Industry Focus

15 February 2008 | 24 pages

India Banks

Slower But Sure

- **In a rising risk environment, India's banks appear a safe growth option** — They offer potential 18% loan growth and 20%+ operating profit expansion, and asset quality appears under control. In effect, in a relatively heightened risk environment, the banks appear to have the basics right: growth, reasonable returns and predictability. We believe only part of this is captured in recently strong stock performance.

- **Growth will be lower and risks higher than previously expected —** We anticipate lower loan growth on a slowing economic environment, while some elements of risk have increased, and weakening capital markets will indirectly affect revenues. These are negatives, but should not undermine a relatively robust and stable operating environment.

- **Falling interest rates could be a boost, but not the next big thing** — We see falling interest rates as only a possible boost to stocks, not a fundamental re-rater or driver. In part, because some of this possibility appears factored into stocks. And in part, because Indian bank balance sheets and the macro-environment are more balanced now; falling rates offer moderate, not disproportionate gains.

- **Bank balance-sheets transitioning to liquidity surpluses —** Possibly a paradigm shift is taking place; we see banks with modest deposit franchises/deposit mixes benefiting initially. Among them, ICICI Bank, Axis Bank and Canara Bank. Longer term, deposit pricing and third-party distribution are key. We raise target prices of Bank of Baroda and PNB.

Aditya Narain, CFA[1]
+91-22-6631-9879
aditya.narain@citi.com

Manish Chowdhary, CFA[1]
+91-22-6631-9853
manish.chowdhary@citi.com

Himani Shah, CFA[1]
himani.shah@citi.com

See Appendix A-1 for Analyst Certification and important disclosures.

Citi Investment Research is a division of Citigroup Global Markets Inc. (the "Firm"), which does and seeks to do business with companies covered in its research reports. As a result, investors should be aware that the Firm may have a conflict of interest that could affect the objectivity of this report. Investors should consider this report as only a single factor in making their investment decision. Non-US research analysts who have prepared this report are not registered/qualified as research analysts with the NYSE and/or NASD. Such research analysts may not be associated persons of the member organization and therefore may not be subject to the NYSE Rule 472 and NASD Rule 2711 restrictions on communications with a subject company, public appearances and trading securities held by a research analyst account.
Customers of the Firm in the United States can receive independent third-party research on the company or companies covered in this report, at no cost to them, where such research is available. Customers can access this independent research at http://www.smithbarney.com (for retail clients) or http://www.citigroupgeo.com (for institutional clients) or can call (866) 836-9542 to request a copy of this research.
[1]Citigroup Global Markets India Private Limited

The View

We remain positive on the Indian banking sector (even after significant one-year outperformance); our view is premised on:

1. Steady loan growth (18%), stable operating profitability expansion (20%+) and reasonable asset quality – the basics are fine.

2. Expectation of lower loan growth (18% instead of 20%), with risk levels a little elevated.

3. Expectation of falling interest rates, the consensus, and a likely kicker, though gains likely to be muted relative to the past, and at least partially factored in.

4. Banks will have a liquidity surplus going forward (deposit growth higher than loan growth). Relative beneficiaries … near term, banks with weaker deposits mixes/franchises…longer term, banks with ability to distribute liability products.

5. Valuations; government banks have outperformed but remain relatively cheap, private banks expensive. We do not see meaningful changes – in valuation levels, or differentials – for private and government banks. We believe stock performance will likely be driven by underlying earnings and operating profitability growth.

Been a strong show

India's banks have had a fairly strong run over the last year, outperforming the market 24% since March 07, but with an 18% outperformance since Sep 07 (over five months). And while banks were hurt in the recent market turmoil, year-to-date they have largely performed with the market. Effectively, they have beaten the market on the way up and held their own on the way down.

Figure 1. Price Performance – Sensex, Banks

	1m	3m	6m	12m
Sensex	-20.3%	-11.4%	11.7%	17.0%
PSU Banks	-12.6%	-0.8%	32.8%	71.4%
Private Banks	-25.1%	-8.4%	19.9%	32.1%
Bankex	-20.9%	-3.1%	26.9%	34.0%

Source: Citi Investment Research

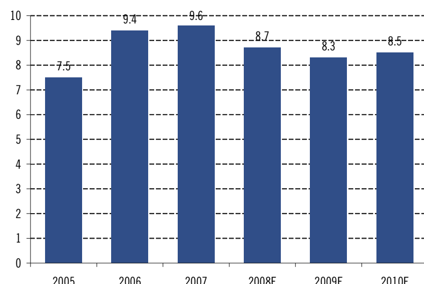
Is this strong performance justified? Largely yes, in our view. This is because banks have generated fairly strong operating profit growth, asset growth levels have been strong and manageable, asset quality – an area of caution – has held its own, and robust capital market activity has been beneficial for banks. It is notable that we believe banks stocks have additionally benefited from expectations of interest rate reductions – some of which has been in evidence in the very recent past.

Though growth is slowing, and risk is rising

We do believe there have been negative developments over the recent past in areas that traditionally hurt banks. These are:

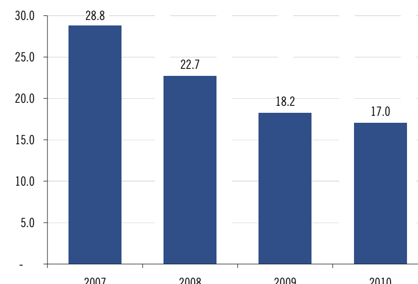
a) **Slowing economic growth –** Our economist, Rohini Malkani, has cut her FY09 GDP growth target from 9.3% to 8.3%, largely on the back of evidence of slower industrial production growth and relatively slack consumer consumption growth. This does suggest that loan growth will be lower into FY09, and we revise down our loan growth expectations for the system to 18%, from our previous 20% target. We maintain our loan growth estimates for the almost complete FY08 at about 21%.

Figure 2. GDP Growth Moderating... (%)



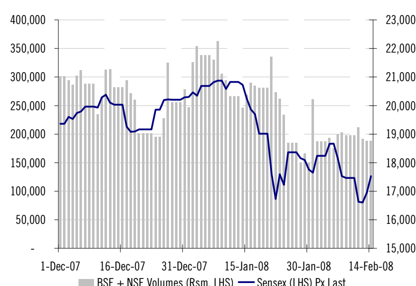
Source: CEIC, Citi Investment Research estimates

Figure 3. ...and Also Loan Growth (%)



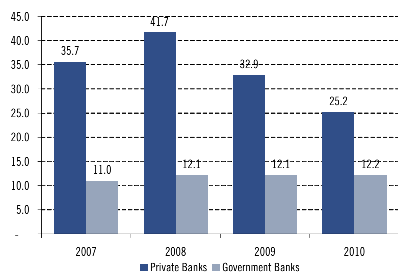
Source: RBI, Citi Investment Research estimates

Figure 4. Volatile Capital Markets



Source: BSE, NSE

Figure 5. Fee Income Growth (Percent)



Source: Citi Investment Research

Is this negative for banks? It is, because lower loan demand does moderate asset selectivity for banks, and also diminishes their pricing power. But is it a material step down, and something that will meaningfully affect banks? Our sense is no, in large measure because the 18% growth at the industry level remains fairly high and probably a little more manageable than growth rates witnessed in the past; loan demand also appears fairly balanced across lending segments. In addition, loan growth will likely remain sensitive to interest rates, and any reductions there could well push demand a little higher.

b) **Weakening and volatile capital markets –** Last month's equity market pullback, sharp moderation in trading volumes, and a cautious outlook on equity, hold negative for banks. We do see relatively moderate activity levels, at least in the medium term.

We do not anticipate meaningful direct negatives, in large measure because the RBI has kept strict checks on lending and direct equity market exposure for banks, so exposures are limited. We do, however, expect some indirect run-offs; Banks, particularly private banks, have been indirect beneficiaries of the capital market boom, in the form of capital markets linked fee incomes. This is in the form of MF distribution, depository businesses, IPO collections, which often generate significant float funds, and in large measure equity-linked insurance distribution. We do believe these revenue lines could face some pressure; and in a few cases risks (on small, but existing equity portfolios).

c) **Rising risk perceptions —** We anticipate the perception of rising risk on retail credit asset quality, asset recovery processes/issues, and potentially corporate FX exposures. The banking system does face a relatively elevated level of risk, at a generic rather than a specific or quantifiable level. We do see caution on each of these levels: a) there is evidence that pockets of retail credit have witnessed high deterioration, b) RBI's strictures on asset recovery methods have, at an industry level, pushed the collection efforts of banks onto the back burner, and c) FX derivative exposures – the broader corporate sector does appear to be facing pressure on some of their borrowings and derivative positions, largely on account of the weakening US dollar. We believe the broader corporate sector is exposed (corporates do not make MTM disclosures on derivative positions, so hard to track), and banks could carry certain risks of default and litigation, which could result in losses.

These risks remain a little hard to quantify, difficult to time, and a little challenging to ascertain where they reside. These risks could, however, be a source of some surprise, and primarily reside with private banks. We do not, however, believe these are very material or business threatening, but could at points in time provide negatives.

Figure 6. Key Risk Issues

Risk	What	Who
Retail Credit Quality	Rising NPLs in unsecured lending	Private/Government Banks
Retail Credit Collections	RBI regulations hampering collections	Private Banks
Corporate FX derivatives	Corporates with MTM losses	Private/Government
Capital Markets Volatility	Margin Financing, collateral value risks	Private/Government

Source: Citi Investment Research

So, will falling rates provide the big kicker?

A likely driver of bank stocks would appear to be near consensus expectations on interest rate cuts, on a mix of global easing, relatively high liquidity in the local funding market and easing growth in the domestic market. Bank stock performances have been particularly strong since September 07 as 10-year bond yields have fallen.

Figure 7. Government Bond Yields (Percent)

Source: DataStream

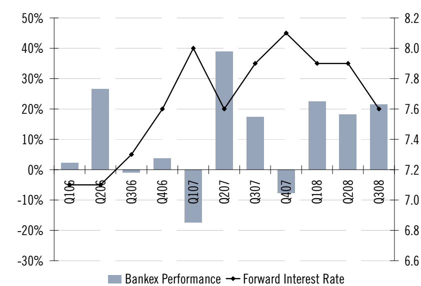
So the questions that arise are: a) will rates fall, b) if they do, will this be another Indian banks 2002/03 story, when banks revalued significantly as rates fell, and c) operationally, what has been the impact of falling interest rates?

a) Will rates fall?

Our sense is that interest rates will appreciably fall over the next 12 months, lending rates to start with (25bps by SBI, and a few others have already done so), but likely to be accompanied by more aggressive deposit rate cuts. We believe these could accelerate to about 100bps.

We expect policy rates governed by the RBI to lag bank rate reductions, given elevated inflation risks in the system, and the central bank's conservatism in this matter. Our economist anticipates a 50bp cut over the current year, though she does expect policy rates to remain on hold over the near term.

