| Company | BBG code | Rating | Share price | TP | Chg in TP | Mkt cap | P/E | | Yld |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | FY1 | FY2 | FY1 |
| | | | (INR) | (INR) | (%) | (USDm) | (x) | (x) | (%) |
| **Tata Consultancy** | TCS IN | REDUCE | 999.90 | 830.00 | -39.9 | 43,119 | 19.0 | 17.8 | 1.7 |
| **Infosys** | INFO IN | REDUCE | 2,448.95 | 2,000.00 | -40.7 | 30,828 | 18.2 | 16.6 | 1.4 |
| **Wipro Ltd** | WPRO IN | REDUCE | 344.30 | 270.00 | -49.1 | 18,510 | 15.7 | 15.2 | 1.6 |
| **HCL Technologies** | HCLT IN | REDUCE | 423.20 | 300.00 | -50 | 6,437 | 14.5 | 13.9 | 2.1 |
| **MindTree Ltd** | MTCL IN | REDUCE | 358.15 | 270.00 | -32.5 | 319 | 8.9 | 11.0 | 0.8 |
| **Persistent Systems** | PSYS IN | REDUCE | 310.20 | 250.00 | -46.8 | 265 | 9.9 | 11.3 | 1.0 |

*Prices as at 17 August 2011; Source: Bloomberg, BNP Paribas estimates*

INDUSTRY OUTLOOK ↓

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- **Downgrade to DETERIORATING, six stocks to REDUCE on large EPS cuts**
- **Stocks are yet to reflect prolonged macro weakness or likely recession**
- **Adverse macro data points that could affect 60-75% of revenue emerge**
- **Strong relationship between Indian IT growth and macro variables**

# Yes, things could get worse

## Stocks should be available cheaper in a few months

We downgrade the India IT services sector to DETERIORATING and six stocks (Infosys, TCS, Wipro, HCL Tech, MindTree and Persistent) to REDUCE. Despite these stocks declining by an average of 13% (vs a 7% drop of the Sensex) in August alone, we think they are yet to reflect a likely prolonged anaemic macro growth scenario and the 50% chance of a US recession that our economics team forecasts. Moreover, we are yet to see material consensus downgrades since the macro data started worsening. We believe that even two-three quarters of flat-to-muted q-q revenue growth over FY12-13 (vs Street expectations of a 4-5% average) for our covered companies could lead to large EPS cuts. We lower our FY13 EPS estimates by 12-31% for the six stocks and to 10-30% below Street.

## Adverse macro across verticals, micro should catch up

Significant adverse macro data has recently emerged that could have a bearing on verticals such as financials, manufacturing and retail (61-74% of revenue for large-cap Indian IT companies). These include a fall in the US ISM and consumer confidence data to recessionary levels, and over 100,000 jobs cuts announced in financial services. Further, continuing weakness in telecom spending suggests likely lower visibility for about 80% of revenue. Moreover, downward revisions to historical US GDP data bring into question recent above-trend India IT growth. Meanwhile, as per our discussions with companies and contacts, while ongoing projects have not been affected, there is nervousness about future quarters.

## Quantifying the impact of weak macro on Indian IT growth

Our regression analysis of historical Indian IT services growth versus US GDP growth and a base effect variable suggests a fairly strong relationship (adjusted R-square of 0.58). Therefore, over the next few quarters, not only should Indian IT growth slow due to a higher base from continued headcount dependence, but weaker macro data should only worsen the situation. In fact, our exercise suggests that another recession of a similar magnitude as 2008-09 could result in worse q-q revenue dips for Indian IT players than they saw in FY09.

## Valuation: Revisiting our DCF charts

Our DCF models suggest stocks are trading at close to their base-case fair values *assuming long-term average risk levels persist*. However, in 2008, stocks fell to as much as 40-65% below their fair values, and we believe such a situation could repeat if demand worsens. For investors looking for sector exposure, we recommend higher-margin players (TCS, Infosys) as they are likely to better protect their earnings. The risk to our call is unexpected USD/INR depreciation.

## Stocks should be available cheaper in a few months

We are downgrading the Indian IT services sector to DETERIORATING and six stocks (Infosys, TCS, Wipro, HCL Tech, MindTree and Persistent) to REDUCE. Despite an average of 13% decline of large-cap IT stocks in August alone (vs a 7% drop of the Sensex), we think stock prices are yet to reflect either a likely prolonged anaemic macro growth scenario nor the 50% probability of a US recession that our economics team believes is the case.

The recent fall in stocks may lead investors to believe that value is emerging, but we think stocks will be available cheaper over the next few months because we are likely to see deteriorating news flow. Moreover, we are yet to see any material consensus EPS downgrades since the data started worsening recently.

We believe even two-three quarters of flat-to-muted q-q revenue growth over FY12-13 for our coverage companies could lead to significant EPS cuts on a constant currency basis. Current Bloomberg consensus projections imply more than 5% average q-q revenue growth for the remainder of FY12 and over 4% for FY13 for the four large-cap stocks (TCS, Infosys, Wipro and HCL Tech).

Our own FY13 EPS estimates are now lower by 12-31% for the six stocks and are about 10-30% below consensus. We have also reduced our target prices accordingly.

**Exhibit 1: Changes to our estimates**

| | — FY12E revenue — | | | FY12E EBIT margin | | | —FY12E net profit — | | | — FY13E revenue — | | | FY13E EBIT margin | | | — FY13E net profit — | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | New | Prev | Var | New | Prev | Var | New | Prev | Var | New | Prev | Var | New | Prev | Var | New | Prev | Var |
| | (INR m) | (INR m) | (%) | (%) | (%) | (bp) | (INR m) | (INR m) | (%) | (INR m) | (INR m) | (%) | (%) | (%) | (bps) | (INR m) | (INR m) | (%) |
| TCS | 467,062 | 466,436 | 0.1 | 27.5 | 27.4 | 9 | 102,979 | 103,114 | (0.1) | 510,713 | 570,749 | (10.5) | 27.1 | 27.4 | (33) | 110,020 | 124,900 | (11.9) |
| Infosys | 322,903 | 324,530 | (0.5) | 28.0 | 28.0 | (4) | 76,858 | 77,967 | (1.4) | 359,438 | 396,384 | (9.3) | 27.2 | 28.4 | (124) | 84,347 | 96,321 | (12.4) |
| Wipro | 359,058 | 371,617 | (3.4) | 17.2 | 17.9 | (69) | 53,673 | 58,317 | (8.0) | 382,916 | 451,034 | (15.1) | 16.6 | 19.1 | (245) | 55,764 | 73,406 | (24.0) |
| HCL Tech | 192,088 | 198,499 | (3.2) | 14.1 | 15.2 | (111) | 20,537 | 22,556 | (8.9) | 209,391 | 242,379 | (13.6) | 13.2 | 15.7 | (252) | 21,635 | 28,878 | (25.1) |
| MindTree | 17,602 | 17,613 | (0.1) | 9.6 | 8.5 | 111 | 1,644 | 1,356 | 21.2 | 19,183 | 21,432 | (10.5) | 8.2 | 9.8 | (157) | 1,358 | 1,728 | (21.4) |
| Persistent | 10,067 | 10,283 | (2.1) | 14.7 | 14.6 | 11 | 1,277 | 1,313 | (2.8) | 11,073 | 13,235 | (16.3) | 13.1 | 14.7 | (155) | 1,146 | 1,653 | (30.7) |

*Source: BNP Paribas estimates*

## Adverse macro developments in each of the largest verticals

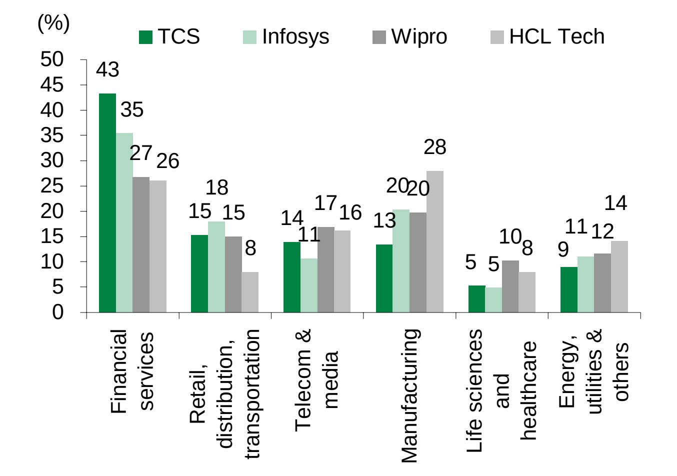
As is now widely known, there are three macro worries to contend with, all of which could worsen the outlook for IT services spending over the next few quarters: 1) deteriorating US and Europe growth data, 2) the US sovereign downgrade, and, 3) continued escalation of the European debt crisis.

Over the past fortnight or so, significant macro data has come to light that signals a drop in q-q growth rates for Indian IT companies across verticals, and more specifically for financials, manufacturing and retail (61-74% of revenue for large-cap Indian IT companies). Add to this, already continuing weakness in the telecom vertical suggests likely lower visibility in areas that contribute about 80% of revenue for Indian IT services players.

**Downward GDP revisions bring into question recent above-trend India IT growth**

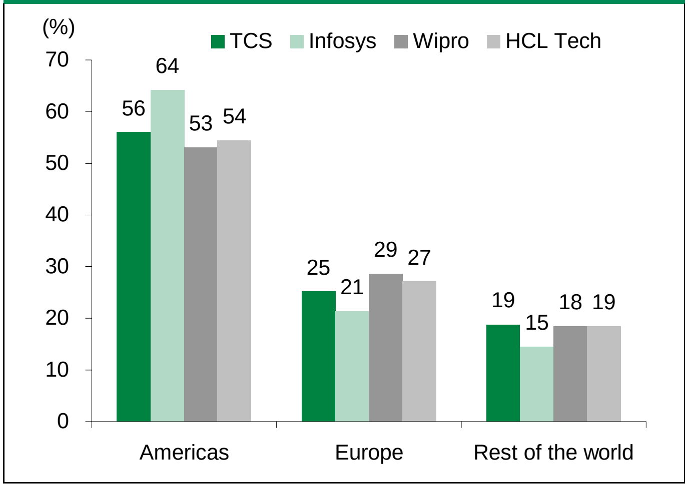
Recent revisions to US GDP data suggest that the economy was in a deeper recession and the recovery was more lacklustre than previously believed. Furthermore, the US economy grew at only about 1% annualized in 1H11. This brings into question the above-trend growth that Indian IT companies have seen over the past few quarters (given the economy was worse off relative to IT services spending levels), and it is likely clients will re-look at their IT budgets given the new economic realities.

**Exhibit 2: Revenue split by vertical**




*Note: Data regrouped in order to allow for comparison between companies*
*Sources: Company reports; BNP Paribas*

**Exhibit 3: Revenue split by geography**




*Note: Data regrouped in order to allow for comparison between companies*
*Sources: Company reports; BNP Paribas*

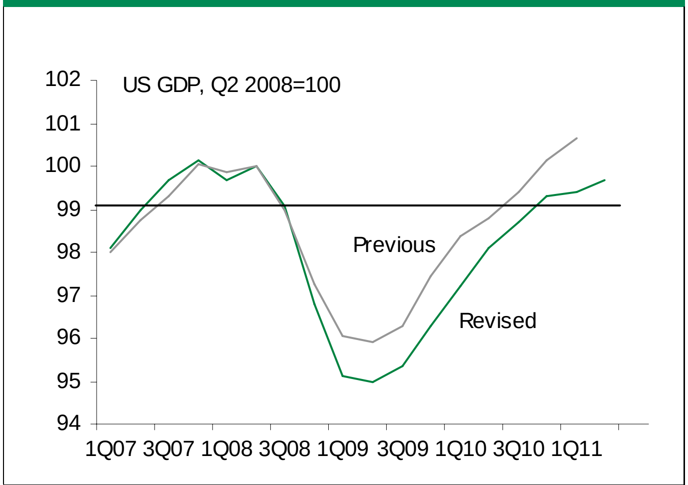
**Furthermore, BNPP economists now see 50-50 chance of recession**

As per our economists (*When All Else Fails*, 9 August 2011), the combination of markdowns to the global economic outlook and a growing sense that policymakers are no longer able or willing to offer support have led them to believe that there is 50% probability of a recession over the next six months. This is in contrast to their earlier view that the world was going through a soft patch and that growth would recover from 3Q11.

**US ISM declines consistent with a recessionary situation**

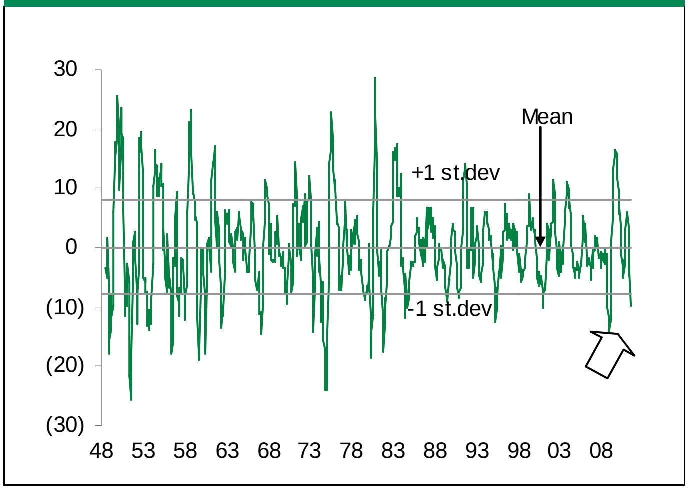
Meanwhile, the continued decline in the US ISM survey data suggests that the economy has weakened further moving into 3Q11. As per our economists, the abrupt nature of the change in the index is usually associated with recession (*Macro Monday,* 8 August 2011).

**Exhibit 4: Revisions to US GDP data**




*Sources: Reuters EcoWin Pro; BNP Paribas*

**Exhibit 5: US ISM data pointing to recession**




*Sources: Reuters EcoWin Pro; BNP Paribas*

**Consumer sentiment at lower than 2008 crisis levels**

The Reuters/University of Michigan consumer sentiment index fell sharply to 54.9 in mid-August from 63.7 in late July, and was lower than the crisis level of November 2008.

**Meanwhile, several financial institutions have announced job cuts**

In addition, as per Bloomberg data, several financial institutions (mostly in Europe) have announced more than 100,000 job cuts in 2011 to cut costs.

**Exhibit 6: Significant financial services job cuts announced this year**

| | Job cuts announced in 2011 | Total headcount as of 31 Dec | Cut as % of 31 Dec headcount |
|---|---|---|---|
| HSBC Holdings Plc,U.K. | 30,000 | 295,061 | 10.0 |
| Lloyds Banking Group Plc, U.K | 16,800 | 104,000 | 16.0 |
| Intesa Sanpaolo SpA, Italy | 3,000 | 102,000 | 2.9 |
| Bankia, Spain | 3,000 | na | na |
| Barclays Plc, U.K. | 3,000 | 147,500 | 2.0 |
| Banca Monte dei Paschi di Siena SpA, Italy | 2,500 | 31,400 | 8.0 |
| Credit Suisse Group AG, Switzerland | 2,025 | 50,100 | 4.0 |
| RBS, UK | 2,000 | na | na |
| Allied Irish Banks Plc, Ireland | 2,000 | 14,255 | 14.0 |
| Bank of America Corp., US | 1,575 | 286,951 | 0.5 |
| Banco Popolare SC, Italy | 1,120 | 20,000 | 5.6 |
| Unione di Banche Italiane ScpA, Italy | 1,000 | 19,700 | 5.1 |
| Goldman Sachs Group Inc., U.S. | 1,000 | 35,700 | 2.8 |
| Grupo Financiero Banorte SAB, Mexico | 1,000 | 25,000* | 4.0 |
| Synovus Financial Corp., U.S. | 850 | 6,109 | 13.9 |
| State Street Corp., US | 850 | 28,670 | 3.0 |
| UniCredit SpA, Italy | 700 | 160,000 | 0.4 |
| Erste Group Bank AG, Austria | 550 | 50,272 | 1.1 |
| American Express Co., US | 550 | 61,000 | 0.9 |
| UBS AG, Switzerland | 500 | 64,617 | 0.8 |

*Note: Headcount reflects Grupo Financiero Banorte's acquisition of Ixe Grupo Financiero SAB, which was completed in April*
*Sources: Bloomberg; Business Insider*

There have been negative macro developments recently that could potentially impact all of the largest verticals of Indian IT players

Much of the growth in recent years for Indian IT companies has come from market share gains because of the much improved scale, better client relationships from beefed up front ends, and newer service lines such as infrastructure services and verticals such as energy, utilities and healthcare. We also believe that they are probably better prepared now than in 2008 to face a recessionary situation.

