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India Strategy

Earnings: Heads I Win, Tails You Lose

Conclusion: The market has benefited from strong positive earnings revisions for most of the past four years. Whether or not that continues in F2008 depends on a host of factors, including the state of economic growth, the trends in operating and financial leverage, earnings quality, earnings dispersion, extent of capital accumulation and level of expectations.

What's New: The good news for earnings is the relatively tepid sector concentration of earnings, the rising capital accumulation on corporate balance sheets, the strong balance sheets and benign expectations on operating leverage. The bad news is the likelihood of higher capital costs, the slippage in earnings quality, the rising dispersion of earnings across stocks, the possible slowdown in macro growth, rising rates, volatile currency and reflexivity between stock prices and fundamentals.

Implications: On balance, we think earnings revisions could turn negative after nearly four years of positive revisions. The consensus expects the BSE Sensex constituents to grow earnings by 16% on a combined basis in both F2008 and F2009. Our analysts' expect the BSE Sensex constituents to grow earnings at 13% in F2008 with a bear scenario of 2% and a bull case of 24%. The broader market's earnings could be at greater risk if the economy slows down.

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Key Question: Can Earnings Momentum Sustain?

More than a third of the absolute returns (on the MSCI India index) over the past four years have come from the rise in the P/E ratio. This rise has been driven by, as we all know, a combination of India's improving long-term growth story, higher global risk appetite and near-term growth performance. The growth performance of the past four years has been at the helm of Corporate India's earnings momentum and the positive earnings surprises that the corporate sector has delivered over the past several quarters (Exhibit 1).

While estimating earnings, analysts have erred on the side of caution for four years running. For example, the consensus had to revise its BSE Sensex F2005 earnings up 17% from the start of the year to match the earnings Corporate India eventually delivered (Exhibit 2). Earnings have been already revised up 10% in F2007 as the financial year draws to a close. The key question is: will this be repeated in F2008? For the record, the consensus is estimating growth of 16% for the BSE Sensex constituents on aggregate while forecasting 15% growth for a broader group of stocks that more closely approximate our coverage universe.

Whether the earnings momentum of the past several quarters sustains and, for that matter, whether positive earnings surprises keep coming will depend on several factors. On the list are the state of economic growth, the reflexive behavior of earnings vis-à-vis share prices, financial and operating leverage trends, earnings quality, earnings dispersion, the extent of capital accumulation and the level of expectation by the consensus.

Slower Growth, Lower ROE

The first issue with earnings is that top down we expect a deceleration in growth. Such a slowdown in growth will likely slow revenue growth with exaggerated implications for earnings due to high operating leverage. Revenue growth has been at the helm of recent earnings performance with EBITDA margins displaying a weakening trend (Exhibit 3). We expect GDP growth to slow down from 9.2% in F2007 to 7.5% in F2008 and 6.9% in F2009. On the back this, we also think that ROE could have peaked. Asset turn is likely to decline as Corporate India is adding capacity into a likely growth slowdown with further negative implications for ROE. Most of the ROE rise over the past few years (Exhibit 4) has come from increasing capacity utilization and the positive effect of financial leverage (which is the excess return over interest rates). As rates normalize and the RBI tries to moderate capacity utilization, the pressure on ROE is quite clear. The key issue with ROE, going forward, is that the

ROE for cyclical sectors is way above average (Exhibit 5). The ROE for these sectors – notably, materials, industrials, consumer discretionary and energy – is vulnerable to a cyclical slowdown (local or global, as the case may be). As such, these are the sectors from which the risk to overall ROE is likely to come.

Can Balance Sheet Leveraging Support ROE?

The good news for investors is that balance sheets appear to be in great shape. For the top 100 companies, debt to equity is less than 0.5, whereas cash balances form almost a quarter of the balance sheet, implying immense flexibility on the capital structure. Corporate India could theoretically support ROE by increasing financial leverage. We have seen a concerted effort towards this, with debt issuances rising to decade-high levels recently. However, interest rates may have risen too quickly for Corporate India to alter its capital structure dramatically. Ultimately, financial leverage is a combination of the spread between ROCE and the average cost of debt and the share of debt in total capital.