Figure 8. Bank Performance and Interest Rates

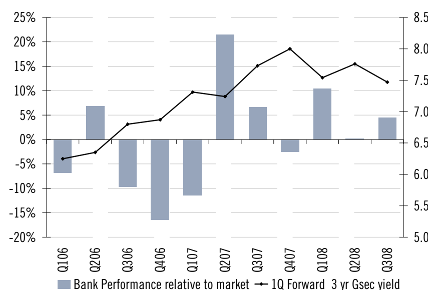


Source: Bloomberg, Citi Investment Research

b) Is this a repeat of India Banks 2002/03, when interest rates fell significantly, and bank stocks revalued structurally?

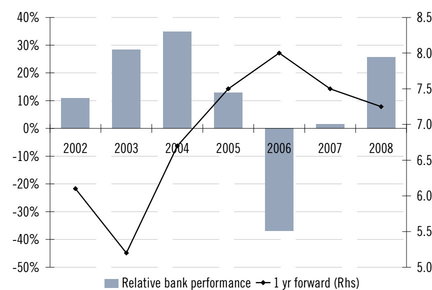
We believe there are similarities, but more differences. This should limit bank stock gains, relative to 2002/03. Fundamentally, in 2002-03, loan-deposit ratios were low, NPLs were high, and bank valuations were exceedingly low. These conditions do not exist any longer, so we believe sharp revaluations are probably unlikely.

Figure 9. Bank Performance Relative to Sensex (Quarterly)



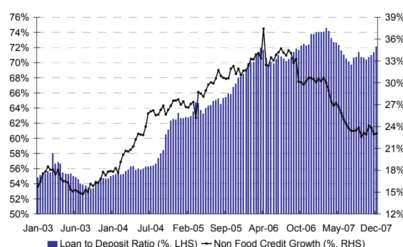
Source: Bloomberg, Citi Investment Research

Figure 10. Bank Performance Relative to Sensex (Annual)



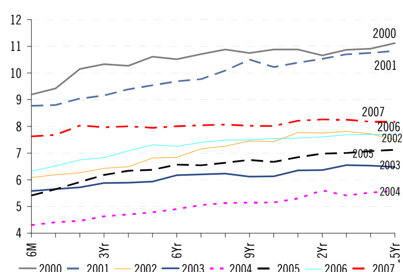
Source: Bloomberg, Citi Investment Research

Figure 11. Loan Deposit Ratios are Higher...



Source: RBI, Citi Investment Research

Figure 12. Yield Curve has Flattened



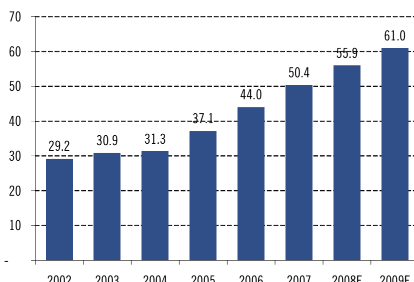
Source: DataStream, Citi Investment Research

In addition, we believe there are other subtle differences, which would moderate the balance sheet and P&L gains, witnessed in that environment. These are:

- In 2002, interest rates had fallen because of a prolonged slackening in asset growth. This time it is following a period of high growth, and because of surplus liability creation, rather than a lack of loans.
- Leverage levels in the system (loan/GDP at 30%) were significantly lower in 2002, so while lower rates could spur more loan growth, starting levels now (L/GDP at 60%) are much higher, and extent of loan expansion will tend to be lower.
- Bank balance sheets could absorb significantly higher lending; LD ratio's at sub 50%, compared with current 70% levels (capped at about 75%), which enabled banks to expand loan portfolios, and shift the asset mix away from bonds.
- Bond portfolios were substantially larger relative to deposits (SLR ratios at 40% plus, vs. under 30% currently), and durations higher. Effectively, bond revaluation gains will be there, but will tend to be relatively modest compared with 2002-03.
- Interest rate levels were substantially higher in 2000 than currently. And the yield curve is currently flat – if rates were to fall, it would be at the shorter end. This would limit portfolio gains relative to fall at the long end, or a shift down in the yield curve.

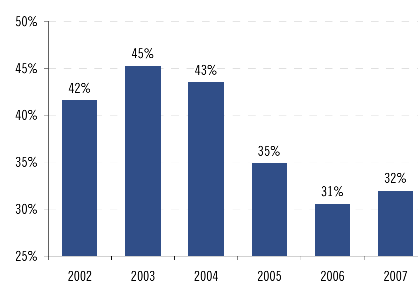
Effectively, we believe lower rates will tend to revalue banks, as suggested by recent stock performances. However, we do not believe the revaluation will be structural as in the past, and some of this could well be already captured in the relatively strong stock performances over the recent past.

Figure 13. Loan to GDP Ratios Have Increased



Source: RBI, Citi Investment Research estimates

Figure 14. SLR Bonds to Total Deposits (%)

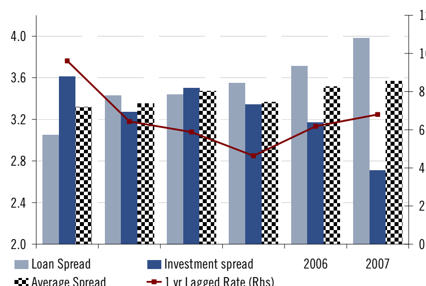


Source: : RBI, Citi Investment Research

c) How are bank P&Ls affected by falling interest rates?

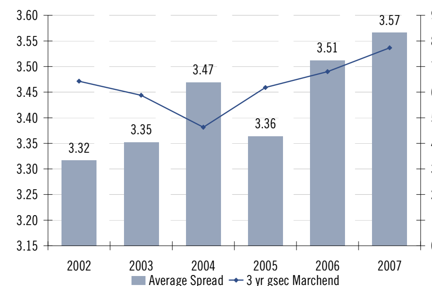
India's banks, based on balance sheet structures, should have a relatively muted impact on spreads on account of changes in interest rates. This is because of the relatively large long-dated bond portfolios that they hold – spreads on this portfolio gain when rates fall, and vice-versa; this tends to be offset by the loan portfolios, for which spreads widen with rising rates and fall as rates fall. Effectively spread swings, on account of directional moves in interest rates, tend to counter-balance. And this has been borne out by the relatively stable historical spread trends.

Figure 15. Spread Performance Relative to Interest Rates (Percent)



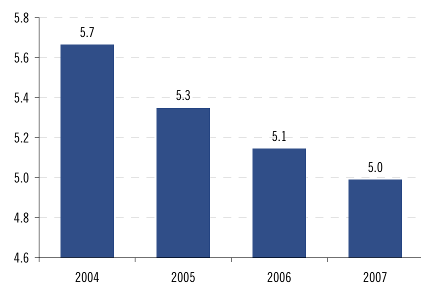
Source: Citi Investment Research

Figure 16. Average Spreads and Interest Rates



Source: Citi Investment Research

Figure 17. Average Bond Portfolio Maturity



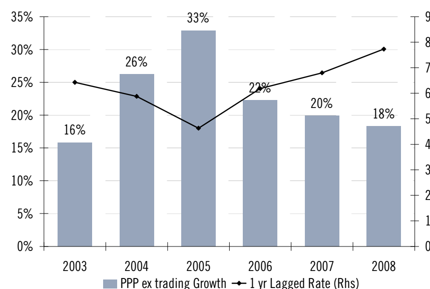
Source: RBI, Citi Investment Research

But how have spreads moved over the last five years, relative to interest rates. We highlight the moves in figures 15 and 16; clearly loan spreads go up while investment spreads drop, when rates rise. At the overall spread level, the inference is not as clear, but we would argue that as the loan deposit ratio rises (share of bond portfolio falls), and as average portfolio durations have come down (highlighted in figure 17, and particularly so for the private sector banks), rising rates should benefit bank spreads. While falling rates should be negative, it does not appear so in any decisive matter; our sense would be that falling rates, with smaller and lower duration bond portfolios, should see some spread pressure.

What about operating profitability? This actually shows a fairly strong and linear trend. Over 2002-2007, falling rates were accompanied by a significant acceleration in operating profit growth (excluding fixed income gains, which

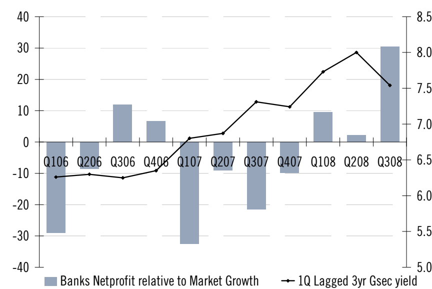
would have been fairly significant over this period), and as interest rates have risen, the pace of operating profitability expansion has tended to moderate.

Figure 18. Pre-Provision Profit Rises in Falling Rate Environments



Source: Citi Investment Research

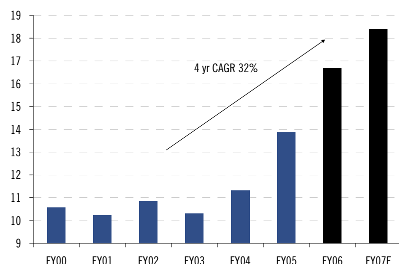
Figure 19. While Net Profits Are Not So Explicitly Linked to Rates



Source: Citi Investment Research

While this could suggest a strong correlation between falling interest rates and rising underlying profitability, we see a caveat, given that we believe there would have been other drivers of returns in FY2002-FY2004. While strong loan growth and rising loan deposit ratios are probably key, accelerating balance sheet growth and likely enhanced asset recoveries could have also contributed to this operating profit expansion. In addition, unlike in 2002-2005, when loan growth started accelerating because of low interest rates, our sense is that lower interest rates will support current growth levels, but are unlikely to meaningfully accelerate growth rates.

Figure 20. Accelerating Household Financial Asset to GDP (FY00- FY07, %)



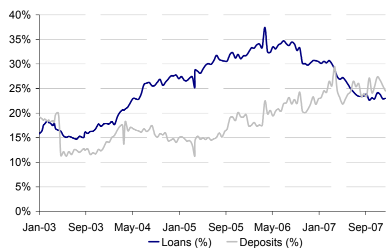
Source: RBI, Citi Investment Research

Or will the system turn liability surplus – a new paradigm?

We believe the Indian Banking system could well be switching from a liquidity short to a liquidity surplus system. We also believe there could be a medium-term permanence to this as it is being driven by particularly strong households savings expansion (rather than corporate, government or offshore-driven savings, which would typically tend to be a little more volatile).

This growth, which has averaged about 32% over the last four years, has been a step up over the sub 15% growth levels witnessed in prior years. We also believe this accelerated growth is a mix of strong economic growth, the country's demographic profile, and low per capita income generation, so savings levels will tend to be high as large swathes of the economy move into the savers segments. And we expect this growth to persist for a while.