However, these factors do not take away from the fact that in the event of an overall slowdown, they would not stay unaffected.

## Ground level and macro data should eventually converge

**No negatives from two CEOs on the road, but nervousness on the ground now**
Our discussions with companies, industry contacts and recruitment agencies over the past week suggest that companies are still trying to assess the likely impact of the recent events. In fact, we had two industry CEOs (MindTree and Persistent Systems) on the road with us in late-July for investor meetings, and neither of them had anything negative to comment on demand. This is consistent with our checks that suggest that ongoing IT services projects have not been impacted yet, but the feeling on-the-ground is nervous about future quarters (particularly from December 2011 quarter).

**Recently strong software and services results point to high near-term visibility**
Meanwhile, company results that have come in recently (IBM, SAP, Cognizant and others) present a bullish near-term demand picture with several of the companies raising their full-year outlook.

**Exhibit 7: Recent tech result announcements indicate good near-term visibility**

| | Quarter beat/miss | | Guidance | |
|---|---|---|---|---|
| | Revenue | EPS | Revenue | EPS |
| IBM | Beat | Beat | | Raised |
| Cisco | Beat | Beat | | |
| Cognizant | Beat | Beat | Raised | Raised |
| CSC | Beat | Beat | Same | Same |
| Accenture | Beat | Beat | Raised | Raised |
| Oracle | Inline | Beat | na | na |
| SAP | Beat | Beat | Same | Same range, but guided to upper end |

*Sources: Company reports; Bloomberg*

**But demand could worsen from December 2011**

For Indian IT services companies, we believe previous projections of a 2HFY12 or 1HFY13 pick-up need a rethink given the new macro data at hand. All these data points suggest high near-term visibility, but a relatively cloudy outlook from late FY12.

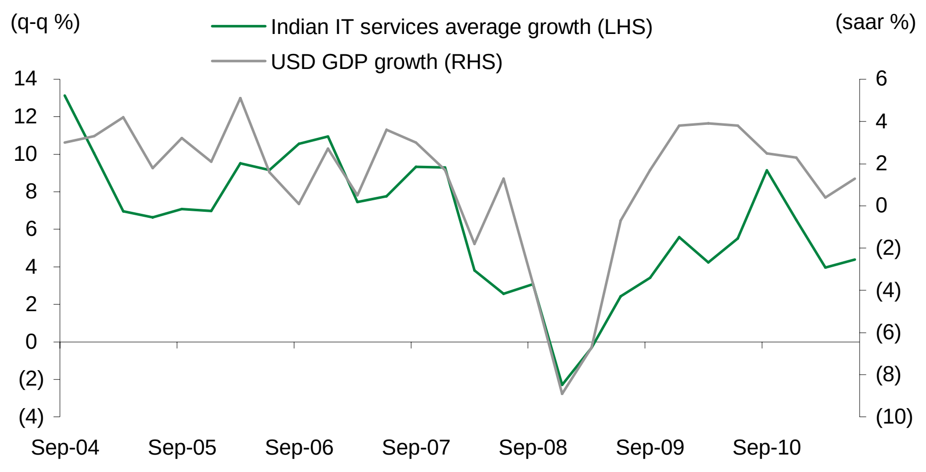
## Quantifying the impact of weak macro on Indian IT growth

**In boom times, clients offshore more and in bad times, they offshore less**

There have been some arguments that in recessionary times, clients increase outsourcing spending to cut costs. However, we note that over the past few years, Indian IT revenue growth has closely tracked US GDP growth.

In fact, as we highlighted in our note *No growth if top customers don't expand,* 26 November 2008, historically, IT offshoring growth has been closely correlated with the revenue growth of the largest 100-150 accounts (and more so the largest 50 accounts which contribute over 50% of the revenue). Hence, Indian IT companies are a direct play on overall macroeconomic activity. In simple terms, in boom times, clients offshore more and, in bad times, they offshore less.

**Exhibit 8: Indian IT services growth vs US GDP growth**




Indian IT growth closely tracks US GDP growth. Increased base effect also seems be having an impact of late

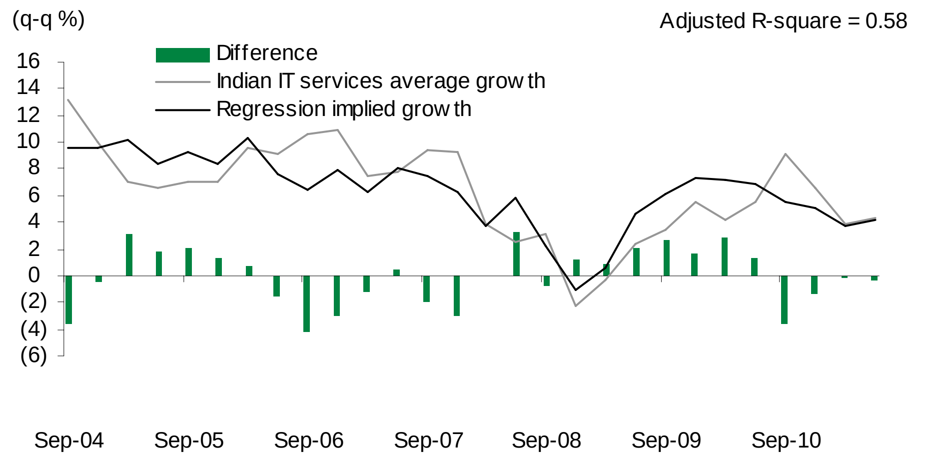
*Note: Average growth of large-cap Indian IT companies used above*
*Sources: bea.gov; company reports; BNP Paribas*

**Indian IT trend growth should decline due to weaker macro and higher base …**

Our regression analysis of historical Indian IT services q-q growth versus US GDP growth and a variable to measure the base effect for Indian companies (absolute revenue of Infosys used as a proxy given clean historical data) suggests a fairly strong relationship between the variables (adjusted R-square of 0.58).

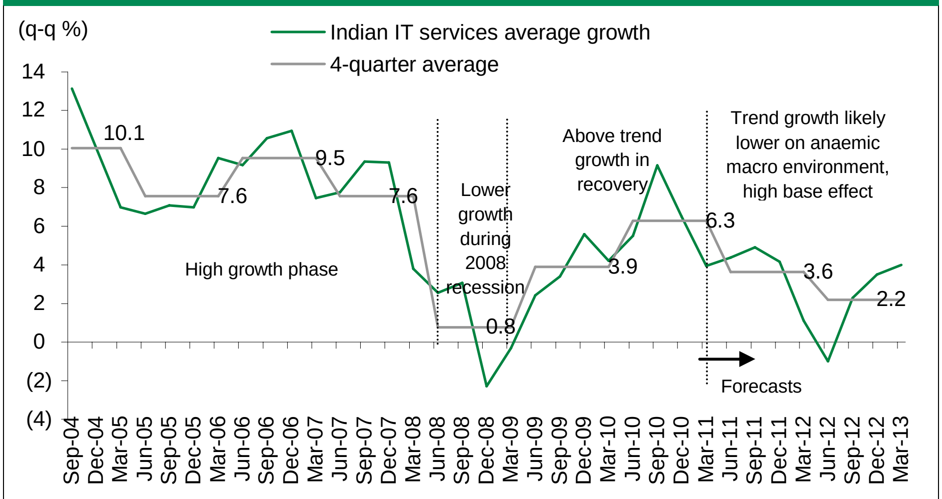
In other words, over the next few quarters, not only should the trend growth for Indian IT companies decline due to a higher base because of continued headcount dependence (as we have noted previously in our notes *Don't fix it if it ain't broken*, 28 February 2011 and *The time is now*, 30 March 2011), but weaker macro data should only worsen the situation.

**Exhibit 9: Regression of IT services growth with US GDP growth and base effect variable**




*Note: Average growth of large-cap Indian IT companies used above*
*Sources: Company reports, BNP Paribas*

**Exhibit 10: Indian IT trend growth should be lower by FY13**

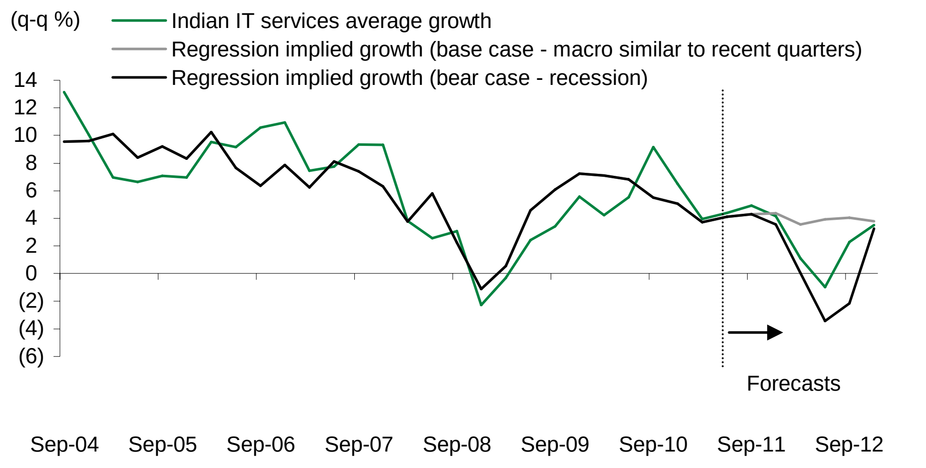



*Note: Average growth of large-cap Indian IT companies used above*
*Sources: Company reports, BNP Paribas*

Based on this analysis, it appears to us that the recent above-trend average q-q growth for the largest four Indian IT companies is unlikely to be sustained, and may have at least been partly driven by clients expecting that the macro situation would improve rather than worsen.

Our theoretical exercise also suggests that the about 6.3% q-q average growth seen by large-cap Indian IT players in FY11 could drop to 3.5-4.0% in FY12 (similar to FY10 levels) and further drop to 2.0-3.0% in FY13 if a recession sets in or if prolonged anaemic macro growth becomes a reality. In fact, if a recession of a similar magnitude as 2008 comes through, we believe Indian IT services companies could see worse q-q revenue dips than they saw in FY09.

**Exhibit 11: India IT services growth simulated for different macro conditions**




*Sources: Company reports, BNP Paribas*

If a recession of the same magnitude as 2008 comes through, we expect Indian IT services companies to see worse q-q revenue dips than they saw in FY09.

**… and is reflected in our estimate cuts**

We revise our estimates to factor in a 50% probability of recession that our economists now believe is the case. Therefore we now see a flattish q-q June 2012 quarter and relatively mute quarters on either side (i.e, March 2012 and September 2012).

Even though we believe Indian IT companies may be better prepared now than in 2008 for such a situation, we think it is unlikely that clients will not ask for lower pricing in such a situation. Therefore, on a constant-currency basis, we see EBIT margin heading lower into FY13.

As a result, while there are relatively small revenue and EPS cuts for our coverage for FY12E, there are significant (9-16% revenue and 12-31% EPS) cuts for FY13E (see Exhibit 1).

Companies with higher EBIT margins such as TCS and Infosys have smaller EPS cuts and therefore remain relatively better investment options in such an environment, in our view.

## Risks to our call: Lessons from 2008-09

We draw parallels with 2008-09 when large-cap stocks fell 40-65% from their peaks to troughs between September 2008 and March 2009. FY10 P/E multiples went down 30-50% for the large caps, while those of some mid-cap companies fell more to fundamentally unjustifiable levels. Consensus FY10 (and not so much FY09) EPS estimates were cut 11-30% for large-cap stocks.

However, in hindsight (now that we have actual FY09-11 EPS numbers), it turned out that such EPS cuts were not entirely deserved because: 1) the USD/INR appreciated significantly through the period and aided earnings, and to a lesser extent, 2) the recovery happened faster-than-expected, and 3) companies such as TCS and Wipro ran stringent margin programmes and improved margins.

Between the June 2008 and December 2009 quarters, the USD/INR depreciated by as much as 11% on a quarterly average basis, giving Indian IT companies a 500-550bps EBIT margin buffer. Between these quarters, the largest four companies reported an average 240bp EBIT margin improvement. Therefore, the USD/INR depreciation was the single biggest factor why consensus downgrades proved too aggressive.

We believe the same three factors present risks to our call. Our models are built on a constant-currency basis (using the current approximately USD/INR45.5 rate), so do not factor in the unexpected currency swings.

**Exhibit 12: Changes in peak to trough stock prices, P/Es and consensus EPS (September 2008 - March 2009)**

| (%) | Change in price | — Change in consensus EPS — | | | —— Change in implied P/E —— | | |
|---|---|---|---|---|---|---|---|
| | | FY09 | FY10 | FY11 | FY09 | FY10 | FY11 |
| Infosys | (38) | (0) | (11) | (8) | (38) | (30) | (33) |
| TCS | (48) | (8) | (18) | (24) | (44) | (37) | (32) |
| Wipro | (55) | (6) | (18) | (21) | (53) | (46) | (44) |
| HCL Tech | (65) | (12) | (30) | (32) | (60) | (50) | (49) |
| Tech Mahindra | (74) | 2 | (10) | (22) | (74) | (71) | (66) |
| MindTree | (46) | (32) | (10) | (13) | (20) | (40) | (38) |

*Sources: Bloomberg; BNP Paribas*

We draw parallels with 2008-09 when large-cap stocks fell 40-65% from their peaks to troughs between September 2008 and March 2009.

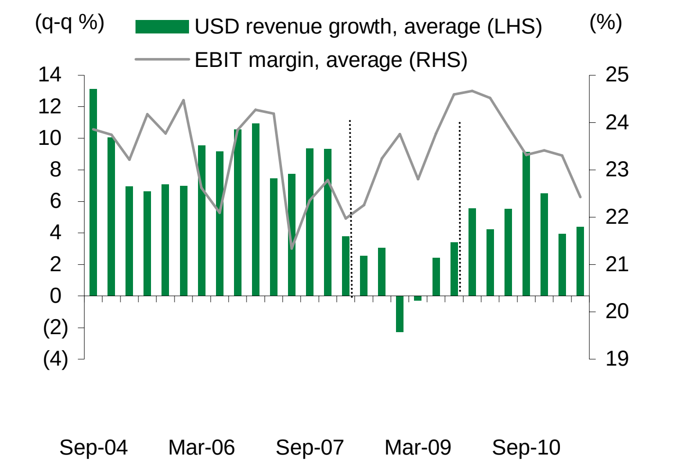
**Exhibit 13: However not all those consensus EPS cuts in 2008-09 were justified**

| (%) | Consensus FY10 EPS change (peak to trough) | Deserved FY10 EPS change |
|---|---|---|
| Infosys | (11) | (7) |
| TCS | (18) | 1 |
| Wipro | (18) | (0) |
| HCL Tech | (30) | (33) |
| Tech Mahindra | (10) | (17) |
| MindTree | (10) | 24 |

*Sources: Bloomberg; company reports; BNP Paribas*

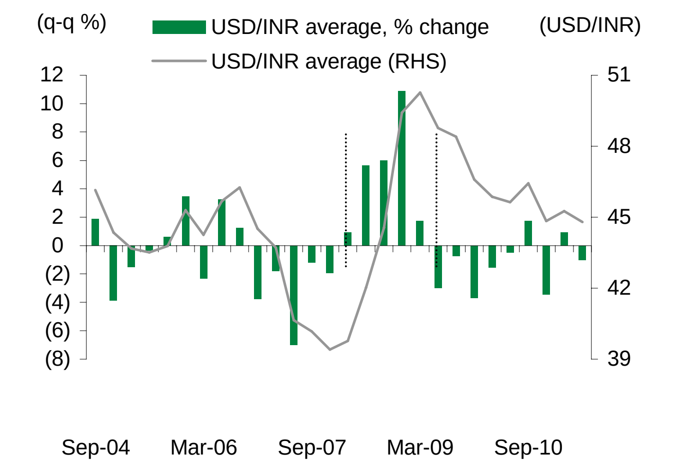
Between the June 2008 and December 2009 quarters, the USD/INR depreciated by as much as 11% on a quarterly average basis, giving Indian IT companies a 500-550bp EBIT margin buffer. Therefore, the USD/INR depreciation was the single biggest factor why consensus downgrades proved too aggressive.

