Prabhudas Lilladher

Sector Report

Indian Banks – Corporate Health Check

How intense is the credit cycle and what is factored in ?

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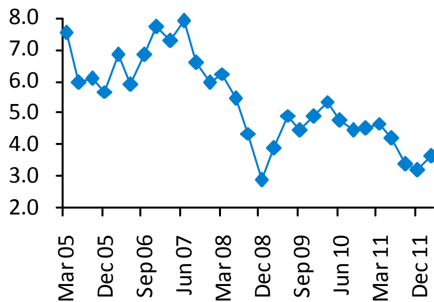
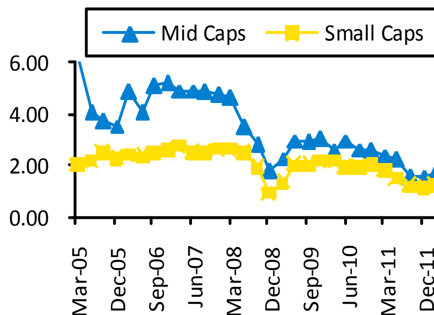
Falling Interest coverage (IC) for ~3500 cos.



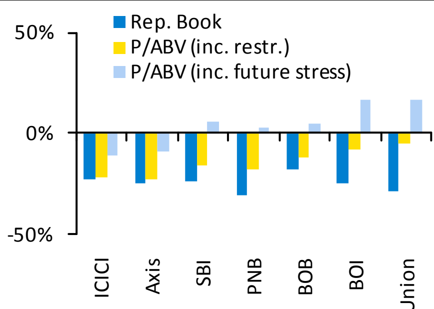
Source: Company Data, PL Research, ACE Equity

IC for mid and small caps below 08-09 levels



Source: Company Data, PL Research, ACE Equity

Adjusted valuations v/s LT averages



Source: Company Data, PL Research

Our detailed corporate health check for ~3500 listed companies indicates that the credit cycle is getting deeper with breadth of mid and small cap companies facing stress increasing at a brisk pace along with an elongated down cycle, leading to higher ultimate delinquencies. But the good part is asset for large caps (excl. Infra, ~60% of debt) have held up relatively better and more importantly, stress sectors have already seen large scale recognition, either as NPA or restructured asset. We do not see a significant rebound in the credit cycle near term and hence, prefer ICICI/Axis, where corporate underwriting has been robust and our sensitivity analysis indicates 15% upside even considering ~15-20% write-offs. PSU banks' adj. valuation is undemanding indicated in our rating upgrades in some PSU names after 4Q12 but the BUY case for PSU banks is more contingent upon a fast recovery and more importantly front ended monetary easing.

- **Corporate health check – Analysing pain points:** We ran a detailed Interest coverage (IC) analysis of all listed companies to understand breadth/depth of the credit cycle. **The bad news: (1)** IC, for mid corporate and SMEs, has come to levels below 08-09 levels with increasing intensity - 25% of mid and SME companies with IC of <1x. **(2)** The bigger worry is that IC for mid and small caps have remained low for 3-4 quarters now and elongated stress time leads to ultimate delinquency. **The good news: (1)** Some pockets in large caps are seeing some incremental stress but overall IC levels remain comfortable and this reduces asset quality risks as they constitute ~60% of the total Rs15trn of industrial credit we analysed.

- **What levels of stress is recognized/discounted?** Though the credit cycle is building up, segmental data provided by SBI/PNB indicate that **10-25% of total exposure** in some stress sectors has already been recognized (either NPA or restructured), though intensity continues to increase. Engineering/construction still remains vulnerable as stress recognition remains lower than stress indicated by our IC analysis.

- **Factoring risks not captured through our IC analysis:** Infra risks/delays are still to hit P&L and hence, our IC analysis does not capture Infra/power risks. Our bottom-up analysis indicates that ~20GW of thermal plants face fuel/off take issues (~20% of capacities commissioned in 09-15E). Though we expect large restructuring in private power space, strong promoter financials in some cases, extension of loan tenure and most importantly systemically acceptable level of cost of power produced (Rs3.1-3.2/unit) even assuming 25% imported coal blending, will significantly limit ultimate delinquencies.

- **Stress testing- ICICI/Axis remain top Buys** : Our stress test indicates that valuations for ICICI/Axis is ~15% lower than their LT averages after considering ~15-17% hit to book values. The hit on PSU banks book is larger at ~30% of book given NPA shortfalls and higher restructuring, but that seems to be fcatored to some extent in valuations. The credit cycle is getting elongated and challenging and easing modetary stance now will bring some relief to asset quality.

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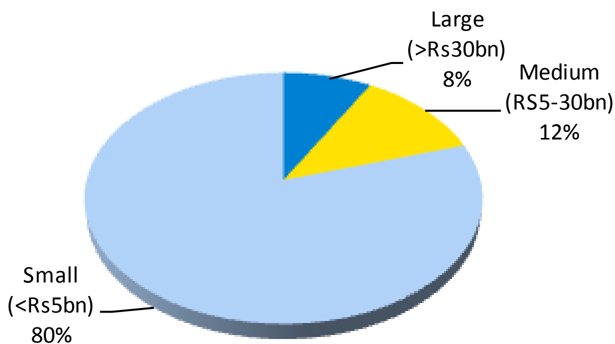
Corporate health check – Analyzing ~3500 companies

- We repeat our analysis of corporate India's health check (done in Nov-11), expanding our study to all listed companies (~3500 companies), covering ~200 large-cap companies (>Rs30bn of market cap), ~350 mid-size companies (Rs5-30bn of market cap) and ~3000 SME Indian companies (<Rs5bn of market cap).

- In all, we have analyzed ~Rs15trn of debt of all listed companies. Some of it may be market borrowing and strictly not bank borrowing. The total debt analyzed constitutes ~36% of system loans and ~50% of loans, excl. agri and personal loans.

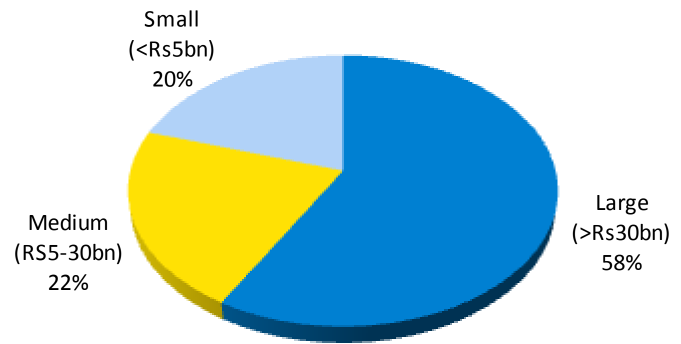
- We run detailed analysis on debt servicing and interest coverage capability of Indian corporate across size (mentioned above) and sectors. We have excluded oil marketing and exploration, FMCG and IT companies, given the nature of their business.

Exhibit 1: Large cap co. constitutes ~8% of listed coverage but…



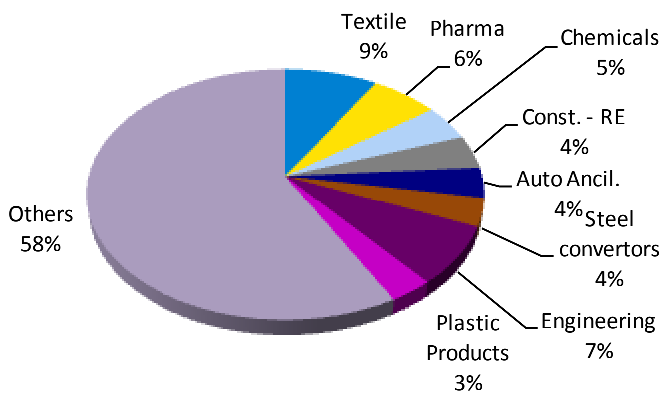
Source: Company Data, PL Research, ACE Equity

Exhibit 2: …~58 % of the total debt (Rs19.5 trillion)



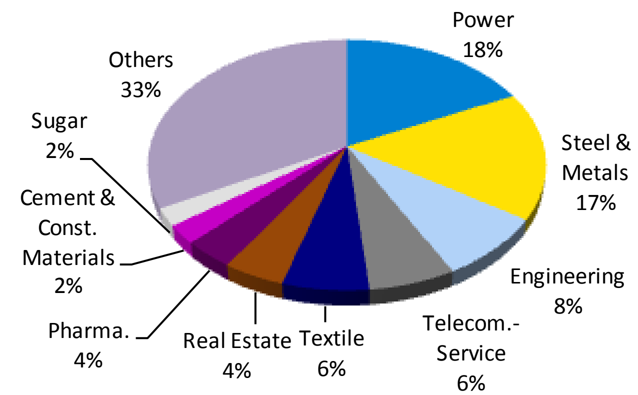
Source: Company Data, PL Research, ACE Equity

Exhibit 3: Distribution of companies across sectors (no. of cos)



Source: Company Data, PL Research, ACE Equity

Exhibit 4: Distribution of companies across sectors (% of total debt)



Source: Company Data, PL Research, ACE Equity

Overall Analysis: Large caps - the silver lining, Mid and small caps - facing significant stress

- Our detailed analysis of interest coverage of all listed companies shows that stress is building up in the mid and small cap companies. However, large caps which contribute ~60% of the total debt are relatively better placed.

