion of India's renewable energy is priced according to a competitive bidding system in the unregulated power industry. We have observed aggressive bidding, based on forward-looking assumptions for cost savings on capital and optimistic expectations of generation. Aggressive bids leave little margin for error and may result in higher cash flow volatility. Companies with a higher proportion of regulated feed-in-tariffs (like Greenko) will likely enjoy greater cash flow stability and thus can withstand higher leverage than companies fighting for market share through price-based bids. Overall, we expect more exposure to competitive bidding because new capacity additions are increasingly coming from this segment, whereas until last year, most existing capacity was in the form of feed-in-tariffs.

Competitive bidding is one key factor likely to keep tariffs subdued. The other is falling technology costs, which are reducing capital expenditure needs and could be a long-term positive for the sector. Given diminishing returns, however, the trend of falling tariffs will not endure indefinitely. But tariffs have come down by nearly half over the past few years. On the plus side, this enhances the competitiveness of renewables. At the moment, 3 rupee/kwh tariff seems to be a norm rather than exception for solar. At these price levels, renewables are cheaper than many coal-based plants.

On the other hand, aggressive bidding with significant failures may scare private capital by making investments in renewable more costly and uncertain. This has happened before in other energy segments. India set up significant fossil fuel-based power capacity to meet unmet demand, leading to subsequent failures due to slower-than-expected economic growth, resource linkage issues, and aggressive bids.

What's your outlook on the sector's leverage?

We believe high growth has resulted in elevated leverage for many renewable companies in India, a key factor weighing on the ratings. Deleveraging will depend on operating performance and future capital expenditure levels. Most projects are funded on a debt to equity mix of 70:30 to 80:20, in line with capital structures adopted by most utilities. However, most renewable companies in India have been almost doubling capacity annually for the past few years. Even from a small base, the result is persistently high ratios of debt to EBITDA. The ratio was more than 8x for high growth companies like Greenko, Azure, Mytrah, and ReNew Power Ventures Pvt. Ltd., for the year ending March 2017. EBITDA interest coverage was also around 1x and the ratio of funds from operations (FFO) to debt was negative for these companies, with the exception of ReNew Power. This is because cash flows have been deployed for further growth, rather than deleveraging.

We expect ratios to improve from extremely high levels but the pace of the deleveraging will depend on growth strategies and financial policies. Deleveraging will be driven by level of cushion built into competitive bids, and the pace of expansion. In

some cases, financials may be driven by corporate actions like infusion of equity or acquisitions. Execution risk is also a factor. That said, to date project execution has generally been well managed due to the short execution time period and modular nature of projects.

We also consider consolidated financials, not limiting our analysis to restricted group for entities where the restricted group (generally including operational projects) and the unrestricted group (including projects under construction) enjoy the same level of support from the parent and assets can move from restricted to unrestricted group. This is the case for Greenko. At the same time a completely ring-fenced restricted group with clear separation of projects, well defined waterfall mechanism for cash flows, legal and contractual separation can be considered on its own merits—like we have done for Adani Transmission Ltd.—a private transmission company in India. In other markets like U.S., project-finance structures have significantly contributed to growth in renewables.

What will drive growth in Indian renewables?

Price parity with traditional energy sources, a greener footprint, and a government push towards cleaner energy should see renewables take center stage for new capacity additions—accounting for an estimated 57% of capacity additions by 2027. Regulatory support in the form of priority dispatch, renewables purchase obligations, and waivers of wheeling charges for inter-state transmission and incentives (though gradually being phased out) will support project economics. The government does not see the need for any new fossil fuel-based plants for the next decade, other than those already under construction. Entities such as Greenko, Mytrah and ReNew Power have nearly tripled their operational capacity in the four years ending March 31, 2017, though from a fairly small base.

Cost-competitive cleaner power will drive significant growth in renewables. SEUs will be keen to increase their proportion of renewables mix now that renewables can compete on price and are no longer just a costly means for meeting green initiatives. Until a couple of years ago, dependence of renewables on subsidies and higher cost was a key deterrent for SEUs, and PPAs were driven by renewables purchase obligations.

An expanding economy, rising population, and increasing electrification will support high single-digit electricity demand in India. The rate would be higher, were it not for brown-outs in some parts of the country, falling aggregate technical and commercial losses to below 20%, and more energy-efficient infrastructure.

Related Research

- "Greenko Energy Outlook Revised To Stable On Delayed Deleveraging; 'B+' Rating Affirmed," July 10, 2017.

Only a rating committee may determine a rating action and this report does not constitute a rating action.

Haircuts Worth Rs 2.4 Lakh Crore

That's what banks may need to resolve the top 50 stressed accounts

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(Editor's Note: The views expressed in this article are those of CRISIL Ltd., the India-based subsidiary of S&P Global Inc.)

India's banking sector is currently under stress with non-performing assets (NPAs) rising to Rs 8 lakh crore as on March 31, 2017, or 9.4% of total outstanding loans, from Rs.6.1 lakh crore as of March 31, 2016.

The government and the Reserve Bank of India (RBI) have taken many steps and offered various resolution tools such as the corporate debt restructuring (CDR), strategic debt restructuring (SDR), the 5:25 scheme, and the Scheme for Sustainable Structuring of Stressed Assets (S4A) – all to little or no avail.

The unwillingness of banks to take it on the chin through haircuts has meant the can has been kicked down the road, which has, in turn, resulted in debt ballooning to unsustainable levels.

The government then recently promulgated an ordinance empowering the RBI to issue directives

for a faster and optimum resolution of stressed assets so that they become viable. The focus now is on optimum level of debt reduction and potential transfer of assets to a different management that can bring in the resources needed to scale up cash flows.