**Exhibit 14: Contrary to initial expectations, margins expanded during the previous downturn …**




*Sources: Company reports; BNP Paribas*

**Exhibit 15: … helped significantly by a weakening rupee**




*Sources: Bloomberg; Company reports; BNP Paribas*

## Valuations: Revisiting our DCF charts and past lessons

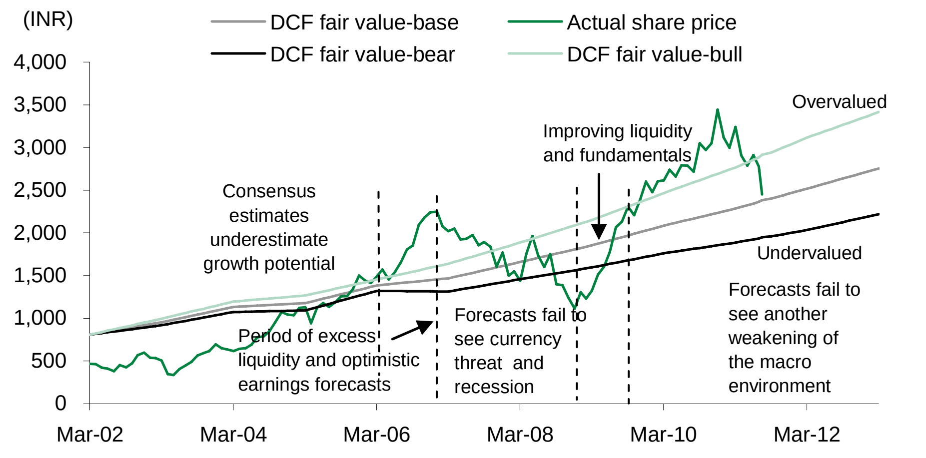
Over the next few months, we expect Indian IT services stocks to decline on macro uncertainty and advise investors to wait for better prices to enter the stocks.

To set our target prices, we revisit our historical DCF models that compare "what was" vs "what should have been" and, in our view, are useful visual aids to identify buy/sell opportunities for the long term. As part of this exercise, we back-calculate the historical DCF fair values of stocks using reported numbers. In other words, these are the prices a stock should have traded at if investors had perfect information about future earnings.

Given the cut in our FY12-14 forecasts, the bull, base and bear case lines see a downward parallel shift. The other adjustment to our DCF models is a reduction in the medium-term growth rate from 12% to 10% because of increased cyclicality in the industry that was not so apparent earlier.

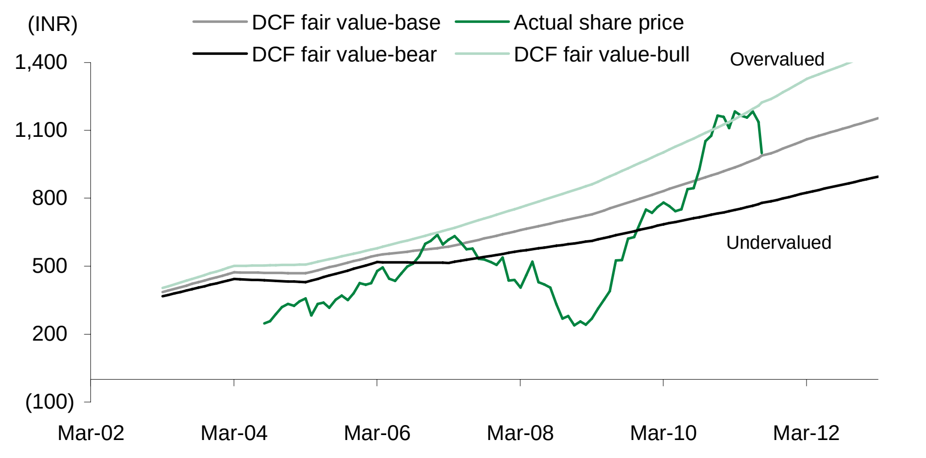
At current prices, stocks are trading at close to their base-case fair values on our estimates, *but at historical long-term average risk premia levels (i.e., no change to beta)*. However, we believe increased macro uncertainty and likely sub-par EPS growth in FY13 could lead to investors reassessing the risk premia for the stocks until such a situation persists. As a result, we believe stocks could trade below what our long-term DCF models suggest.

**Exhibit 16: Infosys – actual share prices vs implied long-term DCF fair values**



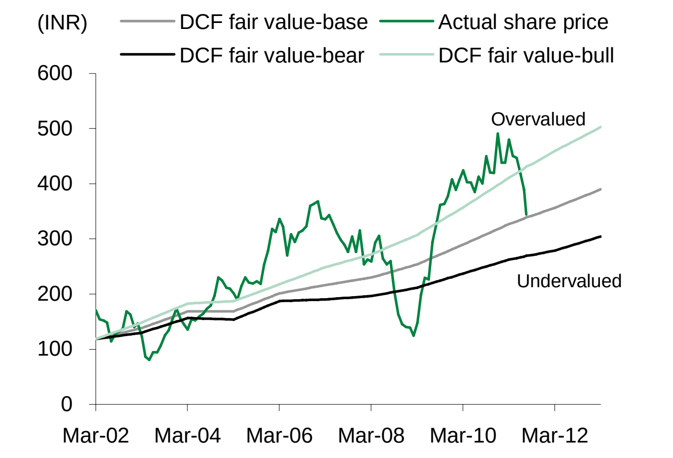

*Note: Bull and base cases calculated by varying FY12-14 and medium-term revenue growth projections by 2% for forecast years, FY12-14 margin assumptions by 100bps and medium-term margin assumptions by 10-20bps annually*
*Source: BNP Paribas estimates*

**Exhibit 17: TCS – actual share prices vs implied long-term DCF fair values**



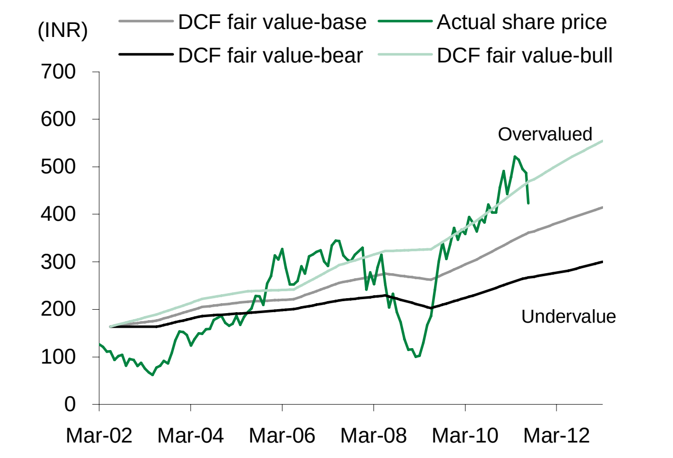

*Note: Bull and base cases calculated by varying FY12-14 and medium-term revenue growth projections by 2% for forecast years, FY12-14 margin assumptions by 100bps and medium-term margin assumptions by 10-20bps annually*
*Source: BNP Paribas estimates*

**Exhibit 18: Wipro – actual share prices vs implied long-term DCF fair values**




*Note: Bull and base cases calculated by varying FY12-14 and medium-term revenue growth projections by 2% for forecast years, FY12-14 margin assumptions by 100bps and medium-term margin assumptions by 10-20bps annually*
*Source: BNP Paribas estimates*

**Exhibit 19: HCL Tech – actual share prices vs implied long-term DCF fair values**




*Note: Bull and base cases calculated by varying FY12-14 and medium-term revenue growth projections by 2% for forecast years, FY12-14 margin assumptions by 100bps and medium-term margin assumptions by 10-20bps annually*
*Source: BNP Paribas estimates*

In 2008, we note that large-cap Indian IT stocks went to levels that were about 40-65% (and about 25-60% on an average during May 2008 to March 2009) below what our long-term DCF fair values would have suggested. Using these for direction, we set our target prices 20-25% below what our long-term DCF models imply.

TCS has significantly re-rated over the past couple of years due to improving operations, stable management and by consistently beating consensus forecasts. As a result, we believe the discount that it traded at in 2008-09 to our implied DCF calculations was at an exaggerated level (recall our DCF charts are built with the benefit of hindsight).

In 2008, large-cap Indian IT stocks went to levels that were 40-65% below what our long-term DCF fair values would have suggested.

**Exhibit 20: Discount to DCF-long-term fair values seen in 2008-09 lows**

| | Infosys | TCS | Wipro | HCL Tech |
|---|---|---|---|---|
| | (%) | (%) | (%) | (%) |
| Highest absolute discount | (38) | (66) | (43) | (57) |
| Average discount in Sep 2008-May 2009 | (26) | (61) | (34) | (49) |

*Source: BNP Paribas*

For investors looking to take exposure to the sector, we would recommend higher-margin companies such as TCS and Infosys as they are likely to better protect their earnings in the event of price cuts. Specifically, we would prefer TCS given its scale, stable management and lean organization structure.

**Exhibit 21: Discounted cash flow valuation summary**

| | TCS | Infosys | Wipro | HCL Tech | MindTree | Persistent |
|---|---|---|---|---|---|---|
| WACC (%) | 11.2 | 11.5 | 11.5 | 13.1 | 14,2 | 14.8 |
| Terminal growth rate (%) | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 |
| Revenue growth – FY0-3E (%) | 16.7 | 15.0 | 12.8 | 16.0 | 14.5 | 18.8 |
| Revenue growth – FY3-10E (%) | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 | 10.0 |
| Annual EBIT margin change – FY0-3E (bp) | (42) | (98) | (66) | (8) | 59 | (51) |
| Annual EBIT margin change – FY3-10E (bp) | (50) | (50) | (30) | (30) | (50) | (60) |
| 12-month DCF-based fair value (INR) using long-term risk premia | 1040 | 2,500 | 365 | 399 | | |
| *Discount assumed to adjust for heightened risk aversion (%)* | *(20)* | *(20)* | *(25)* | *(25)* | | |
| **12-month DCF-based fair value (INR)** | **830** | **2,000** | **270** | **300** | **270** | **250** |
| *Implied FY13E P/E (x)* | *14.8* | *13.5* | *11.9* | *9.9* | *8.3* | *9.1* |

*Source: BNP Paribas estimates*

## Exhibit 22: Comparable company valuations

| | BBG code | Share price* (LC) | Market cap (USD m) | FY1-3 CAGR rev. (%) | FY1-3 CAGR EPS (%) | FY1 EBIT margin (%) | EV/EBIT FY1E (x) | EV/EBIT FY2E (x) | EV/EBIT FY3E (x) | P/E FY1E (x) | P/E FY2E (x) | P/E FY3E (x) | PEG* FY1E (x) | P/BV FY1E (x) | Div. yield FY1E (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Indian IT services companies** | | | | | | | | | | | | | | | |
| **Large caps** | | | | | | | | | | | | | | | |
| TCS | TCS IN | 1,000 | 43,119 | 12.7 | 10.8 | 27.5 | 14.5 | 13.5 | 11.8 | 19.0 | 17.8 | 15.5 | 1.8 | 6.0 | 1.7 |
| Infosys | INFO IN | 2,449 | 30,828 | 13.9 | 12.9 | 28.0 | 13.7 | 12.7 | 11.1 | 18.2 | 16.6 | 14.3 | 1.4 | 4.5 | 1.4 |
| Wipro | WPRO IN | 344 | 18,510 | 11.4 | 9.7 | 17.2 | 12.6 | 12.3 | 10.6 | 15.8 | 15.2 | 13.1 | 1.6 | 3.0 | 1.6 |
| HCL Tech | HCLT IN | 423 | 6,437 | 13.5 | 12.1 | 14.1 | 10.7 | 10.5 | 8.5 | 14.6 | 14.0 | 11.6 | 1.2 | 3.0 | 2.1 |
| **Median** | | | | **13.1** | **11.4** | **22.4** | **13.2** | **12.5** | **10.9** | **17.0** | **15.9** | **13.7** | **1.5** | **3.7** | **1.7** |
| **Mid caps** | | | | | | | | | | | | | | | |
| Tech Mahindra | TECHM IN | 711 | 1,998 | 12.3 | 22.3 | 16.0 | 8.4 | 7.8 | 7.2 | 10.3 | 8.2 | 6.9 | 0.5 | 2.1 | 0.6 |
| Mphasis | MPHL IN | 382 | 1,773 | 13.7 | 4.3 | 17.1 | 7.3 | 6.3 | 5.8 | 9.9 | 9.8 | 9.1 | 2.3 | 2.0 | 1.1 |
| Satyam | SCS IN | 71 | 1,857 | 19.0 | 50.2 | 9.7 | 9.8 | 5.2 | 3.9 | 15.6 | 9.0 | 6.9 | 0.3 | 1.3 | - |
| Patni | PATNI IN | 265 | 786 | 13.2 | 12.5 | 12.4 | 4.5 | 3.6 | 3.3 | 8.5 | 7.4 | 6.7 | 0.7 | 0.8 | 1.3 |
| Hexaware | HEXW IN | 81 | 524 | 19.9 | na | 11.3 | 8.1 | 6.1 | 3.9 | 11.3 | 8.6 | na | na | 1.9 | 0.5 |
| eClerx | ECLX IN | 792 | 508 | 24.7 | 13.0 | 37.5 | 12.7 | 10.5 | 9.4 | 16.1 | 13.5 | 12.6 | 1.2 | 7.3 | 2.6 |
| Rolta India | RLTAIN | 103 | 366 | 12.9 | na | 21.9 | 5.8 | 4.9 | 4.2 | 4.9 | 4.1 | na | na | 0.9 | 3.9 |
| MindTree | MTCL IN | 358 | 319 | 13.4 | (1.5) | 9.6 | 8.5 | 9.1 | 7.1 | 9.0 | 11.1 | 9.3 | (5.9) | na | 0.8 |
| Polaris | POL IN | 134 | 294 | 17.2 | 18.8 | 12.4 | 3.4 | 2.9 | 2.5 | 6.4 | 5.5 | 4.5 | 0.3 | 1.1 | 3.5 |
| Infotech | INFTC IN | 115 | 283 | 16.9 | 16.0 | 11.3 | 5.3 | 4.2 | 3.5 | 8.9 | 7.1 | 6.6 | 0.6 | 1.1 | 1.1 |
| Persistent | PSYS IN | 310 | 265 | 13.7 | 1.7 | 14.7 | 7.9 | 8.0 | 6.7 | 10.0 | 11.5 | 9.7 | 6.0 | 1.0 | 1.0 |
| **Median** | | | | **13.7** | **13.0** | **12.4** | **7.9** | **6.1** | **4.2** | **9.9** | **8.6** | **6.9** | **0.6** | **1.2** | **1.1** |
| **Global IT services players** | | | | | | | | | | | | | | | |
| Accenture | ACN US | 55 | 38,902 | 8.0 | 12.4 | 13.6 | 9.9 | 8.9 | 8.1 | 16.2 | 14.4 | 12.8 | 1.3 | 10.5 | 1.7 |
| Cognizant | CTSH US | 63 | 19,048 | 22.3 | 20.9 | 18.6 | 14.8 | 12.1 | 10.0 | 21.9 | 18.2 | 15.0 | 1.0 | 4.6 | - |
| Capgemini | CAP FP | 30 | 6,624 | 5.3 | 16.8 | 7.1 | 5.3 | 4.5 | 4.0 | 12.1 | 10.2 | 8.9 | 0.7 | 1.0 | 3.6 |
| CSC | CSC US | 30 | 4,639 | 2.0 | 6.6 | 6.4 | na | na | na | 6.7 | 6.3 | 5.9 | 1.0 | 0.6 | 2.0 |
| **Median** | | | | **6.6** | **14.6** | **10.3** | **9.9** | **8.9** | **8.1** | **14.2** | **12.3** | **10.9** | **1.0** | **2.8** | **1.9** |

*Note: Based on FY1-3 EPS CAGR; ^ ex-Satyam for EV/EBIT*
** Prices are as at 17 August 2011*
*Sources: Bloomberg; Company reports; BNP Paribas estimates for Infosys, TCS, Wipro, HCL Tech, Rolta India (RLTA IN, BUY), Tech Mahindra (TECHM IN, HOLD), Satyam (SCS IN, HOLD), MindTree, MphasiS (MPHL IN, HOLD) and Persistent. Bloomberg consensus estimates for all other mentioned companies which are not rated.*

# Tata Consultancy TCS IN

INDIA / SOFTWARE & SERVICES

| | |
|---|---|
| TARGET | INR830.00 |
| PRIOR TP | INR1,380.00 |
| CLOSE | INR999.90 |
| UP/DOWNSIDE | -17.0% |

**REDUCE**

FROM BUY

INDUSTRY OUTLOOK ↓ CHANGE IN RECOMMENDATION

## Better placed than most

- **Downgrade to REDUCE, significant risk to Street FY13-14 EPS**
- **See demand deteriorating by late FY12, cut FY13E EPS by 12%**
- **Better placed than peers, but not likely unscathed**
- **Heightened risk aversion could lead to a de-rating**

### Downgrade to REDUCE

We downgrade TCS to REDUCE (from Buy) and the India IT services sector outlook to DETERIORATING. We think the stock reflects neither a likely prolonged anaemic macro growth scenario nor the 50% chance of a US recession that our economics team forecasts. Also, we are yet to see material Street downgrades since the macro data started worsening. We believe even two-three quarters of flat-to-muted q-q revenue growth in FY12-13 (vs Bloomberg consensus forecast of 4-5% q-q growth on average) could lead to large EPS cuts.