- Overall interest coverage is lower than historic averages and also lower than 08-09 levels, largely driven by small and mid caps, with interest coverage for small caps at lower than 08-09 levels for last 3-4 quarters.

- The breadth also reflects similar pattern, with just 7% of large caps having IC<1 v/s 18% of mid caps with IC<1 and ~30% of SMEs with IC<1.

- **The good part:** Asset quality for large caps which constitute ~60% of the debt is holding up well and debt weighted levels of stress are much lower than 08-09 levels **(Figure 8 below).**

- **The bad part:** The current cycle is already longer than 08-09, with 3-4 quarters of IC strain for mid and small caps v/s 1-2 quarters of extreme stress in 08-09 and prolonged periods of stress leads to actual delinquencies/restructuring.

Exhibit 5: Large cap better off but worsening breadth and intensity for mid and small caps

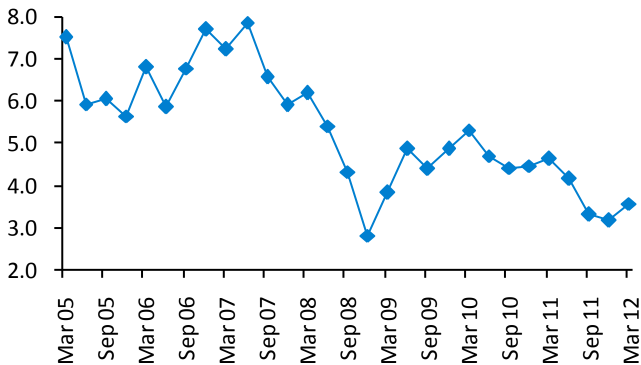
	Avg. (05-12)	Avg. (07-12)	08-09 levels	2H12
Total Universe				
Interest coverage	5.34	4.88	3.68	3.38
% of Cos with IC<1	20.0%	20.3%	25.5%	26.6%
% of Cos. With IC<1 (debt wtd)	10.5%	10.5%	19.4%	13.8%
Large Caps (~150 cos, ~60% of total debt, Mcap of >Rs30bn)				
Interest coverage	10.23	9.30	6.54	6.68
% of Cos. With IC<1	7.1%	6.8%	16.0%	7.2%
No. of qtrs of severe stress			1.0	-
Mid Caps (~350 cos, ~20% of total debt, Mcap of Rs5-30bn)				
Interest coverage	3.46	3.02	2.28	1.63
% of Cos. With IC<1	13.2%	13.9%	22.0%	17.8%
No. of qtrs of severe stress			1.0	3.0
SMEs (~2200 Cos ~20% of total debt, Mcap of <Rs5bn)				
Interest coverage	2.04	1.92	1.35	1.16
% of Cos. With IC<1	22.0%	22.3%	26.9%	29.6%
No. of qtrs of severe stress			2.0	4.0

Source: Company Data, PL Research, ACE Equity

Large caps relatively comfortable and the intensity and breadth of the issue is also under control

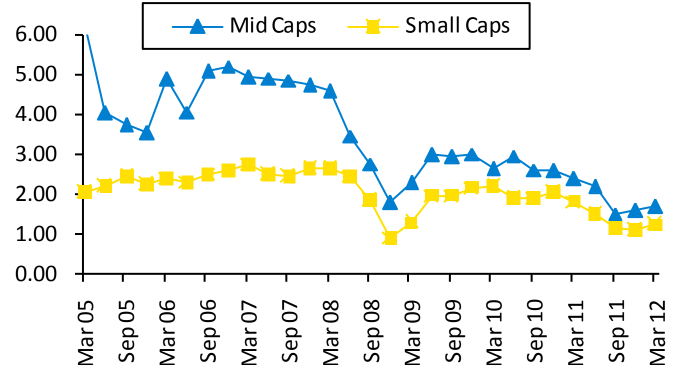
For mid and small caps, the key issue is the elongated cycle with 3-4 quarters of very low IC v/s 1-2 quarters of severe stress in 08-09

Exhibit 6: Overall interest coverage just above 08-09 levels



Source: Company Data, PL Research, ACE Equity

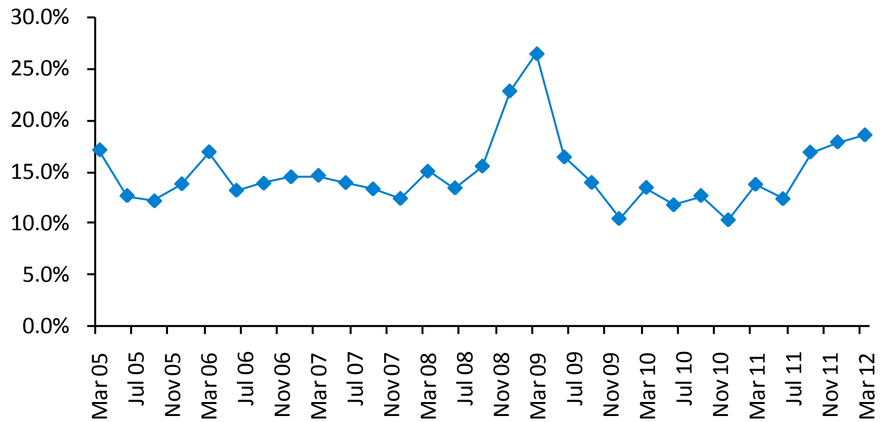
Exhibit 7: Mid and small caps below 08-09 levels



Source: Company Data, PL Research, ACE Equity

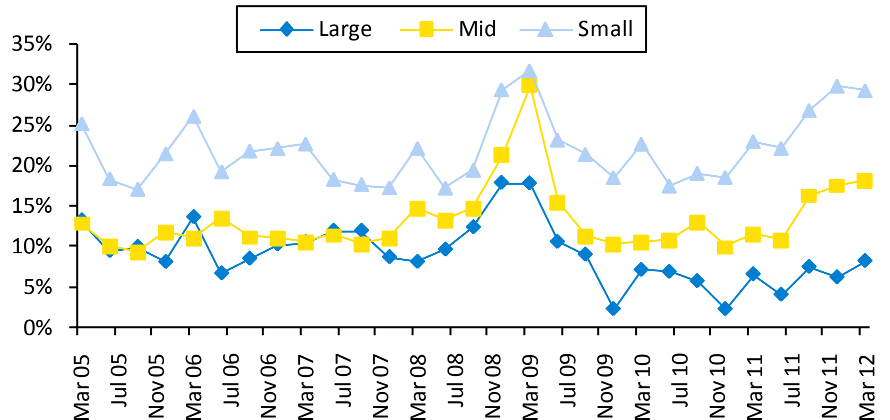
% of companies with IC<1 has increased significantly for mid and small cap categories but % of debt having IC<1 is lower than 08-09 levels, given strong performance by the large caps

Exhibit 8: Increase in <1x IC companies shows the elongated stress period (debt wgtd)



Source: Company Data, PL Research, ACE Equity

Exhibit 9: % of companies facing stress very high among small and mid caps



Source: Company Data, PL Research, ACE Equity

Segmental summary – Identifying pockets of pain

Exhibit 10: Sector and Size-wise IC analysis- Large cap in better position even in some stress sectors

	Avg. 05-12	Avg. 07-12	08-09 lows	2HFY12
Airlines - Stress continues				
Mid cap	0.16	(0.72)	(1.63)	(0.83)
Auto Ancillary - Companies in most categories in better shape				
Mid cap	5.71	4.72	2.98	3.69
SMEs	3.38	2.88	1.42	2.91
Cement - IC coming off but largely comfortable				
Large caps	15.82	16.43	13.44	13.00
Mid caps	5.90	6.49	7.02	3.10
SME	3.47	3.35	3.38	2.27
Construction - Stress building up in Small and Mid caps				
Large caps	6.63	6.17	7.00	4.06
Mid caps	3.15	2.81	2.95	1.44
SME	2.54	2.62	2.81	1.37
Mining- Small caps facing stress				
Large caps	107.56	107.84	183.19	43.01
Mid caps	5.68	4.66	4.50	1.19
SME	2.61	2.48	0.77	0.09
Power - Smaller generation cos coming also facing stress				
Large caps	**5.76**	5.35	3.87	4.06
Mid caps	6.10	6.49	6.07	3.02
SME	3.04	5.73	6.05	0.26
Shipping - Facing stress across the board				
Large caps	5.33	4.07	5.75	1.23
Mid caps	4.73	12.85	18.68	0.69
SME	2.54	2.00	2.95	1.19

	Avg. 05-12	Avg. 07-12	08-09 lows	2HFY12
Iron & Steel - Significant stress in mid and small caps				
Large caps	4.30	4.67	3.34	2.75
Mid caps	4.82	4.96	3.68	1.71
SME	2.32	2.24	1.70	1.11
Metal convertors - Significant stress in mid and small caps				
Large caps	10.12	9.53	8.59	6.13
Mid caps	1.73	1.18	-0.17	0.85
SME	1.69	1.56	0.46	0.96
Textile - Could benefit from rupee depreciation				
Large Caps	14.21	13.55	10.99	6.08
Mid Caps	2.18	1.81	1.21	1.77
SME	1.51	1.32	0.71	0.69
Textile - Spinning - Power/capital intensive textile chain under stress				
Mid Caps	4.58	3.63	2.17	2.76
SME	1.15	0.91	-0.02	0.49
Trading - Relatively comfortable				
Large Caps	4.51	7.59	1.40	3.19
Mid Caps	4.66	2.29	2.30	1.36
SME	2.97	2.83	1.87	3.56
Transmission tower - No IC issues with power tower cos				
Mid Caps	4.26	3.83	2.40	3.11
SME	3.31	3.12	2.55	1.86
Total - Large Caps remain the silver lining				
Large Caps	10.23	9.30	6.54	6.68
Mid Caps	3.46	3.02	2.28	1.63
SME	2.04	1.92	1.35	1.16

