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Indian Banks-Asset Quality

Hiccup or a crisis?

The clouds of economic gloom and the ensuing liquidity crunch have dealt a double blow to corporate bottomlines. Worries are growing on asset quality of banks as borrowers are on a shaky ground, and lenders (banks) cannot be but vulnerable to the risk of rising defaults. But a remarkably long stint of economic prosperity has led to tenable balance sheets (60% lower leverage than in the NPA cycle of late-1990s) and much higher personal income levels while banks have lower exposure to troubled sectors. After applying our credit screens to the sample set of corporates and assessment of personal incomes, we conclude that 14% of bank credit is vulnerable. Of this, a proportion is likely to manifest as NPAs (or get restructured) and the impact would be spread over the next 2-3 years. While we expect NPAs to peak at 5.7% in FY11 (7.7% in the worst case), our estimates build in a 60-70% rise in FY10 credit costs.

Rise in NPAs imminent…: A cyclical turn in the economy, accentuated by the global credit freeze and subsequent domestic liquidity squeeze, has dented the confidence of an effervescent India Inc. The demand slump and steep fall in commodity prices pose a threat to corporate bottomlines. As a result, a host of smaller and leveraged companies are facing acute liquidity shortage – threatening to translate into a solvency crisis. Uncertainty on personal incomes also builds a case for rise in retail NPAs.

…dimensioning the threat: Our analysis suggests that NPAs will be well below that in the previous cycle due to lower leverage of corporates (0.36x vs peak of 0.88x in FY97), banks' limited exposure to vulnerable sectors as also better restructuring and recovery practices. Our view rests on analysis of components of bank credit, detailed evaluation of balance sheets of ~3,000 companies and assessment of personal income levels. After applying our credit screens, we see 14% of bank credit under stress, of which a proportion is likely to manifest as NPAs or get restructured. As the impact is likely to be spread over the next 2-3 years, we expect gross NPAs to peak in FY11 at 5.7%.

Rank order in the risk spectrum: We have assessed expected asset quality performance of large banks relative to peers. We have superimposed our understanding of industrywise stress on their portfolios, compared the exposure to vulnerable segments, credit growth and their balance sheet strength. We find that HDFC Bank, ICICI Bank and Bank of Baroda are better placed to endure the rise in NPAs while SBI and Bank of India appear to be more vulnerable to the stress.

Stress score of banks

Company	Asset quality rank	Balance sheet rank	Overall stress rank
HDFC Bank	1	2	1
ICICI Bank	3	1	2
Bank of Baroda	2	6	3
PNB	4	3	4
Axis Bank	6	4	5
State Bank of India	5	7	6
Bank of India	7	5	7

Note: Banks with higher rank are better placed

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ASSET QUALITY: HICCUP OR A CRISIS?

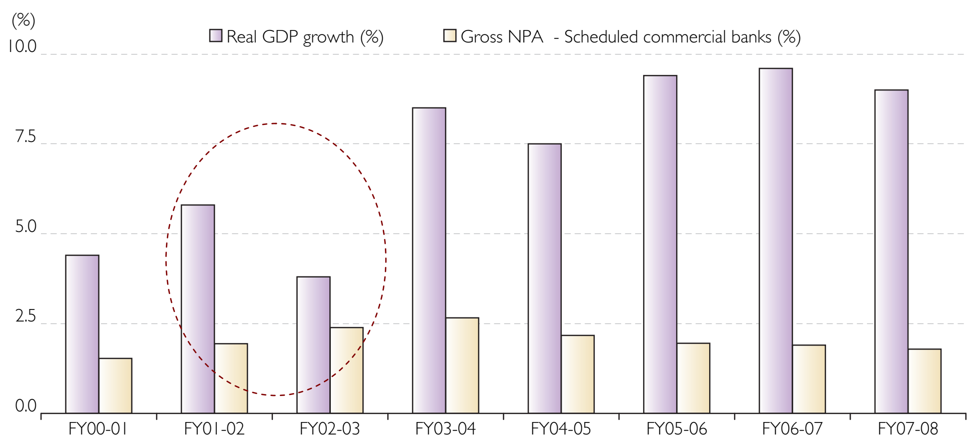
Most quarters expect the NPA situation to worsen in the coming years, but the view varies on the extent of the damage. Though lower GDP growth (we estimate a 6.2% rise in FY10) and aggressive credit expansion (29% CAGR over FY05-08 – with last leg at elevated interest rates) would raise the NPA levels for banks, we believe the extent will peak at 5.7% in FY11 as against 15%+ levels seen in the earlier cycle. Based on our analysis of financial health of ~3,000 companies (corporates form 43% of bank credit), we deduce that lower leverage, better profitability and good credit selection would prevent a systemic collapse this time round. Examining the retail portfolio (~23%), we draw comfort from the fact that 51% of banks' retail book is in comparatively safer mortgage loans. Mapping our findings on to select large banks, we find that ICICI Bank, HDFC Bank and Bank of Baroda are better placed on the credit risk spectrum.

❑ Concerns loom large…as GDP growth moderates

An adverse economic environment to hit banks' asset quality

The macroeconomic headwinds have taken a toll on exports and domestic demand, and the recessionary global environment has constricted investments (via reduced capital inflows). This has resulted in GDP growth estimates being pruned from the 8-9% range for FY10 at the start of 2008 to 6.2% currently. Reeling under the impact of slackening demand and the resultant dent in profitability, debt repayment capacity of corporate India has taken a hit. As a result, banks face mounting pressure on asset quality as defaults are bound to rise in the wake of a weaker economy.

Exhibit 1: Banks' gross NPAs (% of total assets) due to rise



Source: RBI, IDFC-SSKI Research

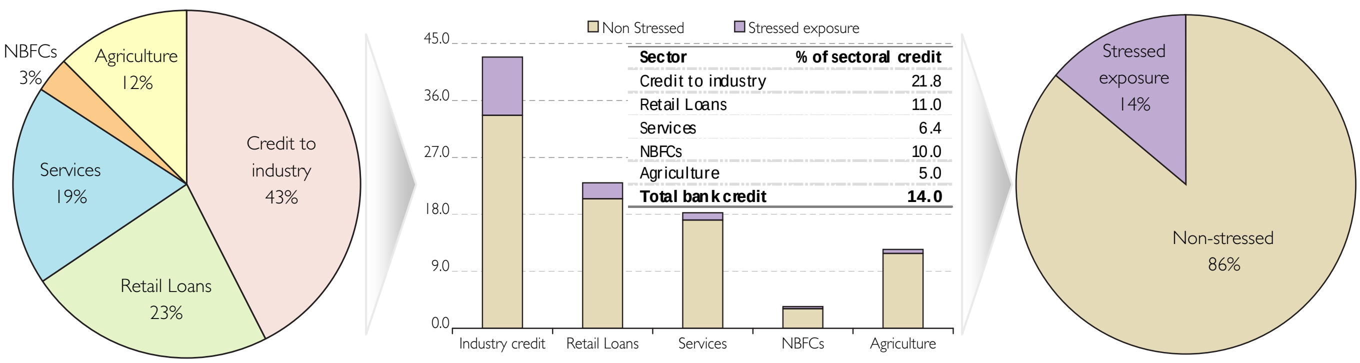
❑ Assessing the damage

Our analysis of outstanding bank credit indicates that...

Though banks' asset quality would imminently witness strain, we expect the deterioration to be well below that in the previous cycle. We have deduced this from our analysis of outstanding bank credit to each sector to arrive at the stress level for the banking sector.

For the purpose, we have appraised corporate and retail credit (together forming ~65% of total bank credit) in detail and also assessed the stress in services, agriculture and NBFC segments.

Exhibit 2: Identifying the stress points



Source: RBI, Capitaline, IDFCSSKI Research

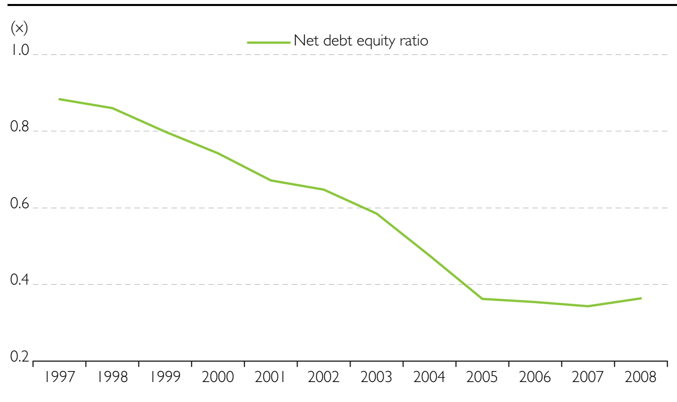
...14% of banks' aggregate outstanding debt is exposed to the risk

We conclude that 14% of banks' total outstanding debt is likely to face stress. The screens that we have used to ascertain the stress level are very stringent and capture companies with high leverage, wherein any weakness in profitability is likely to lead to defaults. As not all of these companies would default, we expect a limited proportion of this to convert into NPAs. Below we examine in detail the corporate and retail components, which form ~65% of the outstanding bank credit.

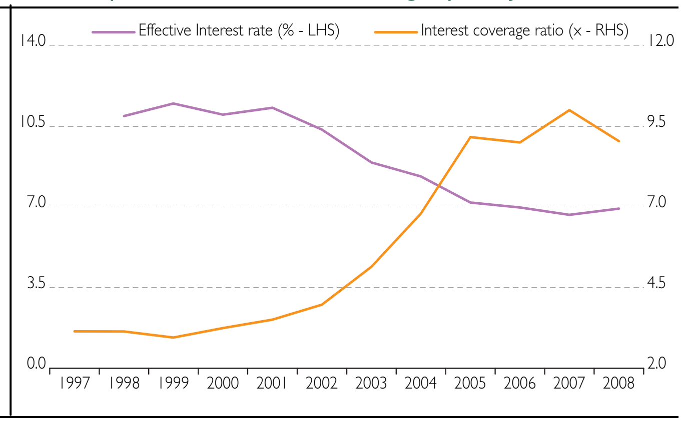
❑ Corporate credit – 'comfortable' leverage provides comfort

We have evaluated the balance sheets of ~3,000 listed companies and screened each sector under a different criterion based on liquidity and leverage ratios. We observe a significant progress in the financial strength of Corporate India since the previous cycle (over FY97-08) with a marked decline in leverage and improved profitability as also interest coverage ratio.

Exhibit 3: A significant drop in leverage levels...



...and improvement in interest servicing capability



Source: Capitaline, IDFCSSKI Research

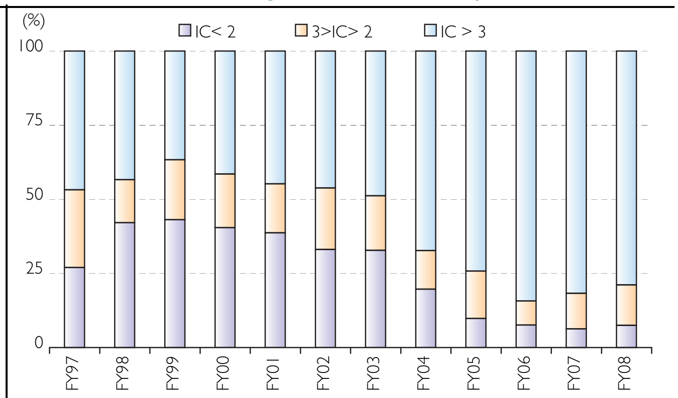
Incidence of stress limited to 22% of the sample debt

Our analysis indicates that incidence of stress is limited to 22% of the sample debt. Moreover, smaller enterprises with limited financial muscle appear on the higher end of the risk spectrum with ~41% of debt to these companies under duress. Identifying the vulnerable sectors, we observe that strain is concentrated in export-oriented, commodity-related and commercial real estate sectors – the worst hit by the ongoing financial crisis. While some sectors like sugar and fertilizers appear to be in deep stress, the impact on banking sector is likely to be limited as such debt constitutes a small proportion of the overall debt funded by banks.

Exhibit 4: Stress in corporate debt

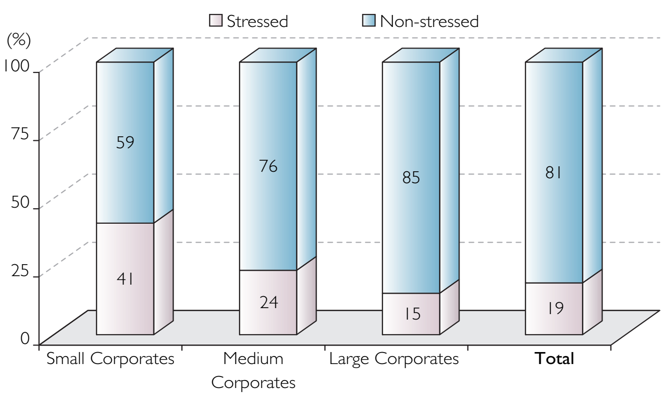
(Rs bn)	FY08
Total debt of sample cos	7,502
% of bank credit	70
Stress in sample	1,424
% of stress in the sample	19
Total Bank credit to the industry	9,417
Bank credit covered in the sample	5,252
Balance bank credit to industry	4,165
% of stress assumed in the balance	25
% of corporate bank debt in stress	21.8

Distribution of debt moving towards better companies

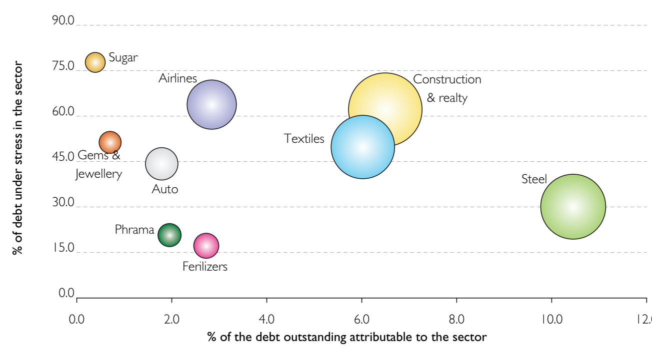


Source: RBI, Capitaline, IDFC- SSKI Research

Exhibit 5: Corporate stress by size



Sectors with higher levels of stress form a small part of total credit



Note: Size of the bubble indicates the contribution of the sector to overall stressed debt of the sample ; Source: RBI, Capitaline, IDFC SSKI Research

❑ Retail assets – wide variance in stress levels across products

Given that 51% of retail loans are mortgages...

For retail credit component, we have appraised each category and estimated the stress levels on the basis of our assessment of income demographics and inherent stress levels. Under the retail segment, consumer behaviour is likely to vary widely across products. Retail portfolio is dominated by mortgage loans (~51%), majority of which are disbursed to the salaried class. As these borrowers tend to prioritize mortgage repayments, this inherently implies lower default levels in this asset class. On the hypothesis of soft landing for the economy over the next 2-3 quarters, we do not expect any outsized rise in mortgage delinquencies. On the other hand, slippages in unsecured retail loans are running high and threaten to surge at a rapid pace, accentuated by adverse recovery regulations.

Another factor that merits notice is that since the retail NPA cycle started 12-18 months ago, lending norms have been tightened and substantial provisions made on such loans. Given that banks have already provided aggressively on retail loans, the incremental hit is likely to be limited.

...only 11% of retail book faces the threat of defaults

Building in the unwinding of extremes, we have assumed incremental stress to rise two-fold from the current level. We estimate that ~11% of the overall retail book may be under stress.

Exhibit 6: Strain on retail loans

(Rs bn)	Loans	% of stress	Stressed loans
Direct housing	2,557	6.0	153
Advances against FDs	450	0.0	-
Credit cards	192	25.0	48
Education	207	10.0	21
Consumer durables	86	25.0	21
Others (incl unsecured personal loans)	1,562	20.0	312
Total	**5,054**	**11.0**	**55,598**

Source: RBI, IDFC-SSKI Research

❑ Bond gains to offset the higher credit costs

G-Sec yields 250-300bp off the peak, leading to 12-15% gains on value of such bonds, 3.0-3.5% of balance sheet

To assess the capability of banks to absorb higher credit costs, we assume all NPAs from the stressed debt to culminate immediately. We assume 10% of banks' advances (from the stressed 14% determined above) to turn delinquent, which would form 6-7% of their balance sheets. Assuming credit loss of 50% on these NPAs, we arrive at a loss of 3-3.5% of the balance sheet.

On the other hand, banks have 25-26% of their balance sheets in bonds (primarily G-secs) with an average duration of 4-5 years. G-Sec yields have declined by 250-300bp from the peak in July 2008, leading to 12-15% appreciation in the value of such bonds (3.0-3.5% of balance sheet). Consequently, on a mark to market basis bond gains are expected to offset the rise in provisioning costs.

❑ NPAs to culminate in a staggered manner

Gross NPAs estimated to peak in FY11 at 5.7%

Slippages are expected to manifest over the next 2-3 years. We estimate that 15% of these incremental bad debts are likely to accrue in the current fiscal (FY09) as the impact of slowdown becomes evident. A substantial proportion (~60%) of these defaults is expected to accrue in FY10 with the remaining 25% spilling over to FY11.

We assess the effect of slippages under three scenarios. Our base case scenario assumes that 50% of stressed debt would manifest into NPAs. Our analysis factors in a turnaround in macros at the margin, and therefore a steep decline in inflation, softening of interest rates and demand regeneration on the back of various stimulus packages. In best case and worst case we assume 25% and 75% of the debt to culminate in NPAs.

Further, as stress would manifest over the next 2-3 years, we expect gross NPAs to peak in FY11 at 5.7% and thereafter start declining as growth gathers momentum. A large proportion of this debt is likely to get restructured and our estimate of NPAs includes both recognized NPAs as well as restructured assets in the banking system.

Exhibit 7: Scenario analysis - gross NPAs to peak in FY11

	Base case (50% of stressed debt)			Best case (25% of stressed debt)			Worst case (75% of stressed debt)		
(Rs bn)	**FY09E**	**FY10E**	**FY11E**	**FY09E**	**FY10E**	**FY11E**	**FY09E**	**FY10E**	**FY11E**
Opening Gross NPAs	564	795	1,719	564	680	1,142	564	911	2,297
Allocation of incremental NPAs over yrs (%)	15.0	60.0	25.0	15.0	60.0	25.0	15.0	60.0	25.0
Additions	231	924	385	115	462	192	346	1,386	577
Closing Gross NPAs	795	1,719	2,104	680	1,142	1,334	911	2,297	2,874
Bank Credit	27,419	31,532	37,207	27,419	31,532	37,207	27,419	31,532	37,207
yoy growth (%)	*22.0*	*15.0*	*18.0*	*22.0*	*15.0*	*18.0*	*22.0*	*15.0*	*18.0*
Gross NPA (%)	*2.9*	*5.5*	*5.7*	*2.5*	*3.6*	*3.6*	*3.3*	*7.3*	*7.7*

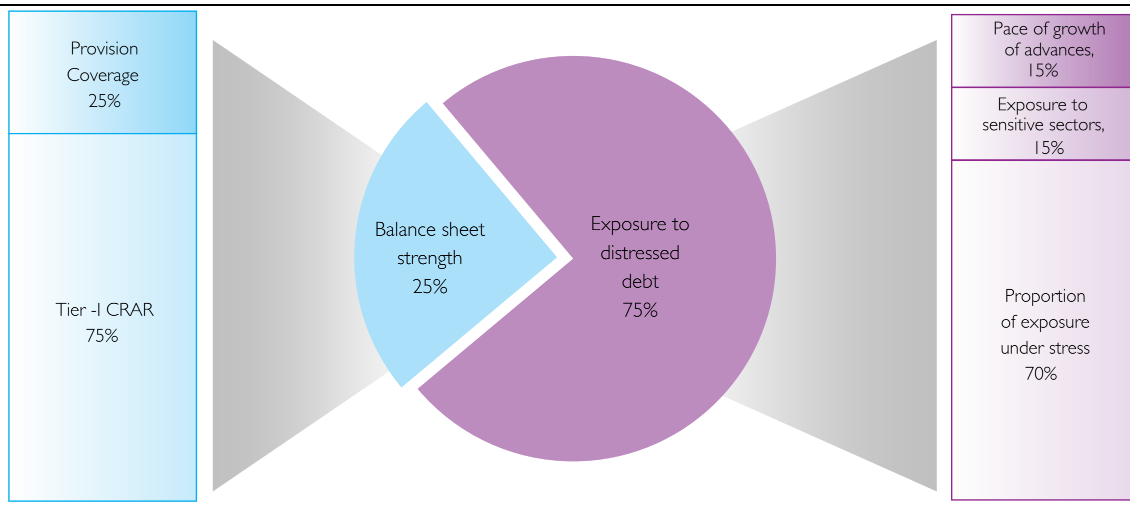
Source: RBI, IDFC-SSKI Research

Evaluating the asset quality as well as balance sheet strength…

❑ Asset quality positioning of banks

Mapping our bank credit analysis on to the portfolio of select large banks under our coverage, we establish a rank order of anticipated performance on the asset quality parameter. We have evaluated the portfolios of HDFC Bank, ICICI Bank, Axis Bank, SBI, Punjab National Bank, Bank of Baroda and Bank of India. We also evaluate the balance sheet capability of these banks to absorb the rise in stress.

Exhibit 8: Methodology of assessing the risk ranking of banks



For the purpose of this analysis, we have compared banks under two broad heads:

1. Exposure under stress: For the purpose, we have evaluated the inherent strain on banks' portfolio on the basis of overall sector-based stress not giving the bank benefit of selection, exposure to vulnerable sectors and pace of loan growth over the past few years
2. Balance sheet strength to absorb the impact of rise in delinquencies by Tier I capital adequacy ratio and provision coverage ratio

To arrive at the overall score, we have assigned weights to the two criteria (75% and 25% respectively). A higher rank indicates that a bank is relatively better placed (a bank with rank 1 is better off than a bank ranked 2).

…HDFC Bank, ICICI Bank and Bank of Baroda appear best equipped to handle a rise in NPAs

Exhibit 9: Relative ranking of large banks

Rank	Bank	Exposure to distressed debt (i)	Balance sheet strength (ii)	Overall stress score (i + ii)
1	HDFC Bank	2.5	2.6	2.53
2	ICICI Bank	2.9	2.5	2.76
3	Bank of Baroda	2.6	5.5	3.33
4	PNB	4.2	3.1	3.89
5	Axis Bank	5.4	3.6	4.95
6	State Bank of India	4.9	5.6	5.04
7	Bank of India	5.7	5.1	5.51
	Weightage (%)	**75**	**25**	

Note: Banks with lower score are better placed

We observe that HDFC Bank, ICICI Bank and Bank of Baroda surpass peers, while Bank of India and SBI appear more vulnerable to the risk of rise in delinquencies.