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### Hard to see a likely macro downturn not impacting TCS

Over the past three years, TCS has undergone significant changes and now probably has the most settled organisational structure among peers. This has led to better decision making and accountability, which in turn has seen it consistently beat Street expectations and improve margins. We also believe TCS's contingency plan to deal with another downturn and its scale could make it better placed than peers. However, this does not take away from the fact that in the event of an overall slowdown, TCS will not stay unaffected. In fact, our exercise suggests that another recession of a similar magnitude as 2008-09 could result in worse q-q revenue dips for Indian IT players than seen in FY09.

### Lowering estimates significantly

We revise our estimates to factor in the probability of a recession that our economists now expect. Our FY13-14 revenue estimates are down 11-13%, given we expect demand to worsen around late 2011. Moreover, we believe some of the revenue cuts will be led by a loss of pricing, given we expect demand weakness ahead. Therefore, on a constant-currency basis, we see EBIT margin heading lower into FY13. Our FY13-14 EPS estimates our down 12-13% and are now 10-12% below consensus.

### Valuation and target price

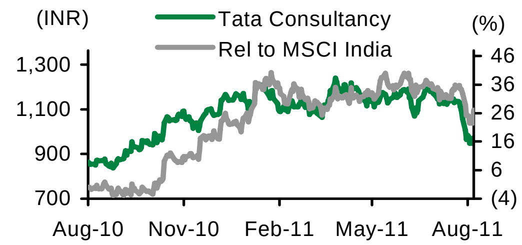
Given heightened macro uncertainty and risk aversion, we expect stocks to trade significantly below the level implied by our DCF model based on long-term average risk assumptions. In 2008, large-cap Indian stocks fell as much as 40-65% below our fair value estimates, so we set our TP for TCS at a 20% discount to our DCF value. Our new TP implies an FY13E P/E of 14.8x. Key risks to our TP are: 1) unexpected USD/INR depreciation (as seen in 2008-09) that negates our EPS cuts, and 2) less-than-expected deterioration of the macro environment.

### HOW WE DIFFER FROM THE STREET

| | BNP | Consensus | % Diff |
|---|---|---|---|
| Target Price (INR) | 830.00 | 1299.08 | (36.1) |
| EPS 2012 (INR) | 52.61 | 53.09 | (0.9) |
| EPS 2013 (INR) | 56.21 | 62.64 | (10.3) |
| | Positive | Neutral | Negative |
| Market Recs. | 45 | 12 | 3 |

### KEY STOCK DATA

| YE Mar (INR m) | 2012E | 2013E | 2014E |
|---|---|---|---|
| Revenue | 467,062 | 510,713 | 592,741 |
| Rec. net profit | 102,979 | 110,020 | 126,405 |
| Recurring EPS (INR) | 52.61 | 56.21 | 64.58 |
| Prior rec. EPS (INR) | 52.68 | 63.81 | 74.09 |
| Chg. In EPS est. (%) | (0.1) | (11.9) | (12.8) |
| EPS growth (%) | 18.6 | 6.8 | 14.9 |
| Recurring P/E (x) | 19.0 | 17.8 | 15.5 |
| Dividend yield (%) | 1.7 | 1.8 | 2.0 |
| EV/EBITDA (x) | 13.8 | 12.5 | 10.9 |
| Price/book (x) | 6.0 | 5.0 | 4.1 |
| Net debt/Equity | (22.3) | (21.6) | (22.1) |
| ROE (%) | 35.4 | 30.5 | 29.0 |




| Share price performance | 1 Month | 3 Month | 12 Month |
|---|---|---|---|
| Absolute (%) | (14.2) | (11.8) | 16.3 |
| Relative to country (%) | (3.9) | (3.4) | 25.7 |

| | |
|---|---|
| Next results | October 2011 |
| Mkt cap (USD m) | 43,119 |
| 3m avg daily turnover (USD m) | 41.3 |
| Free float (%) | 26 |
| Major shareholder | Tata Sons (74%) |
| 12m high/low (INR) | 1,239.85/837.30 |
| 3m historic vol. (%) | 29.2 |
| ADR ticker | - |
| ADR closing price (USD) | - |

*Sources : Bloomberg consensus; BNP Paribas estimates*

### RECENT COMPANY & SECTOR RESEARCH

... the tough get going ........................................ 15 Jul 2011
No surprises here ............................................... 25 Apr 2011
Rotten Apple evidence? .................................... 17 Aug 2011
GOOG-MMI deal and Japan .............................. 16 Aug 2011

# RISK EXPERTS

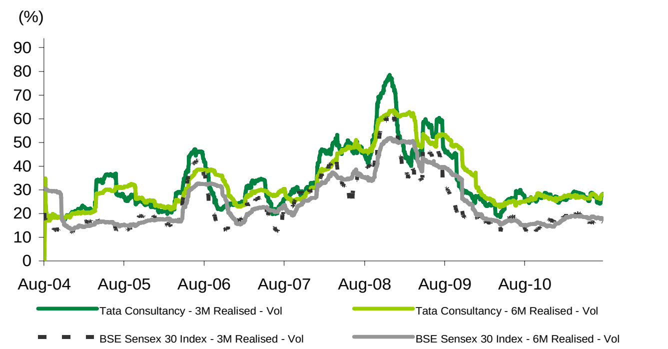
| | Base | | Worst | | Best | |
|---|---|---|---|---|---|---|
| **Year-end 31 Mar** | **2012E** | **2013E** | **2012E** | **2013E** | **2012E** | **2013E** |
| USD/INR average | 45.24 | 45.50 | 43.88 | 39.88 | 46.08 | 51.23 |
| EPS (INR) | 52.61 | 56.21 | 51.15 | 48.90 | 53.55 | 63.67 |
| *Change (%)* | — | — | *(2.8)* | *(13.0)* | *1.8* | *13.3* |

*Sources: BNP Paribas estimates*

## Key Earnings Drivers & Sensitivity

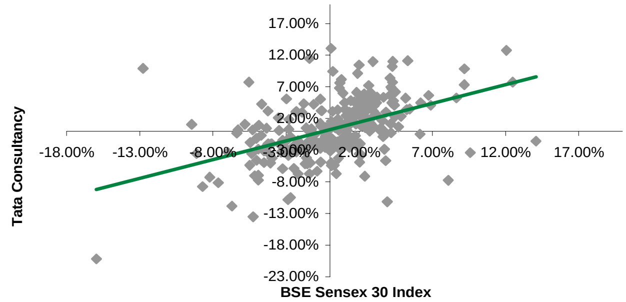
- The key macro factor that can impact TCS's earnings is currency fluctuation, specifically the USD/INR rate.
- In our best and worst cases, we assume the FY13 average USD/INR rate changes by 10% versus our base case. We calculate that, all else staying the same, this could cause a 13% variation to our base-case FY13 EPS.

## Tata Consultancy and SENSEX Index (3M and 6M realised-vol)




Sources: Bloomberg; BNP Paribas

## Regression – Tata Consultancy to SENSEX Index



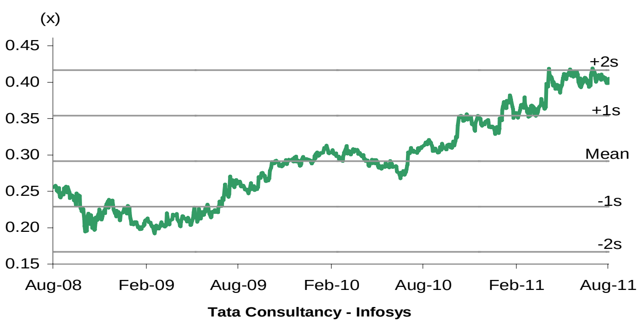

Tata Consultancy = -374 + 0.0647 * SENSEX Index
R Square = 0.2339
Regression based on 261 observations of 5 years weekly data.
Sources: Bloomberg; BNP Paribas

## India sector correlation matrix at 25 July 2011

| | Autos | Banks | Engineering & Construction | Metals & Mining | Oil & Gas | IT Services | Telecom | Utilities | Property |
|---|---|---|---|---|---|---|---|---|---|
| **Autos** | 1.00 | 0.67 | 0.64 | 0.66 | 0.50 | 0.43 | 0.36 | 0.58 | 0.62 |
| **Banks** | | 1.00 | 0.71 | 0.70 | 0.58 | 0.46 | 0.36 | 0.63 | 0.66 |
| **Engineering & Construction** | | | 1.00 | 0.71 | 0.58 | 0.46 | 0.41 | 0.65 | 0.68 |
| **Metals & Mining** | | | | 1.00 | 0.66 | 0.50 | 0.40 | 0.69 | 0.72 |
| **Oil & Gas** | | | | | 1.00 | 0.40 | 0.30 | 0.57 | 0.57 |
| **IT Services** | | | | | | 1.00 | 0.27 | 0.45 | 0.38 |
| **Telecom** | | | | | | | 1.00 | 0.43 | 0.43 |
| **Utilities** | | | | | | | | 1.00 | 0.63 |
| **Property** | | | | | | | | | 1.00 |

*Source: BNP Paribas Sector Strategy*

## Long/short chart




*Sources: Bloomberg, BNP Paribas*

## The risk experts

### The Risk Experts

- Our starting point for this page is a recognition of the macro factors that can have a significant impact on stock-price performance, sometimes independently of bottom-up factors.
- With our Risk Expert page, we identify the key macro risks that can impact stock performance.
- This analysis enhances the fundamental work laid out in the rest of this report, giving investors yet another resource to use in their decision-making process.

FINANCIAL STATEMENTS

# Tata Consultancy

| **Profit and Loss (INR m)**<br>**Year Ending Mar** | **2010A** | **2011A** | **2012E** | **2013E** | **2014E** |
|---|---|---|---|---|---|
| Revenue | 300,289 | 373,245 | 467,062 | 510,713 | 592,741 |
| Cost of sales ex depreciation | (157,150) | (199,882) | (249,094) | (274,974) | (323,587) |
| **Gross profit ex depreciation** | **143,139** | **173,363** | **217,968** | **235,739** | **269,154** |
| Other operating income | 0 | 0 | 0 | 0 | 0 |
| Operating costs | (56,325) | (61,403) | (79,993) | (85,485) | (97,832) |
| **Operating EBITDA** | **86,813** | **111,960** | **137,975** | **150,255** | **171,323** |
| Depreciation | (7,223) | (8,056) | (9,443) | (11,993) | (13,747) |
| Goodwill amortisation | 0 | 0 | 0 | 0 | 0 |
| **Operating EBIT** | **79,590** | **103,904** | **128,532** | **138,261** | **157,576** |
| Net financing costs | 2,255 | 5,247 | 6,179 | 6,180 | 6,277 |
| Associates | 0 | 0 | 0 | 0 | 0 |
| Recurring non operating income | 0 | 0 | 0 | 0 | 0 |
| Non recurring items | 0 | 0 | 0 | 0 | 0 |
| **Profit before tax** | **81,845** | **109,151** | **134,711** | **144,442** | **163,853** |
| Tax | (12,088) | (21,203) | (30,552) | (33,222) | (36,048) |
| **Profit after tax** | **69,757** | **87,948** | **104,160** | **111,220** | **127,805** |
| Minority interests | (1,019) | (1,116) | (1,181) | (1,200) | (1,400) |
| Preferred dividends | 0 | 0 | 0 | 0 | 0 |
| Other items | (10) | (3) | 0 | 0 | 0 |
| **Reported net profit** | **68,728** | **86,829** | **102,979** | **110,020** | **126,405** |
| Non recurring items & goodwill (net) | 0 | 0 | 0 | 0 | 0 |
| **Recurring net profit** | **68,728** | **86,829** | **102,979** | **110,020** | **126,405** |
| ***Per share (INR)*** | | | | | |
| Recurring EPS * | 35.12 | 44.36 | 52.61 | 56.21 | 64.58 |
| Reported EPS | 35.12 | 44.36 | 52.61 | 56.21 | 64.58 |
| DPS | 20.09 | 14.06 | 17.00 | 18.00 | 20.00 |
| ***Growth*** | | | | | |
| Revenue (%) | 8.0 | 24.3 | 25.1 | 9.3 | 16.1 |
| Operating EBITDA (%) | 20.9 | 29.0 | 23.2 | 8.9 | 14.0 |
| Operating EBIT (%) | 20.6 | 30.5 | 23.7 | 7.6 | 14.0 |
| Recurring EPS (%) | 32.9 | 26.3 | 18.6 | 6.8 | 14.9 |
| Reported EPS (%) | 32.9 | 26.3 | 18.6 | 6.8 | 14.9 |
| ***Operating performance*** | | | | | |
| Gross margin inc depreciation (%) | 45.3 | 44.3 | 44.6 | 43.8 | 43.1 |
| Operating EBITDA margin (%) | 28.9 | 30.0 | 29.5 | 29.4 | 28.9 |
| Operating EBIT margin (%) | 26.5 | 27.8 | 27.5 | 27.1 | 26.6 |
| Net margin (%) | 22.9 | 23.3 | 22.0 | 21.5 | 21.3 |
| Effective tax rate (%) | 14.8 | 19.4 | 22.7 | 23.0 | 22.0 |
| Dividend payout on recurring profit (%) | 57.2 | 31.7 | 32.3 | 32.0 | 31.0 |
| Interest cover (x) | - | - | - | - | - |
| Inventory days | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 |
| Debtor days | 72.7 | 68.5 | 69.6 | 71.2 | 65.8 |
| Creditor days | 31.1 | 51.7 | 47.5 | 49.9 | 49.0 |
| Operating ROIC (%) | 59.2 | 67.3 | 63.7 | 58.4 | 60.5 |
| Operating ROIC – WACC (%) | 46.3 | 54.3 | 50.7 | 45.4 | 47.5 |
| ROIC (%) | 32.4 | 34.6 | 33.0 | 29.6 | 28.3 |
| ROIC – WACC (%) | 19.5 | 21.6 | 20.1 | 16.6 | 15.3 |
| ROE (%) | 37.2 | 37.2 | 35.4 | 30.5 | 29.0 |
| ROA (%) | 27.2 | 28.1 | 27.2 | 24.0 | 23.2 |

** Pre exceptional, pre-goodwill and fully diluted*

Translates to USD-based revenue growth of 26.1% for FY12E and 8.7% for FY13E

FY12E tax rate to increase after the existing STPI tax benefits expire

*Sources: Tata Consultancy; BNP Paribas estimates*

## Tata Consultancy

| Cash Flow (INR m) Year Ending Mar | 2010A | 2011A | 2012E | 2013E | 2014E |
|---|---|---|---|---|---|
| Recurring net profit | 68,728 | 86,829 | 102,979 | 110,020 | 126,405 |
| Depreciation | 7,223 | 8,056 | 9,443 | 11,993 | 13,747 |
| Associates & minorities | 1,019 | 1,116 | 1,181 | 1,200 | 1,400 |
| Other non-cash items | (4,703) | 0 | 0 | 0 | 0 |
| **Recurring cash flow** | **72,266** | **96,001** | **113,602** | **123,213** | **141,552** |
| Change in working capital | 2,602 | (26,853) | (13,972) | (5,022) | 927 |
| Capex - maintenance | 0 | 0 | 0 | 0 | 0 |
| Capex – new investment | (10,358) | (17,015) | (22,215) | (24,238) | (26,673) |
| **Free cash flow to equity** | **64,511** | **52,133** | **77,415** | **93,953** | **115,807** |
| Net acquisitions & disposals | (103) | 345 | 0 | 0 | 0 |
| Dividends paid | (19,594) | (45,529) | (32,105) | (41,219) | (45,799) |
| Non recurring cash flows | (44,700) | (1,993) | (26,783) | (40,000) | (50,000) |
| **Net cash flow** | **114** | **4,956** | **18,526** | **12,734** | **20,008** |
| Equity finance | 54 | 0 | 0 | 0 | 0 |
| Debt finance | (3,960) | (613) | (318) | 0 | 0 |
| **Movement in cash** | **(3,792)** | **4,342** | **18,209** | **12,734** | **20,008** |
| ***Per share (INR)*** | | | | | |
| Recurring cash flow per share | 36.92 | 49.05 | 58.04 | 62.95 | 72.32 |
| FCF to equity per share | 32.96 | 26.64 | 39.55 | 48.00 | 59.17 |