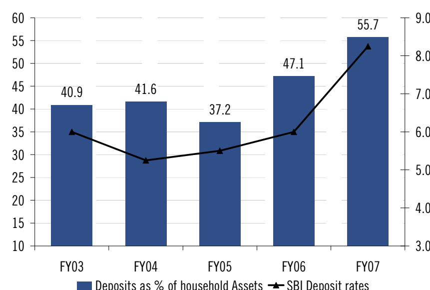
Figure 21. Loan and Deposit Growth (Percent)



Source: RBI, Citi Investment Research

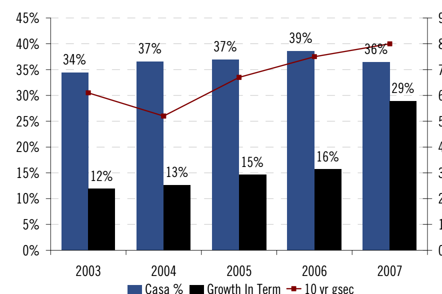
We recognize that the proportion of savings going toward bank deposits is currently at a peak, at about 55% of savings, and will likely fall (rising from about 40% over a period of three years). This current peak is likely on account of higher bank deposit rates, in absolute terms, and relative to other government savings schemes. While we do expect the deposit share to fall as rates moderate, the pace of household savings growth should sustain deposit growth at 20% levels. This, in our view, should exceed banking system loan growth.

Figure 22. Deposit Growth Should Moderate with Declining Interest Rates



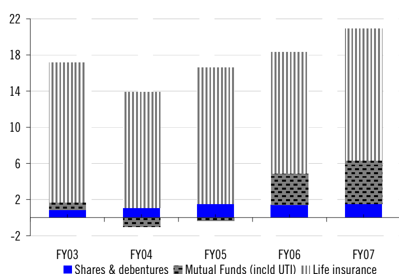
Source: Citi Investment Research

Figure 23. Growth in Term Deposits Have Been Accelerated On Higher Rates



Source: Citi Investment Research

Figure 24. Distribution of Household Savings



Source: RBI, Citi Investment Research

Is there a risk of other savings avenues eating into bank deposits? We believe this is very clearly so, given the modest share of equities, MFs and insurance, and the high share of fixed return instruments. We also believe this will be exacerbated if interest rates fall, and/or if alternative asset class returns are strong. While these are clear risks to our high deposit growth expectations, we believe because of the strong savings creation in the system, particularly at the lower ladders of per capital income levels, deposit growth for banks will tend to be high.

Effectively, our view is that bank deposit growth will intrinsically be higher than loan growth over the medium term. And liability franchises will need to focus more aggressively on pricing, mix and distribution, rather than growth. In our view, as the system adjusts to the change, this scenario will tend to favor:

1. Banks with a relatively high share of term deposits, or wholesale deposits should be direct and immediate beneficiaries, since the pricing down effect will tend to be most pronounced.

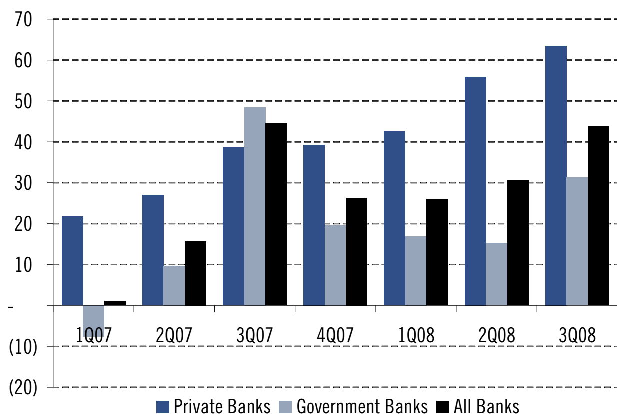
2. Banks with strong third-party product distribution - across insurance, MFs and other third-party products.

Operating momentum remains firm

Strong operating momentum

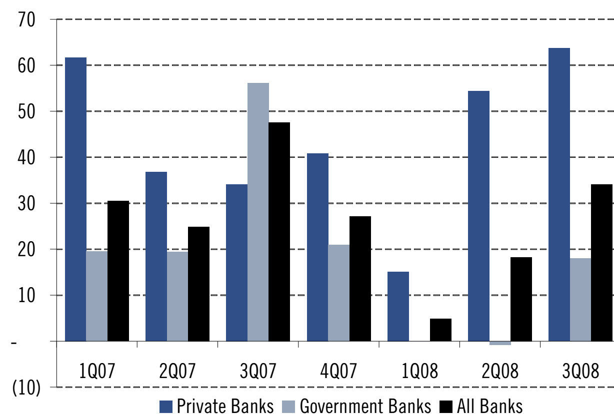
The banks are coming off a strong 3Q08, with net profit expansion a significant 50% yoy. More crucially, pre-provisioning profit growth was about 33%, and well balanced between private and government banks (privates continue to lead the group). In addition, loan and deposit growth remained robust, and well balanced at 20%, and asset quality continued to hold its own. Effectively, it was a strong and well balanced quarter, with a qualitative improvement over the earlier part of the year.

Figure 25. Pre-Provision Profits Growth, Quarterly



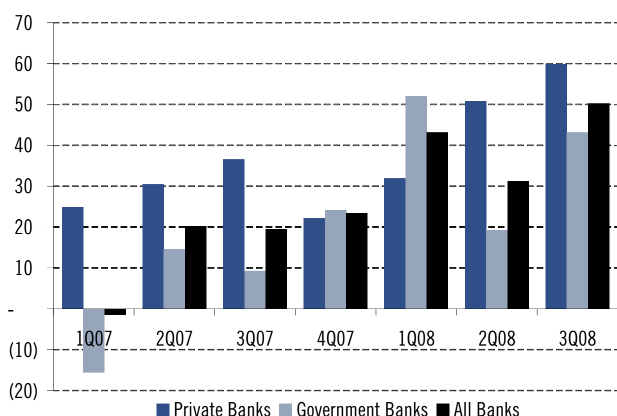
Source: Citi Investment Research

Figure 26. Pre-Provision Profits (ex-trading gains), Quarterly



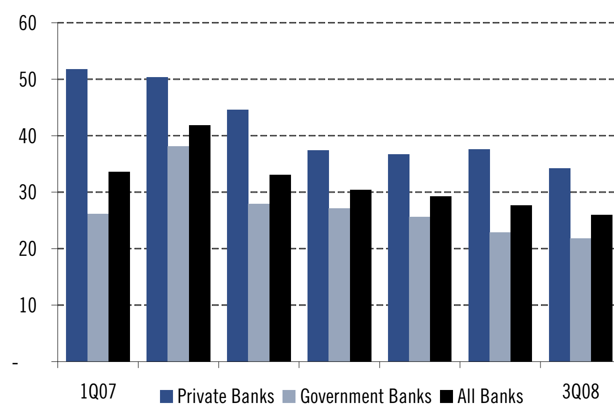
Source: Citi Investment Research

Figure 27. Net Profit Growth, Quarterly



Source: Citi Investment Research

Figure 28. Loan Growth, Quarterly



Source: Citi Investment Research

But, are we past the best, and what is the outlook ahead? We do not expect the strength of 3Q08 to sustain, but we do see relatively strong net profit growth (27% in FY09E), pre-provisioning profit growth (26%), and asset quality that does not deteriorate ahead of loan growth. We believe there could be some earnings volatility driven by the market environment, with risks more on the downside rather than the upside, but core operating performance should tend to be relatively stable.

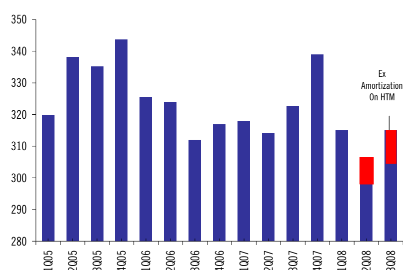
We do expect the private banks to lead the broader sector on asset and profitability growth, with partial offsets on asset quality. On aggregate, as highlighted in figure 29, we expect growth to remain relatively robust, and comfortable at a qualitative level, though moderating from current highs.

Figure 29. Indian Banks: Earnings Expectations Table, Percent

	2007	2008E	2009E	2010E
Private Banks				
PPP growth	36.4	37.4	32.7	30.1
PPP (ex-trading gains)	38.2	41.0	34.4	31.8
Profit growth	20.5	42.6	33.0	30.8
Loan growth	36.1	40.9	32.9	31.7
Fee Income growth	35.7	41.7	32.9	25.2
NIMs, bps	328	325	325	326
NPL Ratio	1.7	2.0	2.1	2.0
Government Banks				
PPP growth	11.6	7.5	21.1	19.8
PPP (ex-trading gains)	15.9	3.0	24.6	20.6
Profit growth	10.5	30.4	22.3	22.1
Loan growth	28.8	22.5	18.4	17.0
Fee Income growth	11.0	12.1	12.2	12.2
NIMs, bps	313	280	287	292
NPL Ratio	2.9	3.0	3.0	3.0
Indian Banks (All)				
PPP growth	19.7	18.6	26.1	24.5
PPP (ex-trading gains)	22.8	16.4	28.8	25.6
Profit growth	14.3	35.4	26.9	26.0
Loan growth	31	29	24	23
Fee Income growth	21	26	23	20
NIMs, bps	318	296	302	306
NPL Ratio	2.5	2.6	2.6	2.6

Source: Citi Investment Research estimates

Figure 30. Indian Banks – NIM (bps)



Source: Citi Investment Research

Margins have bounced back but will likely only hold

India's government banks recorded sharp margin pressure in 2Q08 – a carry-through of aggressive deposit pricing in Feb-March 08, though there was a bounce-back in 3Q08. The private banks have, however, expanded margins over the course of the year, well ahead of expectations. We believe on a steady state basis, there remains a little margin upside for the system as a whole, stemming largely from bulky re-pricing of deposits in 4Q08, in an easier interest rate environment.

We are, however, factoring in flat margins. There is some risk of pressure as we believe relatively large balance sheet liquidity with banks is beginning to pressure lending rates, while banks have yet to start cutting deposit rates, which is needed. In addition, if interest rates do fall, we would expect it more at the short end, which could additionally pressure loan yields, and the impact of this will tend to be more upfront. We do, however, believe a few banks, which have relied aggressively on bulky deposits in the Feb-March 07 period, could see some margin relief, as these deposits re-price.

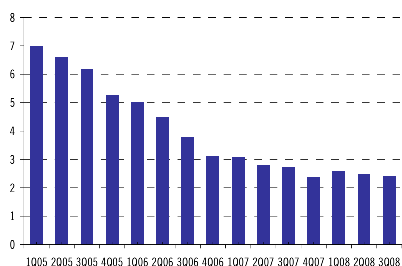
Over the medium term though, we believe bank margins will depend meaningfully on asset–liability pricing of banks. This is because there will be surplus liquidity in the system, and loan yields pressure will need to be compensated by aggressive deposit rate reductions.