CONCERNS LOOM LARGE: NPAS TO RISE

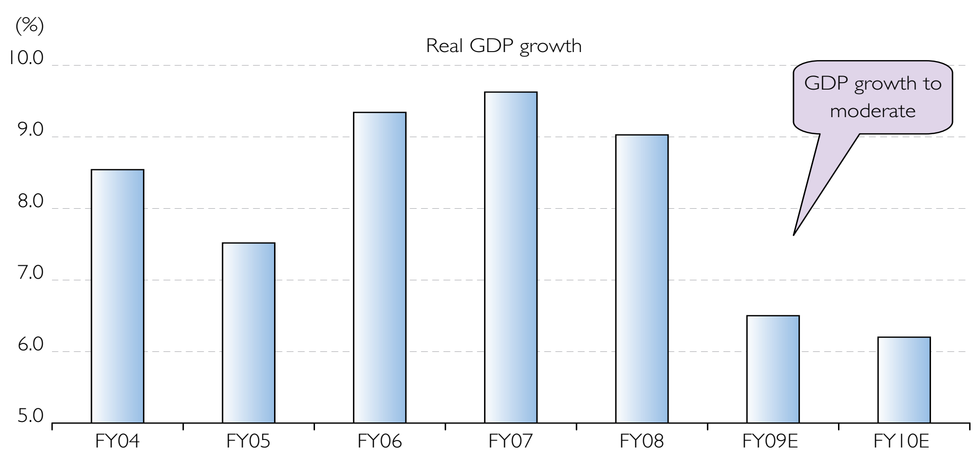
A cyclical turn in the economy, aggravated by the global credit freeze and subsequent domestic liquidity crisis, has dented confidence of the once fast-growing India Inc. The slump in demand and steep correction in commodity prices pose a threat to corporate bottomlines in the coming years (compression in margins already evident). As a result, a number of smaller and leveraged companies, particularly in the troubled sectors, are still finding it hard to secure funds even at elevated interest rates. While this threatens to translate into a solvency crisis in the banks' corporate loan books, uncertainty on personal incomes also builds a case for higher delinquencies in retail loans. Most quarters expect the NPA situation to worsen in coming years, but the view varies on the extent of the damage.

❑ Economy slowing down…GDP growth forecasts tempered

Our GDP growth forecasts down to 6.5% for FY09 and 6.2% for FY10

The economic upcycle lasted for five years for India with GDP exhibiting a CAGR of 9% over the period, driven by easy capital availability, buoyant exports and strong global growth. However, with liquidity streams running dry and credit becoming tougher (a function of risk aversion of banks), we expect GDP growth to be under stress for the next 2-3 quarters as the impact of monetary easing and softer interest rates plays out with a lag. In this backdrop, we expect GDP growth to moderate to 6.5% in FY09 and 6.2% in FY10.

Exhibit 10: GDP growth expected to moderate



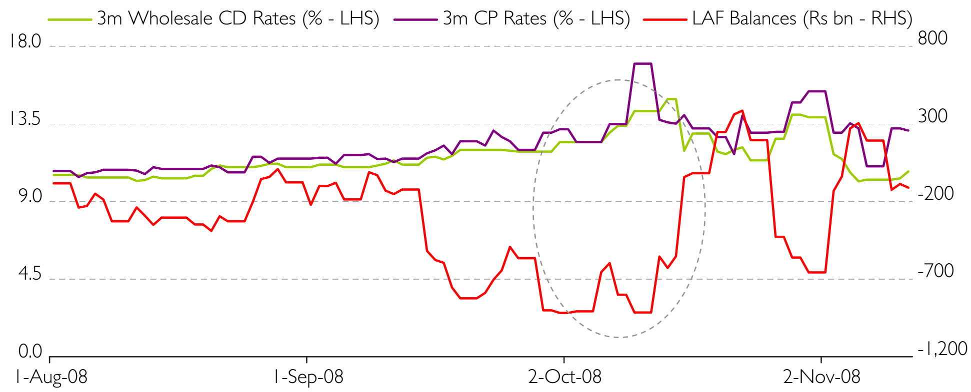
Source: CSO; IDFC-SSKI Research

❑ Acute liquidity crunch

Liquidity crisis threatened to turn into a solvency crisis

By 1HFY09, policymakers were already in a monetary tightening mode to tame the belligerent inflation, as a result of which banks' reserve requirements had increased to 9% from 7.5%. The sudden onset of global liquidity crunch led to an acute shortage of funds and credit became hard to come by even for large corporates. The situation assumed worrisome proportions as stretched liquidity in the system threatened to translate into a solvency crisis.

Exhibit 11: LAF balances plummeted, while CD/call rates jumped to unprecedented levels



Source: Bloomberg

However, liquidity management thereafter assumed priority for policymakers (aggregate CRR cut by 400bp, repo rate by 350bp and reverse repo rate by 200bp), easing the flow of funds into the system.

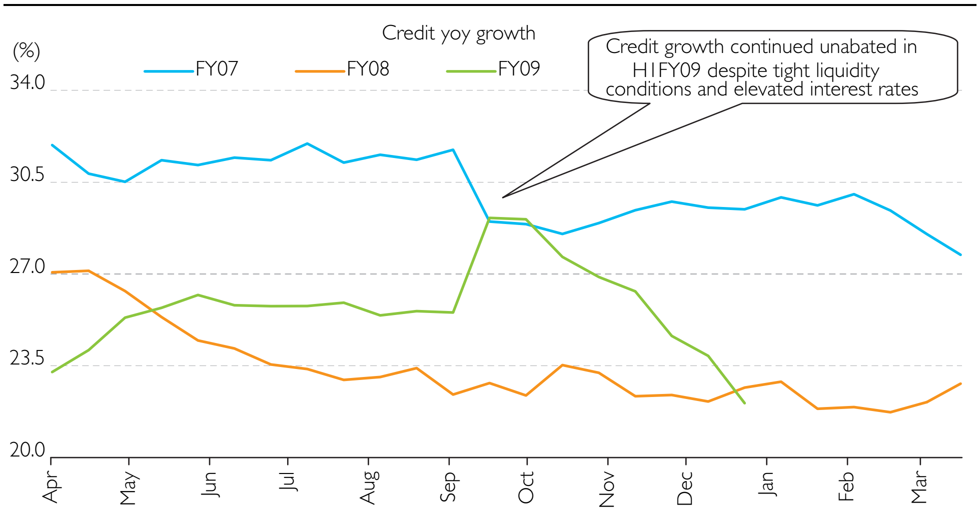
❑ Despite elevated interest rates, corporates clamoured for funds

Being sole lenders, bank credit grew 29% yoy in 1HFY09 despite slower growth expectations…

The monetary tightening engineered by the RBI over the past few years (pre FY09) was targeted at achieving moderation in credit growth. While credit growth was expected to taper down to ~20% in FY09, it remained strong at 29% yoy in 1HFY09 even at higher borrowing costs owing to drying up of alternate sources of funding (a function of the global credit squeeze). The surge in credit growth was led by:

- Higher borrowings by OMCs due to soaring crude oil prices
- Higher working capital loans availed of by corporates due to runaway inflation
- Extension of credit lines to fertilizer companies due to delay in sanction of subsidies
- Replacement demand for trade credit as LCs and guarantees from foreign banks became hard to secure.

Exhibit 12: Robust credit growth



Source: RBI

…as alternate sources of funding dried up

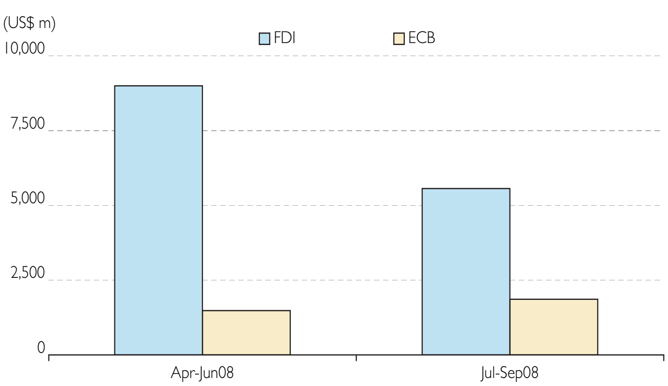
Driven by loss of trust in the global credit markets and extreme volatility in domestic capital markets, corporates had no recourse to funding avenues except for banks. Meanwhile, redemption pressure on mutual funds and the liquidity crunch faced by NBFCs forced corporates to seek funds from banks to replace their existing debt. Also, rising overseas credit spreads for Indian borrowers put a lid on ECBs/ FCCBs.

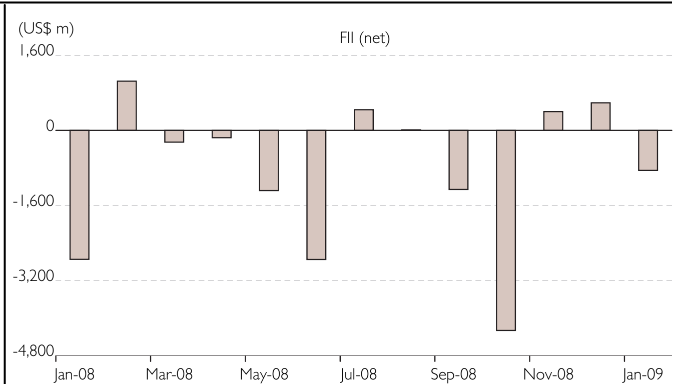
Exhibit 13: Flow of funds to industry dried up

(Rs bn)	FY08				FY09	
	Q1	Q2	Q3	Q4	Q1	Q2
A. Bank credit to industry	(156)	598	410	894	124	480
B. Flow from non-banks to corporates						
Capital Issues (i+ii)	138	62	144	171	20	99
i) Non-Government Public Ltd. companies (a+b)	133	42	144	171	20	99
a) Bonds/Debentures	-	-	-	8	-	-
b) Shares	133	42	144	163	20	99
ii) PSUs and Government companies	5	20	-	-	-	-
ADR/GDR Issues	13	99	3	16	41	6
External Commercial Borrowings	360	368	431	444	147	-
Issue of CPs	86	74	66	(77)	143	73
C. Depreciation Provision	102	106	110	118	114	-
D. Profit after Tax	327	343	375	361	353	-

Note:. : July-August 2008 ; Data on capital issues pertain to gross issuances excluding issues by banks and financial institutions.; Data on ADR/GDR issues exclude issuances by banks and financial institutions.*

Exhibit 14: FII/ FDI flows have taken a hit





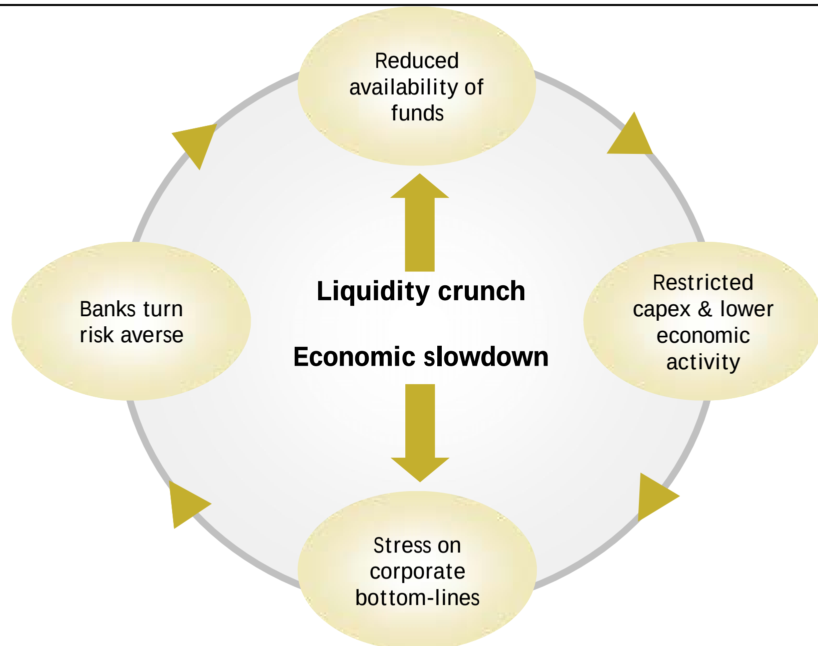
Source: Bloomberg

A deteriorating earnings outlook due to slowing economy…

❑ Corporates caught in a vicious cycle of stress

Reeling under the stress of reduced credit availability and slowing demand, toplines as well as earnings of Corporate India are witnessing a sharp slowdown – expected to continue over the next 2-3 quarters. With deterioration in earnings outlook weighing down upon the repayment capacity of borrowers (given the risk aversion of banks), the flow of funds was further restricted, contributing to the mounting stress. While lower interest costs would offset the decline in earnings to a certain extent, such stress is likely to manifest into asset quality pressure.

Exhibit 15: Corporate India caught in a vicious cycle



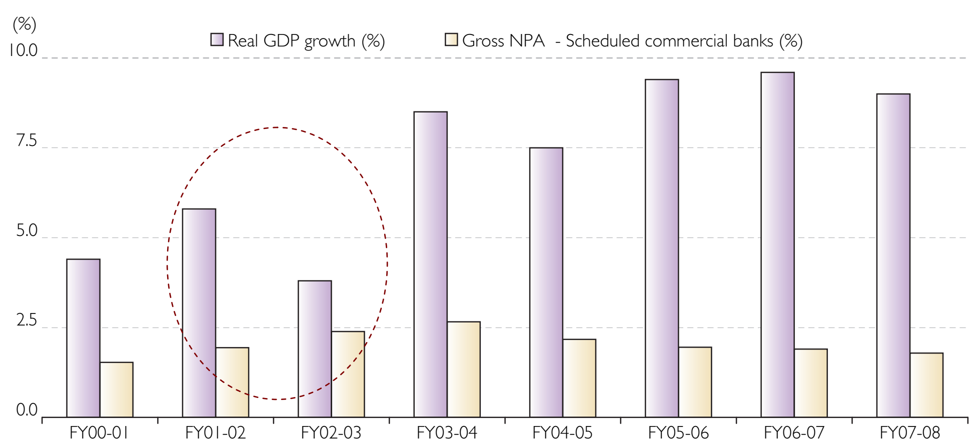
Source: IDFC-SSKI Research

❑ Banks' asset quality at risk

...and uncertainty on personal incomes translate into asset stress for banks

As observed in the past cycles, the cyclical slowdown is set to exert strain on all quarters of the economy. Thus, weaker domestic as well as international demand, the sharp decline in commodity prices, weak capital markets and a dithering personal income scenario have raised the probability of loan repayment defaults.

Exhibit 16: Banks' gross NPAs (% of total assets) due to rise



Source: RBI, IDFC-SSKI Research

ASSESSING THE DAMAGE

Contrary to widespread fears, we expect incremental slippages in the current NPA cycle to be significantly lower than in the previous one. This can be attributed to lower leverage of corporates, limited exposure of banks to stressed sectors, and better risk management and restructuring practices. Our conclusion has been derived from a study of macroeconomic factors, detailed analysis of corporate credit (we have evaluated balance sheets of ~3,000 companies) and bank-level exposure to various segments. Evaluating all the segments of debt, we conclude that ~14% of banks' outstanding debt may face stress. Maximum stress is perceived in industry credit (~22% of sectoral debt under stress) followed by retail (11%). Further, only a proportion of the stressed debt (50% in our base case) is likely to get restructured or convert into NPAs and the impact would be staggered over the next 2-3 years. We expect gross NPAs to peak in FY11 at 5-7% and thereafter start declining as the economy gains traction.

❑ Granular analysis of credit to arrive at stress levels

We have analysed the components of bank credit to ascertain stress…

To address the concerns on asset quality deterioration, we have evaluated the components of bank credit and ascertained the stress level in each to arrive at overall stress for banks. Our analysis rests on the hypothesis that economic growth is expected to revive in the next 2-4 quarters. As such, widespread layoffs are not expected to occur in FY10.

…and examined balance sheets of ~3,000 companies and screened them sector-wise to assess stress on banks' corporate loan book

For credit to industry, we have examined the balance sheets of ~3,000 listed companies and screened them sector-wise for probable stress. For the purpose, we have used a different screen for each sector vetted by our sector analysts. For retail debt, we have assumed double the current delinquency levels to establish the estimated stress. Similarly, we have determined the strain on services, NBFC and agricultural credit to arrive at stress on the banking system.

We estimate that 14% of the outstanding bank credit lies with stressed sectors. Further, all the stressed assets would not convert into NPAs and the proportion that does would accrue in a staggered manner over the next 2-3 years. We project gross NPAs to peak in FY11 at 5.7%.

Exhibit 17: Identifying the stress level in bank credit

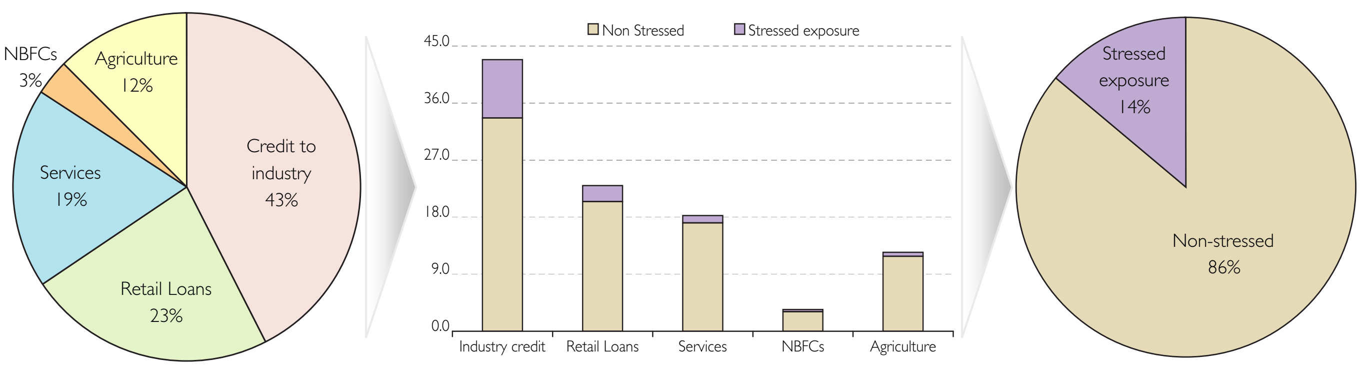
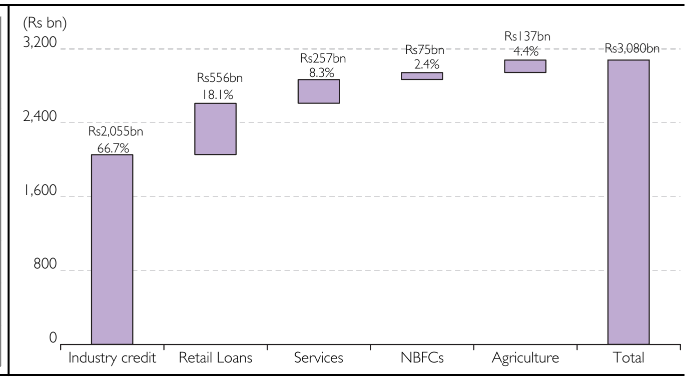


Exhibit 18: Significant proportion of stressed debt flows from corporate segment

Sector (Rs bn)	Outstanding Bank credit	Stressed credit	% of sectoral credit
Credit to industry	9,417	2,055	21.8
Retail Loans	5,054	556	11.0
Services	4,014	257	6.4
NBFCs	753	75	10.0
Agriculture	2,737	137	5.0
Total bank credit	**21,975**	**3,080**	**14.0**



Source: RBI, Capitaline, IDFC-SSKI Research

Corporate and retail loans form ~65% of bank credit, which we have examined in detail

- **Corporate debt (43% of credit):** For the purpose, we have evaluated the balance sheets of ~3,000 listed Indian companies, and analyzed each sector under different criteria based on liquidity and leverage ratios. We have used our sector analysts' understanding while designing the criteria for stress levels in each industry (refer to page 22 for details).
- **Retail loans (23% of credit):** We evaluate each category of the retail loan outstanding and estimate the stress levels in each on the basis of our assessment of income levels in the country. We believe that the current downturn is cyclical and not structural. As such, job losses will not assume the proportions seen in the previous cycle. We have assumed stress at approximately double the current delinquency levels (refer to page 33 for details).

We see lower level of stress on credit to services, NBFCs and agricultural sector

- **Advances to services sector (19% of credit):** For advances to services sector (ex-real estate and NBFCs), we estimate that ~20% of the credit to transport operators is under stress, and 5% of the trade debt as also 5% of the remaining debt will also be under stress.
- **Loans to NBFCs (3% of credit):** As majority of the NBFC space is dominated by government owned/ supported NBFCs, we estimate that incrementally a relatively lower proportion of such debt (~10%) is likely to be under stress.

- **Agricultural loans (12% of credit):** Owing to the recent cleaning of agriculture loans through the loan waiver scheme, NPAs are expected to remain low in the agriculture loan book. Adopting a conservative stance, we have built in an incremental 5% of such loans to be under duress as against NPA levels of ~3.5% as of March 2008 (prior to implementation of the waiver scheme).

❑ Lower growth to drive moderation in credit…

Credit growth to taper to 15% in FY10

We expect sluggishness in economic activity to lead to lower demand for credit in the coming period and growth to come in at ~22% in FY09 (partly buoyed by mandatory priority sector lending in Q4FY09). Further, fresh projects are likely to be delayed owing to slackening demand and higher cost of funds (owing to banks' risk aversion). Coupled with lower GDP growth and softer commodity prices (thereby lower working capital requirements), this is expected to result in significantly subdued credit growth of ~15% in FY10. We expect demand to start reviving and bank credit to grow by ~18% in FY11.

❑ NPA cycle – expected to peak in FY11

NPAs to be spread over next 2-3 years

The estimated delinquencies are expected to appear on banks' books in a staggered manner over the next 2-3 years. We estimate that 15% of these incremental slippages are likely to accrue in the current fiscal as the impact of slowdown becomes evident. A substantial proportion of these (~60%) are expected to manifest in FY10 as the impact on the economy peaks out with the remaining 25% spilling over to FY11. We analyze the impact of this on Indian banks envisaging three different scenarios:

Scenario analysis – We assume 50% of the stressed debt to manifest into NPAs. In such a scenario, we expect gross NPAs to peak at 5.7% in FY11. Under our best case and worst case scenarios, we have assumed 25% and 75% of the stressed debt to turn into NPAs respectively.