| Balance Sheet (INR m) Year Ending Mar | 2010A | 2011A | 2012E | 2013E | 2014E |
|---|---|---|---|---|---|
| Working capital assets | 80,251 | 110,548 | 132,091 | 144,546 | 154,665 |
| Working capital liabilities | (36,995) | (42,622) | (49,775) | (56,392) | (67,486) |
| **Net working capital** | **43,256** | **67,925** | **82,316** | **88,154** | **87,179** |
| Tangible fixed assets | 41,377 | 51,996 | 65,148 | 78,093 | 91,520 |
| **Operating invested capital** | **84,633** | **119,921** | **147,464** | **166,247** | **178,698** |
| Goodwill | 31,649 | 31,886 | 32,038 | 32,038 | 32,038 |
| Other intangible assets | 1,201 | 1,905 | 1,387 | 687 | 187 |
| Investments | 24,885 | 54,899 | 75,359 | 115,359 | 165,359 |
| Other assets | 21,154 | 25,745 | 24,550 | 23,734 | 23,782 |
| **Invested capital** | **163,521** | **234,356** | **280,798** | **338,065** | **400,064** |
| Cash & equivalents | (72,384) | (50,905) | (78,114) | (90,848) | (110,855) |
| Short term debt | 3,529 | 5,194 | 4,322 | 4,322 | 4,322 |
| Long term debt * | 106 | 39 | 40 | 40 | 40 |
| **Net debt** | **(68,749)** | **(45,672)** | **(73,752)** | **(86,486)** | **(106,493)** |
| Deferred tax | 0 | 0 | 0 | 0 | 0 |
| Other liabilities | 18,224 | 21,837 | 23,729 | 23,729 | 23,729 |
| Total equity | 211,842 | 255,044 | 326,647 | 395,449 | 476,055 |
| Minority interests | 2,204 | 3,147 | 4,174 | 5,374 | 6,774 |
| **Invested capital** | **163,521** | **234,356** | **280,798** | **338,065** | **400,064** |
| ** includes convertibles and preferred stock which is being treated as debt* | | | | | |
| ***Per share (INR)*** | | | | | |
| Book value per share | 108 | 130 | 166 | 202 | 243 |
| Tangible book value per share | 90.94 | 113 | 149 | 185 | 226 |
| ***Financial strength*** | | | | | |
| Net debt/equity (%) | (32.1) | (17.7) | (22.3) | (21.6) | (22.1) |
| Net debt/total assets (%) | (25.2) | (13.9) | (18.0) | (17.8) | (18.4) |
| Current ratio (x) | 3.8 | 3.4 | 3.9 | 3.9 | 3.7 |
| CF interest cover (x) | - | - | - | - | - |

| Valuation | 2010A | 2011A | 2012E | 2013E | 2014E |
|---|---|---|---|---|---|
| Recurring P/E (x) * | 28.5 | 22.5 | 19.0 | 17.8 | 15.5 |
| Recurring P/E @ target price (x) * | 23.6 | 18.7 | 15.8 | 14.8 | 12.9 |
| Reported P/E (x) | 28.5 | 22.5 | 19.0 | 17.8 | 15.5 |
| Dividend yield (%) | 2.0 | 1.4 | 1.7 | 1.8 | 2.0 |
| P/CF (x) | 27.1 | 20.4 | 17.2 | 15.9 | 13.8 |
| P/FCF (x) | 30.3 | 37.5 | 25.3 | 20.8 | 16.9 |
| Price/book (x) | 9.3 | 7.7 | 6.0 | 5.0 | 4.1 |
| Price/tangible book (x) | 11.0 | 8.9 | 6.7 | 5.4 | 4.4 |
| EV/EBITDA (x) ** | 22.1 | 17.0 | 13.8 | 12.5 | 10.9 |
| EV/EBITDA @ target price (x) ** | 18.3 | 14.0 | 11.4 | 10.3 | 9.0 |
| EV/invested capital (x) | 11.6 | 8.2 | 6.7 | 5.6 | 4.6 |

** Pre exceptional, pre-goodwill and fully diluted*

*** EBITDA includes associate income and recurring non-operating income*

*Sources: Tata Consultancy; BNP Paribas estimates*

# Infosys INFO IN

INDIA / SOFTWARE & SERVICES

| | |
|---|---|
| TARGET | INR2,000.00 |
| PRIOR TP | INR3,370.00 |
| CLOSE | INR2,448.95 |
| UP/DOWNSIDE | -18.3% |

**REDUCE**

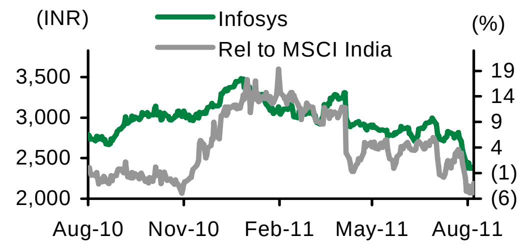
FROM BUY

### HOW WE DIFFER FROM THE STREET

| | BNP | Consensus | % Diff |
|---|---|---|---|
| Target Price (INR) | 2,000.00 | 3,227.41 | (38.0) |
| EPS 2012 (INR) | 135 | 138 | (2.2) |
| EPS 2013 (INR) | 148 | 165 | (10.3) |
| | Positive | Neutral | Negative |
| Market Recs. | 49 | 9 | 3 |

### KEY STOCK DATA

| YE Mar (INR m) | 2012E | 2013E | 2014E |
|---|---|---|---|
| Revenue | 322,903 | 359,438 | 418,646 |
| Rec. net profit | 76,858 | 84,347 | 97,999 |
| Recurring EPS (INR) | 135 | 148 | 172 |
| Prior rec. EPS (INR) | 136 | 169 | 198 |
| Chg. In EPS est. (%) | (1.4) | (12.4) | (13.2) |
| EPS growth (%) | 12.6 | 9.7 | 16.2 |
| Recurring P/E (x) | 18.2 | 16.6 | 14.3 |
| Dividend yield (%) | 1.4 | 1.5 | 1.8 |
| EV/EBITDA (x) | 12.2 | 10.9 | 9.1 |
| Price/book (x) | 4.5 | 3.7 | 3.2 |
| Net debt/Equity | (64.6) | (69.2) | (73.3) |
| ROE (%) | 26.2 | 24.5 | 24.0 |




| Share price performance | 1 Month | 3 Month | 12 Month |
|---|---|---|---|
| Absolute (%) | (17.0) | (14.2) | (12.6) |
| Relative to country (%) | (6.7) | (5.5) | (3.2) |

| | |
|---|---|
| Next results | October 2011 |
| Mkt cap (USD m) | 30,828 |
| 3m avg daily turnover (USD m) | 71.7 |
| Free float (%) | 84 |
| Major shareholder | Life Insurance Corp. Of India (5%) |
| 12m high/low (INR) | 3,481.45/2,374.55 |
| 3m historic vol. (%) | 28.7 |
| ADR ticker | INFY US |
| ADR closing price (USD; 16 August 2011) | USD53.22 |

*Sources : Bloomberg consensus; BNP Paribas estimates*

### RECENT COMPANY & SECTOR RESEARCH

Lacklustre, not appalling.................................... 12 Jul 2011
Of change and transition.................................... 24 Jun 2011
Rotten Apple evidence? .................................... 17 Aug 2011
GOOG-MMI deal and Japan.............................. 16 Aug 2011

ADR TICKER: INFY US CHANGE IN RECOMMENDATION

# Not immune to risks

- **Downgrade to REDUCE, significant risk to Street FY13-14 EPS**
- **Infosys will not be immune to likely prolonged macro weakness**
- **See demand deteriorating by late FY12, cut FY13E EPS by 12%**
- **Heightened risk aversion could lead to de-rating**

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## Downgrade to REDUCE

We downgrade Infosys to REDUCE (from Buy) and the Indian IT services sector outlook to DETERIORATING. The stock has declined 12% in August alone (vs a 7% drop in the Sensex), but we believe it does not reflect a likely prolonged anaemic macro growth scenario nor the 50% chance of a US recession that our economics team forecasts. We believe a well run company such as Infosys is better prepared now than it was in 2008 to face a recessionary situation, but this does not take away from the fact that in the event of an overall slowdown it will not be unaffected. Bloomberg consensus calls for over 6% q-q revenue growth on average for the rest of FY12, which we see at risk given the new macro data at hand.

## Lowering estimates significantly

We now factor in a q-q flattish June 2012 quarter (1QFY13) and relatively muted quarters on both sides (4QFY12 and 2QFY13). In a deteriorating demand situation, we expect clients to ask for lower pricing, and thus, on a constant-currency basis, see EBIT margin heading lower into FY13. As a result, while we make relatively small revenue and EPS cuts for FY12, we make significant cuts (9-11% revenue, 12-13% EPS) for FY13-14. That said, we believe Infosys with its higher-than-peer EBIT margins is better positioned to protect its earnings than most companies we cover.

## Shouldn't lose sight of long-term goals

Longer term, we would keenly watch how Infosys's new vertical-based organisation structure shapes up and the progress it makes on its long-term goal of cutting down headcount dependence and achieving a 1/3-1/3-1/3 revenue mix from transformation, operations and innovation (IP). Peer Tata Consultancy (TCS IN) underwent reorganisation ahead of the downturn in 2008-09 and emerged considerably stronger from it by decentralising decision-making and empowering business unit heads.

## Valuation – revisiting our DCF charts

Given heightened macro uncertainty and risk aversion, we expect stocks to trade significantly below the level implied by our DCF model based on long-term average risk assumptions (11.5% WACC, 5% terminal growth). In 2008, large-cap Indian stocks fell as much as 40-65% below our fair value estimates, so we set our TP for Infosys at a 20% discount. Our new TP implies an FY13E P/E of 13.5x. Key risks to TP are: 1) unexpected USD/INR depreciation (as seen in 2008-09) negating our EPS cuts, and 2) less-than-expected deterioration of the macro environment.

# RISK EXPERTS

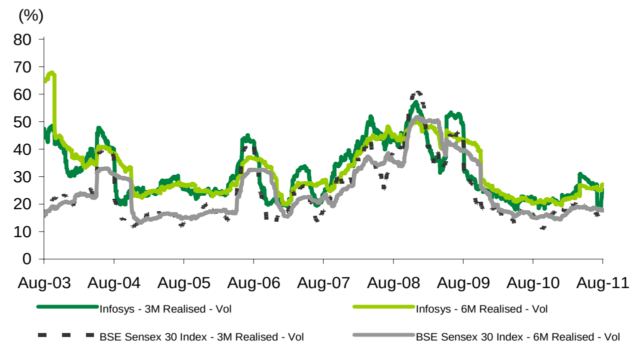
| | Base | | Worst | | Best | |
|---|---|---|---|---|---|---|
| **Year-end 31 Mar** | **2012E** | **2013E** | **2012E** | **2013E** | **2012E** | **2013E** |
| USD/INR average | 45.24 | 45.5 | 44.27 | 39.80 | 46.08 | 50.68 |
| EPS (INR) | 134.51 | 147.62 | 132.33 | 128.77 | 136.27 | 164.53 |
| *Change (%)* | — | — | *(1.6)* | *(12.8)* | *1.3* | *11.5* |

*Sources: BNP Paribas estimates*

## Key Earnings Drivers & Sensitivity

- The key macro factor that can impact Infosys's earnings is currency fluctuation, specifically the USD/INR rate.
- In our best and worst cases, we assume the FY13 average USD/INR rate changes by 10% versus our base case. We calculate that, all else staying the same, this could cause a 12-13% variation to our base-case FY13 EPS.

## Infosys and SENSEX Index (3M and 6M realised-vol)




Sources: Bloomberg; BNP Paribas

## Regression – Infosys to SENSEX Index

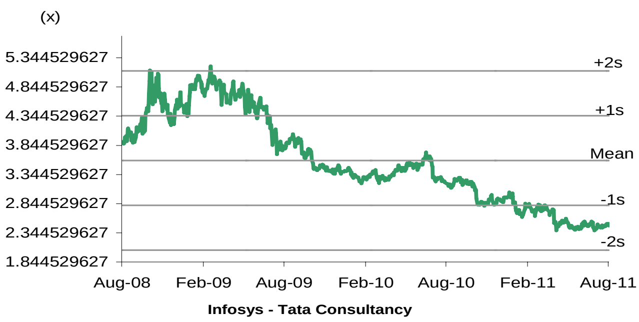

Infosys = -150 + 0.1431 * SENSEX Index
R Square = 0.2778
Regression based on 261 observations of 5 years weekly data.
Sources: Bloomberg; BNP Paribas

## India sector correlation matrix at 25 July 2011

| | Autos | Banks | Engineering & Construction | Metals & Mining | Oil & Gas | IT Services | Telecom | Utilities | Property |
|---|---|---|---|---|---|---|---|---|---|
| **Autos** | 1.00 | 0.67 | 0.64 | 0.66 | 0.50 | 0.43 | 0.36 | 0.58 | 0.62 |
| **Banks** | | 1.00 | 0.71 | 0.70 | 0.58 | 0.46 | 0.36 | 0.63 | 0.66 |
| **Engineering & Construction** | | | 1.00 | 0.71 | 0.58 | 0.46 | 0.41 | 0.65 | 0.68 |
| **Metals & Mining** | | | | 1.00 | 0.66 | 0.50 | 0.40 | 0.69 | 0.72 |
| **Oil & Gas** | | | | | 1.00 | 0.40 | 0.30 | 0.57 | 0.57 |
| **IT Services** | | | | | | 1.00 | 0.27 | 0.45 | 0.38 |
| **Telecom** | | | | | | | 1.00 | 0.43 | 0.43 |
| **Utilities** | | | | | | | | 1.00 | 0.63 |
| **Property** | | | | | | | | | 1.00 |

*Source: BNP Paribas Sector Strategy*

## Long/short chart




*Sources: Bloomberg, BNP Paribas*

## The risk experts

### The Risk Experts

- Our starting point for this page is a recognition of the macro factors that can have a significant impact on stock-price performance, sometimes independently of bottom-up factors.
- With our Risk Expert page, we identify the key macro risks that can impact stock performance.
- This analysis enhances the fundamental work laid out in the rest of this report, giving investors yet another resource to use in their decision-making process.

FINANCIAL STATEMENTS

## Infosys

| Profit and Loss (INR m)<br>Year Ending Mar | 2010A | 2011A | 2012E | 2013E | 2014E |
|---|---|---|---|---|---|
| Revenue | 227,420 | 275,010 | 322,903 | 359,438 | 418,646 |
| Cost of sales ex depreciation | (120,780) | (150,540) | (182,675) | (207,292) | (244,769) |
| **Gross profit ex depreciation** | **106,640** | **124,470** | **140,227** | **152,146** | **173,877** |
| Other operating income | 0 | 0 | 0 | 0 | 0 |
| Operating costs | (28,120) | (34,830) | (40,710) | (44,547) | (51,912) |
| **Operating EBITDA** | **78,520** | **89,640** | **99,517** | **107,600** | **121,965** |
| Depreciation | (9,420) | (8,620) | (9,171) | (9,880) | (10,893) |
| Goodwill amortisation | 0 | 0 | 0 | 0 | 0 |
| **Operating EBIT** | **69,100** | **81,020** | **90,346** | **97,720** | **111,072** |
| Net financing costs | 9,900 | 12,110 | 16,267 | 18,034 | 19,593 |
| Associates | 0 | 0 | 0 | 0 | 0 |
| Recurring non operating income | 0 | 0 | 0 | 0 | 0 |
| Non recurring items | 0 | 0 | 0 | 0 | 0 |
| **Profit before tax** | **79,000** | **93,130** | **106,613** | **115,754** | **130,666** |
| Tax | (16,810) | (24,900) | (29,754) | (31,407) | (32,666) |
| **Profit after tax** | **62,190** | **68,230** | **76,858** | **84,347** | **97,999** |
| Minority interests | 0 | 0 | 0 | 0 | 0 |
| Preferred dividends | 0 | 0 | 0 | 0 | 0 |
| Other items | 480 | 0 | 0 | 0 | 0 |
| **Reported net profit** | **62,670** | **68,230** | **76,858** | **84,347** | **97,999** |
| Non recurring items & goodwill (net) | 0 | 0 | 0 | 0 | 0 |
| **Recurring net profit** | **62,670** | **68,230** | **76,858** | **84,347** | **97,999** |
| ***Per share (INR)*** | | | | | |
| Recurring EPS * | 109 | 119 | 135 | 148 | 172 |
| Reported EPS | 110 | 119 | 135 | 148 | 172 |
| DPS | 25.14 | 60.31 | 34.41 | 37.75 | 42.88 |
| ***Growth*** | | | | | |
| Revenue (%) | 4.8 | 20.9 | 17.4 | 11.3 | 16.5 |
| Operating EBITDA (%) | 9.1 | 14.2 | 11.0 | 8.1 | 13.4 |
| Operating EBIT (%) | 7.4 | 17.3 | 11.5 | 8.2 | 13.7 |
| Recurring EPS (%) | 6.2 | 9.7 | 12.6 | 9.7 | 16.2 |
| Reported EPS (%) | 5.0 | 8.7 | 12.6 | 9.7 | 16.2 |
| ***Operating performance*** | | | | | |
| Gross margin inc depreciation (%) | 42.7 | 42.1 | 40.6 | 39.6 | 38.9 |
| Operating EBITDA margin (%) | 34.5 | 32.6 | 30.8 | 29.9 | 29.1 |
| Operating EBIT margin (%) | 30.4 | 29.5 | 28.0 | 27.2 | 26.5 |
| Net margin (%) | 27.6 | 24.8 | 23.8 | 23.5 | 23.4 |
| Effective tax rate (%) | 21.3 | 26.7 | 27.9 | 27.1 | 25.0 |
| Dividend payout on recurring profit (%) | 23.1 | 50.5 | 25.6 | 25.6 | 25.0 |
| Interest cover (x) | - | - | - | - | - |
| Inventory days | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Debtor days | 57.5 | 54.1 | 55.9 | 55.7 | 52.0 |
| Creditor days | 30.4 | 0.7 | 0.7 | 0.6 | 0.7 |
| Operating ROIC (%) | 68.2 | 71.7 | 66.7 | 68.7 | 75.6 |
| Operating ROIC – WACC (%) | 55.2 | 58.8 | 53.8 | 55.7 | 62.7 |
| ROIC (%) | 57.8 | 55.3 | 53.6 | 55.3 | 61.1 |
| ROIC – WACC (%) | 44.8 | 42.4 | 40.6 | 42.4 | 48.2 |
| ROE (%) | 29.6 | 26.6 | 26.2 | 24.5 | 24.0 |
| ROA (%) | 22.6 | 20.4 | 19.7 | 18.6 | 18.6 |