In this study, CRISIL has estimated the level of haircuts required for 50 large stressed assets with cumulative debt of over Rs 4.3 lakh crore – representing about half of the gross NPAs of banking sector. The analysis shows these 50 large stressed assets may have to take haircuts of ~60% at an aggregate level, to arrive at sustainable level of debt. CRISIL has classified the haircuts into four categories – marginal (<25%), moderate (25-50%), aggressive (50-75%), and deep (>75%). The economic value method has been applied to arrive at the sustainable level of debt.

The intensity of haircut required on these assets is the manifestation of the challenges faced by them in the current business environment. Many of these assets may not be viable anymore, therefore, cosmetic restructuring may not suffice. While banks may have already provisioned for a part of these exposures, CRISIL's analysis indicates that an incremental provisioning of about 20 per cent may be required. Banks need to be adequately capitalized to absorb such losses. This could help fuel the credit growth (which has touched historic lows) and support the next leg of economic growth.

Determining the haircuts

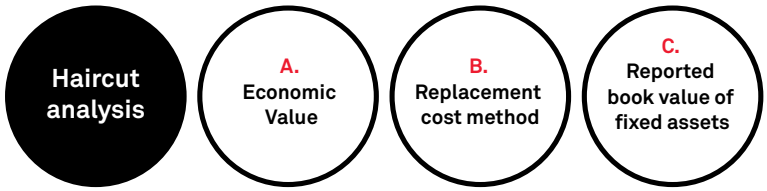
Various methodologies have been adopted to arrive at the haircut appropriate for a given corporate. These methodologies have been adopted keeping in mind sector specific nuances, as well as to triangulate the estimates.

Summary of average haircuts by sector

	No of companies analysed	Average haircut	Proportion of stressed debt of Rs. 4.3 lakh crore
Construction	17	Aggressive	~25%
Power	11	Moderate	~15%
Metals	7	Aggressive	~30%
Other sectors #	15	Aggressive	~30%
Total	**50**	**60% (Aggressive)**	**100%**

Other sectors include gems & jewellery, shipping, real estate, food products, textiles and real estate
Source: CRISIL

Methodologies for determining/benchmarking the required haircut on stressed debt



A. Economic value based methodology was used to arrive at haircut for 50 stressed assets

CRISIL analysed the debt in the 50 stressed companies using the economic value based approach. This methodology tries to ascertain the consideration that a potential buyer will be willing to pay for an asset either based on steady state cash flows or on the basis of potential realisation through sale of investments. Appropriate, sector-specific valuation multiples such as EV/EBITDA or discounted cash flow method have been used to arrive at the enterprise value. The assumption in this approach is that lenders are unlikely to leave any residual of the enterprise value for the equity stakeholders.

1. **Multiples method:** This method was used to calculate haircut for corporates, after arriving at steady state operating performance of the company. Any investments in subsidiaries or associate companies were duly considered. This method was utilized for sectors such as metals and construction.

Process highlighting the multiples method

1. Project financials of the company over the medium term
2. Calculate enterprise value using multiples method
3. Add valuation of investments (subsidiaries, associate companies), if any
4. Sustainable debt = Enterprise value - Equity value
5. Haircut % = (1- Sustainable debt/ Total debt) *100

2. **Cash flow method:** This method was used in case of infrastructure assets (e.g., power, road SPVs), where cash flows could be plotted over the entire life of the asset with reasonable accuracy.

Process highlighting the cash flow method

1. Project cash flows for the life of the asset
2. Discount the project cash flows to arrive at NPV
3. Sustainable debt = Quantum of debt that will make NPV = 0
4. Haircut % = (1- Sustainable debt/ Total debt) *100

The estimates from economic value approach were further triangulated (wherever possible) through following two approaches:

B. Replacement cost method –

Haircut using this method is arrived at, by comparing the existing debt levels with the replacement cost of the asset as of today. However, the key issue with a replacement cost method is that it ignores the discounting factor that is applicable in the case of distressed assets. The discounting factor indicates the riskiness and uncertainties associated with scaling up the cash flows of the particular asset. The extent of discount may also factor additional funds that may be required over the medium term to streamline the operations and resolve working capital related issues.

C. Benchmarking with fixed assets –

The debt can be benchmarked with reported book value of the fixed assets. Pitfalls of this method, however, are that the cost structure may have changed over time, and may not be applicable for businesses with deep working capital related issues.

Power sector

CRISIL analysed 11 power companies with a total capacity of 13 GW. These account for aggregate debt of about Rs 68,000 crore, 15% of the stressed debt analysed by CRISIL. Most of these assets are thermal power plants with 48% of the debt in under-construction projects.

The operational projects were impacted on account of various issues such as lack of long term offtake agreements, limited domestic coal availability restricting plant load factors (PLFs), tariff-related disputes and weak financial health of distribution companies exacerbating counterparty risks. In case of gas-based power plants, the

availability of gas or lack thereof resulted in closure of capacities or running at extremely low PLFs of less than 30%.

The under-construction projects suffered on account of major cost and time over-runs (as high as 50% of original project cost in some cases) – due to reasons such as delayed clearances and unfavourable forex movement. Delayed commissioning resulted in cancellation of power purchase agreements (PPAs) in some cases, while fuel supply issues on account of low supply, cancellation of coal blocks impacted the viability of some power projects. With investment appetite drying up for the sector, the projects were stranded on account of lack of funds.