Loan growth should moderate to about 18%, from 21-22%, and our previous forecast levels of about 20% growth. We see this moderation as a mix of: a) high base effect, given fairly strong loan growth over the last three years, b) a pronounced easing in consumer loan demand, given relatively high interest rates, and strong asset prices, c) some easing in the pace of corporate leveraging and capital expenditure, as evidenced by relatively slower economic

growth data, and d) some credit caution by banks, particularly in the consumer, and asset backed spaces. In addition, there could be some slowdown in capital market backed lending – albeit the banking system's exposure has tended to be low.

We do, however, believe the banking sector should continue to record reasonable loan growth; at about 18%. This should also be relatively broad-based across sectors; corporate, cap ex, SME, and to a lesser extent, retail. We also see sensitivity given recent lending rate cuts, but this should be limited.

Figure 31. Indian Banks – Gross NPL (%)



Source: Citi Investment Research

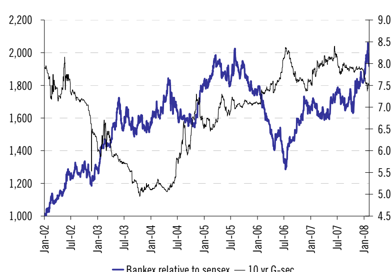
Asset quality – Best over, but holding

The banking system's asset quality has surprised positively over the last four quarters as interest rates moved up relatively sharply, growth rates were high, and there are visible pockets of pressure. But, against most expectations, the pain has been limited. The government banks have been recording minimal deterioration, with improving gross and net NPL percentages, the private banks have lagged. Deterioration for them has been up and high in absolute terms, but averaged across the last 12 months, has largely been in-line with asset expansion. We do see some pressure points; particularly the retail unsecured, potentially auto loans and some segments in the SME space that would be on the watch list.

But at the aggregate, we believe the overall economic environment remains robust, and asset deterioration will rise but only at a modest pace. We do expect an easing off in the credit recovery cycle, which was robust until recently, but will continue to ease given that most asset portfolios now have fairly clean asset books. We would clearly watch asset quality, but not worry too much about it.

Valuations, and the framework: Not changing

Figure 32. Relative Outperformance of Bankex (vs Sensex) in Declining Interest Rates

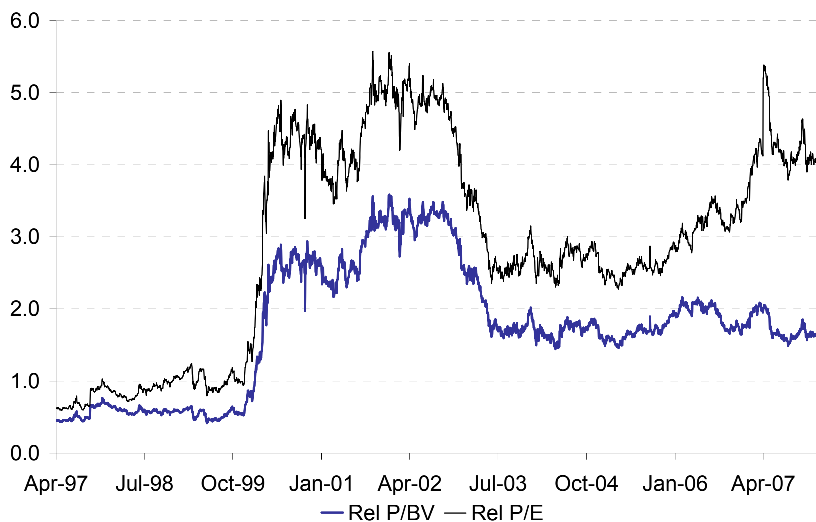


Source: Citi Investment Research

We do not see the valuation framework changing; private banks continue to be expensive, benchmarked to returns and incorporating the long-term growth and opportunity that most have delivered. The Indian banks also increasingly factor in the value of some of their financial services business – in our opinion these methodologies are here to stay, though the valuations of some of these businesses could possibly be more volatile than the parent businesses.

We do not see a meaningful change in the framework of the government banks – they are now once again cheap relative to returns, and while a potentially stable growth and falling interest environment would support and push valuations, the gap with private peers is unlikely to be bridged meaningfully.

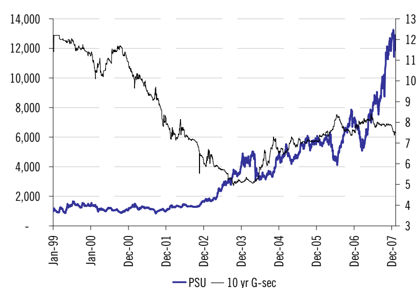
Figure 33. Private vs Public Banks – Relative Valuations, P/BV and P/E Ratios



Source: Citi Investment Research

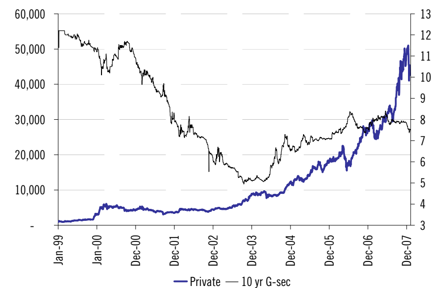
The government bank stocks could well be a little more leveraged to falling interest rates, given that their bond portfolios do carry relatively long durations; but we believe this will potentially only be initially so. We believe that a significant fall in interest rates could actually hurt them over the medium to long term, on account of rigidities on cost structures and question marks on their ability to aggressively leverage their branch franchises for fee-based incomes.

Figure 34. Government Banks Performance



Source: Citi Investment Research

Figure 35. Private Banks Performance



Source: Citi Investment Research

While a volatile market and valuation environment could result in sharp price movements, we expect a) valuation levels to largely hold, and b) valuation differentials, between private and government banks. We also believe stock performances over the medium-term will tend to be more influenced by underlying earnings and operating profitability momentum, which we believe are fairly robust and reliable.

Figure 36. India Banks – Relative Valuations, FY09E

15-Feb-08	Price (Rs)	Price Target (Rs)	Rating	P/E (x)	P/B (x)	ROE (%)	ROA (%)	Div. Yield (%)	Market Cap	2-year EPS growth
				2009	2009	2009	2009	2009	USD MN	2009
Centurion Bank (CENB.BO)	49.5	45.0	2M	46.3	4.3	11.3%	0.9%	0.0	2,339	33%
Federal Bank (FED.BO)	297.0	417.0	1M	9.5	1.1	12.6%	1.6%	1.2	1,284	-5%
HDFC Bank (HDBK.BO)	1539.1	1565.0	2L	26.2	4.0	16.6%	1.5%	0.6	13,774	29%
ICICI Bank (ICBK.BO)	1162.4	1510.0	1L	22.1	2.4	11.7%	1.1%	0.9	32,661	24%
Kotak Mahindra Bank (KTKM.BO)	869.8	1110.0	2M	29.2	4.5	16.7%	2.4%	0.1	7,562	33%
AXIS Bank (AXBK.BO)	994.5	1215.0	2L	22.6	3.4	16.5%	1.4%	0.4	8,979	38%
Infrastructure Development Finance (IDFC.BO)	199.1	195.0	3M	22.6	3.8	18.4%	3.9%	0.6	6,508	40%
Yes Bank (YESB.BO)	239.8	300.0	1M	26.1	3.7	15.2%	1.1%	0.0	1,791	64%
Private Banks Average				**24.3**	**3.2**	**14.4%**	**1.6%**	**0.6**	**74,897**	**30%**
Andhra Bank (ADBK.BO)	90.0	121.0	1L	6.1	1.1	18.9%	1.2%	4.7	1,102	16%
Bank of Baroda (BOB.BO)	398.8	475.0	1M	8.1	1.3	16.7%	1.0%	1.5	3,668	32%
Corporation Bank (CRBK.BO)	329.8	455.0	1M	5.9	1.0	17.2%	1.2%	3.0	1,195	22%
Canara Bank (CNBK.BO)	296.2	355.0	1M	6.4	0.9	15.2%	0.9%	2.2	3,067	19%
Oriental Bank (ORBC.BO)	274.0	310.0	1M	9.2	1.0	11.9%	0.8%	1.6	1,734	14%
Punjab National Bank (PNBK.BO)	619.6	775.0	1M	8.5	1.4	17.7%	1.1%	1.6	4,934	25%
State Bank of India (SBI.BO)	2205.2	2632.4	1L	18.7	2.7	15.5%	1.0%	0.7	35,173	20%
Central Bank Of India (CBI.BO)	105.0	121.0	3M	5.7	0.9	17.2%	0.6%	3.8	1,072	63%
Union Bank Of India (UNBK.BO)	196.8	242.0	1L	6.6	1.3	22.3%	1.2%	2.0	2,511	34%
Govt. Banks Average				**14.8**	**2.2**	**16.1%**	**1.0%**	**1.2**	**54,456**	**22%**

Source: Citi Investment Research estimates

Bank of Baroda (BOB.BO)

Buy/Medium Risk	**1M**
Price (14 Feb 08)	Rs398.75
Target price	Rs475.00
from Rs390.00	
Expected share price return	19.1%
Expected dividend yield	1.5%
Expected total return	**20.6%**
Market Cap	Rs145,251M
	US$3,655M

Price Performance (RIC: BOB.BO, BB: BOB IN)

Buy: Steady and Stable

- **The consistent government bank** — BOB has distinguished itself over the last 18 months, through the stability and consistency of its growth and profitability. Loan growth is about 22-23% levels, margins have sustained at about 3%, and asset quality has continued to improve. BOB is the only large government bank with such a track record.
- **Large offshore book provides diversification, but caps upside** — Over 20% of BOB's business is in international markets, the largest among India's government banks. Our sense is that profitability – though there – lags its domestic business, and so does the franchise. And this potentially moderates the efficiency, and potential upside, of its capital.
- **Late in technology, but it's in place now** — BOB has lagged other government banks in technology. But its new platform is now in place, and with aggressive marketing and internal restructuring over the last year, could well be positioned to leverage this change, on revenues and returns.
- **Relatively aggressive on trading; bond book better positioned for falling rates** – BOB has been a little more aggressive than peers on its trading book; has made aggressive equity gains over the recent past, and its bond book is a little more leveraged to falling rates than peers. For now, it could help.
- **Raising earnings, target price** — We are revising earnings upwards by about 8% over FY08-10E and are also raising our target price to Rs475 (from Rs390), incorporating new estimates and a lower interest rate environment.