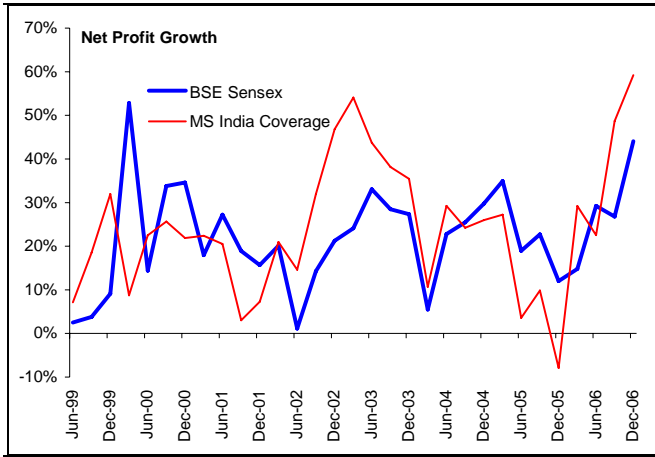
If rates do not move (purely hypothetical), then Corporate India could improve ROE by 3% by taking debt to equity back to F2000 levels (0.73 times compared with around 0.5 times currently – using a sample of India's top 200 companies). Another way of looking at this is that, if financial gearing was at F2000 levels, asset turn could be 13% lower without affecting ROE. If the asset turn remained at current levels and debt-equity backed up to F2000 levels, then Corporate India could afford to drop net margins by 130 bps without affecting ROE. Clearly, the financial leverage math looks powerful. These calculations assume no change in average interest costs. Were interest costs to rise by 100 bps, it would erode ROE by about 35 bps for India's top 200 companies. Of course, this does not capture the top down revenue growth impact that a rise in rates could cause.

Reflexivity: A Big Dilemma for Earnings Forecasts

As we wrote last week, we have observed that Indian equities and corporate earnings appear to be reflexive in that they are dependent on each other for performance (Exhibit 6). The earnings outlook seemingly improves with rising share prices and vice versa. The fundamental underpinning for this reflexive behavior is the increased globalization of India's macro balance sheet, the skew in the composition of capital flows towards portfolio sources due to a superior capital market infrastructure relative to the FDI environment and rising global risk love.

Exhibit 1

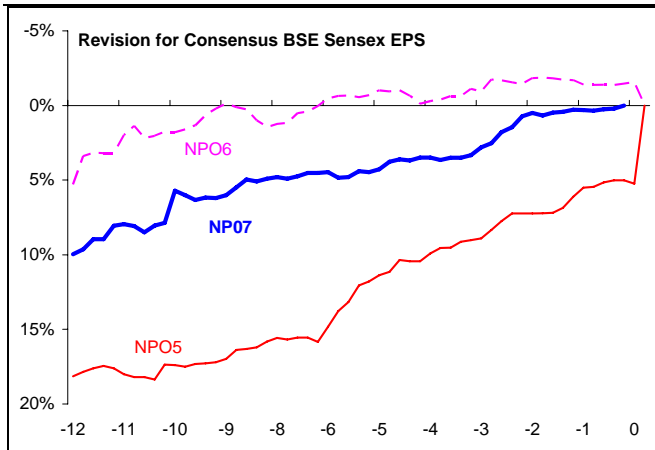
Strong Broad Based Earnings Growth



Source: BSE, Capitaline, company data, Morgan Stanley Research

Exhibit 2

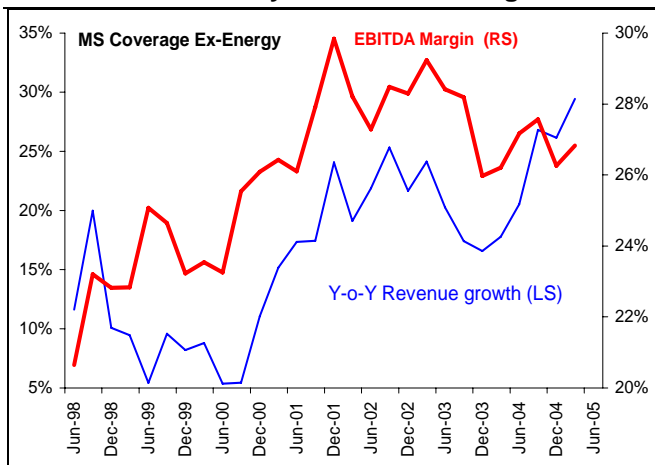
Strong Earnings Revisions Over The Past 3 Years