Source: Company Data, PL Research, ACE Equity

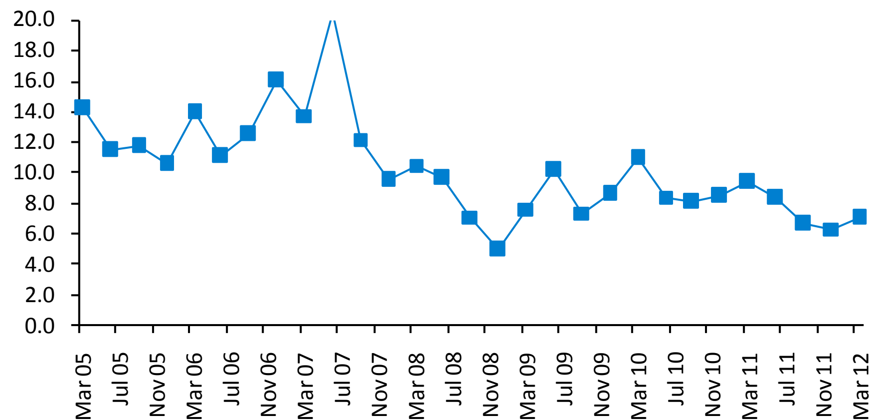
Large Caps – The silver lining but some stress building up

Interest coverage higher than 08-09 levels

Large caps contribute ~60% of the total debt of companies we studied and they remain the silver lining with their interest coverage continuing to remain higher than 08-09 levels. Low leverage (limited cross border M&A) has led to lower stress for large corporate v/s 08-09 levels. Given higher proportion of banking system advances to large corporate, healthy **interest coverage of ~7x for large corporates** remains a key positive.

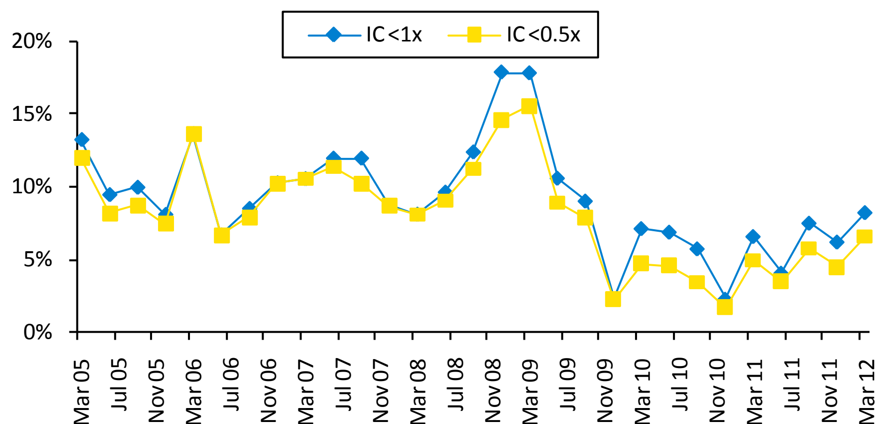
Even considering the breadth, only 7% of large cap companies have an interest coverage of <1 v/s ~16% of large cap universe with IC <1 in 08-09 levels. The % of companies with IC < 1x at 7% is below last 8-yr average of ~9%.

Exhibit 11: Interest coverage of ~150 large cap companies – Better than 08-09 levels



Source: PL Research, ACE Equity

Exhibit 12: Breadth of companies facing issues among large caps is also limited



Source: PL Research, ACE Equity

But some stress is building up…

- Though IC for large caps remains under control, stress in some pockets has been increasing over the last 3-4 quarters, with interest rate remaining high and growth rates coming off. Among large caps, only **Engineering, Shipping and Steel** sector's IC is lower than 08-09 levels.

- Though <40% of the large cap companies have shown a deterioration in IC in the last 6 months, these sectors constitute ~60% of debt of large cap companies. Apart from the sectors mentioned above, **power generation and Real estate** have shown a significant deterioration in IC.

- Also, a large part of the Infra issue is still to hit P&L of many Infra/Construction companies and hence, that does not get captured in our interest coverage analysis.

Exhibit 13: Engineering, shipping and steel sector's IC is lower than 08-09 levels (large caps)

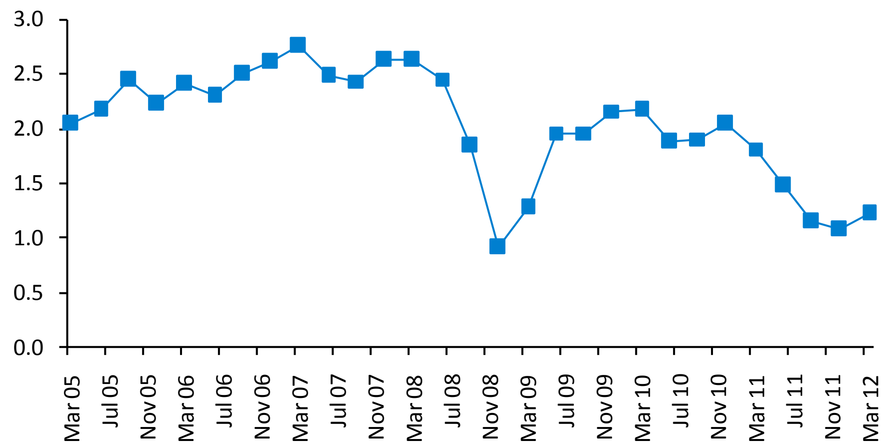
	Avg. 07-12	08-09 lows	2HFY12	Trend in 2H12 v/ Sep-11
Large Cap companies (>Rs30bn of MCap)	**9.30**	**6.54**	**6.68**	**0.37**
Automobiles	6.35	2.22	3.04	1.75
Breweries & Distilleries	3.16	2.67	1.46	-1.59
Cement	16.43	13.44	13.00	8.28
Construction - Real Estate	4.15	2.49	3.19	-0.10
Engineering - Construction	6.17	7.00	4.06	1.52
Metal - Non Ferrous	25.62	19.74	17.53	-2.90
Mining & Minerals	107.84	183.19	43.01	19.42
Pharmaceuticals & Drugs	17.49	5.63	12.94	-1.98
Power Generation/Distribution	5.35	3.87	4.06	-0.88
Shipping	4.07	5.75	1.23	0.20
Steel & Iron Products	4.67	3.34	2.75	0.52
Steel/Sponge Iron/Pig Iron	9.53	8.59	6.13	-1.43
Trading	7.59	1.40	3.19	0.11
Tyres	5.80	2.10	3.64	0.35

Source: Company Data, PL Research, ACE Equity

Mid Caps (~350 cos): Asset quality issues intensifying

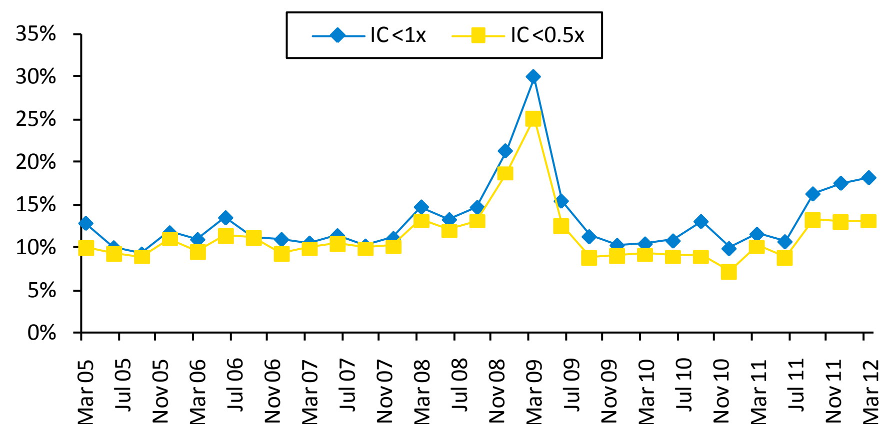
For the mid-cap universe (companies with Rs5-30bn of Mcap), asset quality stress is intensifying, with interest coverage remaining below 08-09 levels for three quarters (from Q2FY12). Interest coverage for the entire listed midcap universe is down to 1.6x currently v/s 1.9x experienced in 08-09 and 3.5x of through cycle interest coverage. More importantly, the breadth of mid-cap companies having IC of <1 has been increasing and is now at ~18%. Though the breadth is lower than 08-09 levels (25% of mid cap companies with IC<1), elongated stress periods (3 quarters v/s 1 quarter in 08-09) may lead to higher delinquencies.