** Pre exceptional, pre-goodwill and fully diluted*

*Sources: Infosys; BNP Paribas estimates*

Translates to y-y USD revenue growth of 18.2% for FY12 and 10.7% for FY13, on our estimates

We are modeling EBIT margin to be hurt by likely pricing pressure, but expect Infosys to protect earnings better than most peers

## Infosys

| Cash Flow (INR m) Year Ending Mar | 2010A | 2011A | 2012E | 2013E | 2014E |
|---|---|---|---|---|---|
| Recurring net profit | 62,670 | 68,230 | 76,858 | 84,347 | 97,999 |
| Depreciation | 9,420 | 8,620 | 9,171 | 9,880 | 10,893 |
| Associates & minorities | 0 | 0 | 0 | 0 | 0 |
| Other non-cash items | (1,230) | (3,660) | 2,270 | 0 | 0 |
| **Recurring cash flow** | **70,860** | **73,190** | **88,299** | **94,227** | **108,892** |
| Change in working capital | (470) | (14,120) | (7,156) | (3,086) | (1,461) |
| Capex - maintenance | 0 | 0 | 0 | 0 | 0 |
| Capex – new investment | (6,570) | (13,010) | (10,628) | (10,396) | (12,559) |
| **Free cash flow to equity** | **63,820** | **46,060** | **70,516** | **80,745** | **94,872** |
| Net acquisitions & disposals | (1,730) | (20) | 0 | 0 | 0 |
| Dividends paid | (15,690) | (36,650) | (36,283) | (25,232) | (28,665) |
| Non recurring cash flows | (35,580) | 35,340 | 920 | 0 | 0 |
| **Net cash flow** | **10,820** | **44,730** | **35,153** | **55,513** | **66,207** |
| Equity finance | 890 | 240 | 290 | 0 | 0 |
| Debt finance | 0 | 0 | 0 | 0 | 0 |
| **Movement in cash** | **11,710** | **44,970** | **35,443** | **55,513** | **66,207** |
| ***Per share (INR)*** | | | | | |
| Recurring cash flow per share | 124 | 128 | 155 | 165 | 191 |
| FCF to equity per share | 112 | 80.64 | 123 | 141 | 166 |

| Balance Sheet (INR m) Year Ending Mar | 2010A | 2011A | 2012E | 2013E | 2014E |
|---|---|---|---|---|---|
| Working capital assets | 50,710 | 74,490 | 84,055 | 88,593 | 92,690 |
| Working capital liabilities | (31,930) | (36,230) | (41,080) | (43,199) | (45,895) |
| **Net working capital** | **18,780** | **38,260** | **42,975** | **45,394** | **46,794** |
| Tangible fixed assets | 44,390 | 48,440 | 49,977 | 50,493 | 52,159 |
| **Operating invested capital** | **63,170** | **86,700** | **92,951** | **95,886** | **98,953** |
| Goodwill | 8,290 | 8,250 | 8,260 | 8,260 | 8,260 |
| Other intangible assets | 560 | 480 | 460 | 460 | 460 |
| Investments | 380 | 230 | 210 | 210 | 210 |
| Other assets | 13,600 | 12,640 | 13,521 | 14,188 | 14,248 |
| **Invested capital** | **86,000** | **108,300** | **115,402** | **119,004** | **122,132** |
| Cash & equivalents | (158,190) | (168,100) | (202,853) | (258,366) | (324,573) |
| Short term debt | 0 | 0 | 0 | 0 | 0 |
| Long term debt * | 0 | 0 | 0 | 0 | 0 |
| **Net debt** | **(158,190)** | **(168,100)** | **(202,853)** | **(258,366)** | **(324,573)** |
| Deferred tax | 1,140 | 0 | 0 | 0 | 0 |
| Other liabilities | 2,320 | 3,370 | 4,100 | 4,100 | 4,100 |
| Total equity | 240,730 | 273,030 | 314,155 | 373,270 | 442,605 |
| Minority interests | 0 | 0 | 0 | 0 | 0 |
| **Invested capital** | **86,000** | **108,300** | **115,402** | **119,004** | **122,132** |

** includes convertibles and preferred stock which is being treated as debt*

High cash balance likely to be used for niche acquisitions

| | 2010A | 2011A | 2012E | 2013E | 2014E |
|---|---|---|---|---|---|
| ***Per share (INR)*** | | | | | |
| Book value per share | 422 | 478 | 550 | 653 | 775 |
| Tangible book value per share | 406 | 463 | 535 | 638 | 759 |
| ***Financial strength*** | | | | | |
| Net debt/equity (%) | (65.7) | (61.6) | (64.6) | (69.2) | (73.3) |
| Net debt/total assets (%) | (57.3) | (53.8) | (56.5) | (61.4) | (65.9) |
| Current ratio (x) | 6.5 | 6.7 | 7.0 | 8.0 | 9.1 |
| CF interest cover (x) | - | - | - | - | - |

| Valuation | 2010A | 2011A | 2012E | 2013E | 2014E |
|---|---|---|---|---|---|
| Recurring P/E (x) * | 22.5 | 20.5 | 18.2 | 16.6 | 14.3 |
| Recurring P/E @ target price (x) * | 18.4 | 16.7 | 14.9 | 13.5 | 11.7 |
| Reported P/E (x) | 22.3 | 20.5 | 18.2 | 16.6 | 14.3 |
| Dividend yield (%) | 1.0 | 2.5 | 1.4 | 1.5 | 1.8 |
| P/CF (x) | 19.7 | 19.1 | 15.8 | 14.8 | 12.8 |
| P/FCF (x) | 21.9 | 30.4 | 19.8 | 17.3 | 14.7 |
| Price/book (x) | 5.8 | 5.1 | 4.5 | 3.7 | 3.2 |
| Price/tangible book (x) | 6.0 | 5.3 | 4.6 | 3.8 | 3.2 |
| EV/EBITDA (x) ** | 16.1 | 13.8 | 12.2 | 10.9 | 9.1 |
| EV/EBITDA @ target price (x) ** | 12.8 | 10.9 | 9.6 | 8.5 | 7.0 |
| EV/invested capital (x) | 14.4 | 11.4 | 10.4 | 9.6 | 8.8 |

** Pre exceptional, pre-goodwill and fully diluted*
*** EBITDA includes associate income and recurring non-operating income*

*Sources: Infosys; BNP Paribas estimates*

# Wipro Ltd WPRO IN

INDIA / SOFTWARE & SERVICES

| | | |
|---|---|---|
| TARGET | INR270.00 | REDUCE |
| PRIOR TP | INR530.00 | |
| CLOSE | INR344.30 | |
| UP/DOWNSIDE | -21.6% | FROM BUY |

ADR TICKER: WIT US

CHANGE IN RECOMMENDATION

## Demand stress test ahead

- **Downgrade to REDUCE, significant risk to Street FY13-14 EPS**
- **Demand likely to deteriorate by late FY12, cut FY13E EPS by 24%**
- **Turnaround running behind schedule, macro adds more stress**
- **Heightened risk aversion could lead to de-rating of valuation**

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### Downgrade to REDUCE

We downgrade Wipro to REDUCE (from Buy) and the India IT services sector outlook to DETERIORATING. Despite the stock declining by 11% in August alone (vs a 7% drop of the Sensex), we think it is yet to reflect a likely prolonged anaemic macro growth scenario and 50% chance of a US recession that our economics team forecasts. We cut our FY12-13 revenue estimates by 3-15% based on our expectation that demand will worsen around the December 2011 quarter. Moreover, we believe some of the revenue cuts will be led a loss of pricing and we see Wipro's already lower-than-peer EBIT margins going down further, leading to a significant EPS downgrade. Our FY12-13 EPS estimates reduce by 8-24% and are 5-15% below Bloomberg consensus.

### Weaker demand scenario will test turnaround plans

While we have been hopeful of an operational turnaround by 2HFY12 after management and organisational changes earlier this year, we are yet to see enough positive signs that should have surfaced by this time. Among the positives are an increase in the USD100m+ accounts from one in 3QFY11 to four in 1QFY12 and a likely decline in employee attrition to sub-20% by 2QFY12, from 25% in 1Q. However, of the company identified "momentum verticals" (together 64% of revenue), only energy & utilities (+14.4% q-q) was strong in 1Q, while financial services (+0.5% q-q), retail (-3.6% q-q) and healthcare (-3.2% q-q) are yet to show the promise we were hoping for. Also, the 2QFY12 q-q services revenue growth guidance of 2-4% (0-2% organic) which was given under more "normal" demand conditions looks muted and suggests there is still much more to be done before Wipro matches peer growth levels. We believe a worsened demand scenario could further test the turnaround plans.

### Valuation and target price derivation

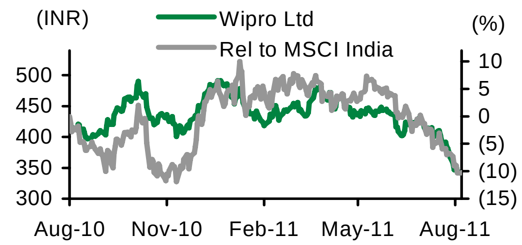
Given heightened macro uncertainty and risk aversion, we expect stocks to trade significantly below the level implied by our DCF model based on long-term average risk assumptions. In 2008, large-cap Indian IT stocks fell as much as 40-65% below our fair value estimates, so we set our TP for Wipro at a 25% discount to our DCF value of INR270.00 (from INR530.00). Our new TPs for Wipro implies an FY13E P/E multiple of 11.9x. Key risks to TP are: 1) unexpected USD/INR depreciation (as seen in 2008-09) that negates our EPS cuts, and 2) less-than-expected deterioration of the macro environment.

### HOW WE DIFFER FROM THE STREET

| | BNP | Consensus | % Diff |
|---|---|---|---|
| Target Price (INR) | 270.00 | 441.53 | (38.9) |
| EPS 2012 (INR) | 21.87 | 22.98 | (4.8) |
| EPS 2013 (INR) | 22.72 | 26.76 | (15.2) |
| | Positive | Neutral | Negative |
| Market Recs. | 22 | 27 | 9 |

### KEY STOCK DATA

| YE Mar (INR m) | 2012E | 2013E | 2014E |
|---|---|---|---|
| Revenue | 359,058 | 382,916 | 445,417 |
| Rec. net profit | 53,846 | 55,764 | 64,589 |
| Recurring EPS (INR) | 21.87 | 22.72 | 26.32 |
| Prior rec. EPS (INR) | 23.76 | 29.91 | 34.82 |
| Chg. In EPS est. (%) | (8.0) | (24.0) | (24.4) |
| EPS growth (%) | 1.9 | 3.9 | 15.8 |
| Recurring P/E (x) | 15.7 | 15.2 | 13.1 |
| Dividend yield (%) | 1.6 | 1.8 | 2.2 |
| EV/EBITDA (x) | 10.9 | 10.2 | 8.5 |
| Price/book (x) | 3.0 | 2.7 | 2.3 |
| Net debt/Equity | (25.0) | (30.6) | (36.1) |
| ROE (%) | 20.8 | 18.8 | 19.1 |




| Share price performance | 1 Month | 3 Month | 12 Month |
|---|---|---|---|
| Absolute (%) | (17.1) | (18.0) | (17.4) |
| Relative to country (%) | (6.7) | (10.1) | (8.0) |

| | |
|---|---|
| Next results | October 2011 |
| Mkt cap (USD m) | 18,510 |
| 3m avg daily turnover (USD m) | 10.9 |
| Free float (%) | 21 |
| Major shareholder | Azim Premji (79%) |
| 12m high/low (INR) | 491.35/340.40 |
| 3m historic vol. (%) | 24.7 |
| ADR ticker | WIT US |
| ADR closing price (USD; 16 August 2011) | 10.31 |

*Sources : Bloomberg consensus; BNP Paribas estimates*

### RECENT COMPANY & SECTOR RESEARCH

Story little changed ............................................ 21 Jul 2011
It's a waiting game.............................................. 28 Apr 2011
Rotten Apple evidence? .................................... 17 Aug 2011
GOOG-MMI deal and Japan.............................. 16 Aug 2011

# RISK EXPERTS

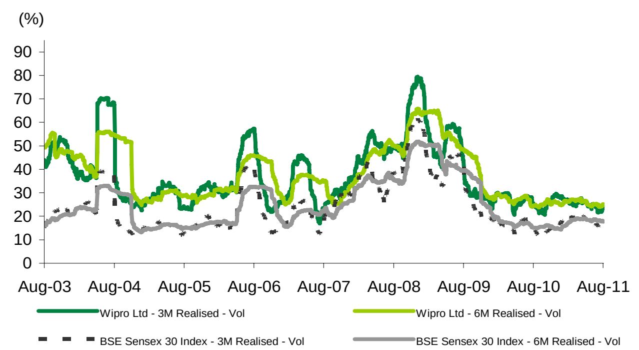
| | Base | | Worst | | Best | |
|---|---|---|---|---|---|---|
| **Year-end 31 Mar** | **2012E** | **2013E** | **2012E** | **2013E** | **2012E** | **2013E** |
| USD/INR average | 45.22 | 45.50 | 44.27 | 39.82 | 46.04 | 50.67 |
| EPS (INR) | 21.87 | 22.72 | 21.50 | 18.89 | 22.15 | 26.14 |
| *Change (%)* | — | — | *(1.7)* | *(16.9)* | *1.3* | *15.0* |

*Sources: BNP Paribas estimates*

## Key Earnings Drivers & Sensitivity

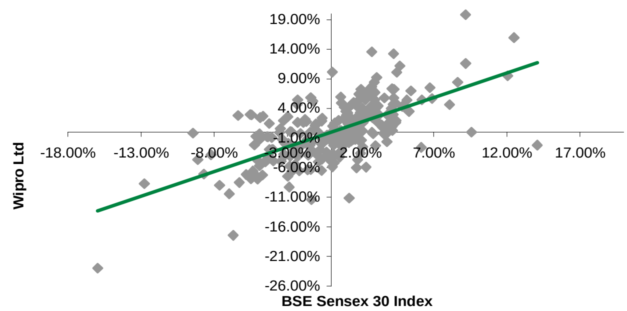
- The key macro factor that can impact Wipro's earnings is currency fluctuation, specifically the USD/INR rate.
- In our best and worst cases, we assume the FY13 average USD/INR rate changes by 10% versus our base case. We calculate that, all else staying the same, this could cause a 15-17% variation to our base-case FY13E EPS.