Source: IBES, FactSet, Morgan Stanley Research

Exhibit 3

Revenue Growth: Key to Recent Earnings



Source: Company data, Morgan Stanley Research

Exhibit 4

ROE: Cap Utilization & Financial Leverage Driven

| Components of ROE Change | Annual Increase in ROE | Financial Leverage | Capacity Utilization | Operating Performance |
|--------------------------------|------------------------|--------------------|----------------------|-----------------------|
| F1996 | 0.7% | 0.6% | 0.3% | -0.2% |
| F1997 | -2.8% | -1.4% | 0.3% | -1.7% |
| F1998 | 0.2% | 0.2% | -1.1% | 1.0% |
| F1999 | -1.4% | -1.0% | 0.3% | -0.8% |
| F2000 | 0.0% | 0.0% | 2.2% | -2.2% |
| F2001 | 2.1% | 0.5% | 1.8% | -0.2% |
| F2002 | -0.4% | 0.2% | -1.0% | 0.5% |
| F2003 | 3.7% | 1.3% | 0.5% | 1.9% |
| F2004 | 2.0% | 0.8% | 1.1% | 0.1% |
| F2005 | 2.3% | 0.7% | 2.7% | -1.1% |
| F2006 | -2.4% | -0.5% | -0.3% | -1.6% |
| Cumulative change since | | | | |
| F2003 | 5.6% | 2.2% | 4.0% | -0.6% |
| F1996 | 4.0% | 1.3% | 6.8% | -4.1% |

Source: Capitaline, Morgan Stanley Research

Exhibit 5

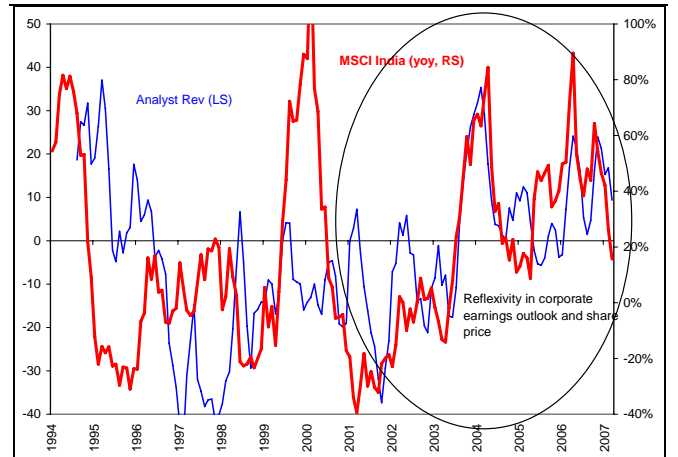
ROE: Cyclical Sectors at Risk

| | Current ROE | Current to Max | Current as SD from avg | Change in ROE over 4 years |
|------------------------|-------------|----------------|------------------------|----------------------------|
| MSCI India | 24% | 100% | 258% | 5.7% |
| Consumer Discretionary | 23% | 90% | 118% | 9.2% |
| Consumer Staples | 32% | 72% | -83% | -0.2% |
| Energy | 26% | 74% | 101% | 9.6% |
| Financials | 17% | 62% | -20% | -2.1% |
| Healthcare | 20% | 56% | -47% | -6.0% |
| Industrials | 27% | 98% | 224% | 15.4% |
| Materials | 35% | 59% | 75% | 13.8% |
| Technology | 29% | 96% | 213% | 12.9% |
| Telecommunications | 23% | 58% | 24% | 9.9% |
| Utilities | 15% | 68% | 13% | -3.9% |

Source: MSCI, FactSet, Morgan Stanley Research

Exhibit 6

Reflexivity: Earnings & Share Prices Move in Sync



Source: FactSet, Morgan Stanley Research

The best example for the reflexive behavior is the impact of the currency market on earnings and share prices and vice versa. We ran a quick study on the BSE Sensex constituents. On aggregate, these companies have a US dollar gross margin of about 13 billion with net US dollar liabilities of 7 billion. For this analysis, we have excluded ONGC's dollar exposure on its income statement since we believe that ONGC's realization may not be subject to currency fluctuations. Should the Indian rupee appreciate by 5% on an average in F2008, we estimate that it would knock US\$300 million off earnings (we expect the BSE Sensex constituents to report cumulative earnings of US\$20.9 billion translated into USD using the average R:US\$ rate for F2007). This does not take into account the impact of the currency movement on top line growth. Should share prices respond to these lower earnings and fall, the appreciation of currency could end, since the RBI would likely stop tightening (as it might intervene more aggressively). Seen another way, currency appreciation could slow growth and end the tight monetary stance.

Operating Leverage Has Been Important

Operating leverage should determine the link between earnings and macro growth, in our view. Operating leverage may come from two sources: indirect capacity or fixed costs and direct capacity costs (depreciation and interest expense are the proxies). Corporate India managed to restructure businesses quite aggressively in the late 1990s and the early part of this decade resulting in a sharp fall in fixed costs. This fall in fixed costs has been augmented by super revenue growth, which has exaggerated the positive effect of operating leverage. Thus, even though Corporate India has suffered from a sharp erosion in pricing power (Exhibit 7), this has not shown up in EBITDA margins. Put another way, the gap between EBITDA margins and gross margins has been declining in successive quarters (Exhibit 8). At the sector level, healthcare, technology and telecoms are exceptions to this positive operating leverage effect (Exhibit 9). Coincidentally, these three sectors have gained pricing power over the three years from F2004 to F2006. The lack of pricing power for other sectors despite high capacity utilization reflects the more open nature of India's economy.