Statistical Abstract

Year to 31 Mar	Net Profit (RsM)	Diluted EPS (Rs)	EPS growth (%)	P/E (x)	P/B (x)	ROE (%)	Yield (%)
2006A	8,270	25.06	9.0	15.9	1.9	12.3	1.3
2007A	10,260	28.07	12.0	14.2	1.7	12.4	1.4
2008E	15,970	43.69	55.7	9.1	1.5	17.1	1.5
2009E	18,009	49.27	12.8	8.1	1.3	16.8	1.5
2010E	21,558	58.98	19.7	6.8	1.1	17.4	1.5

Source: Powered by dataCentral

Fiscal year end 31-Mar	2006	2007	2008E	2009E	2010E
Valuation Ratios					
P/E adjusted (x)	15.9	14.2	9.1	8.1	6.8
P/E reported (x)	15.9	14.2	9.1	8.1	6.8
P/BV (x)	1.9	1.7	1.5	1.3	1.1
P/Adjusted BV diluted (x)	1.9	1.7	1.5	1.3	1.1
Dividend yield (%)	1.3	1.4	1.5	1.5	1.5
Per Share Data (Rs)					
EPS adjusted	25.06	28.07	43.69	49.27	58.98
EPS reported	25.06	28.07	43.69	49.27	58.98
BVPS	214.61	236.64	273.54	313.28	362.73
Tangible BVPS	214.61	236.64	273.54	313.28	362.73
Adjusted BVPS diluted	208.46	230.79	267.69	307.43	356.88
DPS	5.00	5.50	6.00	6.00	6.00
Profit & Loss (RsM)					
Net interest income	32,249	37,861	41,862	49,788	59,116
Fees and commissions	3,610	4,729	5,485	6,198	7,066
Other operating Income	8,307	9,089	13,487	11,882	13,122
Total operating income	**44,166**	**51,679**	**60,834**	**67,869**	**79,304**
Total operating expenses	-23,848	-25,443	-29,733	-33,174	-36,619
Oper. profit bef. provisions	**20,318**	**26,236**	**31,101**	**34,695**	**42,685**
Bad debt provisions	-3,400	-4,262	-5,148	-6,816	-9,509
Non-operating/exceptionals	-5,772	-5,436	-1,000	-1,000	-1,000
Pre-tax profit	**11,146**	**16,538**	**24,953**	**26,879**	**32,176**
Tax	-2,876	-6,278	-8,983	-8,870	-10,618
Extraord./Min. Int./Pref. Div.	0	0	0	0	0
Attributable profit	**8,270**	**10,260**	**15,970**	**18,009**	**21,558**
Adjusted earnings	8,270	10,260	15,970	18,009	21,558
Growth Rates (%)					
EPS adjusted	9.0	12.0	55.7	12.8	19.7
Oper. profit bef. prov.	-11.7	29.1	18.5	11.6	23.0
Balance Sheet (RsM)					
Total assets	**1,133,925**	**1,431,462**	**1,695,629**	**1,974,110**	**2,283,911**
Avg interest earning assets	1,010,934	1,240,471	1,513,451	1,783,944	2,077,909
Customer loans	620,237	856,296	1,034,715	1,221,859	1,442,997
Gross NPLs	23,903	20,923	26,970	38,522	49,181
Liab. & shar. funds	**1,133,925**	**1,431,462**	**1,695,629**	**1,974,110**	**2,283,911**
Total customer deposits	936,620	1,249,160	1,491,270	1,746,573	2,034,412
Reserve for loan losses	21,119	20,087	24,232	29,490	36,000
Shareholders' equity	**78,444**	**86,499**	**99,986**	**114,512**	**132,587**
Profitability/Solvency Ratios (%)					
ROE adjusted	12.3	12.4	17.1	16.8	17.4
Net interest margin	3.19	3.05	2.77	2.79	2.84
Cost/income ratio	54.0	49.2	48.9	48.9	46.2
Cash cost/average assets	2.3	2.0	1.9	1.8	1.7
NPLs/customer loans	3.9	2.4	2.6	3.2	3.4
Reserve for loan losses/NPLs	88.4	96.0	89.8	76.6	73.2
Bad debt prov./avg. cust. loans	0.6	0.6	0.5	0.6	0.7
Loans/deposit ratio	66.2	68.5	69.4	70.0	70.9
Tier 1 capital ratio	10.4	8.5	8.3	8.2	8.1
Total capital ratio	13.7	11.5	11.2	11.0	10.6

For further data queries on Citigroup's full coverage universe please contact CIR Data Services Asia Pacific at CitiResearchDataServices@citigroup.com or +852-2501-2791

Figure 37. BOB – Earnings Revision Summary

	Net Profit			EPS			DPS	
	Old	New	% change	Old	New	% change	Old	New
FY08E	14,757.8	15,970	8.2	40.4	43.7	8.2	6.0	6.0
FY09E	17,697.0	18,009	1.8	48.4	49.3	1.8	6.0	6.0
FY10E	20,042.8	21,558	7.6	54.8	59.0	7.6	6.0	6.0

Source: Citi Investment Research

Bank of Baroda

Company description

Bank of Baroda (BoB) was incorporated in 1908 as a private institution, and subsequently nationalized in 1969. The bank is headquartered in Baroda, Gujarat. The government holds 66% of the bank's equity. BoB is among the top-five banks in the country, with a nearly 5% share of the deposits and advances of the banking system. BoB has a large nationwide branch network of 2,730 branches, and has 38 branches in 10 countries

Investment strategy

We rate BoB Buy (1M) with a target price of Rs475. BoB has made visible improvements in key operating parameters. However, it has lagged behind the sector: loan growth, until recently, has been well below the industry levels and its technology plan has been slow to take off. Management's aggressive interest-rate positioning on the bank's bond portfolio led to losses in the portfolio when interest rates reversed. This aspect of its balance sheet has meant that BoB has been viewed largely as an interest-rate cyclical stock, with falling/rising rates increasing/decreasing the value of its bond portfolio. Structurally, we believe BoB will continue to trade at a discount to its larger peers due to lower fee incomes, a higher proportion of international businesses, a modest lending franchise, and a slight geographic concentration. BoB will also likely remain the most interest-rate cyclical bank among its larger peers. However, the focus on bond yields has camouflaged changes in what the market formerly perceived as other weakness. We believe positive changes have come about, and the market appears to have failed to fully appreciate them.

Valuation

Our target price of Rs475 (previously Rs390) is based on CIR's EVA model, which we believe captures the long-term value of the business and is a standard valuation measure for our India banking coverage. We are revising our EVA based target on the back of a) revised earnings estimates, b) lower risk-free rate of 7.5% (previously 8%) and c) slightly lower long-term loan growth estimates. We maintain industry-average margin (230bps) and higher-than-industry capital ratio (6%).

We are also benchmarking our target price on a 1.4x FY09E PBV (previously 1.3X PBV FY09E). Our target price based on this methodology is now Rs430 (previously Rs394). Our target multiple factors in the healthy asset pricing and operating environment. Our target multiple continues to be at discounts to those for SBI and PNB. We believe a valuation discount to some peer banks is still justified due to the quality and structure of the businesses. BoB generates relatively low fee income, has a higher proportion of international businesses that we believe adds less value to the business, and its business has a modest

geographic concentration. Important to note, its ROEs have also tended to lag the sector, and though we do see signs of a catch-up, management still needs to deliver.

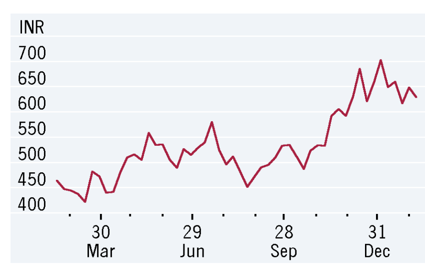
Risks

We rate BoB Medium Risk based on our quantitative risk-rating system, which tracks 260-day share price volatility. The following downside risks could impede the stock from reaching our target price: (1) sharp rises in interest rates, which could undermine the performance of the bond portfolio; (2) BoB's inability to sustain loan growth; and (3) further delays in management's technology plans.

Punjab National Bank (PNBK.BO)

Buy/Medium Risk	**1M**
Price (14 Feb 08)	Rs619.55
Target price	Rs775.00
from Rs608.00	
Expected share price return	25.1%
Expected dividend yield	1.6%
Expected total return	**26.7%**
Market Cap	Rs195,346M
	US$4,915M

Price Performance (RIC: PNBK.BO, BB: PNB IN)



Buy: Getting Back on Track

- **Getting back on track** — PNB appears to be getting its business back on track, after 3 quarters of disappointments during a period of management change. Asset quality is on the mend, margins have begun a bounce-back, and the bank could be on its way to getting its premier positioning back.

- **The growth and return mix appears right, now** — PNB has moderated growth levels to sub-20% levels (where it intends to stay), appears to have cleaned out its asset quality skeletons, and should see some easing in pressures from some historically aggressive asset pricing. While some damage has been done – the earnings and balance-sheet cushion has eased – PNB does have one of the best balance sheet and P&L features in the government banking space.

- **Falling rates could be a relative pressure point** — PNB's historically active treasury could well be a prime beneficiary of falling rates. Its P&L structure could, however, be relatively disadvantaged if interest rates do fall; relatively high fixed costs could hurt, and its deposit base could re-price a little slower than some of its peers.

- **Revising estimates, raising target price** — We are revising PNB's estimates over FY08-09, and raising our target price to Rs775 (Rs608). Our target price change is based on revised earnings, more moderate loan growth forecasts, and a lower interest rate environment. Maintain Buy/Medium Risk (1M).

Statistical Abstract

Year to 31 Mar	Net Profit (RsM)	Diluted EPS (Rs)	EPS growth (%)	P/E (x)	P/B (x)	ROE (%)	Yield (%)
2006A	14,393	45.65	-6.0	13.6	2.1	16.4	1.0
2007A	15,401	48.84	7.0	12.7	1.9	15.5	1.6
2008E	19,809	62.83	28.6	9.9	1.6	17.6	1.6
2009E	23,012	72.98	16.2	8.5	1.4	17.7	1.6
2010E	26,380	83.67	14.6	7.4	1.2	17.4	1.6