Exhibit 14: Mid cap IC's at 1.6x currently v/s 1.9x experienced in 08-09



Source: PL Research, ACE Equity

Exhibit 15: ~18% of midcap companies have IC<1



Source: PL Research, ACE Equity

Sectoral pain points in Mid-caps

Sectoral pain points for mid-caps are very similar to the large cap universe as some part of the mid-cap universe were large companies where equity valuations have corrected with stress in operations given high debt burden.

The extent of the problem with IC in most stress sectors for midcap companies is much higher than their large caps peers in respective sectors. Shipping, Iron and steel and Airlines have IC<1 or negative IC. The other area of incremental pain where IC is seen coming down to less than comfort zone is sectors like Engineering/Construction and Metal convertors and with limited recognition in engineering/construction space till now, we see potential risk of slippages

Exhibit 16: Shares of the stress sectors with large caps- but IC's much lower in mid caps

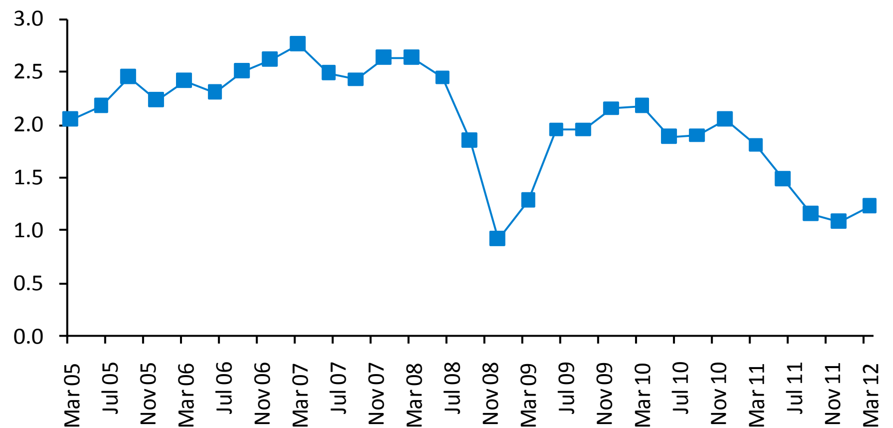
	Avg. 05-12	Avg. 07-12	08-09 lows	2HFY12	Trend in 2H12 v/ Sep-11
Mid-Cap	**3.46**	**3.02**	**2.28**	**1.63**	**0.16**
Airlines	0.16	-0.72	-1.63	-0.83	0.28
Auto Ancillary	5.71	4.72	2.98	3.69	0.33
Cement	5.90	6.49	7.02	3.10	2.22
Construction - Real Estate	10.71	9.19	4.41	2.06	-0.36
Diamond & Jewellery	2.88	2.93	2.31	2.24	-0.10
Engineering - Construction	3.15	2.81	2.95	1.44	0.07
Fertilizers	3.62	3.44	3.11	3.63	-0.07
Hotel, Resort & Restaurants	7.07	7.01	10.78	0.18	-0.63
Pharmaceuticals & Drugs	6.27	5.71	4.28	2.66	-1.85
Plastic Products	4.05	4.13	3.24	2.96	1.03
Power Generation/Distribution	6.10	6.49	6.07	3.02	0.51
Shipping	4.73	12.85	18.68	0.69	4.07
Steel & Iron Products	4.82	4.96	3.68	1.71	0.15
Steel/Sponge Iron/Pig Iron	1.73	1.18	-0.17	0.85	0.20
Sugar	6.12	2.30	1.64	1.23	1.78
Textile	2.18	1.81	1.21	1.77	0.48

Source: Company Data, PL Research, ACE Equity

Small Caps (~3200 companies): In bad shape

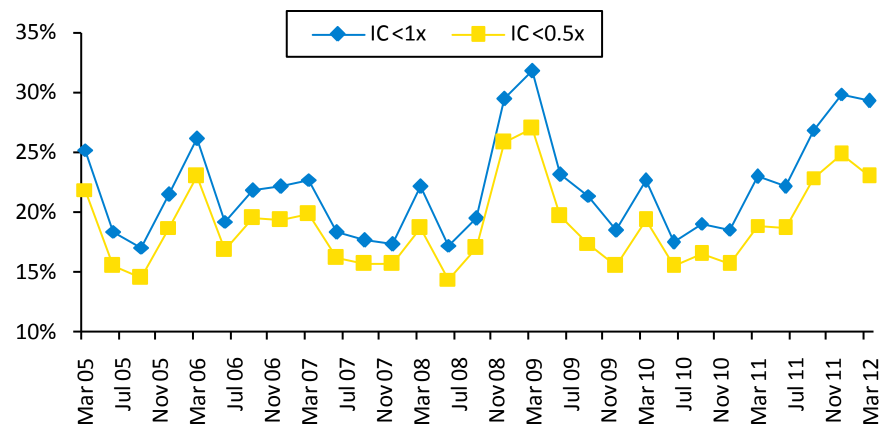
For the small caps, Interest coverage is in the 08-09 levels for the last four quarters and the intensity is only increasing across the board, with ~30% of the small-cap universe now having interest coverage of <1x v/s a through cycle average of 20%. Slow growth continues to harm demand environment with YoY EBIT contraction of 22% and rates sustaining high has led to 30% YoY jump in interest expenses for the small caps. The situation was as bad in 08-09 but recovery was quicker and hence, the problem was not as wide spread.

Exhibit 17: Interest coverage for small caps below 08-09 levels for 4 qtrs



Source: PL Research, ACE Equity

Exhibit 18: The bigger worry is that the problem is getting wide spread



Source: PL Research, ACE Equity

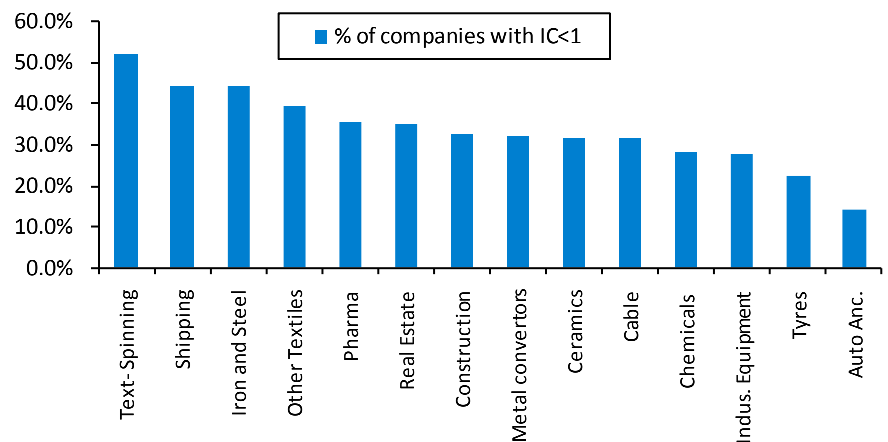
Segmental analysis:

In SME, many industries including Textiles, Shipping, Metal convertors, Construction and Real estate have 30-50% of companies with IC of <1.

Textiles has seen some relief in Q4FY12 and with some benefit from forex for exporters, we expect the trend to improve marginally. However, for real estate and construction companies, we are seeing significant intensity building up for stress cases.

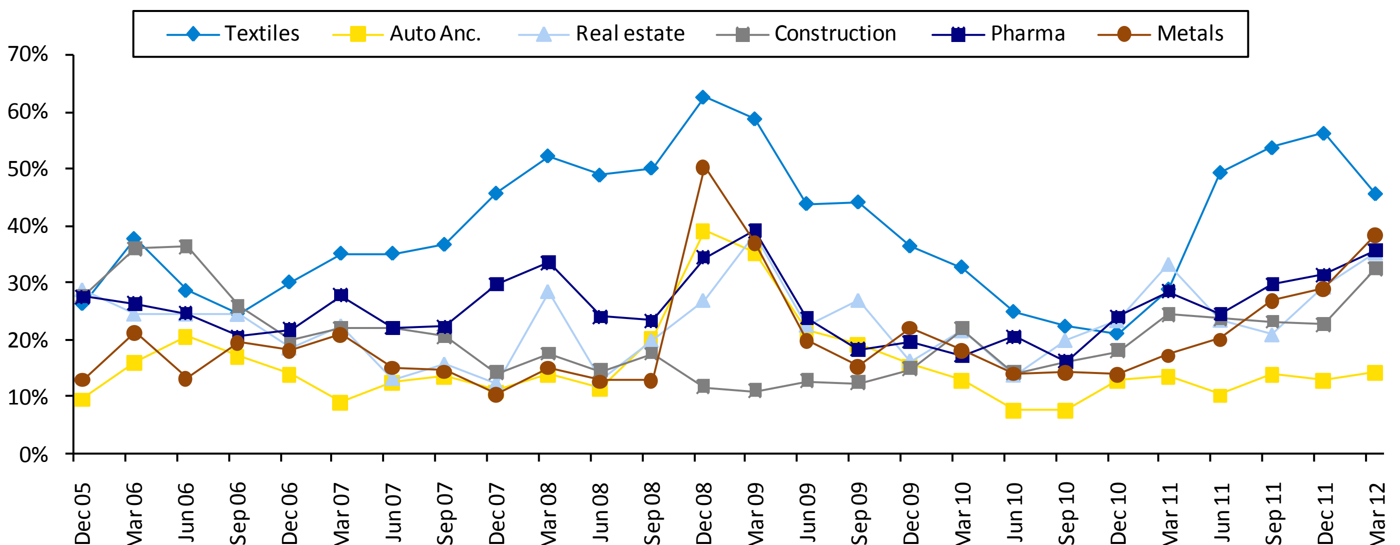
Auto ancillaries, which is otherwise a vulnerable sector, has seen very less stress, driven by the consumption theme driving OEM sales which is moderating but not crashing. The other surprise on the negative side is Pharma – though large caps are well paced, we see stress in some of the small cap names.