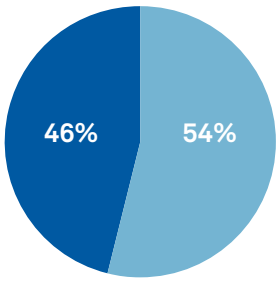
CRISIL used cash flow method with following assumptions to analyse the extent of haircut:

- Fuel supply issues in case of coal based power plants will be resolved with the aid of government support thereby removing uncertainties on this aspect
- Offtake arrangement would be in place for majority of the capacity, over the medium term, supported by improvement in the financial health of discoms on account of implementation of UDAY scheme
- PLF levels for thermal power plants will reach 70% over the long term, supported by expected gradual improvement in demand

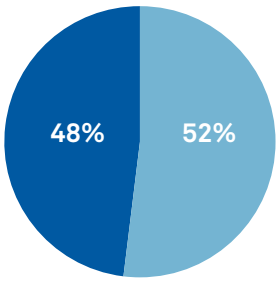
Extent of haircut:

Distribution of haircut has been captured in the chart on the right. Debt-weighted average haircut works in the range of 25%-50%, i.e. the moderate bucket.

Capacity -wise (13 GW) break-up



Debt-wise (Rs 68,000 crore) break-up

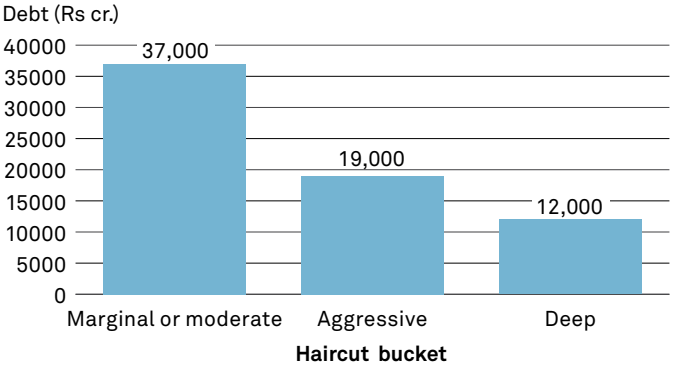


Operational/Advanced stage of commissioning

Under construction

Source: CRISIL

Haircut distribution - power sector



Source: CRISIL

CRISIL benchmarked the extent of haircut with that of replacement cost to assess whether it led to a different estimate than what is suggested by the cash flow approach

Benchmarking with replacement cost per MW

Total capacity analysed	GW	13
Total debt	Rs cr	68,000
Debt per MW [A]	Rs cr/MW	5.2
Cost per MW	Rs cr/MW	7.4
Cost per MW for commissioning new coal based plant	Rs cr/MW	6.0
Debt per MW assuming 70:30 funding [B]	Rs cr/MW	4.2
Haircut basis replacement cost [1 – B/A]	%	~20%

- Already operational projects, with PPA and fuel supply agreement (FSA) for at least part of the capacity, would require lesser haircut
- Deep haircut will be required for gas based projects where there is no visibility of fuel supply; these projects could potentially face total write-off in the absence of any resolution

The estimated hair-cut on the basis of replacement cost works out at 20%, lower than the moderate haircut estimated as per cash flow method. This is on account of the following:

- Replacement cost method does not factor in the lack of PPA and FSA for these projects, an aspect that will take some time to resolve fully
- Besides, most of these projects would require fund infusion for project completion as well as to kick start operations
- If these assets were to acquired by a new management, there needs to be some economic value left on the table, therefore, replacement cost method may not be appropriate

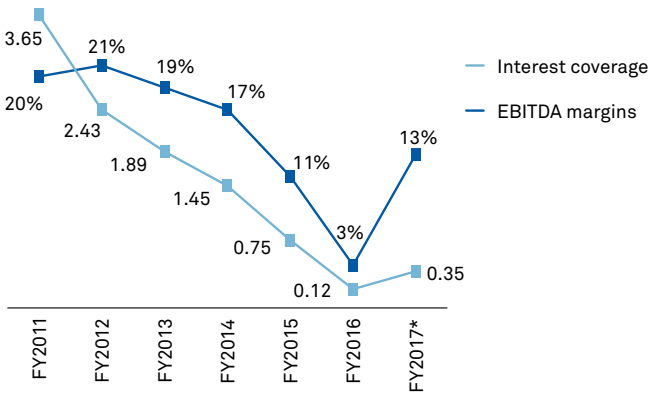
Metals sector

CRISIL analysed seven companies from metals sector with a total capacity of 23.9 million tonne. Around 50% of this capacity was added in the recent past. The new capacities witnessed significant execution challenges, pressure on volumes, low capacity utilisation and weak prices. Cancellation of coal mines also impacted some of the capacities.

The chart on the right highlights the extent of capacity utilisation in the debt analysed. In addition, the assets also suffered from intense working capital related issues leading to high level of working capital debt and cash flow issues.

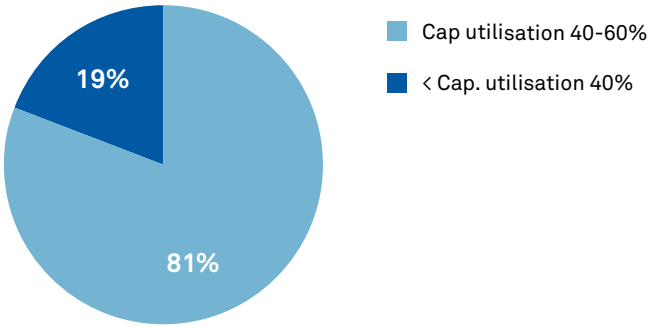
Debtor days amounted to 400; inventory days – 950 and payables – 947 leading to a current ratio of 0.63 time. Working capital issues also impacted the volumes when there was a demand uptick last fiscal. A combination of high debt and weak operating margins resulted in sub-par interest coverage (refer chart below), resulting in an inability to service even the interest cost.