Source: Powered by dataCentral

Fiscal year end 31-Mar	2006	2007	2008E	2009E	2010E
Valuation Ratios					
P/E adjusted (x)	13.6	12.7	9.9	8.5	7.4
P/E reported (x)	13.6	12.7	9.9	8.5	7.4
P/BV (x)	2.1	1.9	1.6	1.4	1.2
P/Adjusted BV diluted (x)	2.2	1.9	1.7	1.4	1.2
Dividend yield (%)	1.0	1.6	1.6	1.6	1.6
Per Share Data (Rs)					
EPS adjusted	45.65	48.84	62.83	72.98	83.67
EPS reported	45.65	48.84	62.83	72.98	83.67
BVPS	297.38	330.97	382.54	444.28	516.69
Tangible BVPS	297.38	330.97	382.54	444.28	516.69
Adjusted BVPS diluted	287.79	321.65	373.22	434.96	507.37
DPS	6.00	10.00	10.00	10.00	10.00
Profit & Loss (RsM)					
Net interest income	46,668	55,146	55,162	64,310	73,998
Fees and commissions	7,526	9,700	11,155	12,828	14,753
Other operating Income	7,256	3,736	9,071	6,549	7,089
Total operating income	**61,450**	**68,582**	**75,388**	**83,688**	**95,840**
Total operating expenses	-30,232	-33,262	-38,860	-43,024	-48,041
Oper. profit bef. provisions	**31,218**	**35,320**	**36,528**	**40,664**	**47,800**
Bad debt provisions	-640	-5,998	-5,961	-6,790	-9,114
Non-operating/exceptionals	-10,230	-7,630	-1,000	-1,000	-1,000
Pre-tax profit	**20,348**	**21,691**	**29,566**	**32,874**	**37,686**
Tax	-5,955	-6,291	-9,757	-9,862	-11,306
Extraord./Min. Int./Pref. Div.	0	0	0	0	0
Attributable profit	**14,393**	**15,401**	**19,809**	**23,012**	**26,380**
Adjusted earnings	14,393	15,401	19,809	23,012	26,380
Growth Rates (%)					
EPS adjusted	-6.0	7.0	28.6	16.2	14.6
Oper. profit bef. prov.	8.2	13.1	3.4	11.3	17.5
Balance Sheet (RsM)					
Total assets	**1,452,674**	**1,624,225**	**1,887,122**	**2,168,476**	**2,477,759**
Avg interest earning assets	1,344,558	1,515,574	1,730,621	2,001,501	2,295,731
Customer loans	778,540	996,480	1,181,272	1,386,806	1,616,627
Gross NPLs	31,383	33,907	56,511	61,023	67,678
Liab. & shar. funds	**1,452,674**	**1,624,225**	**1,887,122**	**2,168,476**	**2,477,759**
Total customer deposits	1,196,849	1,398,597	1,637,806	1,892,514	2,171,149
Reserve for loan losses	32,266	30,515	33,933	36,485	41,022
Shareholders' equity	**93,764**	**104,355**	**120,617**	**140,081**	**162,914**
Profitability/Solvency Ratios (%)					
ROE adjusted	16.4	15.5	17.6	17.7	17.4
Net interest margin	3.47	3.64	3.19	3.21	3.22
Cost/income ratio	49.2	48.5	51.5	51.4	50.1
Cash cost/average assets	2.2	2.2	2.2	2.1	2.1
NPLs/customer loans	4.0	3.4	4.8	4.4	4.2
Reserve for loan losses/NPLs	102.8	90.0	60.0	59.8	60.6
Bad debt prov./avg. cust. loans	0.1	0.7	0.5	0.5	0.6
Loans/deposit ratio	65.0	71.2	72.1	73.3	74.5
Tier 1 capital ratio	8.9	8.3	9.1	9.0	9.1
Total capital ratio	14.2	12.3	12.7	12.4	12.3

For further data queries on Citigroup's full coverage universe please contact CIR Data Services Asia Pacific at CitiResearchDataServices@citigroup.com or +852-2501-2791

Figure 38. PNB - Earnings Revision Summary

	Net Profit			EPS			DPS	
	Old	New	% change	Old	New	% change	Old	New
FY08E	18,943	19,809	4.6	60.1	62.8	4.6	8.0	10.0
FY09E	22,159	23,012	3.8	70.3	73.0	3.8	8.0	10.0
FY10E	-	26,380	-	-	83.7	-	-	10.0

Source: Citi Investment Research

Punjab National Bank

Company description

Punjab National Bank (PNB) was established in 1943 and nationalized in the first round of nationalization in 1969. The bank is headquartered in Delhi, and the government has an 80% stake. PNB is among the top five banks in the country, with a 5% share of deposits and advances of the banking system. PNB has the second-largest branch network in the country with about 4,038 branches and 426 extension counters.

Investment strategy

We rate PNB Buy (1M). PNB is one of India's largest government-owned banks, with good profitability (ROEs of 17%) and low NPA levels. The bank looks well positioned to capitalize on growth opportunities in the Indian market. PNB's deposit franchise and large pool of savings and current balances should widen the bank's funding advantage if interest rates rise or if liquidity tightens. Compared with its peers, PNB has a greater mid-market focus, which supports higher loan yields. Its government bond portfolio is among the highest yielding of the government banks, and its margins are high vs. its peers

Valuation

Our target price for PNB is Rs775 (previously Rs608) and is based on Citigroup's EVA model, which captures the long-term value of the business, and is a standard valuation measure for Citigroup's India Banking coverage. The revision in target price is premised on a) revised earnings estimates, b) lower loan growth expectations; based on management targets and a moderated growth environment and c) lower risk free rate of 7.5% (previously 8%). We are also benchmarking our target price on a 1.5x FY09E PBV multiple (previously 1.5x one-year forward PBV multiple), which reflects the favorable business environment, our longer-term optimism on the market, and easier rate environment. It is also consistent with the target multiple we are using for the other best-in-class government banks. This translates to a target price of Rs580. We prefer to use the EVA measure as our primary methodology as we believe it better adjusts for the relatively dynamic cost of capital and better captures the long-term value of the business.

Risks

We rate PNB Medium Risk based on our quantitative risk-rating system. Downside risk to our target price include: (1) Any re-emergence of the IFCI merger; (2) Sharp increases in interest rates; (3) Significant increases in employee wage costs; and (4) high exposure to the agricultural sector

Appendix A-1

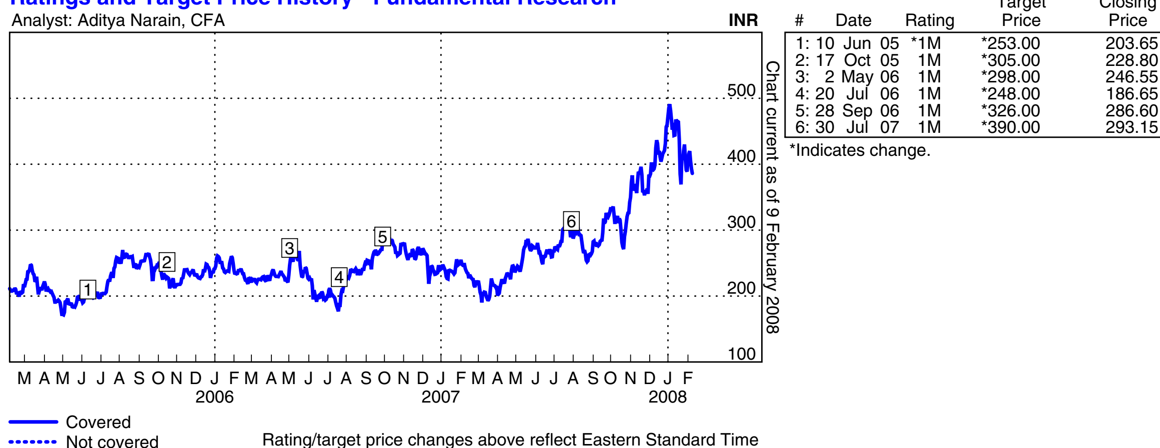
Analyst Certification

Each research analyst(s), strategist(s) or research associate(s) responsible for the preparation and content of all or any identified portion of this research report hereby certifies that, with respect to each issuer or security or any identified portion of the report with respect to an issuer or security that the research analyst, strategist or research associate covers in this research report, all of the views expressed by that research analyst, strategist or research associate in this research report accurately reflect their personal views about those issuer(s) or securities. Each research analyst(s), strategist(s) or research associate(s) also certify that no part of their compensation was, is, or will be, directly or indirectly, related to the specific recommendation(s) or view(s) expressed by that research analyst, strategist or research associate in this research report.

IMPORTANT DISCLOSURES

Bank of Baroda (BOB.BO)

Ratings and Target Price History - Fundamental Research

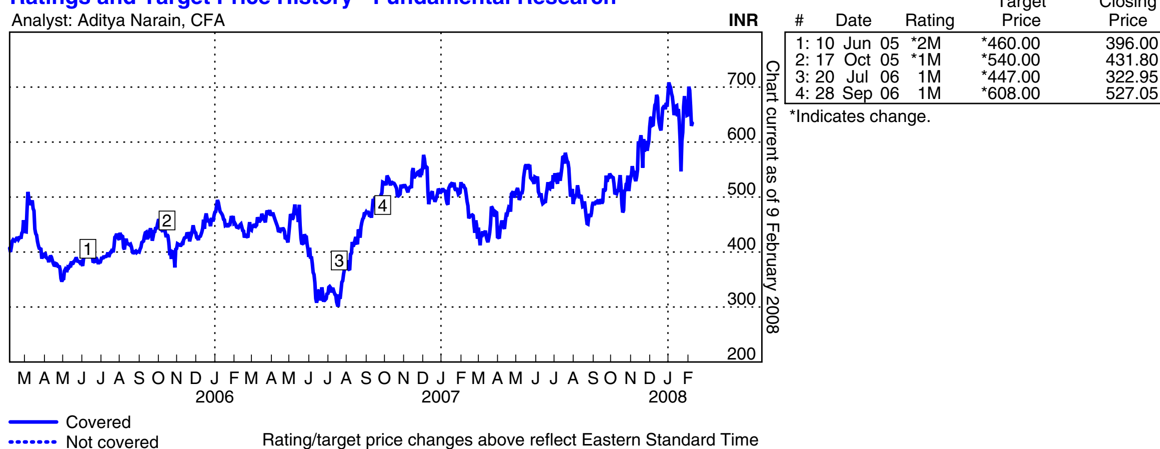


#	Date	Rating	Target Price	Closing Price
1:	10 Jun 05	*1M	*253.00	203.65
2:	17 Oct 05	1M	*305.00	228.80
3:	2 May 06	1M	*298.00	246.55
4:	20 Jul 06	1M	*248.00	186.65
5:	28 Sep 06	1M	*326.00	286.60
6:	30 Jul 07	1M	*390.00	293.15

*Indicates change.

Punjab National Bank (PNBK.BO)

Ratings and Target Price History - Fundamental Research



#	Date	Rating	Target Price	Closing Price
1:	10 Jun 05	*2M	*460.00	396.00
2:	17 Oct 05	*1M	*540.00	431.80
3:	20 Jul 06	1M	*447.00	322.95
4:	28 Sep 06	1M	*608.00	527.05

*Indicates change.

Customers of the Firm in the United States can receive independent third-party research on the company or companies covered in this report, at no cost to them, where such research is available. Customers can access this independent research at http://www.smithbarney.com (for retail clients) or http://www.citigroupgeo.com (for institutional clients) or can call (866) 836-9542 to request a copy of this research.

Citigroup Global Markets Inc. or its affiliates beneficially owns 1% or more of any class of common equity securities of Andhra Bank, AXIS Bank, Canara Bank, Central Bank Of India, Centurion Bank, Federal Bank, Kotak Mahindra Bank and State Bank of India. This position reflects information available as of the prior business day.

Within the past 12 months, Citigroup Global Markets Inc. or its affiliates has acted as manager or co-manager of an offering of securities of AXIS Bank, Bank of Baroda, Canara Bank, Central Bank Of India, Corporation Bank, HDFC Bank, ICICI Bank, Infrastructure Development Finance, Kotak Mahindra Bank, Oriental Bank of Commerce, Punjab National Bank, State Bank of India and Union Bank Of India.