Exhibit 19: % of companies in small caps with IC < 1x (small caps)



Source: PL Research, ACE Equity

Exhibit 20: IC's<1--Construction/Real estate worse off than 08-09, Autos Anc. better off



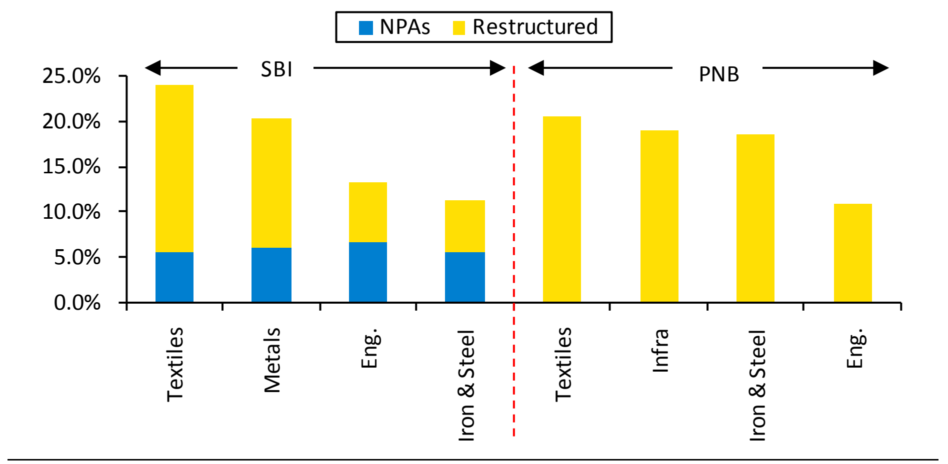
Source: PL Research, ACE Equity

What is recognized, what is not?

Sectors like Textiles, Iron and steel, Metals, Construction, Real estate, Airlines and Shipping are facing significant stress. However, exhibit 21 shows that banks have recognized significant stress assets in the last 4-6 quarters.

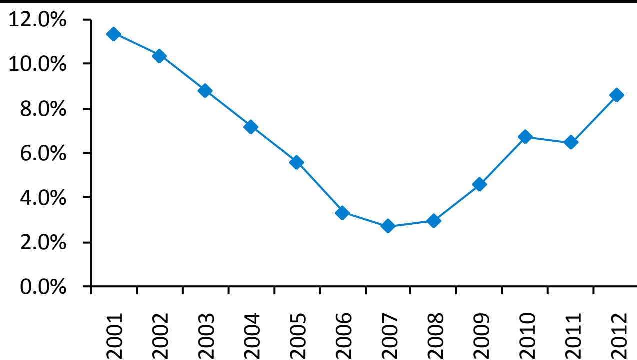
Significant recognition already done in a few sectors: Of the high stress sectors, exposures to Textiles, Iron and steel, Metals and to some extent Engineering/Construction has been recognized by banks, with data from SBI and PNB highlighting ~25% of their textile exposure, ~15% of metals exposure and 10-15% of their engineering exposure which has been either recognized as NPA or have been restructured. Even in airlines, exposure to Air India and Kingfisher has been recognized as restructured accounts.

Exhibit 21: Some part of the stress already recognized (SBI and PNB stressed asset portfolio)



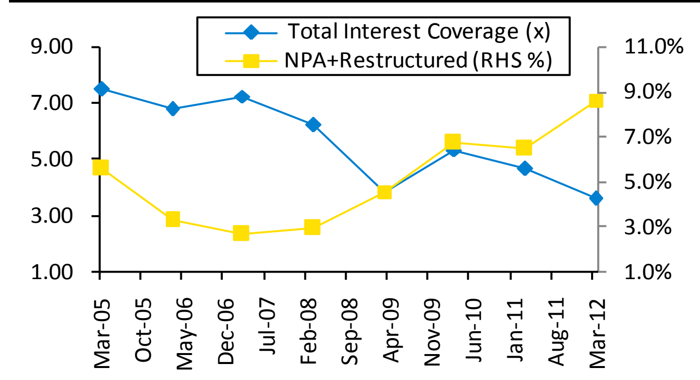
Source: Company Data

Exhibit 22: Stress assets again on a rise – NPA+ Restructured



Source: RBI, PL Research

Exhibit 23: Interest coverage v/s stress assets



Source: ACE Equity, RBI, PL Research

Possible negative surprises:

- **Construction and Real estate:** We are seeing stress building and we have not seen commensurate recognition of stress assets.
- **Metals:** Though significant recognition is done, our metals analyst expects op. environment to remain tough and there could be further accretion.
- **Infra/Power sector exposure:** Our interest coverage analysis does not reflect project level stress as interest on under construction projects is being capitalized.
- **Longer cycle:** As mentioned above, the current down cycle is already longer than 08-09 levels and longer periods of stress lead to ultimate NPA recognition rather than a small period of shock (08-09).

Private power: Some restructuring expected

Estimating quantum of restructuring expected in private power: We continue to maintain that coal-related issues will push project CODs and cash flows and hence, there will be large restructuring. We estimate that at 6% annual production growth for Coal India, domestic coal supplies will suffice (at 60% PLF) for only ~9-10GW/yr v/s estimated ~15GW/yr of linkage based plants expected to commission. Hence, there are/will be projects where CODs will get pushed and in many cases cash flows will get pushed as these projects will have to be classified as restructured assets.

Exhibit 24: Outcome of moving COD and cash flows on classification of the asset

Jun-09	Start of project implementation
Jun-12	Original planned COD - Interest payments scheduled to start from June-12
Assuming 12 mnts delay in project	
Not classified as restructuring	RBI allows to move COD by up to 24mnts, but promoter needs to bring in scheduled cash flows (mostly interest in year 1) to avoid being classified as restructured account
Classified as restructuring	If promoter does not have the liquidity to bring in cash flows, then the project will get classified as restructured though RBI allows to move COD
Our View	
Though we do not expect too many NPAs from the power portfolio, given liquidity issues for many of the Infra groups, we believe some promoters will not be able to bring in the required cash flows and hence, there could be some restructuring. We estimate ~20GW of power plants to face challenges. Assuming 50% restructuring, ~Rs350bn of restructuring can be expected.	

Source: Company Data, PL Research

Exhibit 25: Estimation of restructuring in private power (in MW unless mentioned)

Expected upcoming capacities FY11-15E	**79,345**
State utilities	16,000
Central utilities	14,174
Private power	49,171
Capacity commissioned between FY09-11	**19,975**
Problem assets excluding projects from promoters with deep pockets (09-15E)	20,279
Coal-based projects than could face stress	**16,880**
Gas-based projects than could face stress	**3,399**
% of projects expected to face challenges	20.4%
% of restructuring assuming 50% meet cash flows as COD is moved	10.2%
Assuming 50% of problem assets restructured	10,139
Debt involved (Rs bn)	**354.9**
% of system loans	**0.71%**
Worst case outcome - All stress assets restructured	20,279
Debt involved (Rs bn)	**709.7**
% of system loans	**1.42%**

Source: PL Research, Company Data

Coal shortage to remain: Projects to get delayed

Fuel challenges will remain and as mentioned above, many coal linkages based power plants would continue to face delays due to inadequate domestic coal. We estimate ~60GW of linkage based capacity was expected to commission between FY11-15E and assuming 25% slippages in projects, domestic coal will be able to provide only 48% linkage.

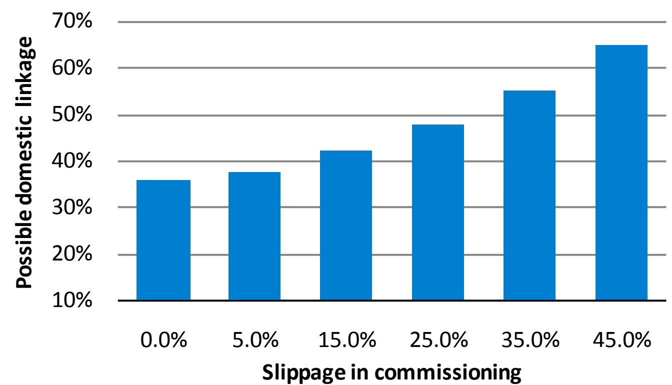
Of the total ~15GW/yr of linkage based thermal plants expected to commission between FY11-15E, we estimate only 9-10GW can be supplied through domestic sources assuming domestic linkage of 60% (25% imported coal blending) and thus, other projects will either have to face delays or have operating losses for the interim period till domestic coal production ramps up. As mentioned above, we expect some promoters will not be able to avoid the interim cash calls and those projects will have to recorded as restructured.