Trends in EBITDA margins and interest coverage



*Based on analysis of companies for which results for FY17 were available

Break-up of debt (Rs 125,000 crore) by capacity utilisation
Total capacity: 23.9 million tonne



Source: Annual reports and CRISIL

CRISIL analysed the extent of haircut on the basis of following assumptions:

- Favourable government policies aiding realisations to continue over the medium term
- Capacity utilisation levels will improve gradually and reach a level of around 75% over the medium term
- Working capital has been assumed to normalise to healthy levels. External liquidity in the form of working capital support from banks has been assumed to be available to support the volume expansion. Steady state EV/EBITDA has been factored at around 4.5 times and is at a 25% discount to the trading multiple of a good company from the sector

Extent of haircut:

Haircut details have been captured in the chart below. Debt-weighted average haircut works out in the range of 50%-75%, i.e. aggressive bucket, for the metal companies analysed.

CRISIL benchmarked the extent of haircut with that of replacement cost and book value of assets.

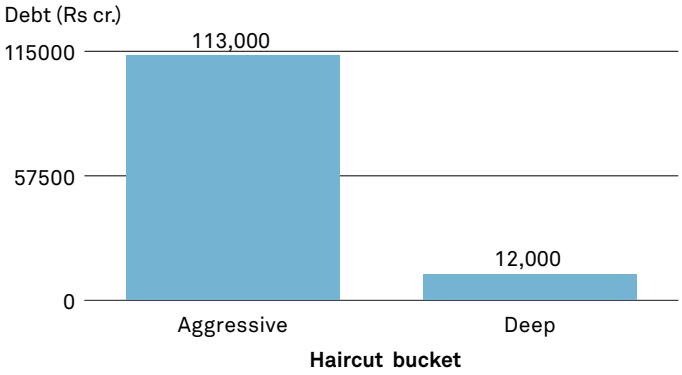
Average haircut based on economic value at 50%-75% is higher than

1. Haircut estimated based on replacement cost at 40%

2. Haircut estimated based on book value of fixed assets at 50%

These differences from economic value method can be attributed to the discount that a buyer may bargain due to the:

Haircut distribution for metals sector



Source: CRISIL

- Risks attributable to the stressed assets and
- Additional funds that a new buyer may have to infuse to resolve the working capital and liquidity related issues.

Benchmarking with replacement cost and book value of fixed assets

Benchmarking with replacement cost per MW

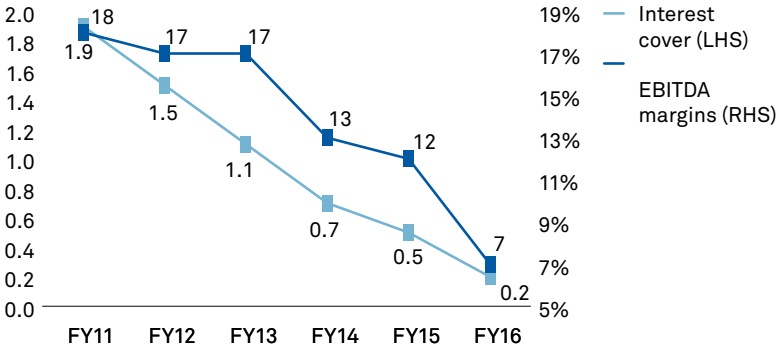
Total capacity analysed	**A**	**Mn tonne**	**23.9**
Total distressed debt	B	Rs cr	125,000
Book value of fixed assets	C	Rs cr	120,000
Debt per Rs tonne	D=B/A	Rs/tonne	52,300
Fixed assets per Rs tonne	E=C/A	Rs/tonne	50,000
Replacement cost per Rs tonne	F	Rs/tonne	60,000-70,000
Debt per Rs tonne assuming 50:50 D:E	G	Rs/tonne	30,000-35,000
Haircut based on replacement value method	H=1-G/D	%	40%
Ideal debt assuming 50:50 D:E on book value of fixed assets	I= 50%*E	Rs/tonne	25,000
Haircut based on book value of fixed assets method	J = 1-I/D	%	50%

Source: CRISIL

Construction sector

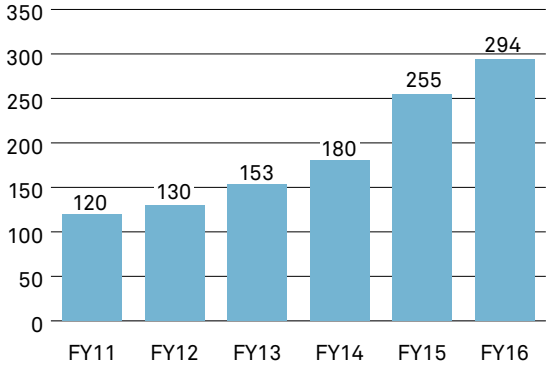
CRISIL analysed 17 construction sector companies with aggregate debt of Rs 1.1 lakh crore. These companies saw their order books shrink significantly over the last few years. This was partly on account of general slowdown in the sector, as well as constrained execution capability. The projects which were successfully bid by these companies saw little traction on account of regulatory hurdles – putting significant amount of pressure on the working capital. This further limited their ability to bid for new projects, bringing the operations to a virtual standstill. Revenues and operating profits declined, while debt kept ballooning – making the debt levels unsustainable and creating the need for steep haircuts.

Trends in interest coverage and EBITDA margins



Source: CRISIL

Trends in receivable days



Source: CRISIL

CRISIL analysed the extent of haircut on the basis of the following assumptions:

- Based on the financials, CRISIL tried to assess whether the business is sustainable, i.e. whether the scale of operations and cash flows are sufficient to support the fixed costs
- If the business is unviable, then the recovery would be through the sale of subsidiaries. The extent of realisation will depend on a variety of factors – whether the subsidiary is listed and can be easily divested, or whether the subsidiary is profitable. In case of build operate transfer (BOT) projects, realisation would depend on whether the project is operational or under construction. Even in operational projects, certainty of cash flows (and hence realisations) would be higher for annuity based projects than for toll roads
- However, if a turn-around is possible, it is assumed that with some amount of initial capital infusion (for working capital purposes) the company would be able to kickstart operations and be able to execute existing order book over next 3 years
- This would enable the company to start generating healthy EBITDA margins akin to what it had been generating in the past
- Steady state EV/EBITDA has been factored at around 6 times and is at a 25% discount to the trading multiple of a healthy construction company

Extent of haircut:

Debt weighted average haircut works to be in the range of 50-75%, i.e. the aggressive bucket.