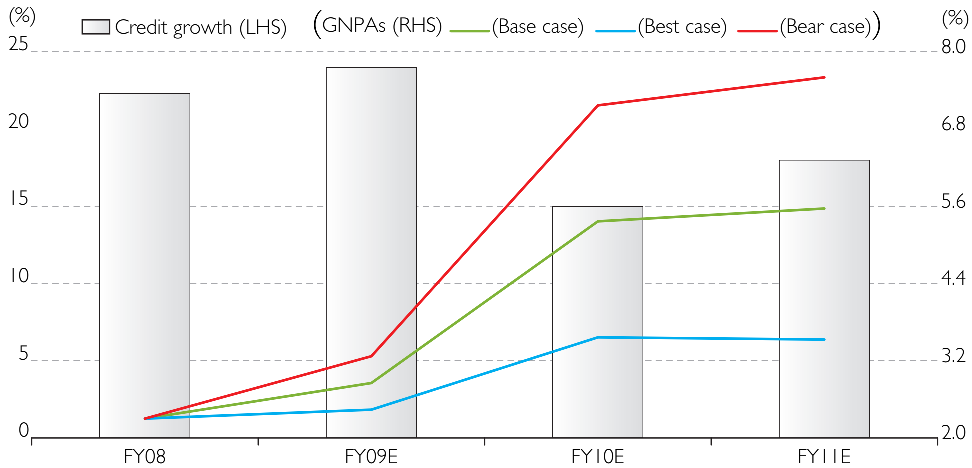
Exhibit 19: Scenario analysis

	Base case (50% of stressed debt)			Best case (25% of stressed debt)			Worst case (75% of stressed debt)		
(Rs bn)	**FY09E**	**FY10E**	**FY11E**	**FY09E**	**FY10E**	**FY11E**	**FY09E**	**FY10E**	**FY11E**
Opening Gross NPAs	564	795	1,719	564	680	1,142	564	911	2,297
Allocation of incremental NPAs over yrs (%)	15.0	60.0	25.0	15.0	60.0	25.0	15.0	60.0	25.0
Additions	231	924	385	115	462	192	346	1,386	577
Closing Gross NPAs	795	1,719	2,104	680	1,142	1,334	911	2,297	2,874
Bank Credit	27,419	31,532	37,207	27,419	31,532	37,207	27,419	31,532	37,207
yoy growth (%)	*22.0*	*15.0*	*18.0*	*22.0*	*15.0*	*18.0*	*22.0*	*15.0*	*18.0*
Gross NPA (%)	*2.9*	*5.5*	*5.7*	*2.5*	*3.6*	*3.6*	*3.3*	*7.3*	*7.7*

Source: IDFC-SSKI Research

Moreover, with the RBI allowing a second round of restructuring of loans and banks keen to avert an outsized rise in NPAs, we believe that a significant proportion of these stressed loans would be restructured and not figure as NPAs in banks' books. As such, NPAs in our analysis indicate a sum of NPA and restructured loans in the banking system.

Exhibit 20: NPA cycle expected to peak in FY11



Source: RBI, IDFC-SSKI Research

❑ Impact on banks' net-worth on mark to market basis

To assess the capacity of banks to absorb a rise in credit costs, we assume all NPAs to manifest immediately. We assume 10% of advances of the stressed 14% debt determined above, (amounting to 6-7% of balance sheet) turns delinquent. Given the improvement in recovery mechanisms, credit loss is likely to remain low and we assume 50% of NPAs to culminate into credit loss for banks (3-3.5% of the balance sheet).

On the other hand, conforming to reserve requirements banks have ~28-29% of their deposits in government bonds with average duration of 4-5 years (25-26% of balance sheet). From the peak in mid-July, bond yields have come-off by 250-300bp across maturities. This decline has led to 12-15% MTM appreciation of the portfolio (around 3-3.5% of the loan book), thus offsetting the estimated credit loss.

As a result, in the current scenario, on a mark to market basis estimated credit loss is likely to be offset by notional bond gains, thus protecting the networth of banks.

HOW IS THIS CYCLE DIFFERENT FROM NPA CRISIS OF LATE 1990S?

❑ Capex funding – largely driven by equity

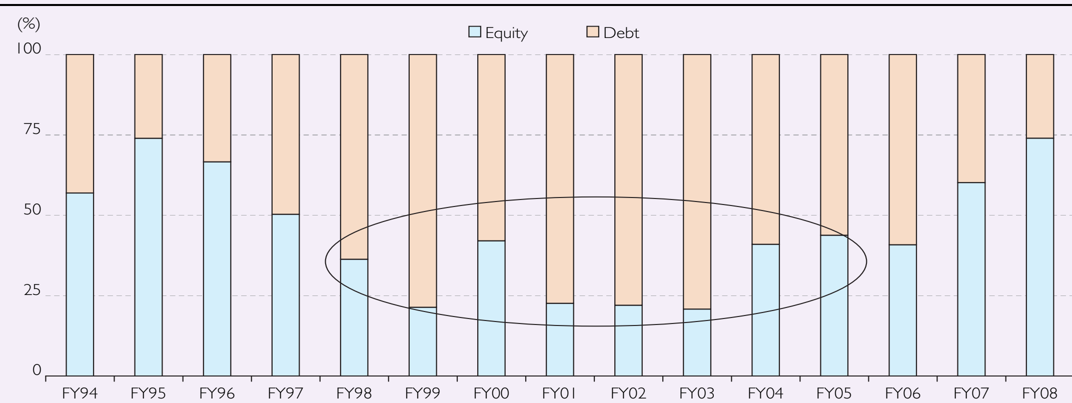
1990s – credit deployed in unviable projects

The base of NPA crisis of the late 1990s lay in capital misallocation. Books of banks and financial institutions were saddled with project-financing debt. A number of these projects were initiated with an extremely high degree of leverage with viability dependent on duty protection. Also, a number of these were small capacities in globally competitive industries (such as steel). Moreover, execution delays were rampant which exerted further pressure on financial feasibility of the projects.

Recent years – capital distribution towards viable projects

Over the past few years, capacity expansions have been limited as corporates which got scathed in the previous cycle refrained from setting up new capacities. Moreover, as equity flows into the country surged over the past few years, growth was largely fuelled by equity. This meant that system leverage remained at low levels.

Exhibit 21: Debt and equity issuances over the past few years

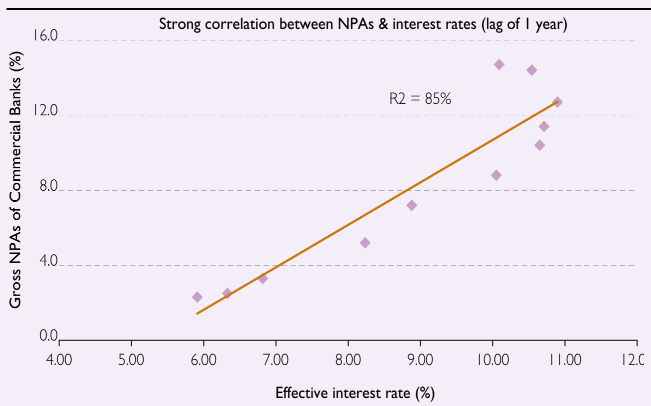


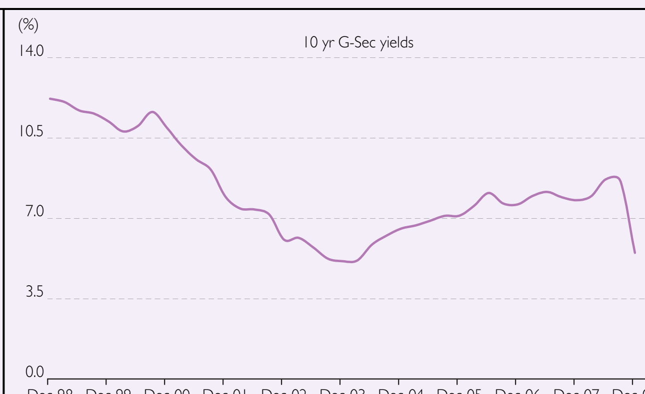
Source: CMIE

❑ Lower interest rates

Over FY97-08, the effective interest rate tapered steeply to 6.5-7% as against the high of 16-18% witnessed in FY97. NPAs of banks are seen to have high correlation to the level of interest rates (~85%) with a lag of one year. Though we expect effective interest rates to have moved up in FY09 from ~7% in FY08, they are still expected to remain well below the earlier peak. In addition, interest rates remained at elevated levels (>10%) for more than five years during the earlier cycle, while effective borrowing rates have already started coming off in the current cycle.

Exhibit 22: Interest rates*



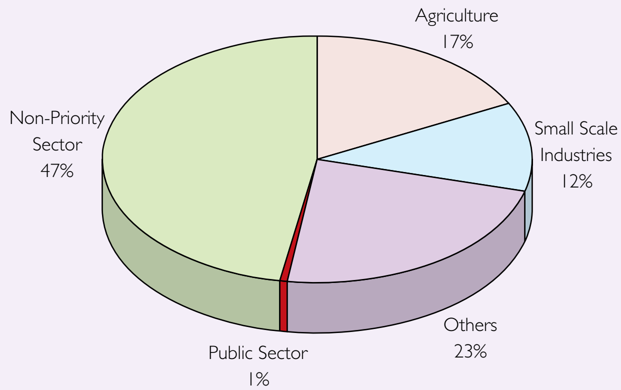


Source: Capitaline, IDFC-SSKI Research; * Effective interest rate based on our sample of ~3000 companies from Capitaline

❑ Bad loans are not concentrated in any single sector

The exhibit below shows the distribution of gross NPAs of Indian banks as of end-FY08. A wide distribution of stressed loans is likely to reduce the overall impact of the economic slowdown, as segments like agriculture would not be hit with the same intensity.

Exhibit 23: Composition of NPAs

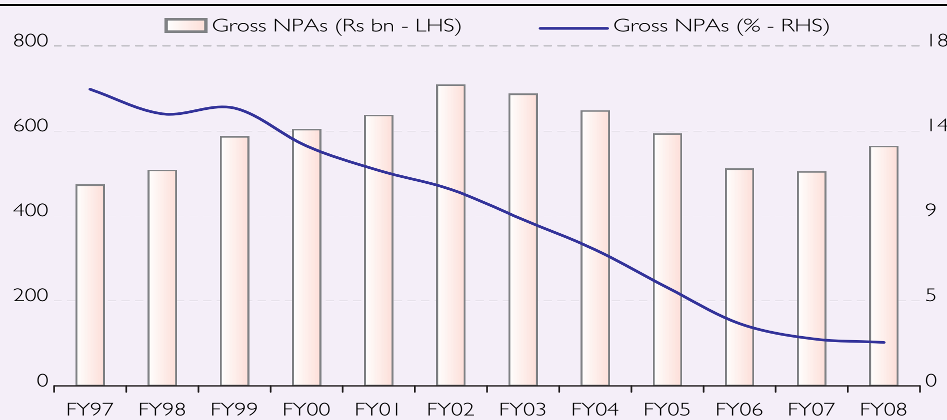


Source: RBI

❑ A stronger banking system

Since FY99, asset quality of Indian banks has improved consistently as gross NPAs as well as net NPAs declined in both absolute and percentage terms. Gross NPAs have declined from ~15% in FY99 to 2.3% in FY08. The clean-up of the banking system was facilitated by the decline in yields of government bonds, which gave banks sufficient gains to clear their books.

Exhibit 24: Marked improvement in asset quality



Source: RBI, IDFC-SSKI Research

❑ Regulatory improvements since the past cycle

Experiences from the crises of the past led to various regulatory changes to impart higher resiliency to the system and can help avert a sharp deterioration in NPAs. The RBI has been proactive in tightening NPA recognition norms, increasing risk weights and/ or provisioning requirements at the time of rapid growth. These steps have considerably strengthened the balance sheet of banks.

- **Stricter NPA recognition norms:** As against 180 days overdue recognition of NPAs in 1997, the RBI has made the norms more stringent to 90 days overdue since March 2004.

- **Higher provisioning requirements:** In 1997, there were no specific norms for general provisions or against standard assets. However, the RBI has since then mandated a general provisioning cushion of 1% for banks. Also, the RBI has been proactive in provisioning norms for standard assets:
  - Currently, banks have to provide 0.4% of the incremental advances as standard provisions
  - For loans to real estate sector, credit card receivables, capital market exposure and personal loans, banks had to make a provision of 2% – subsequently reduced to 0.4% in November 2008
  - 2% of advances to non-deposit taking systemically important NBFCs (reduced to 0.4% in November 2008)
- **SARFAESI Act, 2002:** Implemented in FY02, SARFAESI authorizes banks to take custody of the security by giving 60 days notice, without any court intervention. The act aims at providing more powers to banks, bypassing the legal channel, and serves as a deterrent to willful defaulters. Recoveries through SARFAESI Act have been increasing gradually; recoveries improved to 62% of NPAs falling under the SARFAESI Act in FY08 compared to FY05 levels of 18%.

CORPORATE DEBT: LITMUS TEST

The bleak global and domestic economic outlook, and hence lower corporate profits, has led to worries on an NPA blowout – an encore of the 1997-98 NPA crisis. To ascertain the stress level, we have evaluated the financials of ~3,000 companies across sectors over FY97-08. At an aggregate level, interest coverage ratio (IC), which had hit rock bottom in FY99 at ~2.9x, has risen to 9x in FY08. Net debt equity ratio (D/E) has come off sharply to 0.36x vis-à-vis 0.88x in FY97. Analysing the debt of companies using sector-wise criteria, we see maximum stress in export-dependent, commodities and real estate sectors. We conclude that despite a marked improvement in financial strength of India Inc over the last few years, liquidity constraints may exert stress on 22% of the corporate debt. Moreover, we observe that incidence of stress is higher in small and medium sized companies, primarily given their dependence on exports and limited financial muscle.

❑ Consistent improvement in financial strength since FY97

Economic buoyancy, improving profitability and asset inflation lead to stronger balance sheets for India Inc

A prolonged phase of economic buoyancy, improving profitability and asset inflation have had strengthened the balance sheets of India Inc, and in turn the asset quality of Indian financial sector. However, the deteriorating global and domestic economic outlook has led to uneasiness on an outsized rise in Indian corporate NPAs, encore of the 1997-98 NPL crisis. To address these concerns, we analyse the trends in corporate debt over FY97-08.

- **Sample set:** We have included a sample set of around 3,000 listed companies across sectors. The list excludes banks and financial companies.

❑ Low gearing to the rescue

We observe the following trends in finances of the companies covered under the sample:

Gearing level down to 0.36x against the peak of 0.88x in FY97

- **Significantly lower leverage:** Over FY97-08, total debt of the above set of companies has increased from Rs1.9trn to Rs7.5trn, at a CAGR of ~13%. At the same time, cash on the balance sheet and equity have registered a CAGR of 31% and 18% respectively. As a result, leverage has come off sharply with net debt to equity ratio declining by 59% to 0.36x in FY08 from the peak level of 0.88x in FY97.

Exhibit 25: Significant decline in leverage levels

(x)	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Debt equity ratio	0.96	0.96	0.91	0.84	0.76	0.75	0.70	0.63	0.58	0.58	0.59	0.58
Net debt equity ratio	**0.88**	**0.86**	**0.80**	**0.74**	**0.67**	**0.65**	**0.59**	**0.48**	**0.36**	**0.35**	**0.34**	**0.36**
Interest Coverage ratio	3.15	3.14	2.95	3.25	3.51	3.97	5.15	6.79	9.16	9.00	10.00	9.04
Debt to EBITDA ratio	3.02	3.16	3.11	2.88	2.68	2.51	2.19	1.79	1.60	1.76	1.69	1.79
Current ratio	1.97	1.88	1.86	1.87	1.72	1.75	1.67	1.64	1.71	1.79	1.83	1.88
Interest cost/ average debt		10.94	11.49	11.00	11.30	10.35	8.92	8.32	7.19	6.97	6.66	6.93

Source: Capitaline, IDFC-SSKI Research

Also, the distribution of debt across companies is turning favorable with a significant rise in proportion of debt to lower leverage companies.

Exhibit 26: Debt appears to be moving towards lower risk companies

% of debt	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
D/E <1	**41.1**	**33.2**	**43.4**	**48.4**	**44.6**	**43.9**	**45.4**	**50.6**	**54.8**	**59.0**	**56.6**	**55.9**
1< D/E <2	34.8	43.6	27.3	21.0	27.4	25.5	20.7	25.3	27.1	24.2	26.2	28.0
2< D/E <3	17.2	14.5	20.1	17.4	13.1	10.3	7.8	6.7	10.2	7.0	11.2	10.2
D/E>3	6.8	8.6	9.2	13.2	14.9	20.3	26.1	17.4	7.9	9.8	6.0	5.9
Negative book	0.5	1.5	2.5	3.7	5.7	8.2	7.2	8.3	7.0	4.9	3.4	3.4

Source: Capitaline, IDFC-SSKI Research

Interest coverage ratio up from 2.9x in FY99 to 9x

- **Debt servicing capability:** Over FY97-08, debt servicing capability of corporates has increased, as interest coverage ratio has risen from 2.9x in FY99 to 9x. Also, leverage has declined as Debt to EBITDA ratio has come off from 3x to 1.8x in FY08. In line with this, the distribution of debt across companies has also changed towards companies with a better debt servicing capacity.

Exhibit 27: Higher proportion of debt lies with companies having higher debt servicing capabilities

(x)	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
% of debt with companies												
IC< 2	27.0	42.1	43.1	40.4	38.7	33.1	32.8	19.7	9.8	7.6	6.3	7.5
3>IC> 2	26.2	14.5	20.2	18.1	16.5	20.7	18.4	13.0	16.0	8.1	12.0	13.6
IC > 3	46.8	43.4	36.7	41.5	44.8	46.2	48.8	67.3	74.2	84.3	81.7	78.9
Negative equity	0.5	1.5	2.6	3.7	5.7	8.3	7.2	8.1	6.9	5.0	3.5	3.5

Source: Capitaline, IDFC-SSKI Research

Significant expansion in EBIT and PAT margins over the past few years

- **Improved profitability:** While EBITDA margins have exhibited some improvement, EBIT and PAT margins have expanded significantly as the effective interest rates have come off sharply over the years. We expect effective interest rates to demonstrate a slight uptick in FY09 on the back of elevated interest rates in the system during the fiscal. Enhanced RoA and RoE point towards better utilization of capital by the industry.

Exhibit 28: Significant improvement profitability

Ratios (%)	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
EBITDA margin	17.18	17.57	17.11	15.95	15.70	17.11	17.41	18.70	18.48	17.32	18.21	18.43
EBIT margin	13.29	13.46	12.55	11.41	11.21	11.86	12.43	14.05	14.35	13.52	14.79	15.14
Profit margin	6.03	6.16	5.16	4.88	5.05	5.48	6.41	8.21	9.55	8.82	9.75	9.79
RoE		11.58	9.55	9.54	10.20	9.98	12.24	16.36	20.49	18.53	20.78	19.43
RoA		5.90	4.94	5.09	5.67	5.68	7.10	9.86	12.80	11.73	13.12	12.27
Interest cost/ average debt		10.94	11.49	11.00	11.30	10.35	8.92	8.32	7.19	6.97	6.66	6.93

Source: Capitaline, IDFC-SSKI Research

❑ Stress test

Our analysis based on different criteria for each sector on liquidity and leverage parameters

We have done a sector-wise analysis using different criteria for each sector based on liquidity and leverage, and have identified the stressed companies. We have used our analysts' understanding while designing the criteria for the stress levels in each industry.