Citigroup Global Markets Inc. or its affiliates has received compensation for investment banking services provided within the past 12 months from Andhra Bank, AXIS Bank, Bank of Baroda, Canara Bank, Central Bank Of India, Corporation Bank, HDFC Bank, ICICI Bank, Infrastructure Development Finance, Kotak Mahindra Bank, Oriental Bank of Commerce, Punjab National Bank, State Bank of India, Union Bank Of India and Yes Bank.

Citigroup Global Markets Inc. or its affiliates expects to receive or intends to seek, within the next three months, compensation for investment banking services from Andhra Bank, Bank of Baroda, Canara Bank, Central Bank Of India, Corporation Bank, ICICI Bank, Infrastructure Development Finance, Kotak Mahindra Bank, Oriental Bank of Commerce, Punjab National Bank, State Bank of India and Union Bank Of India.

Citigroup Global Markets Inc. or an affiliate received compensation for products and services other than investment banking services from Andhra Bank, AXIS Bank, Bank of Baroda, Canara Bank, Central Bank Of India, Centurion Bank, Corporation Bank, Federal Bank, HDFC Bank, ICICI Bank, Infrastructure Development Finance, Kotak Mahindra Bank, Oriental Bank of Commerce, Punjab National Bank, State Bank of India, Union Bank Of India and Yes Bank in the past 12 months.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following company(ies) as investment banking client(s): Andhra Bank, AXIS Bank, Bank of Baroda, Canara Bank, Central Bank Of India, Corporation Bank, HDFC Bank, ICICI Bank, Infrastructure Development Finance, Kotak Mahindra Bank, Oriental Bank of Commerce, Punjab National Bank, State Bank of India, Union Bank Of India and Yes Bank.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following company(ies) as clients, and the services provided were non-investment-banking, securities-related: Andhra Bank, AXIS Bank, Bank of Baroda, Canara Bank, Central Bank Of India, Centurion Bank, Corporation Bank, Federal Bank, HDFC Bank, ICICI Bank, Infrastructure Development Finance, Kotak Mahindra Bank, Oriental Bank of Commerce, Punjab National Bank, State Bank of India, Union Bank Of India and Yes Bank.

Citigroup Global Markets Inc. currently has, or had within the past 12 months, the following company(ies) as clients, and the services provided were non-investment-banking, non-securities-related: Andhra Bank, AXIS Bank, Bank of Baroda, Canara Bank, Central Bank Of India, Centurion Bank, Corporation Bank, Federal Bank, HDFC Bank, ICICI Bank, Infrastructure Development Finance, Kotak Mahindra Bank, Oriental Bank of Commerce, Punjab National Bank, State Bank of India, Union Bank Of India and Yes Bank.

Citigroup Global Markets Inc. or an affiliate received compensation in the past 12 months from Infrastructure Development Finance, Kotak Mahindra Bank and State Bank of India.

Analysts' compensation is determined based upon activities and services intended to benefit the investor clients of Citigroup Global Markets Inc. and its affiliates ("the Firm"). Like all Firm employees, analysts receive compensation that is impacted by overall firm profitability, which includes revenues from, among other business units, the Private Client Division, Institutional Sales and Trading, and Investment Banking.

For important disclosures (including copies of historical disclosures) regarding the companies that are the subject of this Citi Investment Research product ("the Product"), please contact Citi Investment Research, 388 Greenwich Street, 29th Floor, New York, NY, 10013, Attention: Legal/Compliance. In addition, the same important disclosures, with the exception of the Valuation and Risk assessments and historical disclosures, are contained on the Firm's disclosure website at www.citigroupgeo.com. Private Client Division clients should refer to www.smithbarney.com/research. Valuation and Risk assessments can be found in the text of the most recent research note/report regarding the subject company. Historical disclosures (for up to the past three years) will be provided upon request.

Citi Investment Research Ratings Distribution

Data current as of 31 December 2007	**Buy**	**Hold**	**Sell**
Citi Investment Research Global Fundamental Coverage (3421)	50%	37%	12%
% of companies in each rating category that are investment banking clients	52%	53%	40%

Guide to Fundamental Research Investment Ratings:

Citi Investment Research's stock recommendations include a risk rating and an investment rating.

Risk ratings, which take into account both price volatility and fundamental criteria, are: Low (L), Medium (M), High (H), and Speculative (S).

Investment ratings are a function of Citi Investment Research's expectation of total return (forecast price appreciation and dividend yield within the next 12 months) and risk rating.

For securities in emerging markets (Asia Pacific, Emerging Europe/Middle East/Africa, and Latin America), investment ratings are: Buy (1) (expected total return of 15% or more for Low-Risk stocks, 20% or more for Medium-Risk stocks, 30% or more for High-Risk stocks, and 40% or more for Speculative stocks); Hold (2) (5%-15% for Low-Risk stocks, 10%-20% for Medium-Risk stocks, 15%-30% for High-Risk stocks, and 20%-40% for Speculative stocks); and Sell (3) (5% or less for Low-Risk stocks, 10% or less for Medium-Risk stocks, 15% or less for High-Risk stocks, and 20% or less for Speculative stocks).

Investment ratings are determined by the ranges described above at the time of initiation of coverage, a change in investment and/or risk rating, or a change in target price (subject to limited management discretion). At other times, the expected total returns may fall outside of these ranges because of market price movements and/or other short-term volatility or trading patterns. Such interim deviations from specified ranges will be permitted but will become subject to review by Research Management. Your decision to buy or sell a security should be based upon your personal investment objectives and should be made only after evaluating the stock's expected performance and risk.

Guide to Corporate Bond Research Credit Opinions and Investment Ratings: Citi Investment Research's corporate bond research issuer publications include a fundamental credit opinion of Improving, Stable or Deteriorating and a complementary risk rating of Low (L), Medium (M), High (H) or Speculative (S) regarding the credit risk of the company featured in the report. The fundamental credit opinion reflects the CIR analyst's opinion of the direction of credit fundamentals of the issuer without respect to securities market vagaries. The fundamental credit opinion is not geared to, but should be viewed in the context of, debt ratings issued by major public debt ratings companies such as Moody's Investors Service, Standard and Poor's, and Fitch Ratings. CBR risk ratings are approximately equivalent to the following matrix: Low Risk -- Triple A to Low Double A; Low to Medium Risk -- High Single A through High Triple B; Medium to High Risk -- Mid Triple B through High Double B; High to Speculative Risk -- Mid Double B and Below. The risk rating element illustrates the analyst's opinion of the relative likelihood of loss of principal when a fixed income security issued by a company is held to maturity, based upon both fundamental and market risk factors. Certain reports published by Citi Investment Research will also include investment ratings on specific issues of companies under coverage which have been assigned fundamental credit opinions and risk ratings. Investment ratings are a function of Citi Investment Research's expectations for total return, relative return (relative to the performance of relevant Citi bond indices), and risk rating. These investment ratings are: Buy/Overweight -- the bond is expected to outperform the relevant Citigroup bond market sector index (Broad Investment Grade, High Yield Market or Emerging Market); Hold/Neutral Weight -- the bond is expected to perform in line with the relevant Citigroup bond market sector index; or Sell/Underweight -- the bond is expected to underperform the relevant Citigroup bond market sector index. Performance data for Citi bond indices are updated monthly, are available upon request and can also be viewed at http://sd.ny.ssmb.com/ using the "Indexes" tab.

OTHER DISCLOSURES

Citigroup Global Markets Inc. and/or its affiliates has a significant financial interest in relation to AXIS Bank, Canara Bank, ICICI Bank, Infrastructure Development Finance, State Bank of India, Union Bank Of India and Yes Bank. (For an explanation of the determination of significant financial interest, please refer to the policy for managing conflicts of interest which can be found at www.citigroupgeo.com.)

Citigroup Global Markets Inc. or its affiliates beneficially owns 2% or more of any class of common equity securities of Canara Bank, Central Bank Of India and Federal Bank.

Citigroup Global Markets Inc. or its affiliates beneficially owns 5% or more of any class of common equity securities of Andhra Bank and AXIS Bank.

For securities recommended in the Product in which the Firm is not a market maker, the Firm is a liquidity provider in the issuers' financial instruments and may act as principal in connection with such transactions. The Firm is a regular issuer of traded financial instruments linked to securities that may have been recommended in the Product. The Firm regularly trades in the securities of the subject company(ies) discussed in the Product. The Firm may engage in securities transactions in a manner inconsistent with the Product and, with respect to securities covered by the Product, will buy or sell from customers on a principal basis.

Securities recommended, offered, or sold by the Firm: (i) are not insured by the Federal Deposit Insurance Corporation; (ii) are not deposits or other obligations of any insured depository institution (including Citibank); and (iii) are subject to investment risks, including the possible loss of the principal amount invested. Although information has been obtained from and is based upon sources that the Firm believes to be reliable, we do not guarantee its accuracy and it may be incomplete and condensed. Note, however, that the Firm has taken all reasonable steps to determine the accuracy and completeness of the disclosures made in the Important Disclosures section of the Product. The Firm's research department has received assistance from the subject company(ies) referred to in this Product including, but not limited to, discussions with management of the subject company(ies). Firm policy prohibits research analysts from sending draft research to subject companies. However, it should be presumed that the author of the Product has had discussions with the subject company to ensure factual accuracy prior to publication. All opinions, projections and estimates constitute the judgment of the author as of the date of the Product and these, plus any other information contained in the Product, are subject to change without notice. Prices and availability of financial instruments also are subject to change without notice. Notwithstanding other departments within the Firm advising the companies discussed in this Product, information obtained in such role is not used in the preparation of the Product. Although Citi Investment Research does not set a predetermined frequency for publication, if the Product is a fundamental research report, it is the intention of Citi Investment Research to provide research coverage of the/those issuer(s) mentioned therein, including in response to news affecting this issuer, subject to applicable quiet periods and capacity constraints. The Product is for informational purposes only and is not intended as an offer or solicitation for the purchase or sale of a security. Any decision to purchase securities mentioned in the Product must take into account existing public information on such security or any registered prospectus.

Investing in non-U.S. securities, including ADRs, may entail certain risks. The securities of non-U.S. issuers may not be registered with, nor be subject to the reporting requirements of the U.S. Securities and Exchange Commission. There may be limited information available on foreign securities. Foreign companies are generally not subject to uniform audit and reporting standards, practices and requirements comparable to those in the U.S. Securities of some foreign companies may be less liquid and their prices more volatile than securities of comparable U.S. companies. In addition, exchange rate movements may have an adverse effect on the value of an investment in a foreign stock and its corresponding dividend payment for U.S. investors. Net dividends to ADR investors are estimated, using withholding tax rates conventions, deemed accurate, but investors are urged to consult their tax advisor for exact dividend computations. Investors who have received the Product from the Firm may be prohibited in certain states or other jurisdictions from purchasing securities mentioned in the Product from the Firm. Smith Barney clients can ask their Financial Advisor for additional details. Citigroup Global Markets Inc. takes responsibility for the Product in the United States. Any orders by US investors resulting from the information contained in the Product may be placed only through Citigroup Global Markets Inc.