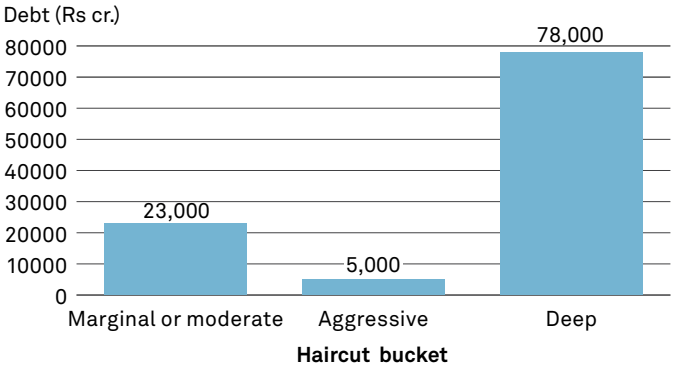
As indicated in the chart on the right, significant proportion of debt will require deep haircut. The reason is that over the last few years, execution paralysis has rendered operations of many of the analysed construction firms unviable. Furthermore, these companies contracted huge amount of debt to invest in the subsidiaries, several of which are grappling with problems of their own. As on March 31, 2016, the loans, advances and investments in the subsidiaries for these companies was more than a 40% of their book debt. With scale of operations having shrunk to the point of unviability, recoveries from these companies would be primarily driven by divestment of subsidiaries.

- Turnaround of operations is a possibility only in one-quarter of debt, for the remaining, divestment is the only source of recovery
- Sale of subsidiaries is a critical input for arriving at the above haircut levels. Any delay in divestment or hurdles in offloading the same could potentially impact the haircut levels, adversely, by about 10%

Other sectors

CRISIL analysed 15 companies in a number of sectors with aggregate debt of about Rs. 1.2 lakh crore. These companies belonged to a variety of sectors – telecom infra, textiles, gems and jewellery etc. The haircut for these sectors ranged from moderate to aggressive, while on the whole aggressive haircut would be required for this entire section.

Haircut distribution for construction sector companies



Source: CRISIL

The key issues that resulted in stress in the companies analysed:

Sector	Contribution to stressed debt (of Rs 1.2 lakh crore)	Extent of hair cut	Key issues
Auto; Textiles	~35%	Aggressive	Weak utilisation subsequent to huge debt funded capex or acquisition
Telecom infra and Food products	~25%	Moderate	Higher reliance on debt for acquisitions followed by regulatory actions or poor working capital management
Shipping and Real estate	~20%	Aggressive	Weak demand conditions coupled with high levels of debt
Gems and jewellery	~15%	Aggressive	A combination of sticky receivables and inability to manage the risks emanating out of regulatory issues resulted in high debt levels and weak cash flows

Haircut arrived at depended on case specific issues, usually through economic value approach. The cases where marginal or moderate haircut was required were characterized by weak demand conditions leading to temporary setback, which can be corrected. On the other hand, for cases

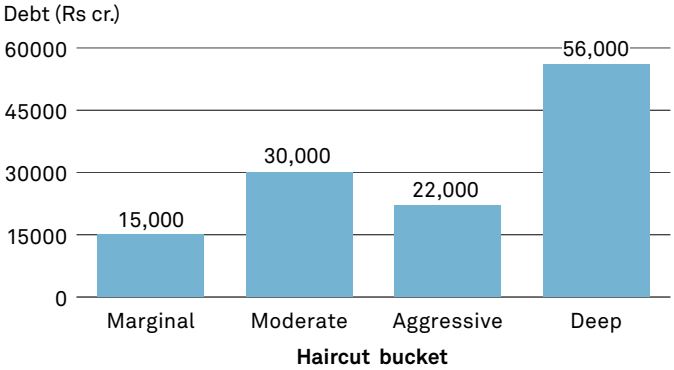
where the business is no longer viable or the sector is going through a prolonged slowdown and an imminent upturn is unlikely, the haircut requirement was high. The distribution of debt by hair-cut levels is highlighted in the chart to the right.

Conclusion

Given the issues faced by many of the companies that CRISIL analysed, the haircut required may be on the aggressive side. The hair cut levels may be further impacted by the fact that a large number of stressed assets may be put on the block by lenders, making it effectively a buyer's market. Buyers with healthy credit profile may explore M&A opportunities wherever they find strong synergies – an aspect that has not been factored in our analysis.

While the estimated haircut levels are largely in line with the past empirical data points studied by CRISIL, they may be influenced by several variables. Any change in valuation of subsidiaries, significant uptick or prolonged demand slump, price outlook of commodity linked sectors or regulatory intervention can change the underlying assumptions of the analysis and hence the hair-cut expectation.

Haircut distribution for other sectors



Source: CRISIL

Finally, CRISIL believes it would be in the larger interest of the economy to pop the bitter pill of haircut than kick the can down the road. While banks have already provisioned for a part of these exposures, given the quantum of haircut involved, adequate recapitalization of banks will have to be ensured. Quick resolution of the NPA stress could aid in the kick start of the next investment cycle.