Exhibit 29: Criteria used for stress test

Sector	Criteria used	No of companies	Total debt (Rs m)	% of the debt	Stressed debt (Rs mn)	% of the sector debt
Construction and realty	IC< 2 or D/EBITDA > 4	114	487,380	6.5	302,770	62.1
Textiles	IC< 2 or Net D/E >3	234	451,969	6.0	225,000	49.8
Steel	IC< 2 or Net D/E >2.5	104	784,258	10.5	236,080	30.1
Airlines	IC< 2 or Net D/E >4	8	213,237	2.8	135,933	63.7
Auto Ancillaries*	IC <2 or D/EBITDA > 4	133	112,117	1.5	53,090	47.4
Trading	IC< 2 or Net D/E >2	80	89,079	1.2	35,540	39.9
Fertilizers	IC< 2 or Net D/E >2	23	204,687	2.7	35,240	17.2
Pharmaceuticals	IC< 2 or D/EBITDA > 4.5	107	146,698	2.0	30,430	20.7
Telecomm-Service	IC< 2 or Net D/E >3	11	441,155	5.9	30,140	6.8
Diamond, Gems and Jewellery	IC< 3 or Net D/E >2	21	52,787	0.7	27,080	51.3
Shipping	IC< 3 or Net D/E >2	13	110,066	1.5	24,100	21.9
Sugar	IC< 2 or Net D/E >2	17	29,360	0.4	22,800	77.7
Paper	IC< 2 or Net D/E >1.5	46	59,880	0.8	22,400	37.4
Telecomm Equipment & Infra Services	IC< 2.5 or Net D/E >2	16	70,303	0.9	19,500	27.7
Chemicals	IC< 2 or Net D/E >2.5	127	103,904	1.4	18,290	17.6
Non Ferrous Metals	IC< 2 or Net D/E >2.5	31	139,956	1.9	12,890	9.2
Capital Goods-Non Electrical Equipment	IC< 2 or Net D/E >2	127	114,178	1.5	12,360	10.8
FMCG	IC< 2 or D/EBITDA > 6	66	41,274	0.6	11,410	27.6
Entertainment	IC< 2 or D/EBITDA > 6	52	51,717	0.7	11,130	21.5
IT - Software	IC< 2 or Net D/E >2	154	124,681	1.7	10,770	8.6
Edible Oil	IC< 2 or Net D/E >2	36	44,995	0.6	9,790	21.8
Packaging	IC< 2 or Net D/E >1.75	49	41,534	0.6	9,680	23.3
Alcoholic Beverages	IC< 1.75 or Net D/E >2	15	20,537	0.3	9,510	46.3
Cables	IC< 1.75 or Net D/E >2	21	27,489	0.4	9,340	34.0
Consumer Durables	IC< 2 or Net D/E >2	57	28,529	0.4	8,900	31.2
Ceramic Products	IC< 1.75 or Net D/E >2	11	15,165	0.2	8,820	58.2
Petrochemicals	IC< 1.5 or Net D/E >2.5	15	42,464	0.6	8,550	20.1
Plantation & Plantation Products	IC< 2 or Net D/E >3	73	27,369	0.4	7,420	27.1
Diversified	IC< 1.5 or D/EBITDA > 5	20	129,103	1.7	6,590	5.1
Tyres*	IC <2 or D/EBITDA >5	10	22,167	0.3	6,320	28.5
Automobile	IC< 2 or D/EBITDA > 4	19	140,316	1.9	6,120	4.4
Plastic products	IC< 2 or Net D/E >2	54	27,299	0.4	5,570	20.4
Cement	IC< 3 or D/EBITDA > 4	31	137,395	1.8	5,040	3.7
Paints/Varnish	IC< 1.75 or Net D/E >2	10	8,153	0.1	4,190	51.4
Hotels & Restaurants	IC< 2 or Net D/E >2	40	60,030	0.8	4,100	6.8
Dry cells	IC< 1.75 or Net D/E >2	5	7,613	0.1	4,020	52.8
Glass & Glass Products	IC< 2 or Net D/E >3	16	28,249	0.4	2,920	10.3
Ship Building	IC< 1.75 or Net D/E >2	5	3,781	0.1	2,890	76.4
Media - Print/Television/Radio	IC< 2 or D/EBITDA > 6	15	10,583	0.1	2,500	23.6
Capital Goods - Electrical Equipment	IC< 2 or D/EBITDA > 4	44	72,574	1.0	2,210	3.0
Cement - Products	IC< 3 or D/EBITDA > 4	5	8,223	0.1	1,980	24.1
Retail	IC< 3 or Net D/E >2	6	32,891	0.4	1,760	5.4
Readymade Garments/ Apparels	IC< 2 or D/EBITDA > 6	20	20,137	0.3	1,520	7.5
Leather	IC< 2 or Net D/E >1.75	14	5,322	0.1	1,430	26.9
Mining & Mineral products	IC< 2 or Net D/E >2.5	30	38,963	0.5	1,140	2.9
IT - Hardware	IC< 2 or Net D/E >2	18	36,692	0.5	1,100	3.0
Power Generation & Distribution	IC< 2 or D/EBITDA > 5	20	777,806	10.4	670	0.1
Refractories	IC< 1.75 or Net D/E >2	7	1,320	0.0	600	45.4
Healthcare	IC< 2 or D/EBITDA > 5	21	5,802	0.1	580	10.0
Agro Chemicals	IC< 2 or Net D/E >3	19	23,188	0.3	550	2.4
Logistics	IC< 2 or Net D/E >3	14	10,303	0.1	260	2.5
Infrastructure Developers & Operators	IC< 3 or D/EBITDA > 4	6	28,559	0.4	170	0.6
Oil Drill/Allied	IC< 2 or Net D/E >3	3	2,011	0.0	20	1.0
Crude Oil & Natural Gas	IC<1.5 or Net D/E > 2.5	7	263,927	3.5	0	0.0
Stock/ Commodity Brokers	IC<2 or Net D/E > 5	6	112,067	1.5	0	0.0
Gas Distribution	IC<2 or Net D/E > 5	4	28,589	0.4	0	0.0
Computer Education	IC<1.75 or Net D/E > 3	7	5,132	0.1	0	0.0
Tobacco Products	D/ EBITDA > 5 or D/E > 4	7	4,041	0.1	0	0.0
Refineries	IC<2 or Net D/E > 3	11	1,315,933	17.5	0	0.0
Others	IC< 1.5 or D/EBITDA > 5	154	59,730	0.8	11,020	18.4
Grand Total			**7,502,270**	**100.0**	**1,424,233**	**19.0**

**(assuming a ~30% decline in EBITDA)*

❑ Key findings

- Total debt of the 3,000 companies covered in the study stands at Rs7.5trn as of FY08, of which we estimate 70% (Rs5.25trn) to be bank credit (our sample debt represents 56% of bank credit to the industry).
- Overall, 19% of debt (FY08) of the sample appears to be under stress.
- On the remaining 44% industry credit (not covered in the sample), we conservatively assume a higher stress level of 25%.
- Consequently, we estimate that **~22% of the industry credit lies with stressed companies.**

Around 22% of corporate debt under stress

Exhibit 30: Stress in corporate debt

(Rs bn)	FY08
Total debt of sample companies	7,502
% of bank credit	*70.0*
Stress in sample	1,424
% of stress in the sample	*19.0*
Total Bank credit to the industry	9,417
Bank credit covered in the sample	5,252
Balance bank credit to industry	4,165
% of stress assumed in the balance	*25.0*
% of corporate bank debt in stress	*21.8*

Source: RBI, Capitaline, IDFC- SSKI Research

❑ Higher level of stress in small companies

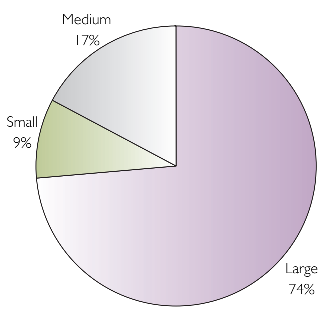
Bulk of the debt (~73%) lies with large corporates, ~15% of this debt under stress

Observing the distribution pattern of stressed debt across the size of companies, we classify the companies under following categories:

- Small companies – with turnover less than Rs2bn
- Medium companies – with turnover more than Rs2bn and less than Rs10bn
- Large companies – with turnover more than Rs10bn

Only ~9% of the debt of the sample lies with small companies. Given the dependence on exports and limited financial muscle, concentration of stressed debt is skewed towards small and medium corporates. Bulk of the debt (~73%) is accounted for by large corporates with more financial strength to weather the downturn, and thus a lower ~15% of the debt is under stress.

Exhibit 31: Bulk of debt lies with large companies



Higher stress in smaller companies cluster

(Rs bn)	Total debt	% of total debt	Stressed	% of debt
Small (sales <Rs2bn)	678	9.0	278	40.9
Medium (sales 2bn-10bn)	1,297	17.3	306	23.6
Large (sales > Rs10bn)	5,527	73.7	840	15.2
Total	**7,502**		**1,424**	**19.0**

Source: Capitaline, IDFC-SSKI Research

Export-oriented, commodity driven and commercial real estate sectors appear to be the most vulnerable

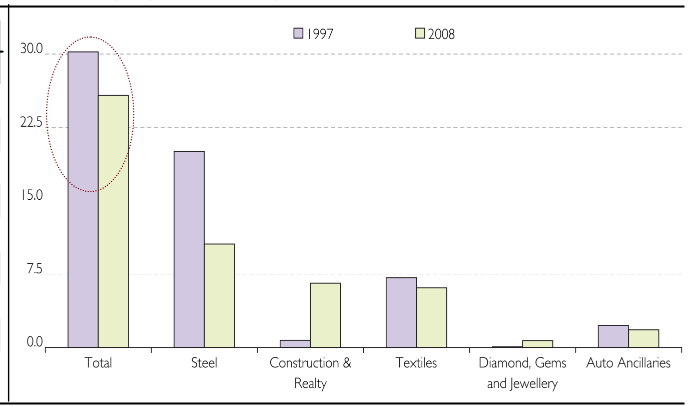
Further, on the basis of such analysis, we identify vulnerable sectors wherein stress is building up. Risk of default seems higher in sectors which are:

- Export oriented – primarily textiles, auto ancillaries and gems & jewellery. Profitability of these companies is under duress due to steep drop in demand and higher interest as well as input costs.
- Commodities – primarily metals such as iron and steel. Steep decline in global commodity prices and weak demand would eat into the bottom-line.
- Commercial real estate (CRE) – Defaults are not expected due to erosion in value of the underlying collateral, rather on account of liquidity mismatches whereby companies took debt to fund land which has turned illiquid over the past few months.
- Sectors with historical baggage – Sugar and fertilizers

Exhibit 32: Sectors throwing up maximum stress

(FY08)	Total debt		Stressed debt	
	(Rs bn)	% of total	(Rs bn)	%
Realty/ Construction	487	6.5	303	62.1
Textiles	452	6.0	225	49.8
Steel	784	10.5	236	30.1
Airlines	213	2.8	136	63.8
Trading	89	1.2	36	39.9
Fertilizers	205	2.7	35	17.2
Auto Ancillaries	134	1.8	59	44.2
Gems & Jewellery	53	0.7	27	51.3
Sugar	29	0.4	23	77.7

However, proportion of exposure to stressed sectors is down



Source: Capitaline, IDFC-SSKI Research

Exposure to sensitive sectors restricted to 10-20% of total funded exposure

In terms of exposure to these sensitive sectors, we find that it is ranges from 10-20% of the total funded exposure of large banks. Greater exposure of PSU banks than private peers is a function of larger corporate balance sheets as also lending to such sectors under consortiums, for which PSU banks emerge as a logical choice.

Exhibit 33: Exposure of large banks to vulnerable sectors is limited

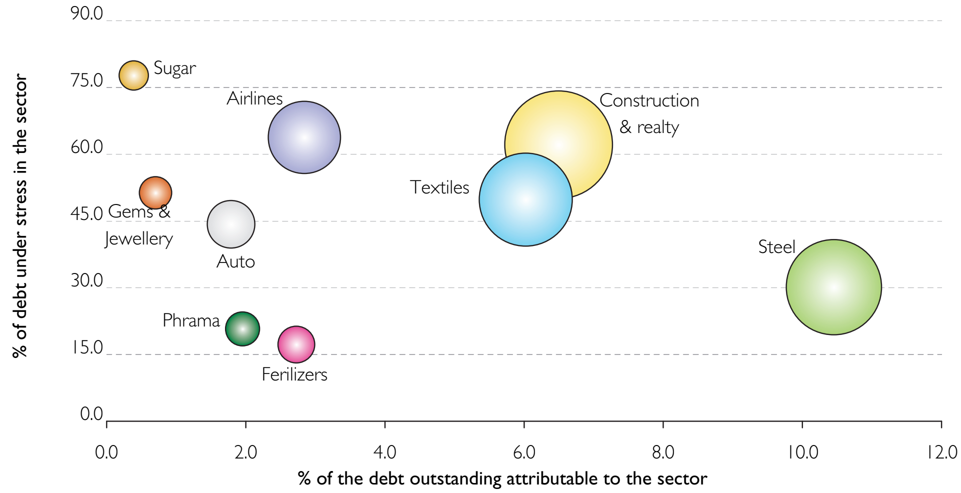
% of exposure to the stressed sector	HDFC Bank	ICICI Bank	Axis Bank	BOB	BOI	SBI	PNB
Iron & steel	0.8	3.6	1.5	4.4	4.6	6.1	6.5
Textiles	1.0	1.2	3.0	5.0	4.1	6.4	4.6
Sugar	-	-	0.8	0.4	0.3	1.1	2.0
Gems & jewellery	-	1.0	0.9	0.5	2.4	2.0	0.5
Commercial real estate	5.9	4.7	6.4	3.5	4.6	2.1	5.0
Total (as % of total funded exposure)	7.6	10.5	12.5	13.8	15.9	17.6	18.6

Source: Companies, data as of March 2008

While some sectors like sugar appear to be in deep stress, the impact on banking sector is likely to be limited, as the debt availed of constitutes a small proportion of the overall debt funded by banks.

Limited exposure of banks to sectors under deep stress

Exhibit 34: Select sector shows high stress…but form a small proportion of overall credit



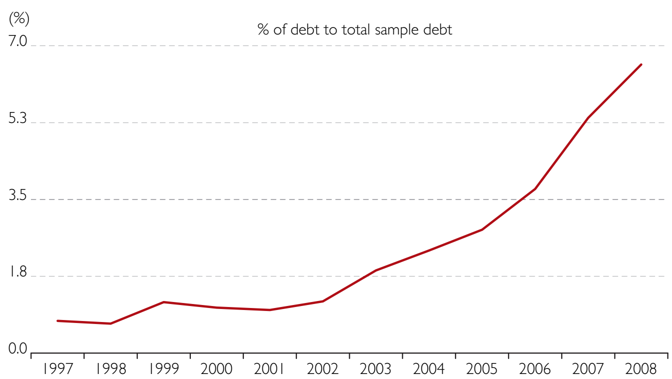
Note: Size of the bubble indicates the contribution of the sector to overall stressed debt of the sample;
Source: Capitaline, IDFC SSKI Research

STRESS SYNOPSIS

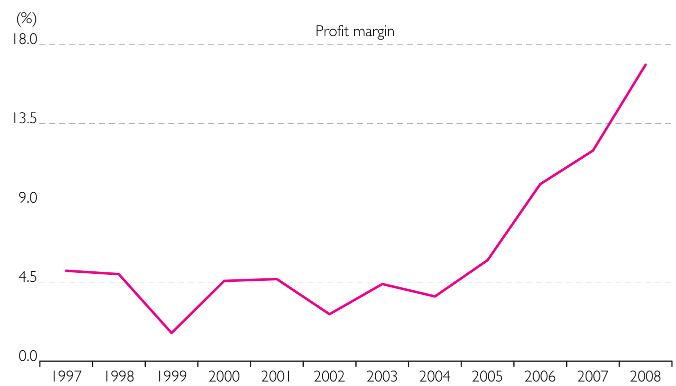
Construction & Realty

No. of companies	114
No .of companies under stress	29
Total Debt (Rs m)	487,380
Contribution to sample debt (%)	6.5
% of Debt under stress	62.1

Rise in proportion of overall credit

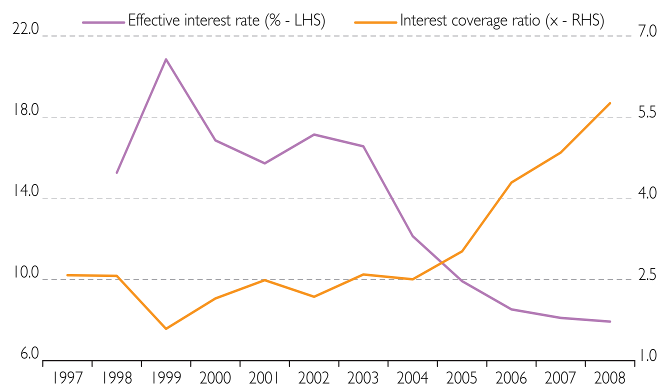


Profitability has improved for construction companies...



Leverage levels have increased

Interest servicing capability

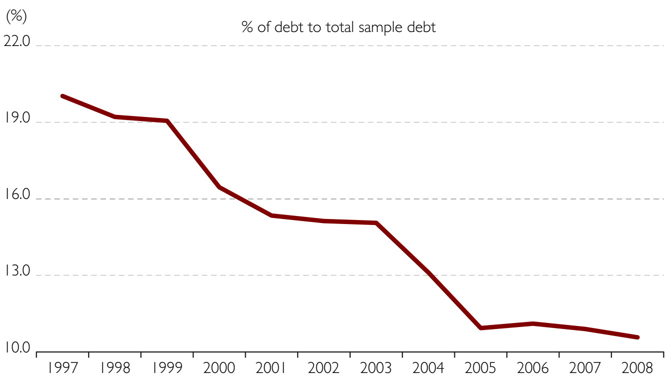


- While stress in construction-oriented companies is negligible, commercial real estate companies are in dire straits
- With slowdown in demand and ALM mismatch, developers are currently finding it extremely difficult to meet working capital needs and hence are forced to raise funds at substantially high interest rates
- Given the significant credit crunch, developers have been forced to lower their price points in select pockets
- In order to overcome the prevalent slowdown and reduce gearing, real estate developers are implementing various strategies like downsizing development plans, part monetization of assets and reducing pace of construction for capital-intensive projects
- Further, many real estate developers are developing mid/ low income housing projects in a bid to improve their cash flows. However, given the weak consumer sentiment on account of an extremely challenging macro-environment, real estate demand is unlikely to recover in the near term

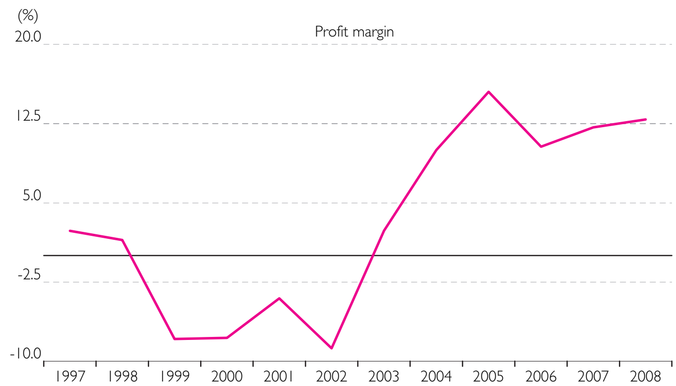
Steel

No. of companies	104
No .of companies under stress	34
Total Debt (Rs m)	784,258
Contribution to sample debt (%0	10.5
% of Debt under st`ress	30.1

Steep decline in contribution to total credit

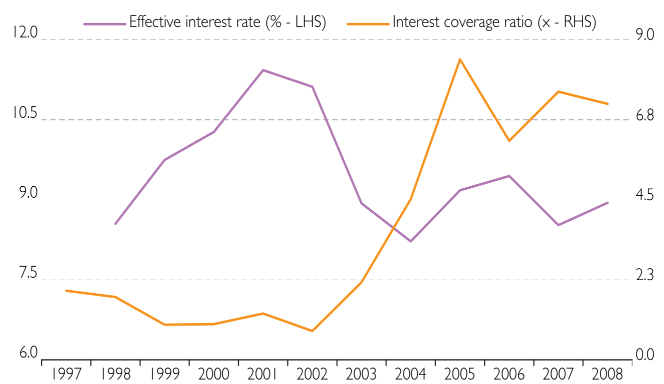


Profitability seen to be highly dependent on cyclical turns...



...leverage levels have come-off significantly

Better interest coverage ratio- to change track?

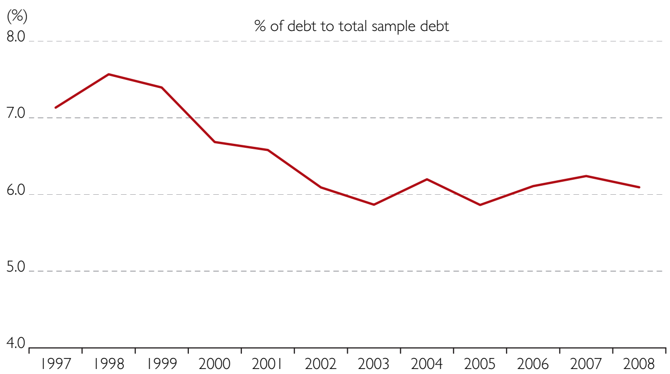


- Benchmark steel prices have come off by ~45% over the last 12 months
- Slowdown in end-user industries (viz auto, white goods manufacturing, etc) has led to sharp drop in sales volumes
- Anticipating strong demand growth, most steel companies had chalked out aggressive growth plans.
- With spiraling raw material costs last year, working capital requirements of most companies were significantly stretched.
- But till the time actual end-user demand recovers materially, uncertainty on the sector is likely to persist. While demand is not likely to bounce back in the near term, we believe the renegotiated raw material contract prices (due in Q1CY09) will provide stability to steel prices.

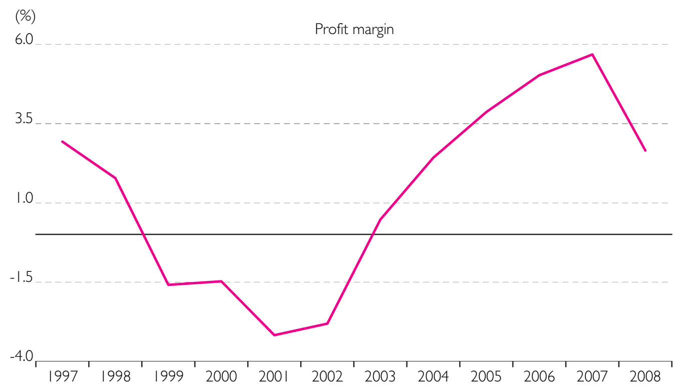
Textiles

No. of companies	234
No .of companies under stress	109
Total Debt (Rs m)	451,969
Contribution to sample debt (%)	6.0
% of Debt under stress	49.8

Slight decline in contribution of textiles to credit

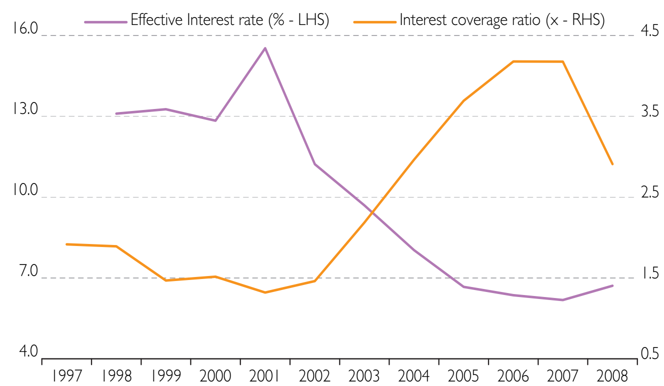


Profitability seen to be slipping...



...and a rise in leverage levels...

....lead to a decline in Interest servicing capability

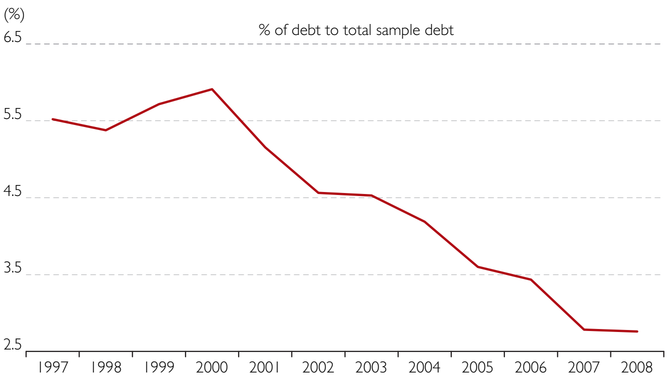


- A sharp drop in demand from developed countries - key markets for Indian textile companies – have significantly impacted order flows
- Most companies have also reported large losses on currency hedging
- Massive expansion plans were underway, and hence balance sheets of most textile companies are significantly leveraged
- Arbitrary government policies on cotton pricing (read minimum support prices) have led to substantial margin compression for yarn manufacturers.
- We do not see the any material improvement in sector outlook in the near term.