The second aspect of operating leverage is the sharp decline in capital costs. Depreciation and interest expense have fallen 220 bps for Morgan Stanley's coverage universe since the beginning of F2003, accounting for almost two-thirds of the pre-tax margin gains since then (Exhibit 10). The fall in capital costs has been a combination of low capex over most of the past ten years and hence a depleted capital stock, the fall in interest rates and the fall in financial leverage.

The key call for earnings is what happens to operating leverage in the event of a slowdown. The first obvious change over the past three years is that rates are now distinctly higher and financial leverage has stopped falling. The second change is that capex has picked up. This is a recipe for higher capital costs in the coming quarters and, combined with a potential slowdown in revenue growth (linked to our macro forecasts), implies a negative delta in operating leverage. The good news is that our analysts do not assume much change in operating leverage when they are constructing their estimates for F2008 and F2009 – except for the energy and materials, where there is a big increase in operating leverage, and the industrials sector, where operating leverage is expected to fall (Exhibit 11).

Earnings Quality Issue Likely to Become More Relevant

The quality of earnings seems to have slipped. The share of non-cash earnings in reported earnings has been rising. Operating cash and free cash flow to net profit have dropped to eight-year lows (Exhibit 12). The other part of the quality matrix is that the share of net financial earnings to total earnings has been rising (Exhibit 13). This underscores the dependence that earnings seem to have on the interest rate environment, quantum of capex (hence surplus cash on the balance sheet) and trends in the asset markets. While the market is not paying attention to the poorer quality of earnings, in the event of slower growth this issue will come to the fore.

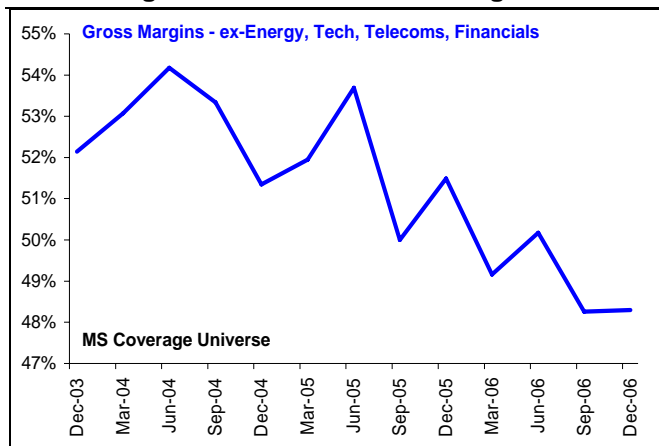
Earnings Concentration: Mixed Bag

On an average, over the past ten years, the resources, domestic cyclical and rate-sensitive sectors have accounted for more than 70% of earnings (using Morgan Stanley's coverage universe as a sample). The share of the earnings of these sectors is likely to decline in the coming couple of years, based on our analysts' forecasts (Exhibit 14). This is good news for investors, since it means that, on a relative basis, earnings are marginally less sensitive to cyclical outcomes.

Another way of looking at earnings composition is to study earnings dispersion. High earnings growth with low dispersion is a good outcome, as that indicates low concentration of earnings. Earnings dispersion across our coverage universe is at a high point in the current cycle (Exhibit 15), which would suggest an unhealthy concentration of earnings within fewer companies than in the past. Thus, while the sectoral concentration of earnings seems fine relative to history, the dispersion of earnings across companies is not a source for comfort.

Exhibit 7

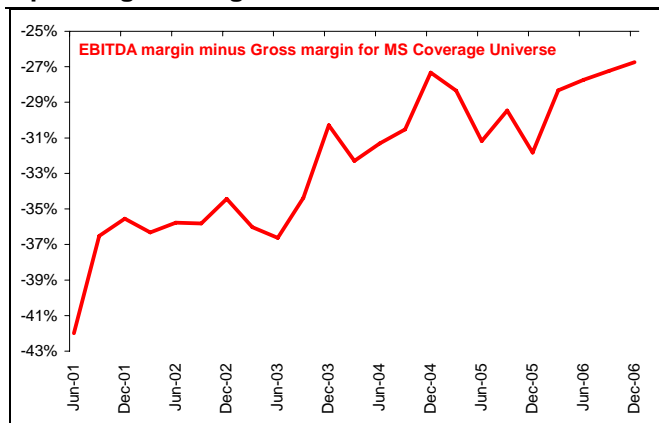
Gross Margins Decline: Lack of Pricing Power