Indian Banks May Need INR1.9 Trillion Of Additional Capital By March 2019

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Many Indian public sector banks are grappling with low profitability and capitalization, mainly due to strained asset quality. S&P Global Ratings estimates that Indian public sector banks may need about Indian rupee (INR) 1.9 trillion (US$29.6 billion) in capital to make large "haircuts" on loans to unviable stressed projects and meet the rising requirements of Basel III. The overall capital requirements are tempered by anemic credit growth. Capital requirements form a high 34% of the public sector banks' Tier 1 capital and about 40% of their market capitalization.

The Indian government's "Indradhanush" plan to infuse capital into banks remains modest. The banks will therefore have to look for alternate sources to increase their capitalization. Nevertheless, we believe the government's commitment of support remains in place; the government continues to repeatedly reassure banks that it will provide additional capital, if needed, for them to meet their minimum regulatory capital requirements. The credit profiles of public sector banks benefit significantly from ongoing capital support and very high likelihood of government support in the event of distress.

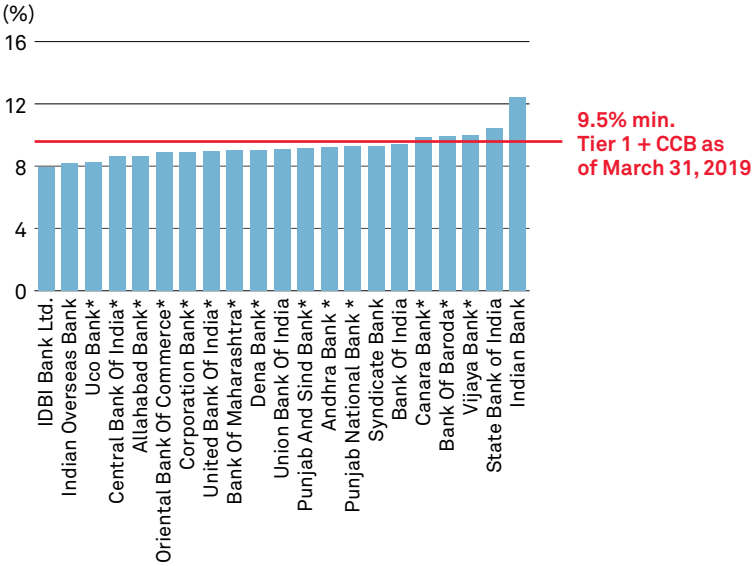
Overview

- We estimate Indian banks would require minimum additional capital of about INR1.9 trillion to provide for their current stock of weak assets and meet the central bank's Basel III requirement.
- Public sector banks face several challenges in raising capital through external sources.
- The structure of the banking industry is likely to change, with the public sector banks continuing to cede market share to private sector banks and finance companies in this cycle.

Need For Capital

The stress in India's banking industry won't ease anytime soon. The lack of capital restricts these banks' ability to write down nonperforming loans (NPLs) to more accurate levels. Weak profitability and rising capital demands from Basel III implementation will also continue to pressure the capitalization of several public sector banks in India. Banks need capital to meet regulatory requirements, and many public sector banks are approaching close to the minimum thresholds (see chart 1). The public sector banks' significant capital needs will stem from providing for existing NPLs and for slippages from other stressed assets. These other stressed assets include standard restructured loans, strategic debt restructuring (SDR), flexible structuring (5:25), and the central bank's scheme for sustainable structuring of stressed assets (S4A).

Chart 1: Indian Banks' Current Tier 1 Ratios



*Not rated. Source: Pillar III reports of banks for March 31, 2017.

Our base-case estimates assume 75% coverage for gross NPLs and 60% slippage from standard restructured loans (including other forms of weak assets) as of March 31, 2017. We have assumed 75% coverage requirement because the World Bank's "Doing Business Report" suggests that the recovery rate in India is a mere 26%. Based on this estimate, we believe that the banks will need INR910 billion just for providing for existing NPLs and for slippages from other stressed assets (see table 1). The banks will also likely require an additional INR928 billion (US$14.5 billion) for meeting Basel III requirements (assuming they hold a Tier 1 ratio of 10.5%). Moreover, INR147.4 billion of public sector banks' additional Tier-1 (AT-1) issuances are "old style" and will be phased out in the next five years, and will also need replenishment. Our estimated requirement of

INR1.9 trillion is less than our earlier expectation because the banks have made huge provisions in the past few years and credit growth has been anemic. In fiscal 2017, public sector banks made provisions to the tune of INR1.7 trillion, which is 1.72% of their total assets. Nevertheless, the banks' capital needs are much higher than the INR200 billion that the government has earmarked for infusion under its Indradhanush plan for the next two years.

In our base case, we expect the top four private sector banks that we analyze to be able to meet their capital requirement without major challenges. The corporate-focused private sector banks may see some marginal shortfall. Nevertheless, these banks have a better capacity to raise external capital than public sector banks, if required.

Fiscal Pressures Limit The Government's Hand

In our view, capital infusions from the government won't be sufficient to fully resolve the public sector banks' looming capital shortfall. The fiscal pressure the government is currently facing—in the form of a large fiscal deficit—will limit its ability to inject a huge amount of capital into government-owned banks in one stroke. This is despite the fact that the overall capital requirement for Indian banks is only about 1.25% of the overall economy. Our sovereign credit ratings on India already factor in contingent liabilities of public sector banks.