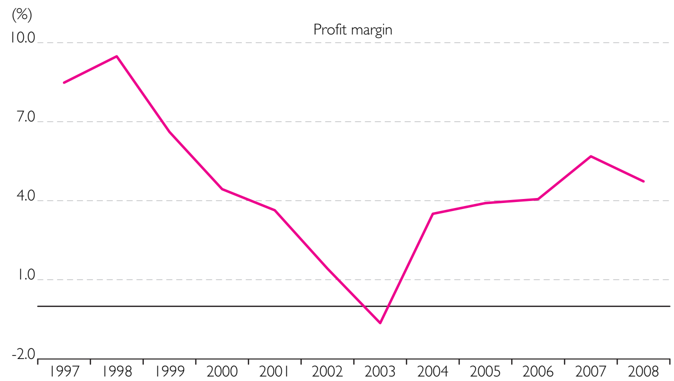
Fertilizers

No. of companies	23
No .of companies under stress	8
Total Debt (Rs m)	204,687
Contribution to sample debt (%)	2.7
% of Debt under stress	17.2

Decline in contribution to credit

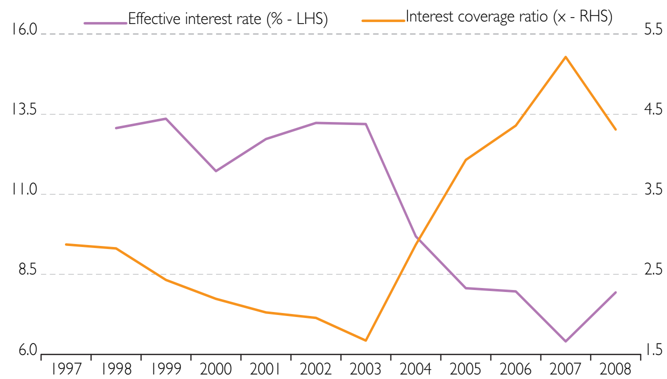


Profitability seen to be volatile...



... a rise in leverage levels...

....lead to a decline in Interest servicing capability

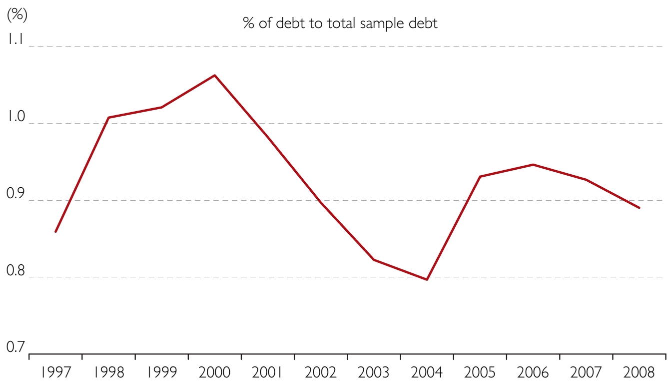


- The regulated nature of the industry (and thereby under-recoveries), and the inability of the government to pay out subsidies (in cash) on time, has led to significantly high working capital requirements.
- Additionally, the government has tried to compensate for the under-recoveries by way of issuance of special government bonds. However, these bonds trade much below par value and fertilizer companies have not been able to fully recover the loss of revenues by selling these bonds.
- All these factors, coupled with increasing input costs (Phosphate, Urea, etc until H1FY09), have led to increased debt levels for fertilizer companies.
- However, an imminent change in the government's fertilizer policy (which could eventually lead to deregulation) as also the cash payment of subsidy dues would likely lead to better prospects.

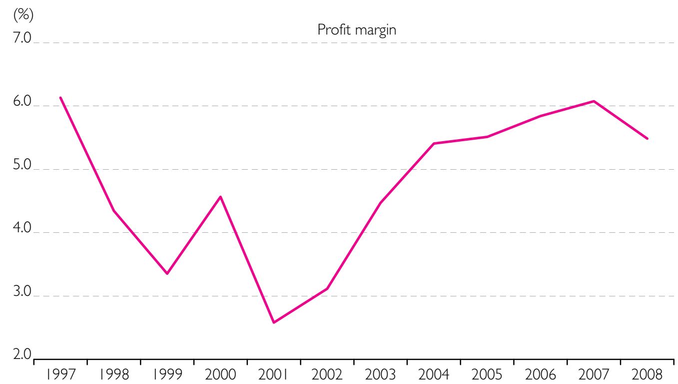
Auto Ancillaries

No. of companies	133
No .of companies under stress	43
Total Debt (Rs m)	112,117
Contribution to sample debt (%)	1.5
% of Debt under stress	47.4

Slight decline in contribution to credit

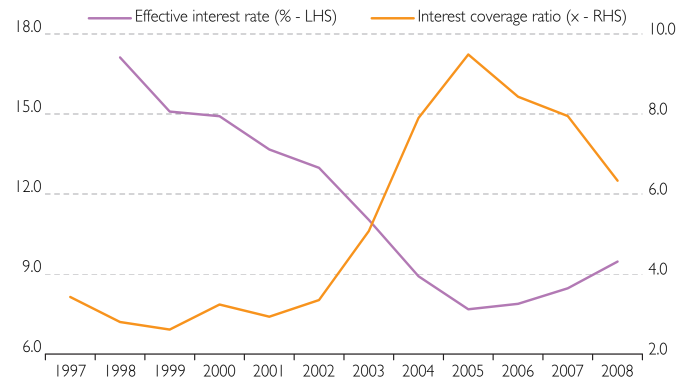


Profitability seen to be slipping...



Leverage levels on uptrend...

....while interest servicing capability deteriorates

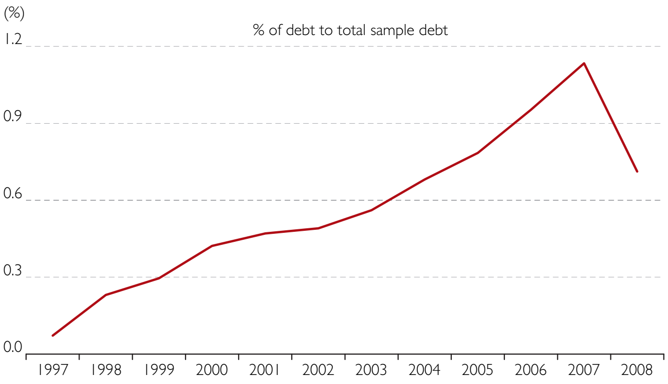


- India's auto component players are facing one of the biggest crises ever. With the domestic automobile market witnessing a slowdown and a severe drop in export volumes on account of a recession-hit global export market, many small ancillary units are on the verge of shutting down.
- The entire supply chain of auto companies, from Tier-1 companies to small-scale units, is facing sharp decline demand, delayed payments and a stiff liquidity crunch. In order to remain profitable in a declining volume scenario, auto component manufacturers are indulging in production cuts/ plant shutdowns, laying off temporary employees, postponing/ curtailing expansion plans and reducing their fixed cost (plant and shift rationalization).
- Further, most of the component players are facing a significantly higher interest burden on account of loans taken at higher rates to manage their working capital cycle.
- Given the recessionary trends in USA and Europe, export volumes are unlikely to recover in FY10. Further, domestic automobile volume growth would remain muted in FY10 in light of the prevalent uncertain macro-economic conditions. Sustained margin pressure due to lower capacity utilization levels and high interest burden would impact profitability and debt servicing capability going forward.

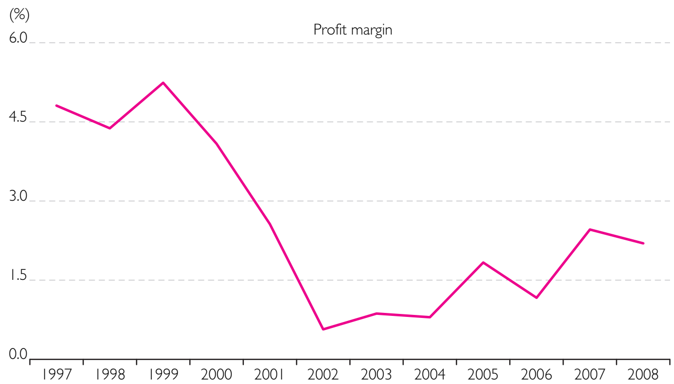
Gems & Jewellery

No. of companies	21
No .of companies under stress	8
Total Debt (Rs m)	52,787
Contribution to sample debt (%)	0.7
% of Debt under stress	51.3

Contribution to credit has increased

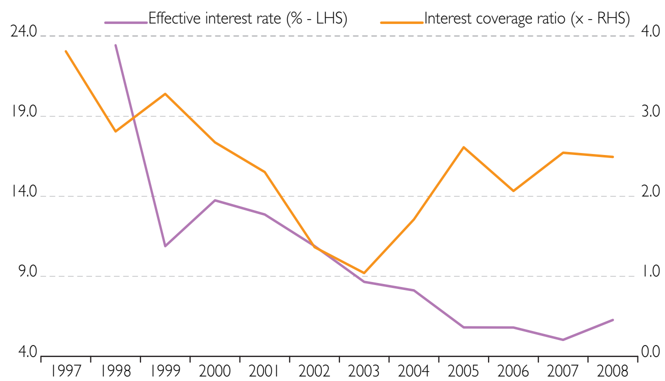


Profitability seen to be slipping…



Leverage*

Interest servicing capability remains modest



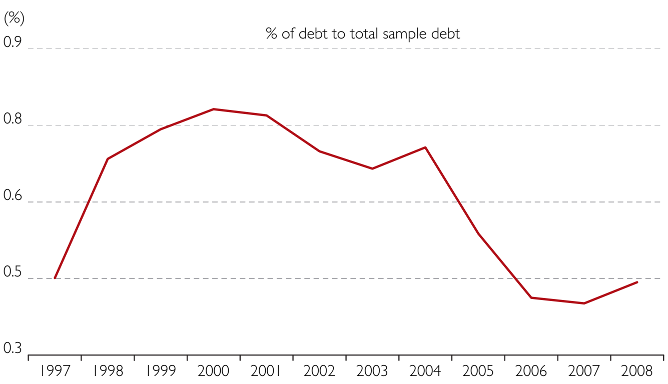
- With jewellery being a discretionary spend, gems and jewellery is among the first sectors to be hit by an economic downturn
- Exporters have lost significantly in currency hedging while export volumes too have been hit due to global slowdown
- On the domestic front also, steep correction in diamond prices (more than 20% correction in last three months); rising unemployment is the domestic diamond industry indicates the high level of stress.
- Gold prices are scaling new peaks everyday. Coupled with a sluggish economy, volumes have taken a big hit
- Prospects likely to remain subdued till stability returns to the global financial world

**Leverage appears to be declining in the data set due to reduction in debt level of a large company. Leverage for the industry is on an uptrend*

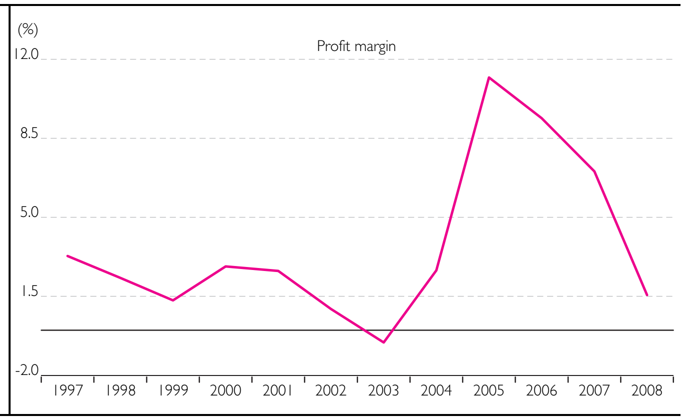
Sugar

No. of companies	17
No .of companies under stress	10
Total Debt (Rs m)	29,360
Contribution to sample debt (%)	0.4
% of Debt under stress	77.7

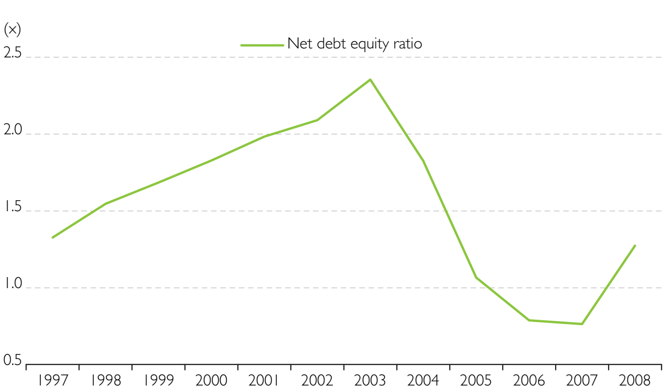
Volatility in contribution to credit



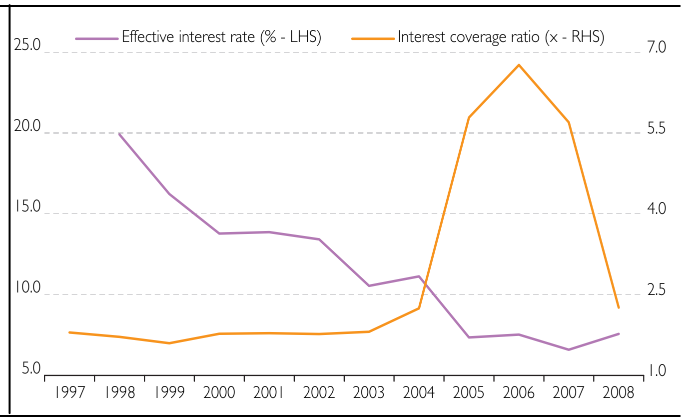
Cyclical profitability



Leverage levels on an upturn…



….while interest servicing capacity declines



- Companies have taken significant leverage for the aggressive capex plans during the previous sugar cycle (SS*2004-2006). However, due to slump in prices of sugar globally on the back of a supply glut, realizations have declined significantly.
- Profitability has taken a beating due to lower realizations as also higher costs (due to increased SAPs to be paid to sugarcane farmers).
- During SS2009, sugar production is expected to be significantly lower. Consequently, sugar prices have started inching up. Sugar producers are now looking at relatively better realization in SS2009-10

**Sugar Season*

RETAIL ASSETS: A MIXED BAG

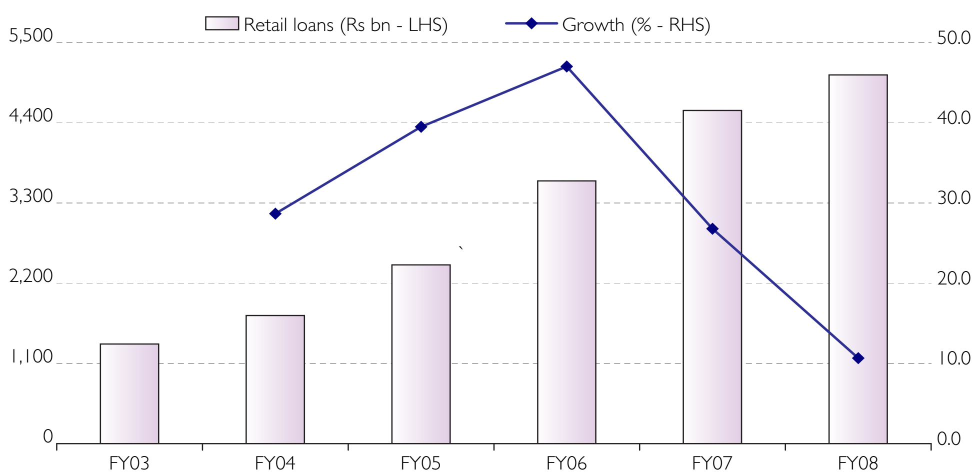
Bank retail credit increased at an aggressive pace over FY04-07 on a very low base (now forming ~23% of the overall credit). With rise in exposure to higher-risk customers, elevated interest rates, reliance on DSAs coupled with unfavorable recovery regulation, such loans have seen some deterioration over the past 18 months. However, the Indian retail portfolio is dominated by mortgage loans (51% share) – a comparatively safer asset class and the most resilient to macroeconomic headwinds. Though we see mortgages supporting the overall quality of retail portfolios, higher interest rates and lower economic growth would indeed exert pressure on other categories of retail loans, which would lead to higher defaults in the portfolio. However, asset quality would be supported by lower pace of growth in mortgages over FY08 and FY09, when interest rates peaked. Scanning each class separately, we see ~11% of the portfolio under duress.

❑ Accelerated credit growth over FY04-07…

Reliance on DSAs and lax quality checks to lead to higher defaults

Retail finance witnessed an accelerated 35% CAGR between FY04-07. During the period, competition intensified due to entry of new players as also efforts by existing players to extend portfolios into newer segments. In the absence of due checks on creditworthiness of borrowers in the rush to garner higher share of incremental credit expansion, credit disbursed during the last few years is more prone to defaults. Moreover, banks relied extensively on third-party direct sales agents (DSAs) to source new business and process loan applications, which meant less control on quality of borrowers, leading to dilution in underwriting standards.

Exhibit 35: Accelerated growth in retail assets



Source: RBI

…has now come off

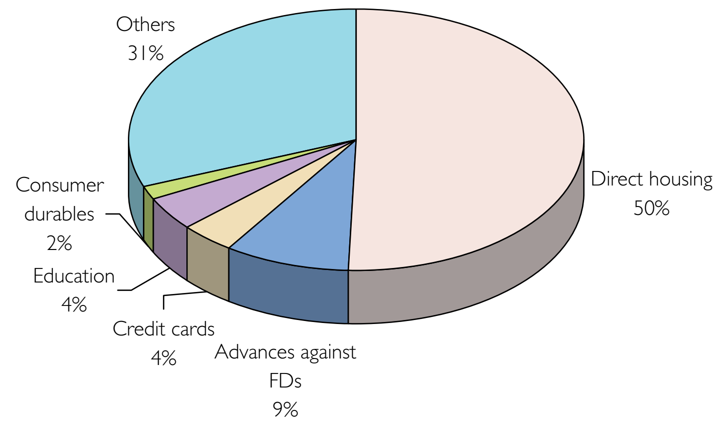
Pace of growth in retail credit has moderated in FY08 and FY09

Growth in retail loans declined sharply to 11% in FY08. We expect growth to remain in single digits through FY09-10. This is despite the marked improvement in demographics that point to a fairly swift rise in income levels over the past 5-7 years, though the pace has moderated of late. We estimate retail loans to grow in low single digits in FY10 as we believe that pick-up in demand is likely to be rear ended following the interest rate cuts on such loans as also a correction in property prices.

❑ Portfolio dominated by mortgages – a safer asset class

Retail portfolio of Indian banks is dominated by mortgage loans, constituting ~51% of the overall retail loans.

Exhibit 36: Composition of retail loans

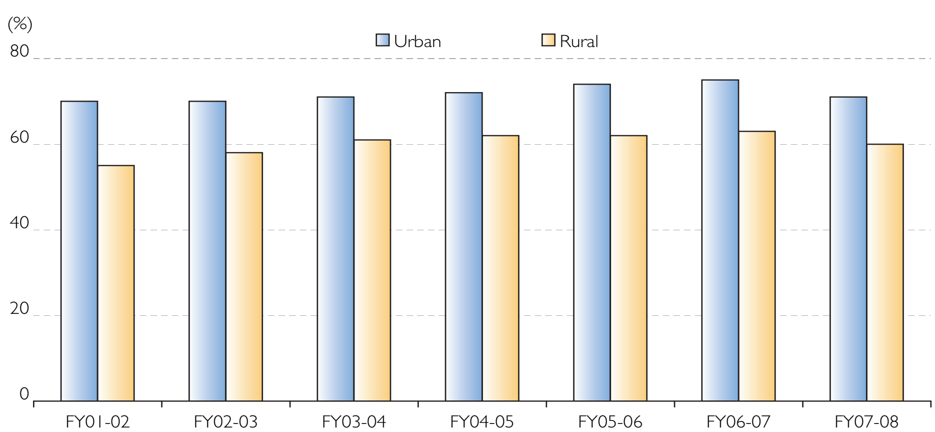


Source: RBI

Repayment of mortgage loans assumes priority for borrowers

According to industry estimates, 65-70% of these advances are expended to salaried employees, while 90%+ of mortgages is expected to borrow for self occupancy. Consequently, home loans assume priority over other loans for such borrowers. Moreover, growth volumes have been low in FY08 (when real estate prices were at peak) and LTV ratios are still estimated to be comfortable at ~71%. As a result, mortgage loans remain a relatively secured asset class, wherein credit losses are the lowest. Current delinquency levels are ~3% and adopting a conservative stance, we have assumed stress levels to double to 6%.

Exhibit 37: LTV ratios remain comfortable



Source: Crisil Research

Elevated rates and aggressive expansion to dilute quality of assets

❑ Unsecured loans remain vulnerable…delinquencies to rise

In pursuit of rapid growth, banks ventured into high-risk unsecured personal loans and aggressively expanded their credit card portfolios. Moreover, in order to tap the otherwise unbanked markets, banks lent aggressively in tier-2 and tier-3 cities – typically to low-income and self employed borrowers. Over the past 18 months, there has been deterioration in quality of these unsecured personal and credit card loans. Owing to elevated interest rates and entry of players into newer and high risk geographies, we expect a further worsening of asset quality in these loans. CRISIL estimates peg net credit costs in the range of 8-13% for unsecured loans. We have built in stress levels of 25% for credit cards and ~20% for unsecured personal loans to factor in the stress on such advances.

Exhibit 38: Retail assets risk spectrum

Mortgage Loans	New car	Used HCV	New HCV	Used car	LCV	Two-wheeler	Loan against shares	Personal loan	Credi card receivables

Low ◄——————————————————————► High

Risk

Source: IDFC-SSKI Research

~11% of retail book may be under stress

❑ Overall stress in the portfolio to remain low

Going forward, any reduction in income levels (a function of slower economic growth) is likely to lead to a rise in stress levels in the retail book of banks. However, lower pace of growth in FY08 and FY09, especially in mortgages – when interest rates were at the peak – is likely to restrict the rise in default levels. Weighing the asset classes of retail loans separately, we estimate that ~11% of banks' overall retail book may be under stress.

Exhibit 39: Strain on retail loans

Rs bn	Total loans	% of stress	Stressed loans
Direct housing	2,557	6	153
Advances against FDs	450	-	-
Credit cards	192	25	48
Education	207	10	21
Consumer durables	86	25	21
Others (incl unsecured personal loans)	1,562	20	312
Total	**5,054**	**11**	**556**

Source: RBI, IDFC-SSKI Research

HOW BANKS STACK UP

To determine how large banks stack up on a relative scale, we have analysed their portfolios and ranked them in the order of expected performance on asset quality. While our analysis points towards how a bank's asset quality is placed relative to peers, it does not indicate the expected level of NPAs. We have appraised loan books of these banks by superimposing the risk distribution of credit portfolio and their growth rates over the past 3-4 years. We also look into their balance sheet strength to ascertain their ability to absorb higher credit costs through capital adequacy and provision coverage ratios. We conclude that HDFC Bank, ICICI Bank and Bank of Baroda are better placed than peers to handle a rise in NPAs. At the same time, Bank of India and State Bank of India appear to be more vulnerable to the stress.