Source: Company data, Morgan Stanley Research

Exhibit 8

Operating Leverage Has Soared



Source: Company data, Morgan Stanley Research

Exhibit 9

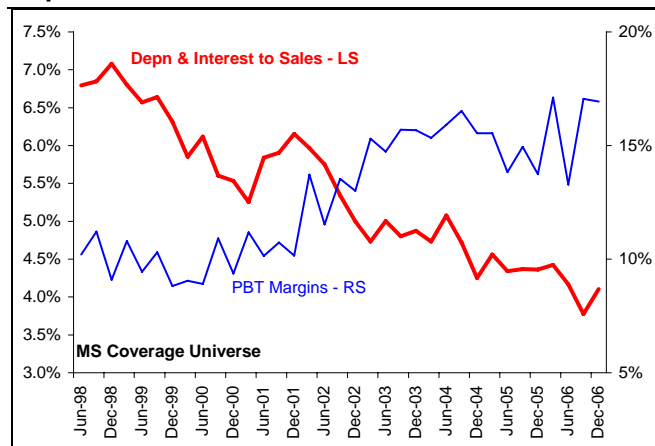
Sector Level Operating Leverage

| India's top 200 Companies | Gross Margin | EBITDA Margin | Delta in Margin (2006 over 2003) | | |
|---------------------------|--------------|---------------|----------------------------------|--------|-------|
| | | | Gross | EBITDA | Total |
| Consumer Disc (%) | 32.3 | 12.0 | -6.9 | -1.5 | 5.4 |
| Consumer Staples (%) | 56.2 | 20.5 | -2.1 | -1.2 | 0.9 |
| Energy (%) | 18.2 | 8.8 | -4.3 | -1.8 | 2.5 |
| Healthcare (%) | 52.0 | 16.3 | 1.4 | -2.9 | -4.3 |
| Industrials (%) | 50.3 | 13.2 | -10.2 | 3.0 | 13.2 |
| Technology (%) | 88.8 | 25.8 | 7.7 | 1.5 | -6.1 |
| Materials (%) | 44.0 | 20.9 | -3.1 | 4.0 | 7.1 |
| Telecom (%) | 96.9 | 21.4 | 2.0 | -5.2 | -7.2 |
| Utilities (%) | 76.8 | 24.2 | -8.1 | -1.7 | 6.4 |
| Total (%) | 39.4 | 14.9 | -3.4 | -1.8 | 1.6 |
| Total (Ex Energy) (%) | 53.4 | 18.8 | -2.0 | -1.5 | 0.5 |

Source: Company data, Morgan Stanley Research

Exhibit 10

Capital Costs Have Plummeted



Source: Company data, Morgan Stanley Research

Exhibit 11

Operating Leverage: Forecasts Signal Little Change

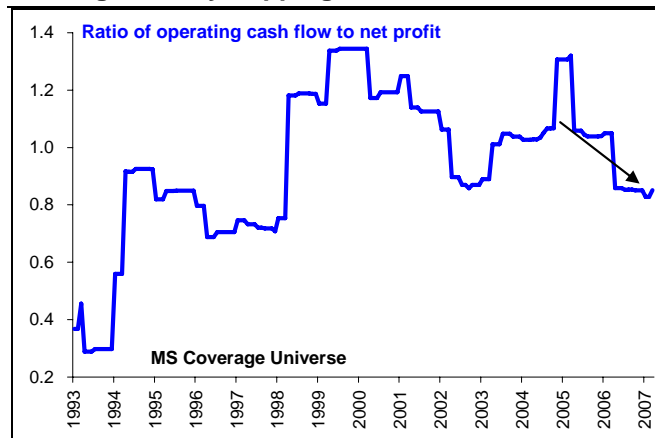
| MS Coverage Universe | Change in EBIT/Change in Revenues | | | |
|----------------------|-----------------------------------|-------------|---------------|----------------|
| | F1994-F1998 | F2004-F1999 | F2007 / F2004 | F2009 / F2007E |
| Consumer Disc (%) | 18 | 10 | 12.7 | 16.6 |
| Consumer Staples (%) | 13 | 33 | 17.7 | 19.7 |
| Energy (%) | 8 | 14 | 5.0 | -81.6 |
| Healthcare (%) | 23 | 22 | 20.9 | 24.1 |
| Industrials (%) | 20 | 11 | 26.4 | -11.6 |
| Materials (%) | 24 | 15 | 37.9 | 64.8 |
| Technology (%) | 16 | 23 | 17.8 | 20.5 |
| Telecom (%) | 29 | 3 | 40.8 | 46.8 |
| Utilities (%) | 32 | 11 | 41.0 | 46.4 |
| Total (%) | 12 | 15 | 13.5 | 42.3 |
| Total Ex-Energy (%) | 21 | 17 | 27.1 | 26.5 |

E = Morgan Stanley Research estimates

Source: Company data, Morgan Stanley Research

Exhibit 12

Earnings Quality Slipping



Source: Company data, Morgan Stanley Research

Simply put, 50% of the aggregate BSE Sensex earnings are in the hands of five companies (namely, ONGC, Reliance Industries, NTPC, Tata Steel and TCS). The next five (ICICI Bank, Reliance Comm, Infosys, SBI and Bharti) account for another 18% of total earnings. If these companies deliver results differently from current expectations, the impact on collective earnings will likely be exaggerated, with consequences for the performance of the index and ultimately, the broader market.