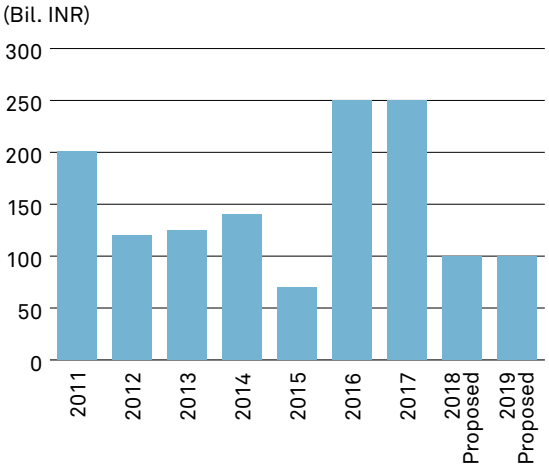
The government has made regular capital injections into public sector banks over the past few years to ensure that these banks meet the minimum regulatory capital requirement (see table 2). Its infusions over the past seven years total about INR1.2 trillion, but its allocation for the next two years is meagre.

Table 1: Capital Shortfall Of Indian Banks

Scenarios	40% slippage and 75% coverage	60% slippage and 75% coverage	80% slippage and 75% coverage
Capital required (bil. INR)			
For provisions	671	910	1,153
For meeting Basel III requirement @ 10.5% Tier 1 (including CCB)	928	928	928
For AT-1 replenishment	59	59	59
Total	1,658	1,897	2,140

INR—Indian rupee. CCB—Capital conservation buffer. AT-1—Additional Tier-1 capital. Source: Individual bank report and S&P Global estimates.

Chart 2: Capital Infusion By The Government



INR—Indian rupee. Note: Data are for the fiscal years ending March 31. Source: Ministry of Finance, Reserve Bank of India, S&P Global Ratings.

The government faces an additional challenge to pumping money into public sector banks. Regulations require the listed entities to have a minimum float of 25%. Of the 21 public sector banks, seven are already above this threshold and five others are close to it. As such, they may find it difficult to raise capital directly from the government in absence of any regulatory forbearance. Market regulator Securities and

Exchange Board of India (SEBI) had set a deadline of August 2017 for public sector banks to meet the 25% public float norm. Among the banks that we rate, only Indian Bank and Indian Overseas Bank had government shareholding exceeding 75% as of June 30, 2017. Indian bank has already announced its plans to issue further capital such that the government's stake reduces to below 75%. Nevertheless, we believe it would be tough for banks to meet this target within the stipulated timeframe, and the government has already approached SEBI for an extension of the time limit.

Fiscal pressure and regulatory constraints have resulted in the government pumping only enough money to meet the minimum regulatory requirement. The government has been urging banks to look out for alternative channels. We believe that the banks will be able to raise some capital through additional Tier-1 (AT-1) issuance, and funding from insurance companies or equity capital markets, none of which will be easy. In the past few years, Life Insurance Corp. Of India (LIC) has increased its equity stakes in many public sector banks. But insurance regulatory norms that constrain insurers' ownership in any firm to not more than 15% restrict LIC's ability to inject more money into the banks in which its stake would be close to the threshold. In addition, India's insurance regulator has advised LIC to reduce its current 18.9% stake in Corporation Bank. As of June 30, 2017, LIC has 14.4% in Axis Bank Ltd., 14.5% in UCO Bank, and 14.25% in IDBI Bank Ltd.

The banks may also look to reduce risk weights or sell off their non-core assets or investments to raise capital. For example Canara Bank gained INR7 billion on the sale of its stake in its housing finance associate, M/s Canfin Homes Ltd., in the fourth quarter of fiscal 2017.

Impediments To Raising Capital From External Sources

India's public sector banks face three key challenges in tapping equity capital markets: low equity valuations, overcrowding in the market, and regulations. At the same time, they may find it hard to raise money via the issuance of AT-1 instruments, because the risk of default on these instruments is rising.

Under-valuations: Lower profitability and dilution risks are constraints

We believe most public sector banks will continue to trade at a discount to their reported book values. This is unlikely to change unless the banks make significant progress in resolving asset quality, profitability, and governance issues.

Overcrowding: Simultaneous issuance

If all the banks simultaneously attempt to tap the capital market, it could lead to costlier financing. Further competition is likely from the government's disinvestment pipeline, which includes other public sector undertakings. A staggered approach to divestment of bank stakes will therefore also be important to avoid overcrowding of banks in the equity market.

Regulations: The government retains majority ownership

There is a statutory requirement that requires the Indian government to hold at least a 51% share in government-owned banks (except for IDBI Bank Ltd.). Banks that are closer to the threshold will

have limited flexibility to tap the equity market to raise money by diluting government stakes. That said, this is now less of a risk, given that the government has pumped money into banks in the past few years, leading to an increase in its holdings, and thereby the buffer for these banks. As of June 30, 2017, the government's stake in all the public sector banks was above 55%.

Risk of defaults on AT-1 instruments rising

Indian public sector banks have raised large volumes of AT-1 capital in the past few years at very competitive rates. For example, in fiscal 2017, State Bank of India (SBI) raised INR91 billion from the capital market and Union Bank of India raised INR35 billion. The pricing of these issuances did not factor in the high risks inherent in these instruments. These instruments are designed to absorb high losses, given that they are subordinated in nature, and have full discretion to cancel interest. They also contain a contractual clause to absorb losses at the point of non-viability (either by conversion into common equity or via write-down). A write-down or conversion may also happen if the bank's common equity tier-1 ratio falls below 5.5% at any time before March 31, 2019, or below 6.125% from that date on. The revision in central bank regulations last year to allow banks to make coupon payment on AT-1 from their statutory reserve prevented defaults by public sector banks. IDBI Bank drew down on its capital conservation buffer (CCB) last year, with a common equity tier-1 ratio of 5.75%, and is precariously close to the default trigger (minimum regulatory capital requirement excluding the CCB of 5.5%). Any further loss could test IDBI Bank's capacity to repay and would affect the appetite and valuations of AT-1 instruments.

India's Banking Structure Could Shift

We believe that only a handful of public sector banks with better franchises, profitability, and capitalization could meet the capital requirements without the need to lower the growth of their risk weighted assets. These banks may find it easier than others to tap the capital markets, given their stronger franchises, better internal capital generation, and lower dilution risks.