## Wipro Ltd and SENSEX Index (3M and 6M realised-vol)




Sources: Bloomberg; BNP Paribas

## Regression – Wipro Ltd to SENSEX Index



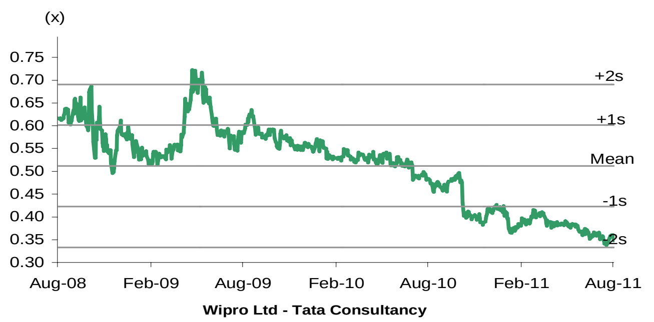

Wipro Ltd = -38 + 0.0232 * SENSEX Index
R Square = 0.4123
Regression based on 261 observations of 5 years weekly data.
Sources: Bloomberg; BNP Paribas

## India sector correlation matrix at 25 July 2011

| | Autos | Banks | Engineering & Construction | Metals & Mining | Oil & Gas | IT Services | Telecom | Utilities | Property |
|---|---|---|---|---|---|---|---|---|---|
| **Autos** | 1.00 | 0.67 | 0.64 | 0.66 | 0.50 | 0.43 | 0.36 | 0.58 | 0.62 |
| **Banks** | | 1.00 | 0.71 | 0.70 | 0.58 | 0.46 | 0.36 | 0.63 | 0.66 |
| **Engineering & Construction** | | | 1.00 | 0.71 | 0.58 | 0.46 | 0.41 | 0.65 | 0.68 |
| **Metals & Mining** | | | | 1.00 | 0.66 | 0.50 | 0.40 | 0.69 | 0.72 |
| **Oil & Gas** | | | | | 1.00 | 0.40 | 0.30 | 0.57 | 0.57 |
| **IT Services** | | | | | | 1.00 | 0.27 | 0.45 | 0.38 |
| **Telecom** | | | | | | | 1.00 | 0.43 | 0.43 |
| **Utilities** | | | | | | | | 1.00 | 0.63 |
| **Property** | | | | | | | | | 1.00 |

*Source: BNP Paribas Sector Strategy*

## Long/short chart




*Sources: Bloomberg, BNP Paribas*

## The risk experts

### The Risk Experts

- Our starting point for this page is a recognition of the macro factors that can have a significant impact on stock-price performance, sometimes independently of bottom-up factors.
- With our Risk Expert page, we identify the key macro risks that can impact stock performance.
- This analysis enhances the fundamental work laid out in the rest of this report, giving investors yet another resource to use in their decision-making process.

FINANCIAL STATEMENTS

## Wipro Ltd

| Profit and Loss (INR m) Year Ending Mar | 2010A | 2011A | 2012E | 2013E | 2014E |
|---|---|---|---|---|---|
| Revenue | 271,957 | 310,542 | 359,058 | 382,916 | 445,417 |
| Cost of sales ex depreciation | (178,468) | (204,597) | (244,060) | (263,670) | (309,346) |
| **Gross profit ex depreciation** | **93,489** | **105,945** | **114,998** | **119,246** | **136,071** |
| Other operating income | 0 | 0 | 0 | 0 | 0 |
| Operating costs | (33,814) | (40,066) | (43,611) | (45,184) | (50,970) |
| **Operating EBITDA** | **59,675** | **65,879** | **71,387** | **74,062** | **85,100** |
| Depreciation | (7,831) | (8,211) | (9,611) | (10,331) | (11,190) |
| Goodwill amortisation | 0 | 0 | 0 | 0 | 0 |
| **Operating EBIT** | **51,844** | **57,668** | **61,776** | **63,731** | **73,910** |
| Net financing costs | 3,566 | 5,367 | 5,540 | 6,889 | 8,096 |
| Associates | 0 | 0 | 0 | 0 | 0 |
| Recurring non operating income | 0 | 0 | 0 | 0 | 0 |
| Non recurring items | 0 | 0 | 0 | 0 | 0 |
| **Profit before tax** | **55,410** | **63,035** | **67,316** | **70,620** | **82,006** |
| Tax | (9,294) | (9,714) | (13,274) | (14,660) | (17,221) |
| **Profit after tax** | **46,116** | **53,321** | **54,042** | **55,960** | **64,785** |
| Minority interests | (185) | (344) | (196) | (196) | (196) |
| Preferred dividends | 0 | 0 | 0 | 0 | 0 |
| Other items | 0 | 0 | 0 | 0 | 0 |
| **Reported net profit** | **45,931** | **52,977** | **53,846** | **55,764** | **64,589** |
| Non recurring items & goodwill (net) | 0 | 0 | 0 | 0 | 0 |
| **Recurring net profit** | **45,931** | **52,977** | **53,846** | **55,764** | **64,589** |
| ***Per share (INR)*** | | | | | |
| Recurring EPS * | 18.73 | 21.46 | 21.87 | 22.72 | 26.32 |
| Reported EPS | 18.91 | 21.74 | 22.07 | 22.85 | 26.47 |
| DPS | 3.63 | 6.04 | 5.67 | 6.08 | 7.41 |
| ***Growth*** | | | | | |
| Revenue (%) | 5.9 | 14.2 | 15.6 | 6.6 | 16.3 |
| Operating EBITDA (%) | 18.8 | 10.4 | 8.4 | 3.7 | 14.9 |
| Operating EBIT (%) | 19.7 | 11.2 | 7.1 | 3.2 | 16.0 |
| Recurring EPS (%) | 17.3 | 14.6 | 1.9 | 3.9 | 15.8 |
| Reported EPS (%) | 18.2 | 15.0 | 1.5 | 3.6 | 15.8 |
| ***Operating performance*** | | | | | |
| Gross margin inc depreciation (%) | 31.5 | 31.5 | 29.4 | 28.4 | 28.0 |
| Operating EBITDA margin (%) | 21.9 | 21.2 | 19.9 | 19.3 | 19.1 |
| Operating EBIT margin (%) | 19.1 | 18.6 | 17.2 | 16.6 | 16.6 |
| Net margin (%) | 16.9 | 17.1 | 15.0 | 14.6 | 14.5 |
| Effective tax rate (%) | 16.8 | 15.4 | 19.7 | 20.8 | 21.0 |
| Dividend payout on recurring profit (%) | 19.4 | 28.1 | 25.9 | 26.7 | 28.2 |
| Interest cover (x) | - | - | - | - | - |
| Inventory days | 15.9 | 15.7 | 16.1 | 17.0 | 15.8 |
| Debtor days | 66.8 | 66.1 | 66.0 | 67.1 | 62.3 |
| Creditor days | 82.2 | 73.9 | 69.1 | 71.6 | 67.7 |
| Operating ROIC (%) | 38.9 | 36.9 | 34.7 | 32.2 | 34.9 |
| Operating ROIC – WACC (%) | 25.2 | 23.2 | 21.1 | 18.6 | 21.2 |
| ROIC (%) | 21.1 | 20.9 | 19.8 | 18.7 | 20.7 |
| ROIC – WACC (%) | 7.4 | 7.2 | 6.1 | 5.0 | 7.0 |
| ROE (%) | 26.8 | 24.3 | 20.8 | 18.8 | 19.1 |
| ROA (%) | 14.2 | 14.2 | 12.7 | 11.7 | 12.4 |

** Pre exceptional, pre-goodwill and fully diluted*

*Sources: Wipro Ltd; BNP Paribas estimates*

Translates into USD services revenue growth of 12.3% in FY12 and 3.5% in FY13, on our forecasts

We are modeling operating margins to be hurt by likely pricing pressure

## Wipro Ltd

| Cash Flow (INR m) Year Ending Mar | 2010A | 2011A | 2012E | 2013E | 2014E |
|---|---|---|---|---|---|
| Recurring net profit | 45,931 | 52,977 | 53,846 | 55,764 | 64,589 |
| Depreciation | 7,831 | 8,211 | 9,611 | 10,331 | 11,190 |
| Associates & minorities | 185 | 0 | 147 | 196 | 196 |
| Other non-cash items | 11,450 | 9,920 | (5,281) | (6,289) | (7,296) |
| **Recurring cash flow** | **65,397** | **71,108** | **58,323** | **60,002** | **68,679** |
| Change in working capital | (14,399) | (30,671) | (12,513) | (10,652) | (8,254) |
| Capex - maintenance | 0 | 0 | 0 | 0 | 0 |
| Capex – new investment | (12,631) | (12,211) | (10,842) | (10,794) | (13,363) |
| **Free cash flow to equity** | **38,367** | **28,226** | **34,968** | **38,556** | **47,063** |
| Net acquisitions & disposals | (4,399) | (140) | (7,188) | 0 | 0 |
| Dividends paid | (5,381) | (13,182) | (16,192) | (17,343) | (21,159) |
| Non recurring cash flows | (20,524) | (11,251) | (12,382) | 0 | 0 |
| **Net cash flow** | **8,063** | **3,653** | **(794)** | **21,213** | **25,904** |
| Equity finance | 66 | 25 | 18 | 0 | 0 |
| Debt finance | 8,453 | (6,858) | 6,790 | 289 | 5,796 |
| **Movement in cash** | **16,582** | **(3,180)** | **6,014** | **21,502** | **31,700** |
| ***Per share (INR)*** | | | | | |
| Recurring cash flow per share | 26.92 | 29.19 | 23.90 | 24.59 | 28.15 |
| FCF to equity per share | 15.80 | 11.58 | 14.33 | 15.80 | 19.29 |

| Balance Sheet (INR m) Year Ending Mar | 2010A | 2011A | 2012E | 2013E | 2014E |
|---|---|---|---|---|---|
| Working capital assets | 105,879 | 121,891 | 143,452 | 154,703 | 168,658 |
| Working capital liabilities | (61,208) | (67,575) | (73,279) | (75,956) | (82,152) |
| **Net working capital** | **44,671** | **54,316** | **70,173** | **78,747** | **86,505** |
| Tangible fixed assets | 53,458 | 55,094 | 56,440 | 56,903 | 59,075 |
| **Operating invested capital** | **98,129** | **109,410** | **126,613** | **135,649** | **145,580** |
| Goodwill | 53,802 | 54,818 | 60,460 | 60,460 | 60,460 |
| Other intangible assets | 4,011 | 3,551 | 4,946 | 4,946 | 4,946 |
| Investments | 3,546 | 5,977 | 6,535 | 6,535 | 6,535 |
| Other assets | 13,934 | 19,689 | 22,505 | 24,505 | 25,005 |
| **Invested capital** | **173,422** | **193,445** | **221,059** | **232,095** | **242,526** |
| Cash & equivalents | (95,298) | (110,423) | (125,627) | (147,129) | (178,829) |
| Short term debt | 44,404 | 33,043 | 37,130 | 33,130 | 32,130 |
| Long term debt * | 18,107 | 19,759 | 18,717 | 16,717 | 16,217 |
| **Net debt** | **(32,787)** | **(57,621)** | **(69,780)** | **(97,282)** | **(130,482)** |
| Deferred tax | 380 | 301 | 858 | 858 | 858 |
| Other liabilities | 9,280 | 10,394 | 10,945 | 10,867 | 10,872 |
| Total equity | 196,112 | 239,680 | 278,138 | 316,559 | 359,989 |
| Minority interests | 437 | 691 | 898 | 1,094 | 1,290 |
| **Invested capital** | **173,422** | **193,445** | **221,059** | **232,095** | **242,526** |
| ** includes convertibles and preferred stock which is being treated as debt* | | | | | |
| ***Per share (INR)*** | | | | | |
| Book value per share | 80.74 | 98.37 | 114 | 130 | 148 |
| Tangible book value per share | 56.94 | 74.42 | 87.19 | 103 | 121 |
| ***Financial strength*** | | | | | |
| Net debt/equity (%) | (16.7) | (24.0) | (25.0) | (30.6) | (36.1) |
| Net debt/total assets (%) | (9.9) | (15.5) | (16.6) | (21.4) | (25.9) |
| Current ratio (x) | 1.9 | 2.3 | 2.4 | 2.8 | 3.0 |
| CF interest cover (x) | - | - | - | - | - |

| Valuation | 2010A | 2011A | 2012E | 2013E | 2014E |
|---|---|---|---|---|---|
| Recurring P/E (x) * | 18.4 | 16.0 | 15.7 | 15.2 | 13.1 |
| Recurring P/E @ target price (x) * | 14.4 | 12.6 | 12.3 | 11.9 | 10.3 |
| Reported P/E (x) | 18.2 | 15.8 | 15.6 | 15.1 | 13.0 |
| Dividend yield (%) | 1.1 | 1.8 | 1.6 | 1.8 | 2.2 |
| P/CF (x) | 12.8 | 11.8 | 14.4 | 14.0 | 12.2 |
| P/FCF (x) | 21.8 | 29.7 | 24.0 | 21.8 | 17.9 |
| Price/book (x) | 4.3 | 3.5 | 3.0 | 2.7 | 2.3 |
| Price/tangible book (x) | 6.0 | 4.6 | 3.9 | 3.3 | 2.9 |
| EV/EBITDA (x) ** | 13.7 | 12.0 | 10.9 | 10.2 | 8.5 |
| EV/EBITDA @ target price (x) ** | 10.6 | 9.3 | 8.3 | 7.8 | 6.4 |
| EV/invested capital (x) | 4.6 | 4.0 | 3.5 | 3.2 | 2.9 |

** Pre exceptional, pre-goodwill and fully diluted*
*** EBITDA includes associate income and recurring non-operating income*

*Sources: Wipro Ltd; BNP Paribas estimates*

# HCL Technologies HCLT IN

INDIA / SOFTWARE & SERVICES

| | |
|---|---|
| TARGET | INR300.00 |
| PRIOR TP | INR600.00 |
| CLOSE | INR423.20 |
| UP/DOWNSIDE | -29.1% |

**REDUCE**

FROM BUY

INDUSTRY OUTLOOK ↓ CHANGE IN RECOMMENDATION

## Demand risk ahead

- **Downgrade to REDUCE, significant risk to Street FY12-13 EPS**
- **See demand deteriorating by late FY12, cut FY13E EPS by 25%**
- **Margin comfort less now, weak demand could hurt**
- **Heightened risk aversion could lead to valuation de-rating**

### Downgrade to REDUCE

We downgrade HCL Tech to REDUCE (from Buy) and the Indian IT services outlook to DETERIORATING. The stock has declined 14% in August alone (vs a 7% drop in the Sensex), but we believe it still does not reflect a likely prolonged anaemic macro growth scenario nor the 50% chance of a US recession that our economics team forecasts. HCL Tech has consistently reported above-peer group revenue growth in recent quarters and 20 new transformational deals signed in 4Q suggest a strong revenue pipeline. However, should the macro environment worsen as we expect it to, we would not be surprised to see delays in deal ramp-ups. Moreover, the 4QFY11 results have effectively ended Street's hopes of continued margin expansion in FY12. In fact, we believe that likely pricing pressure and delays in project starts may actually lead to a further decline in HCL Tech's already lower-than-peers EBIT margin in FY13. This and our 14% revenue cuts lead to our 25% EPS downgrade for FY13.

Abhiram Eleswarapu
+91 22 33704311
abhiram.eleswarapu@asia.bnpparibas.com

### Transformation yes, but margin issue needs addressing

HCL Tech is undergoing a positive long-term transformation. After the revamp of its BPO business in 2012, the company will likely have the most balanced portfolio among peers with a healthy mix of enterprise solutions, applications, infrastructure services, and engineering services. About 28% of revenue now comes from focus verticals such as media and life sciences (vs 17% in FY07) and this has helped offset persistent telecom revenue weakness. Further, the company has reduced its client concentration risk (top-10 clients contribute 35% of revenue, vs 51% in FY07). However, after the dip in FY11, HCL Tech's EBIT margin is 8-16ppt below peers'. Therefore, growth has come at a price and possible pricing pressure ahead could further alter HCL Tech's margin profile.

### Valuation and target price derivation

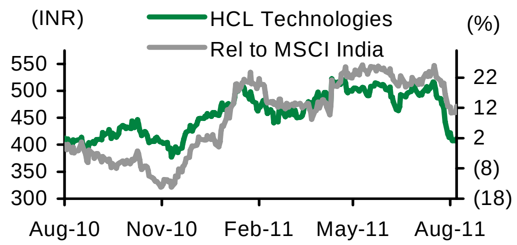
Given heightened macro uncertainty and risk aversion, we expect the stocks to trade significantly below the level implied by our DCF model based on long-term average risk assumptions. In 2008, large-cap Indian IT stocks fell as much as 40-65% below our fair value estimates, so we set our TP for HCL Tech at a 25% discount to our DCF value. Our new TP implies an FY13E P/E of 9.9x. Key risks to our TP are: 1) unexpected USD/INR depreciation (as seen in 2008-09) that negates our EPS cuts and 2) less-than-expected deterioration of the macro environment.