Capital Accumulation: An Emerging Positive

Ceteris paribus, earnings growth is a function of the rate of retention (i.e. retained earnings to common equity) and ROE. The retention rate for Indian companies fell through the late 1990s (Exhibit 16), pointing toward possible stress on medium-term earnings growth prospects. While companies took some time to build capital stock, they have made good headway in recent months. Capital accumulation seems to be in good shape and this should augur well for mid-term earnings growth. For example, the retention rate (defined here as retained earnings to common equity) for Morgan Stanley's coverage universe (excluding the volatile energy sector) has risen from an average of 12.5% between F1999 and F2004 to 15% between F2005 and F2007E. At the average ROE earned during these periods, this implies an improvement of 400 bps in long-term earnings growth. This, of course, does not mean that growth cannot slow down in the near term.

Where Does the Risk Reside

We asked our analysts to run sensitivities on their earnings estimates for the BSE Sensex constituents. These sensitivities do not include what could happen to earnings

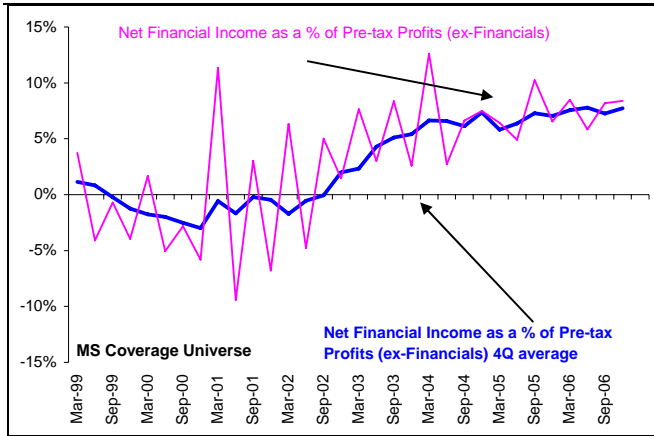
due to currency movements. Based on the results, it appears that the upside and downside risks seem quite similar. In our base case, our analysts expect the total earnings for the BSE Sensex constituents to grow at 13% in both F2008 and F2009. The bear case argues for a slip in earnings growth to 2% and 5%, respectively, whereas the bull case pushes the earnings growth to 24% and 29%, respectively (Exhibit 17). Our analysts' estimates are a shade behind the consensus estimates for our coverage universe. The key negative differences are in consumer discretionary, consumer staples, industrials, technology, telecoms and financials (on F2008 earnings). Our analysts expect positive surprises in energy, healthcare and base materials (Exhibit 18).

Conclusion: Risks to Earnings Rising

While earnings appear to be in good shape, there are headwinds gaining pace, which may cause momentum to slowdown noticeably in the coming months. The good news for earnings is the relatively tepid sector concentration of earnings, the rising capital accumulation on corporate balance sheets, the strong balance sheets and benign expectations as regards operating leverage. The bad news is the likelihood of higher capital costs, the slippage in earnings quality, the rising dispersion of earnings across stocks, the possible slowdown in macro growth, rising rates, volatile currency and reflexivity between stock prices and fundamentals. On balance, we think earnings revisions could turn negative after nearly four years of positive revisions. The consensus expects the BSE Sensex constituents to grow earnings by 16% on a combined basis in both F2008 and F2009. The broader market's earnings could be at greater risk if the economy slows down.

Exhibit 13

Earnings Quality Slipping, Part II



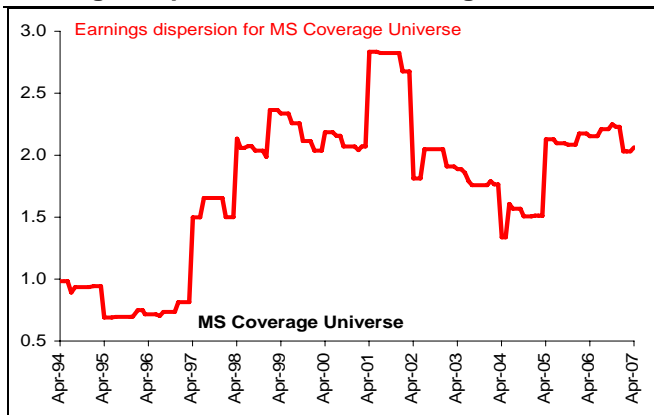
Source: Company data, Morgan Stanley Research
Exhibit 14