Exhibit 26: Coal shortage severe: Best case domestic linkage ~50%

Non-coking coal incremental supply (FY12-15- mmt)	126.7
Linkage capacity expected - FY11-15	
Total Linkage Coal capacity (FY11-15E) MW	59,020
Coal required for 90% PLF	319.1
Shortfall (%)	60%
Best possible domestic linkage	36%
Linkage assuming 15% slippage in projects	42%
Linkage assuming 25% slippage in projects	48%
Project slippages to assume 50% domestic coal linkage	28%

Source: Company Data, PL Research

Exhibit 27: Possible dom. linkage assuming slippages in commissioning



Source: Company Data, PL Research

Exhibit 28: Fuel pass through risks is highest in Case I/II projects

	Perceived risks	Possible risks/ Our take
PPA/Regulated projects	Complete fuel pass-through available. Only risks is disincentives in case plant availability goes <85%	Though fuel costs is a pass-through, quantum jump in cost of power procurement due to higher share of overseas coal may not be acceptable to SEBs
Case I/ Case II bids	**Variable cost pass through allowed but in some cases partially**	**Higher variable power costs may impact project profitability in case of partial pass-through and these plants according to us are the most risky**
Merchant	No fuel pass-through as tariff realisations based on market rates	Higher fuel costs would have a significant impact on overall project profitability but even with 25-30% international blending, we do not expect losses in merchant capacities, except if lower linkage is provided

Source: Company Data, PL Research

Why we do not fear high ultimate losses?

1. **Cost of power at very acceptable levels:** Assuming 60% domestic coal and 25% imported coal blending (US$100 and USD/INR of 53-54), the cost of power includes the cost of equity at Rs3.1-3.2/unit. This is higher than Rs2.7-3.0/unit bid in many case I/II bids but still very acceptable level of tariff. There has been issues in regulated projects regarding cost pass-through for imported coal and in Case I/II for higher domestic/imported coal cost pass-through, but ultimately we believe, if the power asset is generating power at system acceptable level of tariff, then ultimate loss will be very limited though cash flow mismatches could lead to restructuring in the near term.

Exhibit 20: Power cost of Rs3.1-3.2/unit systemically acceptable level of tariff – even assuming 25% blending of imported coal

		Domestic coal linkage (%)							
		35%	40%	45%	50%	55%	60%	65%	70%
Coal Prices	$85	3.41	3.34	3.27	3.20	3.14	3.07	3.00	2.93
	$90	3.48	3.40	3.33	3.25	3.18	3.10	3.03	2.95
	$95	3.54	3.46	3.38	3.30	3.22	3.14	3.06	2.97
	$100	3.61	3.52	3.44	3.35	3.26	3.17	3.08	3.00
	$105	3.68	3.59	3.49	3.40	3.30	3.21	3.11	3.02
	$110	3.75	3.65	3.55	3.44	3.34	3.24	3.14	3.04
	$115	3.82	3.71	3.60	3.49	3.38	3.27	3.17	3.06
	$120	3.89	3.77	3.66	3.54	3.42	3.31	3.19	3.08
	$125	3.96	3.83	3.71	3.59	3.47	3.34	3.22	3.10
	$130	4.03	3.90	3.77	3.64	3.51	3.38	3.25	3.12

Source: Company Data, PL Research

2. **Project lifecycle much higher relative to debt cycle:** A thermal plant has a useful life of +25 yrs and the debt repayment is frontloaded in the first 9-10 yrs (including moratorium period). We believe that as a project commissions and its coal linkage is gradually inched up to 80-85% over 4-5 yrs, the project lifecycle would to some extent ensure principal protection though restructuring will be imminent.

3. **Tariff hikes by SEBs will enable some SEBs to absorb higher cost of power:** SEBs, over the last 18-24mnts, has hiked tariffs in some cases twice after the appellate tribunal ruling and pressure from Banks/Financial institutions. This, we believe, to some extent aid their ability to marginally pay higher tariffs for power which is the issue in most regulated and case I/II bids as well.

Exhibit 29: SEBs hiking tariffs over past 18-24mnts

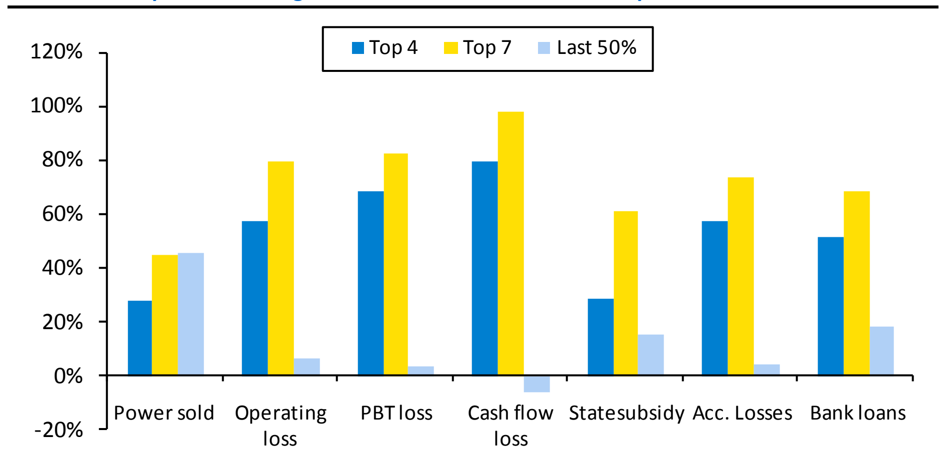
	FY11	FY12	FY13
Rajasthan		**Hiked by 21%**	
Tamil Nadu	**Hiked 14-16%**	**Hiked ~37%**	
Uttar Pradesh	**Hiked 13-15%**	**Hiked 13%**	
Andhra Pradesh		**Hiked 10-12%**	**Hiked 10-15%**
MP	**Hiked**	**Hiked 10-11%**	**Hiked 7%**
J&K		**Hiked 15%**	
Bihar		**Hiked 19-20%**	**Hiked 12%**
Jharkhand		**Hiked 18%**	
Punjab		**Hiked 7-12%**	
Chhattisgarh		Hiked 14-15%	Hiked 26-46%
Orissa		Hiked 25%	Hiked 40%
Himachal		Hiked 9%	Hiked 13%
Maharashtra		Hiked ~10%	
West Bengal	Hiked		Hiked 5-13%
Gujarat		Hiked 4.7%	
Delhi		Hiked 22%	

Source: Company Data, PL Research

SEBs – Finally moving

In our detailed analysis in our Dec-11 initiation, we had highlighted that the SEB debt issues is a 20:80 problem, with top seven loss-making SEBs contributing ~98% of cash losses and ~80% of the book losses. The losses is largely concentrated in the top 7-8 states, with ~50% of the SEBs (13 states) cumulatively generating cash profits. The problem for banks/FIs is that the top seven loss-making SEBs contribute ~70% of the overall borrowing, with limited borrowing by the 50% profit-making SEBs (<20% of overall debts).

Exhibit 30: Top 7 loss making states contribute the bulk of the problems



Source: Company Data, PL Research

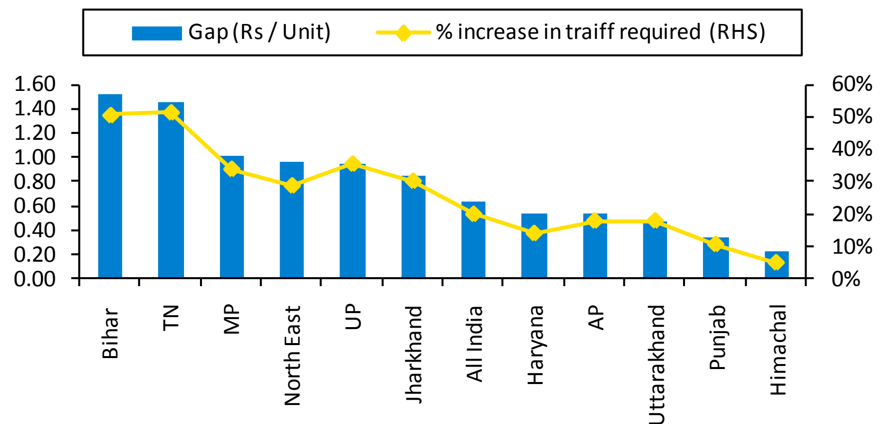
Exhibit 31: P&L and balance sheet highlights stress (FY10 numbers based on PFC report)

	Impact from reforms	Addressability	Time frame	TN	Rajasthan	MP	UP	AP	Haryana	Punjab	J&K
AT&C Losses	Very high	Yes	Medium/long	20.2%	30.1%	41.0%	39.7%	16.4%	29.0%	17.7%	70.4%
Cost of power used	Medium	Yes	Long term	3.14	3.92	2.79	2.82	2.95	3.46	2.14	2.61
Agri power tariff	Very high	No	Difficult	0.00	1.25	1.55	1.51	0.21	0.27	0.00	1.41
Domestic power tariff	Medium	Yes	Near term	1.73	2.65	3.43	2.19	2.75	3.20	2.93	1.29
Power used by Agri (%)	NM	No	Difficult	20.3%	35.0%	21.5%	19.0%	30.5%	40.1%	31.2%	34.7%
Power used by domestic (%)	NM	Yes	Near term	24.7%	18.7%	32.2%	41.8%	22.5%	19.0%	20.0%	6.7%

Source: Company Data, PL Research

Required hikes large but most states moving swiftly: Over the last 18mnts, most SEBs have taken significant tariff action, either forced by the regulator or by financial institutions. We see most states have either taken a second hike in 18mnts or have filed for a tariff petition after a hike in FY12. Even the top loss-making states have moved aggressively in raising tariffs over the last 18mnts. Below table summarises hikes taken by various state SEBs over the last 2-3 years. We believe the outcome on tariff hikes have been very positive and will help to stem operating losses significantly and more importantly increase their ability to pay for high incremental cost of power.