❑ How banks stack up – methodology

We have evaluated the anticipated performance of seven large banks…

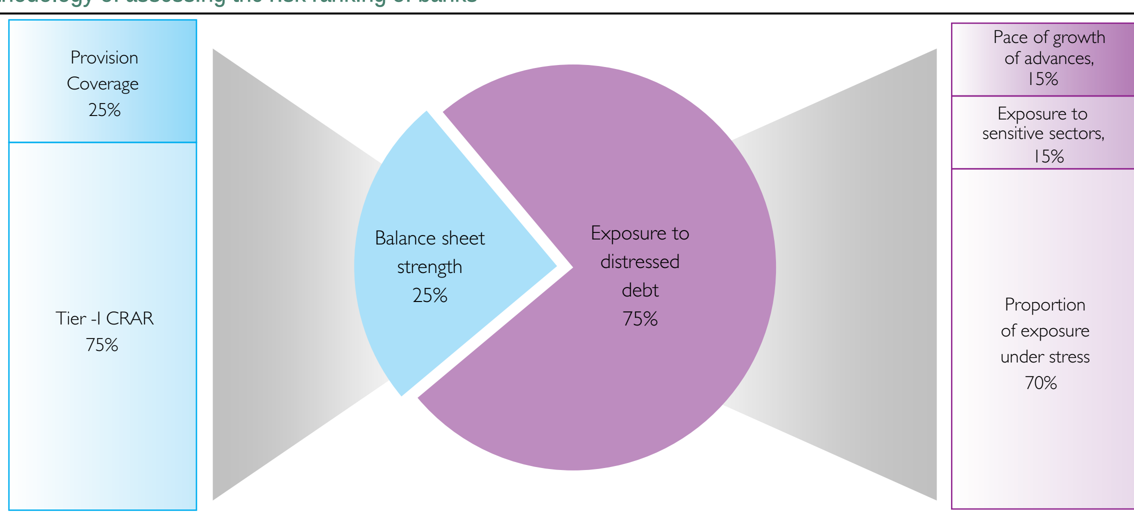
Analysing the portfolios of seven large banks, we have ranked them in the order of their anticipated performance on asset quality. We assume that the quality of borrowers is homogeneous across all these banks, which is not essentially the case. As a result, while our analysis points to how a bank's asset quality is placed relative to peers, it does not indicate the expected levels of NPAs for that bank.

For the purpose of this analysis, we have compared banks under two broad heads:

…and have ranked them on asset quality and balance sheet strength…

1. Exposure which is anticipated to come under stress. We look at three further parameters here:
   a. Proportion of exposure under stress
   b. Exposure to vulnerable sectors
   c. Growth rate of advances
2. Balance sheet strength to absorb the impact of higher credit costs in case of any rise in delinquencies:
   a. Tier I Capital Adequacy Ratio
   b. Provisioning coverage ratio

Exhibit 40: Methodology of assessing the risk ranking of banks



…by assigning 75% and 25% weight to the two criteria respectively

We assign weights of 75% and 25% respectively to these two criteria to arrive at an overall score. A higher rank under each category indicates relatively less stressed exposure or lower pace of loan growth (a bank with rank 1 is better off than a bank ranked 2). Consequently, a bank with lower weighted score is placed better.

❑ Criterion 1 – asset quality ranking

We have superimposed credit pattern of the entire banking debt to the portfolio of each bank

We have evaluated the exposure of large banks on three criteria and assigned weights to each of them to arrive at an overall score. Due to lack of exact details on the credit portfolio of each bank, we have superimposed credit pattern of the entire banking debt to the portfolio of each bank. However, each bank would differ in the quality of borrowers, and this acts as a limitation to our analysis.

- **Proportion of exposure under stress (70% weight):** We have evaluated the funded exposure of large banks by sectors and, for the purpose, we have superimposed industry-wide bank credit analysis (see page 22) on the portfolio of each bank to arrive at the probable stress levels.

  For example – our analysis of ~3,000 companies demonstrates that ~50% of the debt extended to the textile sector appears to be in stress. Assuming that debt of textile companies is spread homogenously across banks, we hypothesize that ~50% of SBI's textile debt is vulnerable. Further, ~9% of SBI's funded industry exposure lies in the textile segment. Consequently, we conclude that 4.5% of SBI's funded industry exposure is under stress. Similarly, we superimpose stress levels in each sector to the banks' overall portfolio and arrive at the probable stress level for each bank.

Exhibit 41: Exposure under stress

(%)	Industry exposure	Retail exposure	Total
HDFC Bank	15.6	7.8	11.1
ICICI Bank	15.5	9.0	14.3
Bank of Baroda	16.0	11.2	12.8
PNB	18.8	11.9	14.4
Axis Bank	17.0	8.9	15.0
State Bank of India	17.6	9.4	15.0
Bank of India	21.5	11.9	16.4

Lower risk profile of HDFC Bank and ICICI Bank due to higher proportion of retail loans in portfolio and lower stress on retail book

- o ***HDFC Bank and ICICI Bank lead:*** We observe that HDFC Bank and ICICI Bank surpass peers, while Bank of India and SBI are more vulnerable to the risk of rising delinquencies. Lower risk profile of HDFC Bank and ICICI Bank can be attributed to higher proportion of retail loans in the portfolios. While HDFC Bank scores over peers due to selection of quality borrowers even in a risky asset class, ICICI Bank benefits from its dominance in a better asset class (high proportion of mortgages in the book). Moreover, these two banks have been the front-runners in providing for delinquencies on retail book (though not factored into our analysis) and consequently, we believe that quality of their retail book is better than that of the industry.

- **Exposure to sensitive sectors (15% weight) –** We have analyzed the funded exposure of these banks to sectors facing maximum strain (namely steel, textiles, gems & jewellery, commercial real estate, sugar, credit cards and unsecured personal loans). This exhibits the proportion of the bank's book exposed to these sectors. HDFC Bank lags most of the peers on this parameter due to a higher proportion of riskier retail loans (~60%) and absence of mortgage loans in the book.

Exhibit 42:Exposure to sensitive sectors (% of funded exposure)

	HDFC Bank*	ICICI Bank	BOB	PNB	Axis Bank	SBI	BOI
Iron & steel	0.8	3.6	4.4	6.5	1.5	6.1	4.6
Textiles	1.0	1.2	5.0	4.6	3.0	6.4	4.1
Sugar	-	-	0.4	2.0	0.8	1.1	0.3
Gems & jewellery	-	1.0	0.5	0.5	0.9	2.0	2.4
Commercial Real Estate	5.9	4.7	3.5	5.0	6.4	2.1	4.6
Credit cards	4.1	2.8	-	-	0.7	**	0.0
Unsecured personal loans	8.8	3.7	3.8	5.9	2.2	**	0.4
Risky exposure	20.5	17.0	17.6	24.5	15.4	17.6	16.3

** Textile, sugar, gems and jewellery estimated for HDFC Bank; ** Management indicated that unsecured personal loans are negligible for SBI*

With high interest rates for the past 3-4 years, loans disbursed during this period typically pose higher credit risk

a. **Pace of growth in advances (15% weight)** – With interest rates reigning high for the past 3-4 years, loans disbursed during this period typically pose a higher credit risk. Consequently, banks with faster pace of growth in loans over the past 3-4 years appear to be more vulnerable. ICICI Bank and PNB, with CAGR of ~25% in loans over FY05-9MFY09, appear to be relatively better placed as against peers.

Exhibit 43: Growth in advances

	Advances growth (yoy %)				CAGR FY05-Q3FY09 (%)
	FY06	FY07	FY08	Dec'08	
HDFC Bank	42	36	38	14	37.2
ICICI Bank	60	34	15	(1)	25.2
Bank of Baroda	38	40	28	33	33.2
PNB	24	29	24	39	25.5
Axis Bank	43	65	62	55	52.2
SBI	29	29	24	29	28.0
Bank of India	17	30	34	31	27.0

Source: IDFC-SSKI Research

❑ Criterion 2 – balance sheet strength

Tier-I CRAR and provision coverage of banks an apt measure to ascertain their balance sheet strength

In the event of a rise in delinquencies, we evaluate the ability of banks' balance sheet to absorb the higher credit costs. We have looked at Tier-I CRAR and provision coverage of the banks and assigned weights to them. ICICI Bank emerges on the top due to its high capital adequacy, while PNB has the best provision coverage ratio.

Exhibit 44: Balance sheet strength ranking

	Tier-I CRAR	Provision Coverage	Weighted score (ii)	Rank
HDFC Bank	2	4	2.6	2
ICICI Bank	1	6	2.5	1
Bank of Baroda	7	2	5.5	6
PNB	4	1	3.1	3
Axis Bank	3	5	3.6	4
State Bank of India	5	7	5.6	7
Bank of India	6	3	5.1	5
Weightage (%)	70.0	30.0		

a. **Comfort on capital adequacy** (75% **weight**): To determine banks' ability to bear the shock of surge in credit costs, we look at their Tier-I CRAR. While all the banks are well capitalized, ICICI Bank has the highest Tier-I ratio of 12.1%.

Exhibit 45: Capital adequacy & provision coverage

ICICI Bank has the highest Tier-I ratio of 12.1%

	Tier-I CRAR (%)	Provision Coverage (%)
HDFC Bank	9.7	67.9
ICICI Bank	12.1	53.7
Bank of Baroda	8.5	75.4
PNB	9.4	83.1
Axis Bank	9.5	56.6
State Bank of India	9.2	48.4
Bank of India	8.92	68.4

Note: Data as of Dec'08

b. Higher provision coverage ratio to moderate the sting (25% weight): Banks with higher coverage ratios will be better placed to stomach the impact of a surge in NPA levels. Among our sample banks, PNB and Bank of Baroda have healthier provisioning coverage ratios. On the other hand, SBI and ICICI Bank appear on the lower end of the scale.

❑ HDFC Bank, ICICI Bank and BOB lead

On the basis of this analysis, we conclude that HDFC Bank, ICICI Bank and Bank of Baroda are better placed than peers to handle a rise in NPAs. At the same time, Bank of India and State Bank of India appear to be more vulnerable. However, ICICI Bank – despite lesser stress – is likely to see higher impact relative to the other two due to its lower credit growth.

Exhibit 46: Relative ranking of large banks

…HDFC Bank, ICICI Bank and Bank of Baroda appear best equipped to handle a rise in NPAs

Rank	Bank	Exposure to distressed debt (i)	Balance sheet strength (ii)	Overall stress score (i + ii)
1	HDFC Bank	2.5	2.6	2.53
2	ICICI Bank	2.9	2.5	2.76
3	Bank of Baroda	2.6	5.5	3.33
4	PNB	4.2	3.1	3.89
5	Axis Bank	5.4	3.6	4.95
6	State Bank of India	4.9	5.6	5.04
7	Bank of India	5.7	5.1	5.51
	Weightage (%)	**75**	**25**	

Note: Banks with lower score are better placed

❑ Rise in credit costs…built into our estimates

We do not expect an outsized rise in gross NPAs of Indian banks in FY09. A large proportion of slippages are likely to manifest in FY10, thereby increasing provisioning costs for banks and our estimates build in a 60-70% rise in FY10 credit costs.

Exhibit 47: Higher provisioning costs

NPA Provisions/ average loans (%)	FY06	FY07	FY08	FY09E	FY10E
Allahabad Bank	0.31	0.26	0.59	0.47	0.70
Andhra Bank	0.20	0.15	0.32	0.31	0.40
Axis Bank	0.67	0.25	0.71	0.79	0.78
Bank of Baroda	0.70	0.14	0.46	0.26	0.56
Bank of India	0.89	0.74	0.70	0.46	0.76
Canara Bank	0.91	0.51	0.85	0.82	0.92
Corporation Bank	0.88	0.69	0.36	0.48	0.59
Dena Bank	1.86	1.25	1.28	0.91	1.11
HDFC Bank	1.31	1.70	1.76	0.77	0.82
ICICI Bank	0.38	0.84	1.21	1.65	2.30
IDBI	0.43	0.24	0.19	0.21	0.37
Indian Bank	0.60	0.40	1.02	0.45	0.77
ING Vysya Bank	0.55	0.63	0.27	0.55	0.74
PNB	0.47	0.91	0.95	0.78	0.75
State Bank of India	0.06	0.48	0.53	0.51	0.83
Syndicate Bank	0.92	0.76	0.60	0.65	0.90
Union Bank of India	0.33	0.57	0.86	0.42	0.73
Yes Bank	-	-	0.03	0.94	1.24

Source: IDFC-SSKI Research

Mapping the portfolio of banks

Exhibit 48: HDFC Bank – lowest exposure to stress

Industry (Rs m)	% of funded exposure	% of exposure under stress	Exposure under stress
Automobiles & Auto Ancillaries	5.2	23.9	12,416
Transportation	5.1	48.0	24,716
Trade	4.1	5.0	2,056
Banks & FIs	3.1	3.0	946
Other finn intermediaries	2.6	5.0	1,322
Food processing	1.7	20.0	3,390
Metals and Metal Products	1.5	26.9	4,202
Engineering	1.5	0.6	89
Others	16.1	10.0	16,235
Retail	59.1	7.8	46,550
Of which			
Auto Loans	15.0	3.0	4,530
Personal Loans	8.8	15.0	13,350
CVs	8.2	4.0	3,320
Loan Against Securities	0.7	5.0	350
2-Wheelers	2.1	15.0	3,150
Business Banking	13.4	5.0	6,750
Credit Cards	4.1	20.0	8,200
Others	6.8	10.0	6,900
Total		**11.1**	**111,922**

Source: Annual report, Capitaline, IDFC-SSKI Research; data as of March 2008

Exhibit 49: Bank of Baroda

(Rs m)	% of funded exposure	% of exposure under stress	Exposure under stress
Coal	0.0	2.9	9
Mining	0.3	2.9	107
Iron and steel	4.4	30.1	15,075
Other metal and metal products	1.2	9.2	1,310
All engineering	2.1	0.6	143
Of which: Electronics	0.0		
Electricity	0.3	0.1	3
Cotton textiles	1.9	49.8	11,082
Jute Textiles	0.1	49.8	677
Other Textiles	2.9	49.8	16,561
Sugar	0.4	77.7	3,285
Tea	0.0	27.1	62
Food processing	0.8	20.0	1,753
Vegetable oils and vanaspati	0.2	21.8	498
Tobacco & tobacco products	0.0	0.0	-
Paper & paper products	0.4	37.4	1,766
Rubber & rubber products	0.2	28.5	608
Chemicals, dyes, paints, etc.	7.0		4,509
Of which Fertilisers	0.6	17.2	1,182
Of which Petro-chemicals	4.0	2.8	1,263
which drugs & pharmaceuticals	0.9	20.7	2,064
Cement	0.2	4.8	134
Leather & 'leather products	0.2	26.9	583
Gems and jewellery	0.5	51.3	3,039
Construction	1.1	62.1	8,131
Petroleum	1.7	2.8	552
Automobiles including trucks	0.9	4.4	436
Computer software	0.1	8.6	56
Infrastructure	8.0		1,401
Of which power	5.6	0.1	55
which Telecommunications	1.3	6.8	1,033
which Roads	0.6	0.0	-
which Ports	0.3	5.0	176
which other infra	0.2	5.0	138
NBFCs	3.6	5.0	2,084
Trading	4.1	10.0	4,633
Other industries	1.5	15.0	2,584
Total Industries	**44.3**	**16.0**	**81,081**
Retail	16.5	11.2	21,064
Mortgages	7.0	6	4,762
Others retail	9.5	15	16,301
Agriculture	13.7	6	9,372
International book	25.5	12	34,963
Total	**100.0**	**12.8**	**146,480**

Source: Annual report, Capitaline, IDFC-SSKI Research; data as of March 2008

Exhibit 50: ICICI Bank

(Rs m)		% of funded exposure	% stress in the sector	Stressed debt
Retail finance		35.4	9.0	103,165
Of which:	home loans	18.8	5.0	30,343
	auto loans	4.6	6.0	8,931
	commercial business	4.6	6.0	8,931
	2 wheeler	0.7	15.0	3,435
	personal loans	3.4	25.0	27,194
	credit cards	2.5	25.0	20,038
	Loans against securities & others	0.9	15.0	4,294
Crude petroleum/refining & petrochemicals		2.3	0.0	0
Power		4.3	15.0	20,761
Electronics & engineering		1.8	3.0	1,757
Road, port, telecom, urban development-& other infrastructure		3.0	9.2	8,832
Services - non-finance		5.1	6.3	10,301
Iron/steel & products		3.2	30.1	31,052
Services -finance		3.3	5.0	5,358
Construction		1.3	62.1	26,250
Metal & products (excluding iron & steel)		1.2	9.2	3,510
Food & beverages		3.0	27.6	26,517
Banks		1.0	0.0	0
Chemical & fertilisers		1.8	17.6	10,290
Mutual funds		2.4	15.0	11,464
Wholesale/retail trade		0.9	5.0	1,495
Shipping		0.8	21.9	5,826
Automobiles		1.0	4.4	1,459
Manufacturing products excluding metal		0.9		0
Drugs & pharmaceuticals		1.1	20.7	7,262
Textiles		1.1	49.8	17,174
Gems & jewellery		0.9	51.3	14,445
FMCG		0.4	27.6	3,470
Mining		0.4	2.9	336
Cement		0.3	4.8	462
Other industries		13.1	15.0	63,451
Total		**89.7**	**12.9**	**374,635**
UK book		0.0		
Loans & advances to customers		4.1	20	26,654
Asset backed securities		0.7	100	22,212
Other assets		0.6	20	3,702
Total		**5.4**	**30**	**52,568**
Canada book		0.0		
Loans & advances to customers		4.5	20	29,093
Asset backed securities		0.2	100	5,290
Other assets		0.2	20	1,587
Total		**4.9**	**23**	**35,970**
Total Incl International book		**100.0**	**14.3**	**463,173**

Source: Annual report, Capitaline, IDFC-SSKI Research; data as of March 2008

Exhibit 51: Punjab National Bank

(Rs m)	% of funded exposure	% of exposure under stress	Exposure under stress
Coal	0.0	2.9	4
Mining	0.5	2.9	171
Iron and Steel	6.5	30.1	23,648
Other Metal and Metal Products	0.8	9.2	883
All Engineering	2.8	0.6	203
Of which: Electronics	0.8		-
Electricity	4.0	0.1	42
Cotton Textiles	1.9	49.8	11,337
Jute Textiles	0.1	49.8	310
Other Textiles	2.7	49.8	16,282
Sugar	2.0	77.7	19,014
Tea	0.0	27.1	16
Food Processing	1.3	20.0	3,141
Vegetable Oils and Vanaspati	0.6	21.8	1,485
Tobacco & Tobacco Products	0.0	0.0	-
Paper & Paper Products	0.9	37.4	4,286
Rubber & Rubber Products	0.1	28.5	425
Chemicals, Dyes, Paints, etc.	2.3		3,451
Of which Fertilisers	0.5	17.2	1,103
Of which petro-chemicals	0.3	2.8	108
Which Drugs & Pharmaceuticals	0.9	20.7	2,240
Cement	1.0	4.8	604
Leather & 'leather products	0.4	26.9	1,217
Gems and jewellery	0.5	51.3	3,067
Construction	2.1	62.1	15,822
Petroleum	1.7	2.8	576
Automobiles including trucks	0.3	4.4	156
Computer software	0.0	8.6	43
Infrastructure	5.5		856
Of which Power	0.2	0.1	3
Which Telecommunications	1.0	6.8	853
Which Roads & ports	1.7	0.0	-
NBFCs	4.9	5.0	2,939
Trading	1.0	5.0	631
Other industries	6.3	5.0	3,795
Total	**50.3**	**19**	**114,405**
Retail	22.3	11.9	32,019
Of which: mortgages	6.2	6	4,500
Of which: educational	1.3	4	622
Of which: others	14.8	15	26,897
Agriculture	18.1	5	10,956
Residuary other advances	9.3	15	16,819
Total	**100.0**	**14.4**	**174,198**

Source: Annual report, Capitaline, IDFC-SSKI Research; data as of March 2008

Exhibit 52: Axis Bank

(Rs m)	% of funded exposure	% of exposure under stress	Exposure under stress
Mining	0.1	2.9	40
Iron and Steel	1.5	30.1	4,206
Other Metals	0.4	9.2	377
All Engineering	1.1	0.6	61
Electricitity	1.0	0.1	8
Cotton Textiles	2.3	49.8	10,578
Jute Textiles	0.0	49.8	34
Other Textiles	0.7	49.8	3,248
Sugar	0.8	77.7	5,472
Tea	0.2	27.6	392
Food Processing	0.9	20.0	1,603
Vegetable Oil & Vanaspati	0.5	21.8	1,102
Tobacco and Tobacco products	0.4	0.0	-
Paper and paper products	0.4	37.4	1,394
Rubber and rubber products	0.1	28.5	152
Chemicals, Dyes, Paints	1.4	17.6	2,354
Cement	0.9	4.8	425
Leather and leather products	0.1	26.9	244
Gems and Jewellery	0.9	25.0	2,041
Construction	3.8	62.1	21,692
Petroleum	0.7	2.8	174
Automobile	1.3	4.4	531
Computer Software	0.8	8.6	654
Infrastructure	4.5	0.6	249
NBFCs & Trading	13.6	5.0	6,310
Other Industries	14.3	15.0	19,916
Total	**52.6**	**17.0**	**83,257**
Retail			
Housing Advances	10.8	6.0	5,997
CV Loans	0.7	6.0	375
4-Wheelers	1.7	5.0	781
2-Wheelers	0.0	4.0	6
Personal Loans	2.2	25.0	5,075
Non-Schematic	0.8	5.0	390
Cards	0.7	20.0	1,249
Total Retail Advances	**16.8**	**8.88**	**13,873**
International exposure	6.6	15.0	9,210
Others	23.9	15.0	33,360
TOTAL	**100.0**	**15.03**	**139,701**