Sectoral Contribution of Earnings

| MS Coverage | Share in Aggregate Net Profit Avg 10 yrs | Sector Contribution to growth | | | | | | | |
|-----------------------|---|-------------------------------|------|------|------|-------|------|------|------|
| | | F06 | F07E | F08E | F09E | F06 | F07E | F08E | F09E |
| Cons Disc (%) | 6.2 | 7.1 | 6.7 | 6.9 | 7.3 | 15.0 | 5.7 | 8.3 | 9.6 |
| Industrials (%) | 3.9 | 5.5 | 6.5 | 5.4 | 3.7 | 7.6 | 9.9 | -2.4 | -9.2 |
| Energy (%) | 36.2 | 30.6 | 28.7 | 27.4 | 27.6 | 7.7 | 22.2 | 18.8 | 28.9 |
| Telecom (%) | 5.1 | 3.5 | 6.4 | 7.4 | 8.5 | 8.6 | 16.0 | 14.2 | 17.3 |
| Utilities (%) | 7.2 | 7.9 | 7.4 | 7.3 | 7.3 | 17.3 | 5.5 | 6.9 | 7.5 |
| Consumer (%) | 6.1 | 5.1 | 4.4 | 4.5 | 4.6 | 11.0 | 2.0 | 4.7 | 6.0 |
| Financials (%) | 16.3 | 16.2 | 13.7 | 13.9 | 14.2 | 27.2 | 5.2 | 15.6 | 16.4 |
| Healthcare (%) | 3.1 | 2.8 | 3.2 | 3.2 | 3.2 | 2.6 | 4.6 | 3.6 | 3.1 |
| Technology (%) | 7.1 | 9.2 | 10.3 | 11.2 | 11.7 | 20.2 | 13.9 | 17.3 | 15.4 |
| Materials (%) | 8.9 | 12.0 | 12.7 | 12.8 | 11.8 | -17.2 | 15.1 | 12.9 | 5.1 |
| Global Resources (%) | 45.1 | 42.6 | 41.4 | 40.2 | 39.4 | -9.6 | 37.2 | 31.7 | 34.0 |
| Domestic Cyclical (%) | 26.4 | 28.8 | 26.9 | 26.3 | 25.1 | 49.9 | 20.8 | 21.6 | 16.7 |

E = Morgan Stanley Research estimates Source: Company data, Morgan Stanley Research
Exhibit 15

Earnings Dispersion Has Headed Higher



Source: Company data, Morgan Stanley Research

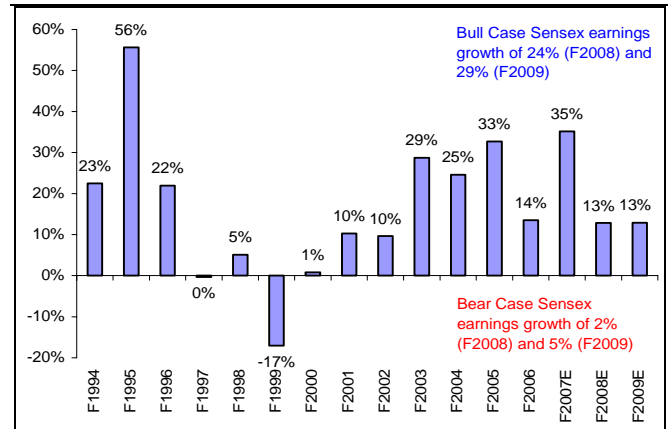
Exhibit 16

Capital Accumulation Has Improved

| MS Coverage | F2004/F1999 | | | F2007E/F2005 | | |
|----------------------|-----------------------|---------|-----------------------------------|-----------------------|---------|-----------------------------------|
| | Retained Earnings /BV | Avg ROE | Implied Earnings Growth Potential | Retained Earnings /BV | Avg ROE | Implied Earnings Growth Potential |
| Cons Disc (%) | 8.3 | 12 | 13 | 16 | 22 | 26 |
| Consumer Staples (%) | 17.0 | 35 | 41 | 14 | 32 | 36 |
| Energy (%) | 13.3 | 19 | 22 | 11 | 17 | 18 |
| Financials (%) | 13.8 | 17 | 20 | 12 | 15 | 17 |
| Healthcare (%) | 16.4 | 23 | 27 | 13 | 20 | 23 |
| Industrials (%) | 9.1 | 14 | 15 | 20 | 26 | 31 |
| Materials (%) | 11.0 | 15 | 16 | 26 | 32 | 40 |
| Technology (%) | 23.1 | 29 | 35 | 21 | 30 | 37 |
| Telecom (%) | 11.9 | 15 | 16 | 13 | 14 | 16 |
| Utilities (%) | 9.5 | 12 | 13 | 9 | 13 | 14 |
| Total (%) | 12.8 | 18 | 20 | 14 | 19 | 22 |
| Total Ex Energy (%) | 12.5 | 17 | 19 | 15 | 20 | 24 |