The Citigroup legal entity that takes responsibility for the production of the Product is the legal entity which the first named author is employed by. The Product is made available in Australia to wholesale clients through Citigroup Global Markets Australia Pty Ltd. (ABN 64 003 114 832 and AFSL No. 240992) and to retail clients through Citi Smith Barney Pty Ltd. (ABN 19 009 145 555 and AFSL No. 240813), Participants of the ASX Group and regulated by the Australian Securities & Investments Commission. Citigroup Centre, 2 Park Street, Sydney, NSW 2000. The Product is made available in Australia to Private Banking wholesale clients through Citigroup Pty Limited (ABN 88 004 325 080 and AFSL 238098). Citigroup Pty Limited provides all financial product advice to Australian Private Banking wholesale clients through bankers and relationship managers. If there is any doubt about the suitability of investments held in Citigroup Private Bank accounts, investors should contact the Citigroup Private Bank in Australia. Citigroup companies may compensate affiliates and their representatives for providing products and services to clients. The Product is made available in Brazil by Citigroup Global Markets Brasil - CCTVM SA, which is regulated by CVM - Comissão de Valores Mobiliários, BACEN - Brazilian Central Bank, APIMEC - Associação Associação dos Analistas e Profissionais de Investimento do Mercado de Capitais and ANBID - Associação Nacional dos Bancos de Investimento. Av. Paulista, 1111 - 11º andar - CEP. 01311920 - São Paulo - SP. If the Product is being made available in certain provinces of Canada by Citigroup Global Markets (Canada) Inc. ("CGM Canada"), CGM Canada has approved the Product. Citigroup Place, 123 Front Street West, Suite 1100, Toronto, Ontario M5J 2M3. The Product may not be distributed to private clients in Germany. The Product is distributed in Germany by Citigroup Global Markets Deutschland AG & Co. KGaA, which is regulated by Bundesanstalt fuer Finanzdienstleistungsaufsicht (BaFin). Frankfurt am Main, Reuterweg 16, 60323 Frankfurt am Main. If the Product is made available in Hong Kong by, or on behalf of, Citigroup Global Markets Asia Ltd., it is attributable to Citigroup Global Markets Asia Ltd., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. Citigroup Global Markets Asia Ltd. is regulated by Hong Kong Securities and Futures Commission. If the Product is made available in Hong Kong by The Citigroup Private Bank to its clients, it is attributable to Citibank N.A., Citibank Tower, Citibank Plaza, 3 Garden Road, Hong Kong. The Citigroup Private Bank and Citibank N.A. is regulated by the Hong Kong Monetary Authority. The Product is made available in India by Citigroup Global Markets India Private Limited, which is regulated by Securities and Exchange Board of India. Bakhtawar, Nariman Point, Mumbai 400-021. The Product is made available in Indonesia through PT Citigroup Securities Indonesia. 5/F, Citibank Tower, Bapindo Plaza, Jl. Jend. Sudirman Kav. 54-55, Jakarta 12190. Neither this Product nor any copy hereof may be distributed in Indonesia or to any Indonesian citizens wherever they are domiciled or to Indonesian residents except in compliance with applicable capital market laws and regulations. This Product is not an offer of securities in Indonesia. The securities referred to in this Product have not been registered with the Capital Market and Financial Institutions Supervisory Agency (BAPEPAM-LK) pursuant to relevant capital market laws and regulations, and may not be offered or sold within the territory of the Republic of Indonesia or to Indonesian citizens through a public offering or in circumstances which constitute an offer within the meaning of the Indonesian capital market laws and regulations. If the Product was prepared by Citi Investment Research and distributed in Japan by Nikko Citigroup Limited ("NCL"), it is being so distributed under license. If the Product was prepared by NCL and distributed by Nikko Cordial Securities Inc. or Citigroup Global Markets Inc. it is being so distributed under license. NCL is regulated by Financial Services Agency, Securities and Exchange Surveillance Commission, Japan Securities Dealers Association, Tokyo Stock Exchange and Osaka Securities Exchange. Shin-Marunouchi Building, 1-5-1 Marunouchi, Chiyoda-ku, Tokyo 100-6520 Japan. In the event that an error is found in an NCL research report, a revised version will be posted on Citi Investment Research's Global Equities Online (GEO) website. If you have questions regarding GEO, please call (81 3) 6270-3019 for help. The Product is made available in Korea by Citigroup Global Markets Korea Securities Ltd., which is regulated by Financial Supervisory Commission and the Financial Supervisory Service. Hungkuk Life

Insurance Building, 226 Shinmunno 1-GA, Jongno-Gu, Seoul, 110-061. The Product is made available in Malaysia by Citigroup Global Markets Malaysia Sdn Bhd, which is regulated by Malaysia Securities Commission. Menara Citibank, 165 Jalan Ampang, Kuala Lumpur, 50450. The Product is made available in Mexico by Acciones y Valores Banamex, S.A. De C. V., Casa de Bolsa, which is regulated by Comision Nacional Bancaria y de Valores. Reforma 398, Col. Juarez, 06600 Mexico, D.F. In New Zealand the Product is made available through Citigroup Global Markets New Zealand Ltd. (Company Number 604457), a Participant of the New Zealand Exchange Limited and regulated by the New Zealand Securities Commission. Level 19, Mobile on the Park, 157 Lambton Quay, Wellington. The Product is made available in Poland by Dom Maklerski Banku Handlowego SA an indirect subsidiary of Citigroup Inc., which is regulated by Komisja Papierów Wartosciowych i Gield. Bank Handlowy w Warszawie S.A. ul. Senatorska 16, 00-923 Warszawa. The Product is made available in the Russian Federation through ZAO Citibank, which is licensed to carry out banking activities in the Russian Federation in accordance with the general banking license issued by the Central Bank of the Russian Federation and brokerage activities in accordance with the license issued by the Federal Service for Financial Markets. Neither the Product nor any information contained in the Product shall be considered as advertising the securities mentioned in this report within the territory of the Russian Federation or outside the Russian Federation. The Product does not constitute an appraisal within the meaning of the Federal Law of the Russian Federation of 29 July 1998 No. 135-FZ (as amended) On Appraisal Activities in the Russian Federation. 8-10 Gasheka Street, 125047 Moscow. The Product is made available in Singapore through Citigroup Global Markets Singapore Pte. Ltd., a Capital Markets Services Licence holder, and regulated by Monetary Authority of Singapore. 1 Temasek Avenue, #39-02 Millenia Tower, Singapore 039192. The Product is made available by The Citigroup Private Bank in Singapore through Citibank, N.A., Singapore branch, a licensed bank in Singapore that is regulated by Monetary Authority of Singapore. Citigroup Global Markets (Pty) Ltd. is incorporated in the Republic of South Africa (company registration number 2000/025866/07) and its registered office is at 145 West Street, Sandton, 2196, Saxonwold. Citigroup Global Markets (Pty) Ltd. is regulated by JSE Securities Exchange South Africa, South African Reserve Bank and the Financial Services Board. The investments and services contained herein are not available to private customers in South Africa. The Product is made available in Taiwan through Citigroup Global Markets Inc. (Taipei Branch), which is regulated by Securities & Futures Bureau. No portion of the report may be reproduced or quoted in Taiwan by the press or any other person. No. 8 Manhattan Building, Hsin Yi Road, Section 5, Taipei 100, Taiwan. The Product is made available in Thailand through Citicorp Securities (Thailand) Ltd., which is regulated by the Securities and Exchange Commission of Thailand. 18/F, 22/F and 29/F, 82 North Sathorn Road, Silom, Bangrak, Bangkok 10500, Thailand. The Product is made available in United Kingdom by Citigroup Global Markets Limited, which is authorised and regulated by Financial Services Authority. This material may relate to investments or services of a person outside of the UK or to other matters which are not regulated by the FSA and further details as to where this may be the case are available upon request in respect of this material. Citigroup Centre, Canada Square, Canary Wharf, London, E14 5LB. The Product is made available in United States by Citigroup Global Markets Inc, which is regulated by NASD, NYSE and the US Securities and Exchange Commission. 388 Greenwich Street, New York, NY 10013. Unless specified to the contrary, within EU Member States, the Product is made available by Citigroup Global Markets Limited, which is regulated by Financial Services Authority. Many European regulators require that a firm must establish, implement and make available a policy for managing conflicts of interest arising as a result of publication or distribution of investment research. The policy applicable to Citi Investment Research's Products can be found at www.citigroupgeo.com. Compensation of equity research analysts is determined by equity research management and Citigroup's senior management and is not linked to specific transactions or recommendations. The Product may have been distributed simultaneously, in multiple formats, to the Firm's worldwide institutional and retail customers. The Product is not to be construed as providing investment services in any jurisdiction where the provision of such services would not be permitted. Subject to the nature and contents of the Product, the investments described therein are subject to fluctuations in price and/or value and investors may get back less than originally invested. Certain high-volatility investments can be subject to sudden and large falls in value that could equal or exceed the amount invested. Certain investments contained in the Product may have tax implications for private customers whereby levels and basis of taxation may be subject to change. If in doubt, investors should seek advice from a tax adviser. The Product does not purport to identify the nature of the specific market or other risks associated with a particular transaction. Advice in the Product is general and should not be construed as personal advice given it has been prepared without taking account of the objectives, financial situation or needs of any particular investor. Accordingly, investors should, before acting on the advice, consider the appropriateness of the advice, having regard to their objectives, financial situation and needs. Prior to acquiring any financial product, it is the client's responsibility to obtain the relevant offer document for the product and consider it before making a decision as to whether to purchase the product.

© 2008 Citigroup Global Markets Inc. (© Nikko Citigroup Limited, if this Product was prepared by it). Citi Investment Research is a division and service mark of Citigroup Global Markets Inc. and its affiliates and is used and registered throughout the world. Citi and Citi with Arc Design are trademarks and service marks of Citigroup Inc and its affiliates and are used and registered throughout the world. Nikko is a registered trademark of Nikko Cordial Corporation. All rights reserved. Any unauthorized use, duplication, redistribution or disclosure is prohibited by law and will result in prosecution. The information contained in the Product is intended solely for the recipient and may not be further distributed by the recipient. The Firm accepts no liability whatsoever for the actions of third parties. The Product may provide the addresses of, or contain hyperlinks to, websites. Except to the extent to which the Product refers to website material of the Firm, the Firm has not reviewed the linked site. Equally, except to the extent to which the Product refers to website material of the Firm, the Firm takes no responsibility for, and makes no representations or warranties whatsoever as to, the data and information contained therein. Such address or hyperlink (including addresses or hyperlinks to website material of the Firm) is provided solely for your convenience and information and the content of the linked site does not in anyway form part of this document. Accessing such website or following such link through the Product or the website of the Firm shall be at your own risk and the Firm shall have no liability arising out of, or in connection with, any such referenced website.

ADDITIONAL INFORMATION IS AVAILABLE UPON REQUEST