Source: Annual report, Capitaline, IDFC-SSKI Research; data as of March 2008

Exhibit 53: State Bank of India

(Rs m)	% of funded exposure	% of exposure under stress	Exposure under stress
Coal	0.2	2.9	389
Mining	0.9	2.9	1,574
Iron and Steel	6.1	30.1	104,610
Other Metal and Metal Products	1.2	9.2	6,379
All Engineering	3.1	0.6	1,049
Of which: Electronics	0.8		
Electricity	1.7	0.1	85
Cotton textiles	3.4	49.8	96,676
Jute Textiles	0.1	49.8	1,929
Other Textiles	2.9	49.8	82,158
Sugar	1.1	77.7	48,861
Tea	0.1	27.1	1,127
Food Processing	1.7	20.0	19,320
Vegetable Oils and Vanaspati	0.5	21.8	6,713
Tobacco & Tobacco Products	0.1	0.0	0
Paper & paper products	0.7	37.4	14,999
Rubber & rubber products	0.5	28.5	7,848
Chemicals, dyes, paints, etc.	3.1		18,784
Of which Fertilisers	0.5	17.2	4,763
Of which Petro-chemicals	0.5	2.8	833
which Drugs & Pharmaceuticals	1.1	20.7	13,188
Cement	0.6	4.8	1,594
Leather & 'Leather Products	0.3	26.9	5,025
Gems and Jewellery	2.0	51.3	57,302
Construction	1.5	62.1	54,884
Petroleum	1.9	2.8	3,071
Automobiles including Trucks	1.3	4.4	3,209
Computer Software	0.3	8.6	1,385
Infrastructure	6.7		23,915
Of which Power	2.0	15.0	17,548
which Telecommunications	1.6	6.8	6,367
which Roads & Ports	1.4	0.0	0
Other Industries	14.3	15.0	122,409
NBFCs & Trading	16.4	5.0	46,831
Industry Credit	72.7	17.6	732,125
Residual advances	7.0	15.0	60,418
Retail Assets	18.2	9.41	97,881
of which Housing Advances	9.1	8.0	41,501
Education	1.8	4.0	4,159
Auto	4.5	8.0	20,796
Personal	2.7	20.0	31,423
Agri loans	9.1	5	26,060
Total credit	**100.0**	**15.0**	**856,066**

Source: Annual report, Capitaline, IDFC-SSKI Research; data as of March 2008

Exhibit 54: Bank of India

(Rs m)	% of funded exposure	% of exposure under stress	Exposure under stress
Coal	0.1	2.9	33
Mining	0.4	2.9	128
Iron And Steel	4.6	30.10	15,780
Other Metal And Metal Products	1.1	9.2	1,193
All Engineering	2.1	0.6	139
Of Which: Electronics	0.7		-
Electricity	0.0	0.1	0
Cotton Textiles	1.4	49.8	7,849
Jute Textiles	0.0	49.8	163
Other Textiles	2.7	49.8	15,082
Sugar	0.3	77.7	2,210
Tea	0.0	27.1	49
Food Processing	0.3	20.0	669
Vegetable Oils And Vanaspati	0.0	21.8	82
Tobacco & Tobacco Products	0.0	0.0	-
Paper & Paper Products	0.5	37.4	2,001
Rubber & Rubber Products	0.9	28.5	2,829
Chemicals, Dyes, Paints, Etc.	2.5		3,065
Of Which Fertilisers	0.2	17.2	308
Of Which Petro-Chemicals	0.3	2.8	109
Which Drugs & Pharmaceuticals	1.1	20.7	2,649
Cement	0.3	4.8	177
Leather & 'Leather Products	0.2	26.9	669
Gems And Jewellery	2.4	51.3	14,099
Construction	0.9	62.1	6,136
Petroleum	0.6	2.8	179
Automobiles Including Trucks	0.6	4.4	291
Computer Software	0.0	8.6	31
Infrastructure	6.5		1,123
Of Which Power	2.7	0.1	27
Which Telecommunications	1.4	6.8	1,096
Which Roads & Ports	1.1	0.0	-
NBFCs	0.0	5.0	-
Trading	0.0	5.0	-
Other Industries	5.9	15.0	10,151
Total	**34.4**	**21.5**	**84,127**
Retail	16.7	11.9	22,708
Residential Mortgages	5.7	6.0	3,885
Business Mortgages	2.4	8.0	2,215
Auto Finance	0.7	8.0	605
Educational Loans	1.1	4.0	513
Credit Cards	0.0	25.0	8
Personal Loans	0.4	20.0	954
Others	6.4	20.0	14,528
Agriculture	13.2	5.0	7,528
International advances	20.6	20.0	46,808
Residiuary other Advances	15.1	15.0	25,740
Total	**100.0**	**16.4**	**186,911**

Source: Annual report, Capitaline, IDFC-SSKI Research; data as of March 2008

Annexure

Key aggregate financials of our sample set

Profit & loss

(Rs bn)	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08
Net Sales	**3,525**	**3,890**	**4,537**	**5,563**	**6,864**	**7,125**	**8,116**	**9,346**	**11,914**	**14,232**	**18,095**	**21,517**
Other income	139	162	177	203	252	283	303	451	451	522	667	912
EBITDA	**630**	**712**	**806**	**920**	**1,117**	**1,268**	**1,466**	**1,832**	**2,285**	**2,555**	**3,417**	**4,133**
Depreciation	143	166	215	262	320	389	420	456	510	560	643	738
EBIT	487	545	591	658	798	879	1,047	1,377	1,775	1,995	2,774	3,395
Interest Expense	200	227	273	283	319	319	285	270	249	284	342	457
PBT	**287**	**319**	**318**	**375**	**479**	**560**	**762**	**1,107**	**1,525**	**1,711**	**2,432**	**2,937**
Tax	66	69	75	93	120	154	222	303	344	409	603	741
PAT	**221**	**250**	**243**	**281**	**359**	**406**	**540**	**804**	**1,181**	**1,302**	**1,829**	**2,196**

Balance sheet

(Rs bn)	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08
Networth	1,983	2,331	2,763	3,138	3,911	4,215	4,606	5,223	6,310	7,742	9,866	12,745
yoy growth (%)	*-*	*17.6*	*18.5*	*13.6*	*24.6*	*7.8*	*9.3*	*13.4*	*20.8*	*22.7*	*27.4*	*29.2*
Debt	1,899	2,248	2,505	2,645	2,990	3,175	3,208	3,275	3,658	4,488	5,784	7,415
yoy growth (%)	*-*	*18.4*	*11.4*	*5.6*	*13.1*	*6.2*	*1.0*	*2.1*	*11.7*	*22.7*	*28.9*	*28.2*
Cash	147	242	298	316	364	446	513	792	1,371	1,747	2,396	2,779
yoy growth(%)	*-*	*64.6*	*22.9*	*5.9*	*15.3*	*22.6*	*15.0*	*54.4*	*73.1*	*27.4*	*37.1*	*16.0*
Total assets	3,884	4,578	5,269	5,783	6,901	7,391	7,813	8,498	9,968	12,230	15,650	20,160
yoy growth(%)	*-*	*17.9*	*15.1*	*9.8*	*19.3*	*7.1*	*5.7*	*8.8*	*17.3*	*22.7*	*28.0*	*28.8*

Key ratios

	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08
(%)												
EBITDA margin	17.2	17.6	17.1	16.0	15.7	17.1	17.4	18.7	18.5	17.3	18.2	18.4
EBIT margin	13.3	13.5	12.5	11.4	11.2	11.9	12.4	14.1	14.4	13.5	14.8	15.1
Profit margin	6.0	6.2	5.2	4.9	5.0	5.5	6.4	8.2	9.6	8.8	9.7	9.8
Effective tax rate	23.0	21.6	23.6	24.9	25.0	27.5	29.1	27.4	22.5	23.9	24.8	25.2
RoE	-	11.6	9.6	9.5	10.2	10.0	12.2	16.4	20.5	18.5	20.8	19.4
RoA	-	5.9	4.9	5.1	5.7	5.7	7.1	9.9	12.8	11.7	13.1	12.3
(x)												
Debt equity ratio	1.0	1.0	0.9	0.8	0.8	0.8	0.7	0.6	0.6	0.6	0.6	0.6
Interest Coverage ratio	3.1	3.1	3.0	3.2	3.5	4.0	5.1	6.8	9.2	9.0	10.0	9.0
Debt to EBITDA ratio	3.0	3.2	3.1	2.9	2.7	2.5	2.2	1.8	1.6	1.8	1.7	1.8
Effective Interest rate	10.5	10.1	10.9	10.7	10.7	10.1	8.9	8.2	6.8	6.3	5.9	6.2
Cash as a % of debt	7.8	10.8	11.9	11.9	12.2	14.0	16.0	24.2	37.5	38.9	41.4	37.5
Net Debt equity ratio	0.9	0.9	0.8	0.7	0.7	0.6	0.6	0.5	0.4	0.4	0.3	0.4
No of co's with -ve networth	30.0	63.0	104.0	123.0	175.0	215.0	229.0	233.0	233.0	213.0	201.0	189.0

AGGREGATE FINANCIALS OF LARGE COMPANIES – (SALES >RS10BN)

Profit & loss

(Rs bn)	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08
Net Sales	2,212	2,411	2,930	3,844	4,983	5,154	5,970	7,113	9,402	11,391	15,013	18,135
Other income	78	103	111	126	169	193	210	343	336	381	515	711
EBITDA	**393**	**458**	**552**	**637**	**827**	**982**	**1,153**	**1,494**	**1,895**	**2,088**	**2,845**	**3,463**
Depreciation	91	105	146	185	236	295	315	356	406	449	527	608
EBIT	302	353	406	453	591	687	838	1,138	1,489	1,639	2,318	2,855
Interest Expense	105	116	151	158	186	189	159	170	164	189	242	329
PBT	**196**	**237**	**255**	**295**	**405**	**497**	**679**	**968**	**1,326**	**1,450**	**2,076**	**2,526**
Tax	47	50	56	71	98	131	193	261	291	342	515	638
PAT	**149**	**187**	**199**	**224**	**308**	**366**	**486**	**706**	**1,035**	**1,108**	**1,561**	**1,888**

Balance sheet

(Rs bn)	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08
Networth	*1,244*	*1,471*	*1,863*	*2,117*	*2,822*	*3,085*	*3,438*	*4,135*	*5,133*	*6,235*	*7,935*	*10,166*
yoy growth(%)	-	*18.3*	*26.7*	*13.6*	*33.3*	*9.3*	*11.5*	*20.3*	*24.1*	*21.5*	*27.3*	*28.1*
Debt	1,212	1,328	1,503	1,611	1,882	1,979	1,874	2,062	2,504	3,065	4,134	5,527
yoy growth(%)	-	*9.6*	*13.2*	*7.2*	*16.8*	*5.1*	*(5.3)*	*10.0*	*21.4*	*22.4*	*34.9*	*31.6*
Cash	83	159	199	180	244	325	363	631	1,182	1,428	1,983	2,405
yoy growth(%)	-	*91.7*	*25.3*	*(9.4)*	*35.3*	*33.1*	*11.5*	*74.0*	*87.4*	*20.8*	*38.8*	*21.3*
Total assets	2,456	2,799	3,366	3,728	4,704	5,064	5,312	6,197	7,637	9,300	12,069	15,605
yoy growth(%)	-	*14.0*	*20.3*	*10.8*	*26.2*	*7.6*	*4.9*	*16.7*	*23.2*	*21.8*	*29.8*	*29.3*

Key ratios

	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08
(%)												
EBITDA margin	10.7	11.3	11.7	11.1	11.6	13.2	13.7	15.2	15.3	14.2	15.2	15.4
EBIT margin	8.2	8.7	8.6	7.9	8.3	9.3	10.0	11.6	12.0	11.1	12.4	12.7
Profit margin	4.1	4.6	4.2	3.9	4.3	4.9	5.8	7.2	8.4	7.5	8.3	8.4
Effective tax rate	24.2	21.0	22.0	24.0	24.1	26.3	28.4	27.0	21.9	23.6	24.8	25.3
RoE	-	13.8	11.9	11.3	12.5	12.4	14.9	18.6	22.3	19.5	22.0	20.9
RoA	-	7.1	6.4	6.3	7.3	7.5	9.4	12.3	15.0	13.1	14.6	13.6
(x)												
Debt equity ratio	1.0	0.9	0.8	0.8	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.5
Interest Coverage ratio	3.7	3.9	3.6	4.0	4.5	5.2	7.3	8.8	11.6	11.1	11.8	10.5
Debt to EBITDA ratio	3.1	2.9	2.7	2.5	2.3	2.0	1.6	1.4	1.3	1.5	1.5	1.6
Effective Interest rate	8.7	8.7	10.1	9.8	9.9	9.6	8.5	8.3	6.5	6.2	5.8	6.0
Cash as a % of debt	6.8	12.0	13.2	11.2	13.0	16.4	19.3	30.6	47.2	46.6	48.0	44.2

AGGREGATE FINANCIALS OF MEDIUM COMPANIES – (SALES RS2-10BN)

Profit & loss

(Rs bn)	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08
Net Sales	**851**	**899**	**957**	**1,047**	**1,195**	**1,236**	**1,396**	**1,441**	**1,709**	**2,029**	**2,251**	**2,572**
Other income	42	38	38	44	51	56	54	60	72	91	88	114
EBITDA	**155**	**164**	**162**	**184**	**202**	**197**	**222**	**225**	**271**	**340**	**409**	**497**
Depreciation	34	37	41	46	53	59	68	59	67	77	79	95
EBIT	121	127	122	138	149	139	155	166	204	262	330	402
Interest Expense	60	65	67	70	79	75	75	53	51	59	66	91
PBT	**61**	**62**	**55**	**68**	**70**	**64**	**79**	**113**	**153**	**203**	**264**	**311**
Tax	14	12	12	15	15	17	22	29	38	49	65	80
PAT	**47**	**49**	**43**	**54**	**55**	**47**	**57**	**83**	**115**	**154**	**199**	**231**

Balance sheet

(Rs bn)	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08
Networth	478	551	563	648	684	709	735	641	792	1,036	1,213	1,607
yoy growth(%)	-	*15.4*	*2.2*	*15.1*	*5.4*	*3.7*	*3.7*	*(12.8)*	*23.6*	*30.8*	*17.1*	*32.5*
Debt	420	545	589	600	617	684	679	606	687	935	1,057	1,297
yoy growth(%)	-	*29.7*	*8.2*	*1.8*	*2.9*	*10.8*	*(0.7)*	*(10.8)*	*13.4*	*36.0*	*13.1*	*22.6*
Cash	41	54	62	75	73	77	93	100	121	207	237	268
yoy growth(%)	-	*33.3*	*14.3*	*21.5*	*(2.6)*	*5.7*	*19.9*	*7.8*	*20.7*	*71.8*	*14.3*	*13.1*
Total assets	898	1,096	1,154	1,248	1,301	1,393	1,414	1,247	1,479	1,971	2,271	2,904
yoy growth(%)	-	*22.0*	*5.3*	*8.2*	*4.2*	*7.1*	*1.5*	*(11.8)*	*18.6*	*33.2*	*15.2*	*27.9*

Key ratios

	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08
(%)												
EBITDA margin	4.2	4.0	3.4	3.2	2.8	2.7	2.6	2.3	2.2	2.3	2.2	2.2
EBIT margin	3.3	3.1	2.6	2.4	2.1	1.9	1.8	1.7	1.6	1.8	1.8	1.8
Profit margin	1.3	1.2	0.9	0.9	0.8	0.6	0.7	0.9	0.9	1.0	1.1	1.0
Effective tax rate	23.0	20.0	22.6	21.3	21.9	27.1	28.0	26.1	25.1	24.1	24.8	25.6
RoE		9.6	7.6	8.9	8.3	6.7	7.9	12.1	16.0	16.9	17.7	16.4
RoA		4.9	3.8	4.5	4.3	3.5	4.1	6.3	8.4	8.9	9.4	8.9
(x)												
Debt equity ratio	0.9	1.0	1.0	0.9	0.9	1.0	0.9	0.9	0.9	0.9	0.9	0.8
Interest Coverage ratio	2.6	2.5	2.4	2.6	2.6	2.6	2.9	4.2	5.4	5.7	6.2	5.4
Debt to EBITDA ratio	2.7	3.3	3.6	3.3	3.1	3.5	3.1	2.7	2.5	2.8	2.6	2.6
Effective Interest rate	14.3	12.0	11.3	11.6	12.8	10.9	11.1	8.8	7.4	6.4	6.2	7.0
Cash as a % of debt	9.6	9.9	10.5	12.5	11.8	11.3	13.6	16.5	17.5	22.2	22.4	20.6

AGGREGATE FINANCIALS OF SMALL COMPANIES – (SALES <RS2BN)

Profit & loss

(Rs bn)	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08
Net Sales	462	580	649	672	686	735	750	792	804	812	831	811
Other income	18	21	27	33	31	33	36	45	42	48	57	79
EBITDA	81	90	92	98	88	89	90	112	117	127	158	169
Depreciation	17	25	28	31	31	35	37	40	36	34	36	35
EBIT	64	65	63	68	57	54	53	72	81	93	122	135
Interest Expense	34	45	54	55	53	53	49	45	34	35	34	36
PBT	30	21	9	13	4	1	4	27	47	58	88	98
Tax	4	7	6	8	7	6	7	12	15	18	23	23
PAT	25	14	3	5	(3)	(6)	(2)	15	33	40	65	75

Balance sheet

(Rs bn)	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08
Networth	259	311	337	370	384	362	376	383	374	436	567	671
yoy growth(%)	-	*20.1*	*8.3*	*9.6*	*3.8*	*(5.8)*	*3.9*	*1.9*	*(2.4)*	*16.6*	*29.9*	*18.4*
Debt	261	368	401	418	449	447	596	549	426	447	508	519
yoy growth(%)	-	*40.9*	*9.0*	*4.3*	*7.3*	*(0.4)*	*33.2*	*(7.8)*	*(22.4)*	*4.9*	*13.6*	*2.3*
Cash	24	28	36	58	44	40	56	55	65	104	175	101
yoy growth(%)	-	*20.7*	*27.2*	*61.3*	*(24.6)*	*(8.7)*	*38.8*	*(2.0)*	*19.8*	*59.2*	*68.0*	*(42.0)*
Total assets	523	679	738	788	833	810	971	932	800	883	1,075	1,190
yoy growth(%)	-	*30.0*	*8.7*	*6.7*	*5.7*	*(2.8)*	*19.9*	*(4.1)*	*(14.1)*	*10.4*	*21.7*	*10.8*

Key ratios

	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08
(%)												
EBITDA margin	2.2	2.2	1.9	1.7	1.2	1.2	1.1	1.1	0.9	0.9	0.8	0.8
EBIT margin	1.8	1.6	1.3	1.2	0.8	0.7	0.6	0.7	0.7	0.6	0.7	0.6
Profit margin	0.7	0.3	0.1	0.1	(0.0)	(0.1)	(0.0)	0.2	0.3	0.3	0.3	0.3
Effective tax rate	14.6	33.1	71.2	64.1	161.1	980.8	152.7	44.8	31.0	30.6	26.0	23.5
RoE		4.8	0.8	1.3	(0.7)	(1.5)	(0.6)	4.0	8.6	9.9	13.0	12.2
RoA		2.3	0.4	0.6	(0.3)	(0.7)	(0.3)	1.6	3.8	4.8	6.7	6.6
(x)												
Debt equity ratio	1.0	1.2	1.2	1.1	1.2	1.2	1.6	1.4	1.1	1.0	0.9	0.8
Interest Coverage ratio	2.4	2.0	1.7	1.8	1.7	1.7	1.8	2.5	3.4	3.6	4.7	4.7
Debt to EBITDA ratio	3.2	4.1	4.4	4.3	5.1	5.0	6.6	4.9	3.6	3.5	3.2	3.1
Effective Interest rate	13.2	12.2	13.5	13.2	11.7	12.0	8.2	8.2	8.0	7.9	6.7	6.9
Cash as a % of debt	9.0	7.7	9.0	14.0	9.8	9.0	9.4	9.9	15.4	23.3	34.5	19.5

AGGREGATE FINANCIALS OF STRESSED SECTORS

CONSTRUCTION & REALTY — TOTAL DEBT: RS487BN, STRESSED: RS303BN (62%)

	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08
Profit & loss (Rs bn)												
Net Sales	30	34	43	56	67	86	119	145	170	245	391	619
EBITDA	6	6	7	10	11	12	21	21	27	49	94	182
PAT	2	2	1	3	3	2	6	6	10	26	48	110
yoy growth(%)		*7.1*	*(58.8)*	*272.4*	*20.4*	*(25.8)*	*124.9*	*0.7*	*83.1*	*156.8*	*85.5*	*126.3*
Balance sheet (Rs bn)												
Networth	17	20	25	38	39	47	57	61	74	146	248	555
Debt	14	15	29	27	29	37	60	76	103	168	310	487
Cash	3	4	5	10	8	11	15	17	31	75	78	90
Total assets	31	35	54	65	68	84	117	137	177	313	558	1,043
Key ratios												
(%)												
EBITDA margin	17.80	16.37	16.46	17.53	16.00	14.05	17.28	14.14	15.59	19.84	23.62	28.83
EBIT margin	14.96	13.39	13.39	14.59	12.91	10.31	13.76	11.05	12.94	17.58	21.67	27.11
Profit margin	26.29	29.24	8.60	21.71	24.13	16.53	24.09	24.71	35.41	48.70	48.34	56.66
(x)												
Gross Debt equity ratio	0.80	0.74	1.18	0.72	0.76	0.79	1.07	1.25	1.39	1.15	1.25	0.88
Net Debt equity ratio	0.64	0.54	0.99	0.46	0.55	0.56	0.80	0.98	0.97	0.64	0.93	0.72
Interest Coverage ratio (RHS)	2.58	2.56	1.59	2.15	2.49	2.18	2.59	2.50	3.02	4.29	4.84	5.76
Debt to EBITDA ratio	2.51	2.66	3.98	2.68	2.65	3.00	2.88	3.68	3.83	3.39	3.30	2.68

TEXTILES — TOTAL DEBT: RS452BN, STRESSED: RS225BN (50%)

	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08
Profit & loss (Rs bn)												
Net Sales	199	229	241	254	304	262	281	310	352	404	481	550
EBITDA	37	38	35	35	38	32	40	47	51	65	82	79
PAT	6	4	(4)	(4)	(10)	(8)	1	8	14	21	28	15
yoy growth(%)		*(31.1)*	*(193.7)*	*(2.0)*	*161.4*	*(24.2)*	*(117.7)*	*476.8*	*82.0*	*48.1*	*34.3*	*(46.6)*
Balance sheet (Rs bn)												
Networth	114	130	127	121	118	111	109	118	139	184	225	244
Debt	135	170	185	177	197	193	188	203	214	274	361	452
Cash	8	6	6	6	6	9	6	10	13	28	34	38
Total assets	249	301	313	298	315	304	297	321	353	458	586	696
Key ratios												
(%)												
EBITDA margin	17.4	15.9	13.9	13.4	12.0	11.7	13.9	14.3	13.9	15.4	16.3	13.8
EBIT margin	12.7	10.7	8.1	7.7	6.3	5.6	8.1	8.5	8.8	10.3	11.5	8.7
Profit margin	2.9	1.8	(1.6)	(1.5)	(3.2)	(2.8)	0.5	2.4	3.9	5.0	5.7	2.6
(x)												
Gross Debt equity	1.2	1.3	1.5	1.5	1.7	1.7	1.7	1.7	1.5	1.5	1.6	1.9
Net Debt equity	1.1	1.3	1.4	1.4	1.6	1.7	1.7	1.6	1.4	1.3	1.5	1.7
Interest Coverage	1.9	1.9	1.5	1.5	1.3	1.5	2.2	3.0	3.7	4.2	4.2	2.9
Debt to EBITDA	3.7	4.5	5.4	5.0	5.1	6.0	4.7	4.4	4.2	4.2	4.4	5.7