Other banks may find it difficult to meet the higher capital requirements and at the same time expand their loan books. As per our expectations in the past few years, such banks continue to lose market share to the better-performing banks in the private sector, profitable public sector banks, and non-bank finance institutions or domestic debt capital markets. We think the polarization of the market in favor of stronger banks will continue as banks clean up their balance sheets and the full requirements of Basel III kick in.

Generally, we don't expect banks to deleverage, mainly because credit penetration in India is currently moderate and the government is keen to increase financial inclusion. Nevertheless, banks will continue to reorient their portfolio toward lower risk weighted assets. Overall, we believe public sector banks with lower capitalization and internal generation of capital could become takeover targets, resulting in consolidation in the banking sector over time.

Appendix

Our methodology for calculating the capital requirement

We have analyzed all public sector banks and the top four private sector banks. Together, they form about 90% of the total banking industry's gross

advances. We have formulated various scenarios to assess the banking industry's potential capital requirement by March 31, 2019.

In estimating the Tier 1 capital ratios for Indian banks under the Basel III framework, we incorporate the following factors:

- We believe that the banks are likely to hold more capital than the required minimum to maintain a buffer over and above the minimum capital requirement. As such, we have analyzed the requirement assuming a 10.5% Tier 1 including CCB requirement.
- We assume that the regulatory risk-weighted assets and total assets for these banks will collectively grow at a weighted average of about 6.5% in fiscal 2018 and 7.5% in fiscal 2019, with public sector banks growing slower than their private counterparts.
- We have assumed that the return on average assets in fiscal 2018 will remain at a level similar to that in fiscal 2017 for all banks barring SBI. The cleaning up of subsidiaries affected SBI's performance last year and therefore we expect improvement in the bank's return on average assets. In fiscal 2019, we expect a 10 basis point improvement in the return on average assets for all the banks we analyzed.
- For all the public sector banks, we have assumed that of the total expected credit costs for fiscal 2018 and fiscal 2019, about 90 basis points and 80 basis points (as a percentage of average assets), respectively, will go in cleaning up the current stock of stressed assets.
- For all banks, we have assumed that their dividend payout ratio and their risk profiles will remain constant. For most of the public sector banks, we assume that they might continue to make low to no profits and therefore may end up paying no dividends for the next two years.
- We have assumed that the security receipts are adequately provided for and therefore no excess provision is required. They form only about 3% of the overall weak assets and are valued at the lower of the net book value and the redemption value.
- We have clubbed the standard portion of assets under SDR, S4A, and 5:25 along with standard restructured asset to the extent this data is available and for this given portfolio of weak assets we have assumed various scenarios of slippage expectations. We have then assumed that the banks will step up the provisions to 75% for the NPL and the slippage portion.
- In our provisioning requirement calculations, we have adjusted surplus capital that the banks have above the regulatory requirement.
- We estimate that 40% of the "old style" AT-1 will be phased out by March 31, 2019, and the banks will need to replenish this capital.

We note that the actual capital requirements could be different from those in our scenario analysis, potentially for the following reasons:

- The credit growth and earnings accrual over the next two years may vary from our estimate.
- We have assumed capital requirement based on 10.5% Tier 1 including CCB requirement. We expect that the top-tier banks may target 100-200 basis points more than the regulatory minimum capital. Banks may hold more or less capital than our expectations.
- There could be some overlap between standard restructured and other forms of restructuring, leading to an overstatement.
- If the banks delay creating provisions, then capital requirement by 2019 may be less to that extent.

List Of Rated Indian Financial Institutions

Company	ICR (Long Term)	Outlook
AXIS Bank	BBB-	Stable
Bank of India	BB+	Stable
Export-Import Bank of India	BBB-	Stable
HDFC Bank	BBB-	Stable
ICICI Bank	BBB-	Stable
IDBI Bank	BB	Stable
Indian Bank	BBB-	Stable
Indian Overseas Bank	BB	Stable
Kotak Mahindra Bank	BBB-	Stable
Kotak Mahindra Prime Ltd.	BBB-	Stable
Power Finance Corp. Ltd.	BBB-	Stable
Shriram Transport Finance Co. Ltd.	BB+	CW with developing implications
State Bank of India	BBB-	Stable
Syndicate Bank	BB+	Stable
Union Bank of India	BB+	Stable

Company	Rating/Outlook
Adani Ports and Special Economic Zone Ltd.	BBB-/Stable
Adani Transmission Ltd.	BBB-/Stable
Bharti Airtel Ltd.	BBB-/Stable
Delhi International Airport Pte. Ltd.	BB/Stable
Genpact Ltd.	BBB-/Stable
Glenmark Pharmaceuticals Ltd.	BB/Negative
Greenko Energy Holdings	B+/Stable
HT Global IT Solutions Holdings Ltd.	BB-/Stable
iEnergizer Ltd.	B/Stable
Infosys Ltd.	A-/Stable
Jain Irrigation Systems Ltd.	B+/Stable
Jubilant Pharma Ltd.	BB-/Stable
NHPC Ltd.	BBB-/Stable
NTPC Ltd.	BBB-/Stable
Oil and Natural Gas Corp. Ltd.	BBB-/Stable
Power Grid Corp. of India Ltd.	BBB-/Stable
Reliance Industries Ltd.	BBB+/Stable
Tata Consultancy Services Ltd.	A/Stable
Tata Motors Ltd.	BB+/Stable
Tata Power Co. Ltd.	B+/Stable
Tata Steel Ltd.	BB-/Stable
UPL Corp. Ltd.	BBB-/Stable
Vedanta Resources Plc	B+/Stable
Wipro Ltd.	A-/Stable