E = Morgan Stanley Research estimates Source: Company data, Morgan Stanley Research
Exhibit 17

BSE Sensex: Earnings-Bull//Bear/Base Case



E = Morgan Stanley Research estimates Source: Company data, Morgan Stanley Research
Exhibit 18

MS vs. Consensus: Earnings Growth Expectations

| | MS | | | Consensus | | |
|---------------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| | F07E | F08E | F09E | F07E | F08E | F09E |
| Consumer Discretionary (%) | 24 | 16 | 15 | 22 | 20 | 17 |
| Consumer Staples (%) | 12 | 11 | 18 | 22 | 17 | 10 |
| Energy (%) | 22 | 9 | 14 | 25 | 2 | 5 |
| Financials (%) | 10 | 17 | 16 | 13 | 24 | 21 |
| Healthcare (%) | 53 | 17 | 12 | 55 | 11 | 19 |
| Industrials (%) | 52 | 2 | -25 | 58 | 20 | 13 |
| Materials (%) | 37 | 15 | 5 | 38 | 3 | -8 |
| Technology (%) | 45 | 24 | 17 | 44 | 29 | 24 |
| Telecommunications (%) | 136 | 30 | 26 | 114 | 44 | 29 |
| Utilities (%) | 16 | 10 | 9 | 16 | 11 | 12 |
| MS Coverage Universe (%) | 30 | 14 | 12 | 31 | 15 | 12 |
| Sensex (%) | 35 | 13 | 13 | 34 | 16 | 16 |

Source: IBES, FactSet, Morgan Stanley Research

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|--------------------------|-------------------|------------|----------------------------------|------------|----------------------|
| | Count | % of Total | Count | % of Total | % of Rating Category |
| Overweight/Buy | 843 | 38% | 292 | 44% | 35% |
| Equal-weight/Hold | 991 | 45% | 284 | 42% | 28% |
| Underweight/Sell | 364 | 17% | 95 | 14% | 26% |
| Total | 2,198 | | 671 | | |

Data include common stock and ADRs currently assigned ratings. An investor's decision to buy or sell a stock should depend on individual circumstances (such as the investor's existing holdings) and other considerations. Investment Banking Clients are companies from whom Morgan Stanley or an affiliate received investment banking compensation in the last 12 months.

Analyst Stock Ratings

Overweight (O or Over) - The stock's total return is expected to exceed the total return of the relevant country MSCI Index, on a risk-adjusted basis over the next 12-18 months.

Equal-weight (E or Equal) - The stock's total return is expected to be in line with the total return of the relevant country MSCI Index, on a risk-adjusted basis over the next 12-18 months.

Underweight (U or Under) - The stock's total return is expected to be below the total return of the relevant country MSCI Index, on a risk-adjusted basis, over the next 12-18 months.

More volatile (V) - We estimate that this stock has more than a 25% chance of a price move (up or down) of more than 25% in a month, based on a quantitative assessment of historical data, or in the analyst's view, it is likely to become materially more volatile over the next 1-12 months compared with the past three years. Stocks with less than one year of trading history are automatically rated as more volatile (unless otherwise noted). We note that securities that we do not currently consider "more volatile" can still perform in that manner.

Unless otherwise specified, the time frame for price targets included in this report is 12 to 18 months.

Analyst Industry Views

Attractive (A): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be attractive vs. the relevant broad market benchmark, as indicated below.

In-Line (I): The analyst expects the performance of his or her industry coverage universe over the next 12-18 months to be in line with the relevant broad market benchmark, as indicated below.

Cautious (C): The analyst views the performance of his or her industry coverage universe over the next 12-18 months with caution vs. the relevant broad market benchmark, as indicated below.

Benchmarks for each region are as follows: North America - S&P 500; Latin America - relevant MSCI country index or MSCI Latin America Index; Europe - MSCI Europe; Japan - TOPIX; Asia - relevant MSCI country index.

Stock price charts and rating histories for companies discussed in this report are available at www.morganstanley.com/companycharts or from your local investment representative. You may also request this information by writing to Morgan Stanley at 1585 Broadway, (Attention: Equity Research Management), New York, NY, 10036 USA.

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