STEEL — TOTAL DEBT: RS784BN, STRESSED: RS236BN (30%)

	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08
Profit & loss (Rs bn)												
Net Sales	321	322	340	365	403	422	536	714	1,052	1,081	1,369	1,657
EBITDA	67	61	44	47	66	42	94	170	322	261	363	455
PAT	8	5	(28)	(30)	(17)	(39)	13	75	169	116	172	223
yoy growth(%)		*(36.3)*	*(664.4)*	*6.3*	*(43.2)*	*128.8*	*(133.9)*	*469.2*	*125.5*	*(31.6)*	*48.8*	*29.3*
Balance sheet (Rs bn)												
Networth	229	241	225	205	197	149	159	231	401	520	700	1,028
Debt	380	432	477	435	459	480	483	429	400	498	630	784
Cash	10	19	13	12	14	13	20	45	123	158	285	263
Total assets	609	673	704	641	656	629	642	660	801	1,019	1,330	1,812
Key ratios												
(%)												
EBITDA margin	19.9	18.1	12.3	12.2	15.9	9.6	16.7	22.6	29.5	23.3	25.6	26.4
EBIT margin	13.2	12.0	4.6	4.6	8.4	1.1	10.2	17.1	24.8	18.6	21.4	22.4
Profit margin	2.3	1.5	(7.9)	(7.8)	(4.1)	(8.8)	2.3	10.0	15.5	10.3	12.1	12.9
(x)												
Gross Debt equity ratio	1.7	1.8	2.1	2.1	2.3	3.2	3.0	1.9	1.0	1.0	0.9	0.8
Net Debt equity ratio	1.6	1.7	2.1	2.1	2.3	3.1	2.9	1.7	0.7	0.7	0.5	0.5
Interest Coverage ratio	1.9	1.8	1.0	1.0	1.3	0.8	2.2	4.5	8.4	6.2	7.5	7.2
Debt to EBITDA ratio	5.7	7.0	10.9	9.3	6.9	11.4	5.2	2.5	1.2	1.9	1.7	1.7

AUTO ANCILLARY — TOTAL DEBT: RS112BN, STRESSED: RS53BN (47%)

	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08
Profit & loss (Rs bn)												
Net Sales	75	87	92	118	115	123	139	172	223	259	320	366
EBITDA	13	13	14	18	16	18	21	26	32	37	47	54
EBIT	10	10	10	14	11	12	15	19	24	28	36	41
Interest expense	4	5	6	6	6	6	5	4	4	6	7	9
PAT	4	4	3	5	3	4	6	9	13	16	20	24
yoy growth(%)		*(19.1)*	*(23.6)*	*97.4*	*(35.1)*	*2.2*	*80.1*	*44.7*	*40.4*	*22.7*	*27.3*	*16.0*
Balance sheet (Rs bn)												
Networth	28	36	40	48	44	44	47	53	65	88	105	138
Debt	31	39	45	49	47	51	48	50	63	75	95	112
Cash	2	2	2	3	3	4	5	5	6	14	19	14
Total assets	59	75	85	97	90	95	95	103	127	163	200	250
Key ratios												
(%)												
EBITDA margin	17.0	15.4	15.2	15.7	14.1	14.3	15.4	15.0	14.2	14.5	14.6	14.6
EBIT margin	13.9	11.7	10.8	11.6	9.6	9.5	10.8	10.8	10.6	11.0	11.3	11.2
Profit margin	5.9	4.1	3.0	4.6	3.0	2.9	4.6	5.4	5.9	6.2	6.4	6.5
(x)												
Gross Debt equity ratio	1.1	1.1	1.1	1.0	1.1	1.2	1.0	1.0	1.0	0.9	0.9	0.8
Net Debt equity ratio	1.0	1.0	1.0	1.0	1.0	1.1	0.9	0.9	0.9	0.7	0.7	0.7
Interest Coverage ratio (RHS)	2.9	2.5	2.3	2.9	2.8	2.9	4.1	5.9	7.3	6.8	6.8	6.0
Debt to EBITDA ratio	2.4	2.9	3.2	2.6	2.9	2.9	2.2	2.0	2.0	2.0	2.0	2.1

TRADING — TOTAL DEBT: RS89BN, STRESSED: RS35BN (40%)

	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08
Profit & loss (Rs bn)												
Net Sales	106	111	105	111	119	147	154	294	455	424	606	683
EBITDA	4	3	4	4	5	4	4	6	11	13	15	22
PAT	2	1	1	2	1	1	1	2	3	4	6	10
yoy growth(%)		*(36.0)*	*32.2*	*18.4*	*(22.0)*	*(43.1)*	*42.8*	*149.4*	*31.6*	*30.3*	*31.0*	*81.2*
Balance sheet (Rs bn)												
Networth	20	21	23	25	26	25	25	23	27	33	42	71
Debt	15	14	16	14	20	18	19	20	22	27	63	89
Cash	2	3	6	6	7	7	6	63	92	23	31	82
Total assets	35	35	39	39	46	43	44	42	49	60	105	160
Key ratios												
(%)												
EBITDA margin	3.8	2.3	3.4	3.9	3.7	2.8	2.9	1.9	2.5	2.9	2.4	3.2
EBIT margin	3.4	2.0	3.0	3.5	3.3	2.4	2.5	1.7	2.3	2.8	2.3	3.0
Profit margin	1.4	0.9	1.2	1.4	1.0	0.5	0.6	0.8	0.7	1.0	0.9	1.5
(x)												
Gross Debt equity ratio	0.7	0.7	0.7	0.6	0.8	0.7	0.8	0.8	0.8	0.8	1.5	1.2
Net Debt equity ratio	0.6	0.5	0.4	0.3	0.5	0.4	0.5	(1.8)	(2.6)	0.1	0.8	0.1
Interest Coverage ratio	2.3	2.0	2.0	2.0	1.7	1.6	1.8	2.6	2.0	2.1	2.4	2.9
Debt to EBITDA ratio	3.5	5.3	4.2	3.1	4.3	4.2	4.3	3.4	1.9	2.2	4.3	4.0

FERTILISERS — TOTAL DEBT: RS205BN, STRESSED: RS35BN (17%)

	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08
Profit & loss (Rs bn)												
Net Sales	145	172	196	209	223	225	223	250	308	363	360	451
EBITDA	35	42	43	38	40	39	32	39	43	50	53	62
PAT	13	17	13	10	8	3	-1	9	12	15	21	22
yoy growth(%)		*33.3*	*(20.4)*	*(27.6)*	*(12.5)*	*(60.4)*	*(144.2)*	*(718.9)*	*35.4*	*24.4*	*37.4*	*4.7*
Balance sheet (Rs bn)												
Networth	100	111	121	131	135	116	115	120	134	154	165	185
Debt	105	121	143	156	154	145	145	137	132	154	161	205
Cash	5	6	6	5	5	5	6	6	13	18	22	16
Total assets	205	232	264	287	289	261	260	257	265	308	326	389
Key ratios												
(%)												
EBITDA margin	23.7	23.5	21.2	17.7	17.2	16.5	13.8	15.0	13.4	13.1	14.1	13.3
EBIT margin	18.4	19.3	16.4	13.1	12.5	11.3	8.6	10.3	9.6	9.2	10.5	10.1
Profit margin	8.5	9.5	6.6	4.4	3.6	1.4	(0.6)	3.5	3.9	4.1	5.7	4.7
(x)												
Gross Debt equity ratio	1.0	1.1	1.2	1.2	1.1	1.2	1.3	1.1	1.0	1.0	1.0	1.1
Net Debt equity ratio	1.0	1.0	1.1	1.2	1.1	1.2	1.2	1.1	0.9	0.9	0.8	1.0
Interest Coverage ratio	2.9	2.8	2.4	2.2	2.0	2.0	1.7	2.9	3.9	4.4	5.2	4.3
Debt to EBITDA ratio	3.0	2.9	3.3	4.1	3.9	3.7	4.5	3.5	3.1	3.1	3.1	3.3

PHARMACEUTICALS — TOTAL DEBT: RS147BN, STRESSED: RS30BN (21%)

	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08
Profit & loss (Rs bn)												
Net Sales	53	67	81	95	110	143	165	194	210	259	334	395
EBITDA	10	12	16	19	23	32	34	42	42	57	83	96
PAT	4	6	7	10	12	17	19	25	24	35	54	61
yoy growth(%)		*40.5*	*27.7*	*30.0*	*25.3*	*43.6*	*6.6*	*36.4*	*(5.1)*	*44.0*	*54.5*	*14.6*
Balance sheet (Rs bn)												
Networth	28	35	44	60	68	84	98	121	147	184	251	320
Debt	18	24	29	31	38	48	59	57	96	128	136	147
Cash	1	2	3	9	5	10	12	13	26	42	50	32
Total assets	45	60	73	90	107	132	156	177	243	312	387	466
Key ratios												
(%)												
EBITDA margin	17.7	17.5	18.4	19.3	20.1	21.0	20.0	21.0	19.0	20.8	23.7	22.9
EBIT margin	15.3	15.1	16.0	16.8	17.3	18.1	16.7	17.8	15.3	17.4	20.3	19.6
Profit margin	7.5	8.4	8.8	9.7	10.7	11.6	10.9	12.6	11.0	12.7	15.3	14.6
(x)												
Gross Debt equity ratio	0.6	0.7	0.7	0.5	0.6	0.6	0.6	0.5	0.7	0.7	0.5	0.5
Net Debt equity ratio	0.6	0.6	0.6	0.4	0.5	0.4	0.5	0.4	0.5	0.5	0.3	0.4
Interest Coverage ratio	2.8	3.4	3.4	4.0	4.6	5.4	5.5	8.7	8.6	10.1	10.7	11.0
Debt to EBITDA ratio	1.8	2.0	1.9	1.6	1.7	1.5	1.7	1.3	2.3	2.3	1.6	1.5

TELECOM SERVICE — TOTAL DEBT: RS441N, STRESSED: RS30BN (7%)

	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08
Profit & loss (Rs bn)												
Net Sales	93	109	120	124	253	380	372	433	533	608	811	912
EBITDA	31	38	44	35	100	212	166	223	242	264	350	367
PAT	14	19	22	15	36	86	27	69	125	115	155	136
yoy growth(%)		*32.2*	*17.3*	*(30.9)*	*131.8*	*140.6*	*(69.0)*	*160.0*	*81.2*	*(8.4)*	*35.3*	*(12.7)*
Balance sheet (Rs bn)												
Networth	65	97	126	140	568	767	784	855	951	1,063	1,391	1,555
Debt	80	75	48	46	162	166	123	131	185	183	332	441
Cash	19	40	39	47	93	75	78	153	265	334	423	460
Total assets	146	172	174	186	730	933	907	986	1,136	1,247	1,722	1,996
Key ratios												
(%)												
EBITDA margin	32.3	33.4	35.3	27.0	37.7	49.9	40.3	45.3	41.0	39.8	39.8	37.0
EBIT margin	26.2	26.7	29.1	20.1	19.3	26.2	13.4	22.7	20.4	20.3	21.9	19.6
Profit margin	15.1	16.8	17.7	11.8	13.4	20.2	6.4	14.0	21.2	17.3	17.7	13.7
(x)												
Gross Debt equity ratio	1.2	0.8	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.3
Net Debt equity ratio	0.9	0.4	0.1	(0.0)	0.1	0.1	0.1	(0.0)	(0.1)	(0.1)	(0.1)	(0.0)
Interest Coverage ratio	17.1	22.4	18.0	12.7	16.4	24.8	20.1	34.5	28.0	13.9	15.8	11.5
Debt to EBITDA ratio	2.6	2.0	1.1	1.3	1.6	0.8	0.7	0.6	0.8	0.7	0.9	1.2

GEMS & JEWELLERY — TOTAL DEBT: RS53BN, STRESSED: RS27BN (51%)

	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08
Profit & loss (Rs bn)												
Net Sales	13	27	27	46	70	45	44	84	94	115	129	168
EBITDA	1	2	2	3	4	2	2	3	4	4	7	9
PAT	1	1	1	2	2	0	0	1	2	1	3	4
yoy growth(%)		*89.0*	*19.7*	*29.3*	*(3.4)*	*(85.7)*	*46.7*	*78.6*	*161.1*	*(22.8)*	*137.9*	*17.5*
Balance sheet (Rs bn)												
Networth	7	10	9	13	15	15	15	15	18	27	26	48
Debt	1	5	7	11	14	16	18	22	29	43	66	53
Cash	0	1	1	1	1	2	2	3	11	46	65	68
Total assets	8	15	17	24	29	31	33	37	46	70	91	101
Key ratios												
(%)												
EBITDA margin	9.2	7.7	8.1	7.4	5.3	4.8	3.4	3.3	4.0	3.6	5.2	5.3
EBIT margin	7.8	7.3	7.7	7.0	4.9	4.3	2.9	3.0	3.8	3.4	5.0	5.1
Profit margin	4.8	4.4	5.2	4.1	2.6	0.6	0.9	0.8	1.8	1.2	2.5	2.2
(x)												
Gross Debt equity ratio	0.2	0.5	0.8	0.9	0.9	1.0	1.2	1.5	1.6	1.6	2.5	1.1
Net Debt equity ratio	0.2	0.5	0.7	0.8	0.8	0.9	1.0	1.3	1.0	(0.1)	0.0	(0.3)
Interest Coverage ratio	3.8	2.8	3.3	2.7	2.3	1.4	1.0	1.7	2.6	2.1	2.5	2.5
Debt to EBITDA ratio	1.1	2.4	3.3	3.3	3.8	7.1	11.9	8.0	7.4	10.0	9.5	5.7

SHIPPING — TOTAL DEBT: RS110BN, STRESSED: RS24BN (22%)

	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08
Profit & loss (Rs bn)												
Net Sales	42	40	43	43	51	50	43	58	76	82	91	103
EBITDA	16	14	14	13	19	16	14	24	38	42	43	57
PAT	5	5	3	3	7	6	6	14	30	27	25	36
yoy growth(%)		*(9.2)*	*(24.2)*	*(15.2)*	*132.5*	*(10.3)*	*6.4*	*114.1*	*113.3*	*(8.1)*	*(6.4)*	*40.8*
Balance sheet (Rs bn)												
Networth	38	40	42	42	47	45	49	55	87	110	130	167
Debt	42	44	51	51	39	36	36	45	59	81	92	110
Cash	2	3	4	3	6	8	8	7	33	41	40	38
Total assets	80	84	93	93	86	81	84	100	146	191	222	277
Key ratios												
(%)												
EBITDA margin	34.4	32.5	30.6	28.4	34.9	30.7	30.9	39.7	46.5	46.2	42.2	47.1
EBIT margin	22.8	20.7	17.8	15.3	22.9	18.3	18.0	29.0	36.7	35.9	32.0	36.8
Profit margin	10.8	10.4	7.7	6.3	12.5	11.6	14.0	22.8	36.3	30.1	25.1	29.5
(x)												
Gross Debt equity ratio	1.1	1.1	1.2	1.2	0.8	0.8	0.7	0.8	0.7	0.7	0.7	0.7
Net Debt equity ratio	1.1	1.0	1.1	1.1	0.7	0.6	0.6	0.7	0.3	0.4	0.4	0.4
Interest Coverage ratio	3.4	4.0	3.7	3.8	5.4	5.8	6.1	10.4	11.1	10.8	8.1	8.6
Debt to EBITDA ratio	2.6	3.1	3.7	3.9	2.1	2.2	2.5	1.9	1.6	1.9	2.2	1.9

SUGAR — TOTAL DEBT: RS30BN, STRESSED: RS23BN (77%)

	FY97	FY98	FY99	FY00	FY01	FY02	FY03	FY04	FY05	FY06	FY07	FY08
Profit & loss (Rs bn)												
Net Sales	12	26	27	28	35	39	34	35	39	50	45	44
EBITDA	2	4	4	5	5	5	4	6	9	10	8	5
PAT	0	1	0	1	1	0	(0)	1	5	5	3	1
yoy growth(%)		*47.8*	*(40.7)*	*119.5*	*13.5*	*(59.5)*	*(151.8)*	*(600.8)*	*391.7*	*1.2*	*(30.5)*	*(78.2)*
Balance sheet (Rs bn)												
Networth	6	10	11	11	11	10	9	12	16	20	23	23
Debt	9	15	19	21	23	22	21	23	20	19	23	30
Cash	0	0	1	1	1	1	1	2	3	3	6	4
Total assets	15	25	29	32	34	32	30	35	36	38	46	56
Key ratios												
(%)												
EBITDA margin	15.8	15.1	15.7	16.6	15.3	13.4	11.6	15.1	21.3	18.8	16.3	10.2
EBIT margin	12.5	11.8	11.8	12.9	11.7	10.0	6.8	10.4	17.8	15.5	12.6	5.6
Profit margin	3.3	2.3	1.3	2.8	2.6	0.9	(0.5)	2.6	11.2	9.4	7.0	1.6
(x)												
Gross Debt equity ratio	1.4	1.6	1.7	1.9	2.0	2.2	2.5	2.0	1.2	0.9	1.0	1.4
Net Debt equity ratio	1.3	1.5	1.7	1.8	2.0	2.1	2.4	1.8	1.1	0.8	0.8	1.3
Interest Coverage ratio	1.8	1.7	1.6	1.8	1.8	1.8	1.8	2.2	5.8	6.8	5.7	2.3
Debt to EBITDA ratio	4.2	3.8	4.2	4.3	4.3	4.1	5.1	4.2	2.2	1.9	3.0	6.9

MODALITIES OF RESTRUCTURING OF LOANS

❑ What is a restructured asset?

If a bank anticipates that a customer may default on interest and/ or principal payment of a loan due to financial or any other reason, it may go in for restructuring of the loan to avoid turning the account into an NPA or a bad loan.

Restructuring would normally involve modification of terms of the repayment of advances, generally including alteration of repayment period/ repayable amount/ the amount of installments/ rate of interest (due to reasons other than competitive reasons). Prior to restructuring, the bank has to ascertain financial viability of the loan and be reasonably sure of the borrowers' repayment capacity.

❑ Impact of restructuring on banks' P&L

- **Income recognition**

Interest income in respect of restructured accounts, classified as 'standard assets', is recognized on accrual basis while income in respect of the accounts classified as NPAs is recognized on cash basis only. So, while accrued interest income is reversed on becoming an NPA, the income on a standard restructured asset continues to accrue as normal.

- **Provisioning**

I. **Normal provisions** - Banks are required to continue to hold pre-restructuring provisions against the restructured advances, i.e. if a loan is classified prior to restructuring as:

a. Standard - 0.4% of the outstanding loan amount (varies from 0.25% to 2% on the various classes of assets as prescribed by the RBI)

b. Sub-standard - 10% of the outstanding amount

II. **Provision for loss in PV terms** of restructured advances - Reduction in interest and/or re-schedulement of repayment of the principal amount, in the course of the restructuring, is bound to result in a decline in the fair value of such advance. Such decline in value is an economic loss for the bank. Thus, banks have to provide for such losses and make provisions by debiting to P&L account in addition to normal provisions.

PV Loss = PV of future cash flows ***less*** PV of future cash flows as per the restructuring package

Cash flows (interest as well as principal) are discounted on the sum of current PLR, appropriate term premium and credit risk premium.

- **Incremental advances**

  Any additional finance may be treated as 'standard asset' up to a period of one year after the first interest/ principal payment, whichever is earlier, falls due under the approved restructuring package.

In case a restructured loan is classified as NPA, banks are reluctant to lend to the same borrower as the incremental loans also have to be classified as NPAs (though regulations do not restrain banks from lending incrementally).

❑ Classification of restructured loans

Post restructuring, the advance can either be classified as standard or substandard (i.e. NPA), depending upon its pre-restructuring classification. If the advance is classified as NPA prior to restructuring, it remains an NPA.

However, in case of a standard asset, the loan can continue to be classified as a standard asset, subject to the following conditions:

- The dues to the bank are 'fully secured'
- In case of SSI borrowers, where the outstanding is up to Rs2.5m,

- In case of infrastructure projects, provided the cash flows generated from these projects are adequate for repayment of the advance
- The unit becomes viable in 10 years in case of infrastructure, and in seven years in the case of other units
- The repayment period of the restructured advance does not exceed 15 years in the case of infrastructure and 10 years in the case of other advances. In case of housing loans, the ceiling of 10 years on repayment period would not be applicable

Even if all the above conditions are satisfied, exposure to sensitive sectors continues to be treated as NPAs, i.e.:

- Consumer and personal advances, and
- Advances classified as capital market exposures

Prior to special treatment allowed in stimulus package (November 2008), commercial real estate (CRE) loans fell under this category. However, now exposure to CRE will get concessional regulatory treatment for restructuring till June 2009.

Second round of restructuring allowed for other sectors

Corporates other than in commercial real estate, capital market and personal/ consumer loans can now go in for a second round of restructuring and these exposures will get exceptional regulatory treatment till June 2009.

❑ Incentives for a bank to restructure –

- **Arrest the rise in NPAs -** As a result, a loan upon restructuring will not be downgraded to NPA. This enables a bank to arrest the increase and reduce the existing level of NPAs.
- **Impact on profitability -** If an account is classified as NPA then the bank has to make higher provisions for it (at 10% of the outstanding loan as against PV provision in case of restructuring), which impacts the bottom-line adversely. So, restructuring has a positive impact on banks' bottomline as they can not only make lower provisioning, but also book interest.

❑ Flip-side of restructuring

- **Rise in exposure to 'stressed companies':** In the process of restructuring, banks often extend incremental credit to 'stressed companies'. As a result, the exposure of banks to such companies increases, leading to a higher risk in the quality of the loan book.
- **Higher probability of a restructured loan lapsing into NPL:** Globally, restructured loans are seen to have a higher tendency to slip into NPAs. As a result, restructuring may often serve as just a tool to delay the slippage of a loan account into NPA.
- **Lower visibility:** Unlike NPAs, banks disclose restructured loans on an annual basis rather a quarterly basis. This makes the financial position more opaque.

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