Exhibit 32: 40-50% hike in overall tariffs required to breakeven in high loss-making states



Source: Company Data, PL Research

Exhibit 33: SEBs hikes tariff over the past 18-24 months

	FY11	FY12	FY13
Rajasthan		**Hiked by 21%**	
Tamil Nadu	**Hiked 14-16%**	**Hiked ~37%**	
Uttar Pradesh	**Hiked 13-15%**	**Hiked 13%**	
Andhra Pradesh		**Hiked 10-12%**	**Hiked 10-15%**
MP	**Hiked**	**Hiked 10-11%**	**Hiked 7%**
J&K		**Hiked 15%**	
Haryana			
Bihar		**Hiked 19-20%**	**Hiked 12%**
Jharkhand		**Hiked 18%**	
Punjab		**Hiked 7-12%**	
Chhattisgarh		Hiked 14-15%	Hiked 26-46%
Orissa		Hiked 25%	Hiked 40%
Himachal		Hiked 9%	Hiked 13%
Maharashtra		Hiked ~10%	
West Bengal	Hiked		Hiked 5-13%
Gujarat		Hiked 4.7%	
Delhi		Hiked 22%	

Source: Company Data, PL Research

Accumulated losses – Remains a future pain point: Though the recent hikes taken by the state SEBs are very positive, accumulated losses in 2010 itself was US$20bn and with similar loss run rate, we believe SEBs will have accumulated losses of >US$25bn. The current hikes at best would address in current P&L shortfall and the +US$25bn gap created by losses over the last 4-5 yrs will continue to impact SEB financials. At 12% funding costs, accumulated losses translate into ~Rs0.4-0.5/unit of power tariff just to fund interest on accumulated losses.

Exhibit 34: At 12% funding costs, accumulated losses translate into ~Rs0.4-0.5/unit of power tariff

FY10 accumulated losses (Rs bn)	1,038
Losses between FY10-12E	550
FY12 Accumulated losses	1,588
Interest cost to fund losses	191
Units sold in FY12	565
Per unit cost of funding accumulated losses (Rs/unit)	0.34

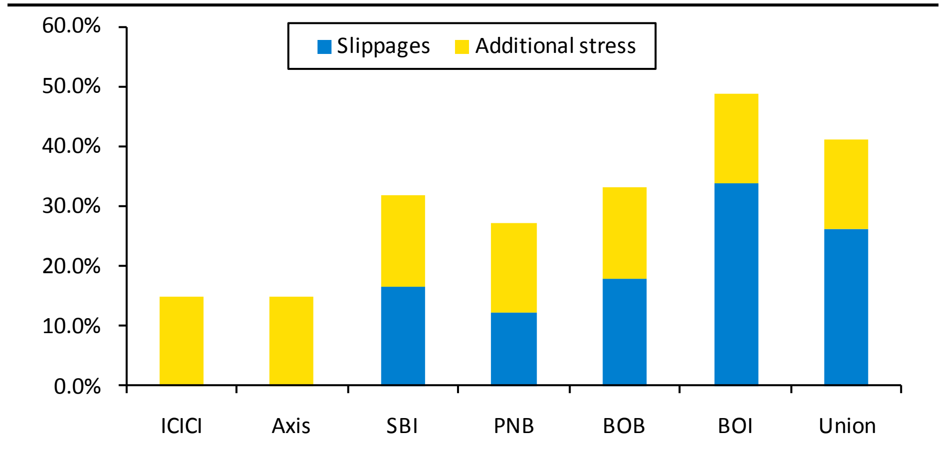
Source: Company Data, PL Research

Quantifying the stress

We stress test bank valuations for problems already recognized in terms of NPAs or restructured assets and more importantly for exposure in stressed sectors and Infra exposure.

1. **Known stress cases (NPAs + Restructuring):** Banks have recognized significant amount of stress assets either in NPAs or more so in restructured assets over the last two years. We adjust valuations for 70% NPA coverage and higher provisioning on restructured assets. Of the restructured assets, ~15-30% have already slipped to NPAs (excl. Air India and SEB) and we assume further 15% slippage from the restructured book, taking total slippage to ~30-45%; this is significantly higher than management guidance of ~20-25% slippage.

Exhibit 35: 15% additional slippages assumed from restructured book



Source: Company Data, PL Research

2. Future losses (exposure in stress sectors + Infra exposure):

- **Stress sectors (excl. Infra) :** Banks have ~15-20% exposure to stress sectors, excl. Infra, including sectors like engineering, construction, real estate, textiles, iron and steel, etc in which our interest coverage analysis indicates increasing stress and more importantly increasing breadth of stress. Thus, apart from the significant recognition already done and high credit costs factored in, we stress test exposure to these sectors by 5% of total exposure for PSU banks and 2.5% of total exposure for private sector banks.

- **Infra exposure:** Restructuring could be high in the power sectors as discussed above but as mentioned, we do not believe that ultimate loss will be high for banks in the power segment. Hence, we stress test ~7.5% of total Infra exposure (excl. SEBs) in our analysis. Most exposure to loss-making SEBs is already restructured and factored in our earlier sensitivity and hence, we exclude that from our above analysis.

Exhibit 36: Exposure to stresses sectors and Infra for various banks

	ICICI	Axis	SBI	PNB	BOB	BOI	Union
Stress sectors (excl. Infra)	**19.3%**	**14.0%**	**17.3%**	**18.1%**	**20.6%**	**18.2%**	**15.2%**
Additional stress	**2.5%**	**2.5%**	**5.0%**	**6.0%**	**5.0%**	**5.0%**	**5.0%**
Non Infra (% of total exposure)	0.48%	0.35%	0.86%	1.09%	1.03%	0.91%	0.76%
Infra Portfolio	**10.1%**	**14.6%**	**9.4%**	**13.6%**	**11.5%**	**14.0%**	**12.9%**
SEB	0.0%	0.0%	1.5%	3.9%	3.3%	2.6%	4.0%
Private power	6.4%	8.1%	3.4%	5.6%	3.8%	6.5%	5.0%
Other Infra	3.7%	6.5%	4.5%	4.1%	4.4%	4.9%	3.9%
Additional stress - Infra							
SEB	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**	**0.0%**
Private power	**7.5%**	**7.5%**	**7.5%**	**7.5%**	**7.5%**	**7.5%**	**7.5%**
Other Infra	**7.5%**	**7.5%**	**7.5%**	**7.5%**	**7.5%**	**7.5%**	**7.5%**
Infra (% of total exposure)	**0.76%**	**1.09%**	**0.60%**	**0.73%**	**0.61%**	**0.86%**	**0.67%**
Total stress	**1.24%**	**1.44%**	**1.46%**	**1.81%**	**1.64%**	**1.76%**	**1.43%**
Exposure (Rs bn)	**7331**	**3318**	**16994**	**3744**	**3420**	**3169**	**2097**
Write offs (Rs bn)	**91.0**	**47.9**	**247.9**	**67.9**	**56.2**	**55.9**	**30.0**
FY14 Equity	722	319	1,231	344	357	261	162
% of FY14 Equity	**12.6%**	**15.0%**	**20.1%**	**19.7%**	**15.8%**	**21.4%**	**18.5%**
Stress sectors (ex Infra)	**19.3%**	**14.0%**	**17.3%**	**18.1%**	**20.6%**	**18.2%**	**15.2%**
Iron and steel	5.1%	3.3%	6.0%	7.4%	5.5%	5.3%	4.5%
Engineering	5.0%	4.2%	4.1%	2.3%	4.2%	1.2%	1.6%
Textiles	0.7%	1.6%	4.1%	1.4%	4.7%	3.8%	2.5%
Gems	0.8%	0.6%	0.9%	0.3%	0.5%	2.7%	1.6%
Construction	4.2%	0.7%	1.3%	1.1%	2.3%	1.1%	1.8%
Airlines	0.3%	0.3%	0.4%	1.3%	1.7%	2.1%	2.0%
Commercial RE	3.2%	3.4%	0.5%	4.3%	1.7%	1.9%	1.2%

Source: Company Data, PL Research

Stress test outcome: ICICI/Axis remain top picks

In our sensitivity analysis, we adjust book values for current stress assets recognized and potential future stress from Infra and other stress sectors mentioned above:

Recognized stressed assets

- **NPA coverage of 70% :** Axis/ICICI's NPA coverage is >70% but adjusting for NPA coverage, PSU bank's book values is impacted by 5-10% as we adjust book values for shortfall up to 70%.
- **Restructuring:** Adjusted for AI/SEB exposure, slippages from restructured book is ~15-25% and we have assumed further ~15% slippage from ex-AI/SEB portfolio, 5% hit on SEB exposure restructured and 10% hit on Air India. Impact on Axis/ICICI is <2% and for PSU banks is ~5-10% of book, with least impact for SBI.

Future stress assets

- **Stress sectors excl. Infra:** 2.5% incremental NPAs for private banks and ~5% incremental NPAs for PSU banks (difference due to better underwriting) – exposure to stress sectors between 15-20% for Axis/ICICI and also for PSUs.
- **Infra exposure: 7.5% hit on total Infra exposure:** Our detailed analysis shows 20% of new power plants to face operating stress, of which, we believe 50% would not impact Banks/Financials.

Outcome: ICICI/Axis better off

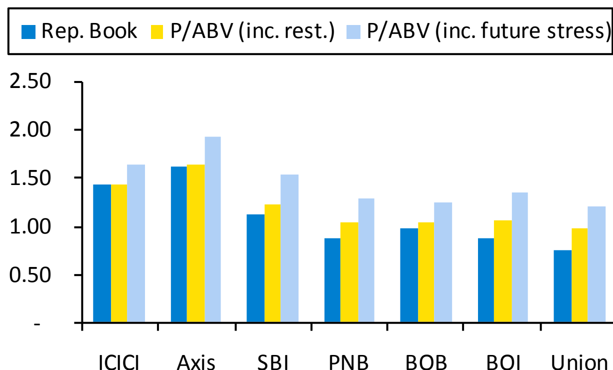
- Book values for PSU banks will be impacted by ~7-25% due to provisioning on already recognized NPAs or restructured assets, with lowest adjustment for BOB/SBI and highest for Union bank. High coverage and low restructuring limit impact from any material provisioning requirement for Axis/ICICI.
- Writing-off future stress book from FY13 equity, the impact is higher for PSU banks at 15-20% of their net worth v/s 12-15% for ICICI/Axis and very negligible impact for the retail private banks. Though actual asset quality impact would be much staggered, the current exercise is to estimate maximum stress and how valuations look post factoring in the stress.
- Our analysis indicates that, valuations for ICICI/Axis after accounting for such stringent stress test is at ~15% discount to their trading history. With higher restructuring and lower provisions, adjustment for PSU banks is ~30-35% of their book and valuations adjusted for such high level of stress is almost at long-term average. PSU banks' do factor in the stress but any hope of sustainable re-rating for PSUs will be contingent on broad-based recovery; timing of which is uncertain.

Exhibit 37: ICICI/Axis is at ~15% discount to their trading history after accounting for stringent stress test

	ICICI	Axis	SBI	PNB	BOB	BOI	Union
FY13 Reported book	**570**	**633**	**1,834**	**888**	**737**	**394**	**271**
Coverage (%)	80.4%	74.3%	60.0%	55.0%	65.4%	43.0%	44.0%
Intended coverage (%)	70%	70%	70%	70%	70%	70%	70%
FY13 coverage adjustment/share	-	-	98	56	7	35	39
FY13 Adjusted book (ex. Restructuring)	**570**	**633**	**1,736**	**832**	**730**	**359**	**232**
Restructured book - FY12	**42,560**	**30,600**	**371,680**	**250,090**	**150,842**	**174,533**	**118,790**
Cumulative Slippages (Rs m)			60,100	19,450	14,770	32,980	21,958
Slippages (%) ex AI +SEBs			**16.7%**	**12.3%**	**18.0%**	**33.8%**	**26.2%**
Restructured book (ex AI +SEBs)	42,560	30,600	359,680	158,090	81,842	97,533	83,790
Additional slippages (%)	**15.0%**	**15.0%**	**15.0%**	**15.0%**	**15.0%**	**15.0%**	**15.0%**
Additional slippages ex AI +SEB	**6,384**	**4,590**	**53,952**	**23,714**	**12,276**	**14,630**	**12,569**
Slippages from AI + SEBs (10% of portfolio)	**-**	**-**	**1,200**	**5,700**	**4,650**	**5,200**	**2,250**
Restructured slippages/share (AI+SEBs)	6	11	82	87	41	35	28
FY13 Adjusted book (incl. restructuring)	**564**	**622**	**1,654**	**745**	**689**	**324**	**204**
Price	**839**	**1,058**	**2,106**	**802**	**729**	**358**	**212**
FY13 P/Adj. Book	1.49	1.70	1.27	1.08	1.06	1.10	1.04
Average LT valuations	1.90	2.20	1.51	1.30	1.20	1.20	1.10
v/s average valuations	**28%**	**29%**	**19%**	**21%**	**13%**	**9%**	**5%**
Future stress (% of net worth)	**13%**	**15%**	**20%**	**20%**	**16%**	**21%**	**18%**
Valuation adjusted for future stress	1.70	2.00	1.59	1.34	1.26	1.41	1.28
V/s average valuations	**11.7%**	**10.0%**	**-5.3%**	**-3.1%**	**-4.5%**	**-14.6%**	**-14.1%**

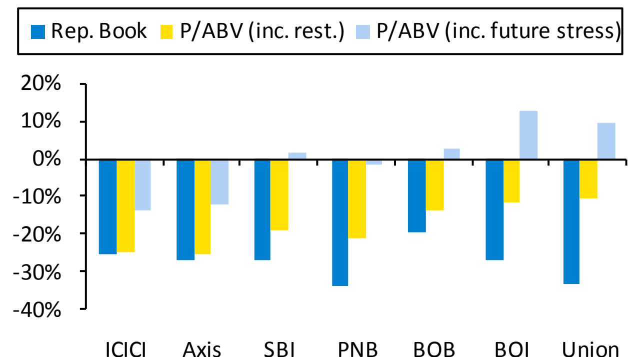
Source: Company Data, PL Research

Exhibit 38: Hit to ICICI/Axis/BOB equity lower from future stress



Source: Company Data, PL Research

Exhibit 39: ICICI/Axis is at ~15% discount assuming hit from stress



Source: Company Data, PL Research

Exhibit 40: Valuation Summary-Coverage Universe

	Price	Mcap ($ mn)	Rating	PT	Upside	P/B (x)		P/E (x)		ROE		EPS Growth	
						FY13	FY14	FY13	FY14	FY13	FY14	FY13	FY14
Axis Bank	1,058	8,757	BUY	1,400	32%	1.65	1.36	8.5	6.8	21.1%	21.9%	21.1%	25.1%
HDFC Bank	550	25,856	Accumulate	575	5%	3.73	3.16	19.8	16.2	20.1%	20.9%	26.0%	22.4%
ICICI Bank	839	19,288	BUY	1,050	25%	1.50	1.36	10.2	8.6	12.1%	13.3%	18.0%	18.2%
HDFC	658	19,474	Accumulate	750	14%	3.28	2.83	13.6	11.6	22.3%	21.5%	15.6%	17.2%
IDFC	133	4,022	BUY	145	9%	1.47	1.31	10.7	9.1	14.4%	15.2%	20.8%	18.1%
Kotak Bank	587	8,697	Reduce	530	-10%	2.79	2.45	20.7	16.5	14.5%	15.8%	19.9%	25.0%
IndusInd	327	3,066	BUY	400	22%	2.74	2.30	14.9	12.0	19.9%	20.9%	28.1%	24.3%
Yes	348	2,464	BUY	450	29%	2.15	1.75	10.1	7.9	23.4%	24.3%	22.1%	27.1%
PNB	802	5,439	Accumulate	900	12%	0.94	0.81	5.1	4.4	18.8%	18.7%	9.8%	16.2%
BOI	358	4,113	Accumulate	380	6%	0.96	0.83	5.7	4.8	17.1%	17.6%	34.8%	18.6%
BOB	729	5,706	BUY	900	24%	1.00	0.85	5.6	4.8	19.1%	19.1%	6.4%	17.3%
SBI	2,206	29,609	BUY	2,350	7%	1.21	1.05	7.0	6.3	17.6%	16.9%	30.6%	10.9%
LIC housing	254	2,567	BUY	340	34%	1.81	1.55	10.4	8.2	19.8%	20.0%	35.4%	26.7%
Shriram	516	2,336	Accumulate	575	11%	1.63	1.39	8.5	7.7	20.8%	19.6%	8.8%	11.5%
MMFS	635	1,320	BUY	860	35%	1.85	1.55	8.5	6.8	23.6%	24.6%	22.9%	24.9%

Source: Company Data, PL Research, Bloomberg

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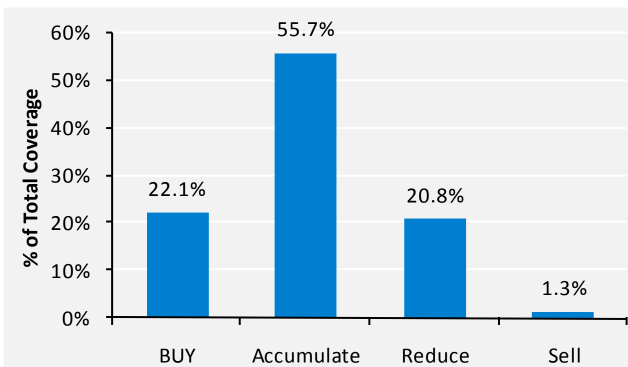

PL's Recommendation Nomenclature

BUY	:	Over 15% Outperformance to Sensex over 12-months	**Accumulate**	:	Outperformance to Sensex over 12-months
Reduce	:	Underperformance to Sensex over 12-months	**Sell**	:	Over 15% underperformance to Sensex over 12-months
Trading Buy	:	Over 10% absolute upside in 1-month	**Trading Sell**	:	Over 10% absolute decline in 1-month
Not Rated (NR)	:	No specific call on the stock	**Under Review (UR)**	:	Rating likely to change shortly

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