### HOW WE DIFFER FROM THE STREET

| | BNP | Consensus | % Diff |
|---|---|---|---|
| Target Price (INR) | 300.00 | 571.09 | (47.5) |
| EPS 2012 (INR) | 29.20 | 31.16 | (6.3) |
| EPS 2013 (INR) | 30.45 | 38.30 | (20.5) |
| | Positive | Neutral | Negative |
| Market Recs. | 47 | 9 | 6 |

### KEY STOCK DATA

| YE Jun (INR m) | 2012E | 2013E | 2014E |
|---|---|---|---|
| Revenue | 192,088 | 209,391 | 247,448 |
| Rec. net profit | 20,537 | 21,635 | 26,307 |
| Recurring EPS (INR) | 29.20 | 30.45 | 36.66 |
| Prior rec. EPS (INR) | 32.07 | 40.65 | - |
| Chg. In EPS est. (%) | (9.0) | (25.1) | N/A |
| EPS growth (%) | 26.9 | 4.3 | 20.4 |
| Recurring P/E (x) | 14.5 | 13.9 | 11.5 |
| Dividend yield (%) | 2.1 | 2.4 | 2.6 |
| EV/EBITDA (x) | 8.8 | 8.3 | 6.8 |
| Price/book (x) | 3.0 | 2.6 | 2.3 |
| Net debt/Equity | (8.4) | (12.8) | (16.3) |
| ROE (%) | 22.5 | 20.5 | 21.7 |




| Share price performance | 1 Month | 3 Month | 12 Month |
|---|---|---|---|
| Absolute (%) | (16.5) | (16.7) | 1.8 |
| Relative to country (%) | (6.2) | (7.2) | 11.1 |

| | |
|---|---|
| Next results | October 2011 |
| Mkt cap (USD m) | 6,437 |
| 3m avg daily turnover (USD m) | 8.5 |
| Free float (%) | 21 |
| Major shareholder | Slocum Investments (47%) |
| 12m high/low (INR) | 522.85/377.00 |
| 3m historic vol. (%) | 31.3 |
| ADR ticker | - |
| ADR closing price (USD) | - |

*Sources : Bloomberg consensus; BNP Paribas estimates*

### RECENT COMPANY & SECTOR RESEARCH

Story stays on the margins ................................27 Jul 2011
Margin concerns receding ................................21 Apr 2011
Rotten Apple evidence? ...................................17 Aug 2011
GOOG-MMI deal and Japan..............................16 Aug 2011

# RISK EXPERTS

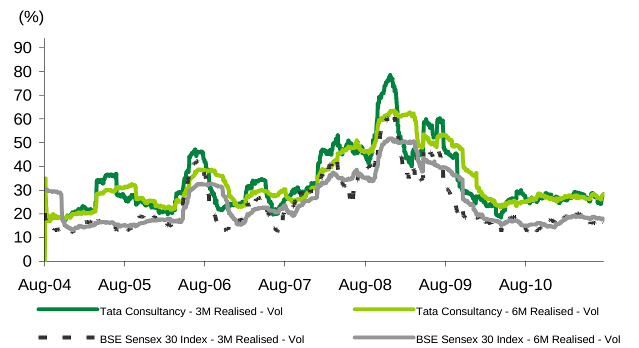
| | Base | | Worst | | Best | |
|---|---|---|---|---|---|---|
| **Year-end 30 Jun** | **2012E** | **2013E** | **2012E** | **2013E** | **2012E** | **2013E** |
| USD/INR average | 45.50 | 45.50 | 41.85 | 37.95 | 48.16 | 53.53 |
| EPS (INR) | 29.20 | 30.45 | 26.24 | 21.67 | 31.77 | 39.87 |
| *Change (%)* | — | — | *(10.1)* | *(28.8)* | *8.8* | *30.9* |

*Sources: BNP Paribas estimates*

## Key Earnings Drivers & Sensitivity

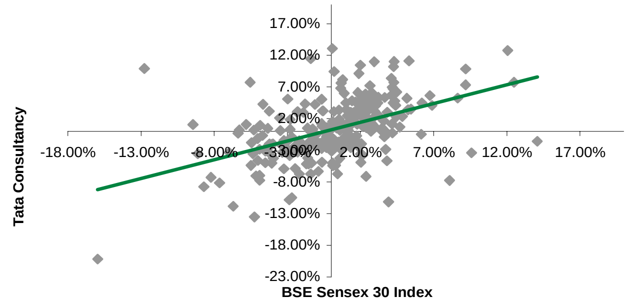
- The key macro factor that can impact Infosys's earnings is currency fluctuation, specifically the USD/INR rate.
- In our best and worst cases, we assume the FY13 average USD/INR rate changes by 10% versus our base case. We calculate that, all else staying the same, this could cause a 29-31% variation to our base-case FY13 EPS.

## Tata Consultancy and SENSEX Index (3M and 6M realised-vol)




Sources: Bloomberg; BNP Paribas

## Regression – Tata Consultancy to SENSEX Index



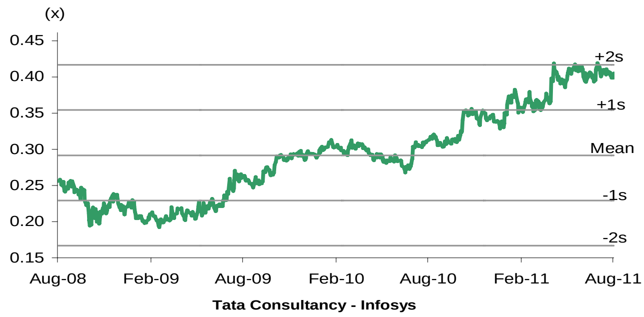

Tata Consultancy = -374 + 0.0647 * SENSEX Index
R Square = 0.2339
Regression based on 261 observations of 5 years weekly data.
Sources: Bloomberg; BNP Paribas

## India sector correlation matrix at 25 July 2011

| | Autos | Banks | Engineering & Construction | Metals & Mining | Oil & Gas | IT Services | Telecom | Utilities | Property |
|---|---|---|---|---|---|---|---|---|---|
| **Autos** | 1.00 | 0.67 | 0.64 | 0.66 | 0.50 | 0.43 | 0.36 | 0.58 | 0.62 |
| **Banks** | | 1.00 | 0.71 | 0.70 | 0.58 | 0.46 | 0.36 | 0.63 | 0.66 |
| **Engineering & Construction** | | | 1.00 | 0.71 | 0.58 | 0.46 | 0.41 | 0.65 | 0.68 |
| **Metals & Mining** | | | | 1.00 | 0.66 | 0.50 | 0.40 | 0.69 | 0.72 |
| **Oil & Gas** | | | | | 1.00 | 0.40 | 0.30 | 0.57 | 0.57 |
| **IT Services** | | | | | | 1.00 | 0.27 | 0.45 | 0.38 |
| **Telecom** | | | | | | | 1.00 | 0.43 | 0.43 |
| **Utilities** | | | | | | | | 1.00 | 0.63 |
| **Property** | | | | | | | | | 1.00 |

*Source: BNP Paribas Sector Strategy*

## Long/short chart

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## The risk experts

### The Risk Experts

- Our starting point for this page is a recognition of the macro factors that can have a significant impact on stock-price performance, sometimes independently of bottom-up factors.
- With our Risk Expert page, we identify the key macro risks that can impact stock performance.
- This analysis enhances the fundamental work laid out in the rest of this report, giving investors yet another resource to use in their decision-making process.

FINANCIAL STATEMENTS

## HCL Technologies

| Profit and Loss (INR m)<br>Year Ending Jun | 2010A | 2011A | 2012E | 2013E | 2014E |
|---|---|---|---|---|---|
| Revenue | 125,650 | 158,555 | 192,088 | 209,391 | 247,448 |
| Cost of sales ex depreciation | (81,957) | (107,921) | (132,931) | (147,744) | (174,623) |
| **Gross profit ex depreciation** | **43,693** | **50,634** | **59,157** | **61,647** | **72,825** |
| Other operating income | 0 | 0 | 0 | 0 | 0 |
| Operating costs | (17,964) | (23,443) | (26,633) | (27,615) | (31,861) |
| **Operating EBITDA** | **25,729** | **27,191** | **32,524** | **34,032** | **40,964** |
| Depreciation | (5,010) | (4,919) | (5,483) | (6,426) | (6,783) |
| Goodwill amortisation | 0 | 0 | 0 | 0 | 0 |
| **Operating EBIT** | **20,719** | **22,272** | **27,042** | **27,606** | **34,181** |
| Net financing costs | (5,289) | (544) | 1,061 | 1,141 | 328 |
| Associates | 0 | 0 | 0 | 0 | 0 |
| Recurring non operating income | 0 | 0 | 0 | 0 | 0 |
| Non recurring items | 0 | 0 | 0 | 0 | 0 |
| **Profit before tax** | **15,430** | **21,728** | **28,103** | **28,747** | **34,509** |
| Tax | (2,403) | (4,808) | (6,878) | (6,457) | (7,592) |
| **Profit after tax** | **13,027** | **16,920** | **21,225** | **22,290** | **26,917** |
| Minority interests | 2 | 0 | 0 | 0 | 0 |
| Preferred dividends | 0 | 0 | 0 | 0 | 0 |
| Other items | (874) | (892) | (687) | (655) | (610) |
| **Reported net profit** | **12,155** | **16,028** | **20,537** | **21,635** | **26,307** |
| Non recurring items & goodwill (net) | 0 | 0 | 0 | 0 | 0 |
| **Recurring net profit** | **12,155** | **16,028** | **20,537** | **21,635** | **26,307** |
| ***Per share (INR)*** | | | | | |
| Recurring EPS * | 17.63 | 23.01 | 29.20 | 30.45 | 36.66 |
| Reported EPS | 18.04 | 23.45 | 29.75 | 31.03 | 37.36 |
| DPS | 4.00 | 7.50 | 9.02 | 10.03 | 11.00 |
| ***Growth*** | | | | | |
| Revenue (%) | 18.6 | 26.2 | 21.1 | 9.0 | 18.2 |
| Operating EBITDA (%) | 11.5 | 5.7 | 19.6 | 4.6 | 20.4 |
| Operating EBIT (%) | 11.6 | 7.5 | 21.4 | 2.1 | 23.8 |
| Recurring EPS (%) | (1.1) | 30.5 | 26.9 | 4.3 | 20.4 |
| Reported EPS (%) | 0.5 | 30.0 | 26.9 | 4.3 | 20.4 |
| ***Operating performance*** | | | | | |
| Gross margin inc depreciation (%) | 30.8 | 28.8 | 27.9 | 26.4 | 26.7 |
| Operating EBITDA margin (%) | 20.5 | 17.1 | 16.9 | 16.3 | 16.6 |
| Operating EBIT margin (%) | 16.5 | 14.0 | 14.1 | 13.2 | 13.8 |
| Net margin (%) | 9.7 | 10.1 | 10.7 | 10.3 | 10.6 |
| Effective tax rate (%) | 15.6 | 22.1 | 24.5 | 22.5 | 22.0 |
| Dividend payout on recurring profit (%) | 22.7 | 32.6 | 30.9 | 32.9 | 30.0 |
| Interest cover (x) | 3.9 | 40.9 | - | - | - |
| Inventory days | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Debtor days | 83.6 | 74.3 | 69.7 | 73.4 | 69.9 |
| Creditor days | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Operating ROIC (%) | 58.5 | 48.5 | 47.7 | 41.8 | 44.1 |
| Operating ROIC – WACC (%) | 42.7 | 32.7 | 31.9 | 26.0 | 28.3 |
| ROIC (%) | 17.9 | 17.6 | 19.4 | 18.3 | 20.7 |
| ROIC – WACC (%) | 2.1 | 1.7 | 3.6 | 2.5 | 4.9 |
| ROE (%) | 19.1 | 20.7 | 22.5 | 20.5 | 21.7 |
| ROA (%) | 12.0 | 11.6 | 13.0 | 12.5 | 13.9 |

** Pre exceptional, pre-goodwill and fully diluted*

*Sources: HCL Technologies; BNP Paribas estimates*

Implies USD revenue growth of 19.1% for FY12E and 9% for FY13E

Tax rates increase as government-granted tax holidays expire

## HCL Technologies

| Cash Flow (INR m)<br>Year Ending Jun | 2010A | 2011A | 2012E | 2013E | 2014E |
|---|---|---|---|---|---|
| Recurring net profit | 12,155 | 16,028 | 20,537 | 21,635 | 26,307 |
| Depreciation | 5,010 | 4,919 | 5,483 | 6,426 | 6,783 |
| Associates & minorities | 0 | 0 | 0 | 0 | 0 |
| Other non-cash items | 874 | 892 | 710 | 655 | 610 |
| **Recurring cash flow** | **18,039** | **21,839** | **26,730** | **28,716** | **33,700** |
| Change in working capital | 1,449 | (4,529) | (2,121) | (3,588) | (5,289) |
| Capex - maintenance | 0 | 0 | 0 | 0 | 0 |
| Capex – new investment | (6,116) | (7,702) | (10,275) | (10,779) | (12,491) |
| **Free cash flow to equity** | **13,372** | **9,607** | **14,334** | **14,348** | **15,920** |
| Net acquisitions & disposals | (506) | (549) | 0 | 0 | 0 |
| Dividends paid | (3,149) | (5,123) | (7,288) | (8,178) | (9,063) |
| Non recurring cash flows | (928) | 164 | 0 | 0 | 0 |
| **Net cash flow** | **8,789** | **4,099** | **7,046** | **6,170** | **6,857** |
| Equity finance | 1,040 | 891 | 0 | 0 | 0 |
| Debt finance | (4,679) | (4,865) | (8,000) | (2,000) | 0 |
| **Movement in cash** | **5,150** | **125** | **(954)** | **4,170** | **6,857** |
| ***Per share (INR)*** | | | | | |
| Recurring cash flow per share | 26.77 | 31.95 | 38.72 | 41.18 | 47.85 |
| FCF to equity per share | 19.85 | 14.06 | 20.76 | 20.58 | 22.61 |

| Balance Sheet (INR m)<br>Year Ending Jun | 2010A | 2011A | 2012E | 2013E | 2014E |
|---|---|---|---|---|---|
| Working capital assets | 39,341 | 46,611 | 53,508 | 61,260 | 69,067 |
| Working capital liabilities | (31,329) | (33,763) | (39,925) | (45,796) | (50,914) |
| **Net working capital** | **8,012** | **12,848** | **13,582** | **15,464** | **18,153** |
| Tangible fixed assets | 18,486 | 22,165 | 27,382 | 32,118 | 38,186 |
| **Operating invested capital** | **26,498** | **35,013** | **40,965** | **47,582** | **56,339** |
| Goodwill | 0 | 0 | 0 | 0 | 0 |
| Other intangible assets | 43,122 | 41,878 | 41,453 | 41,071 | 40,712 |
| Investments | 707 | 2,780 | 2,780 | 2,780 | 2,780 |
| Other assets | 9,640 | 10,392 | 11,778 | 13,485 | 16,084 |
| **Invested capital** | **79,967** | **90,063** | **96,976** | **104,918** | **115,915** |
| Cash & equivalents | (24,419) | (22,409) | (21,455) | (25,625) | (32,481) |
| Short term debt | 0 | 0 | 0 | 0 | 0 |
| Long term debt * | 26,632 | 21,240 | 13,240 | 11,240 | 11,240 |
| **Net debt** | **2,213** | **(1,169)** | **(8,215)** | **(14,385)** | **(21,241)** |
| Deferred tax | 0 | 0 | 0 | 0 | 0 |
| Other liabilities | 7,386 | 6,887 | 6,887 | 6,887 | 6,887 |
| Total equity | 70,368 | 84,345 | 98,304 | 112,416 | 130,269 |
| Minority interests | 0 | 0 | 0 | 0 | 0 |
| **Invested capital** | **79,967** | **90,063** | **96,976** | **104,918** | **115,915** |
| ** includes convertibles and preferred stock which is being treated as debt* | | | | | |
| ***Per share (INR)*** | | | | | |
| Book value per share | 104 | 123 | 142 | 161 | 185 |
| Tangible book value per share | 40.44 | 62.13 | 82.35 | 102 | 127 |
| ***Financial strength*** | | | | | |
| Net debt/equity (%) | 3.1 | (1.4) | (8.4) | (12.8) | (16.3) |
| Net debt/total assets (%) | 1.6 | (0.8) | (5.2) | (8.2) | (10.7) |
| Current ratio (x) | 2.0 | 2.0 | 1.9 | 1.9 | 2.0 |
| CF interest cover (x) | 4.7 | 32.8 | - | - | - |

| Valuation | 2010A | 2011A | 2012E | 2013E | 2014E |
|---|---|---|---|---|---|
| Recurring P/E (x) * | 24.0 | 18.4 | 14.5 | 13.9 | 11.5 |
| Recurring P/E @ target price (x) * | 17.0 | 13.0 | 10.3 | 9.9 | 8.2 |
| Reported P/E (x) | 23.5 | 18.0 | 14.2 | 13.6 | 11.3 |
| Dividend yield (%) | 0.9 | 1.8 | 2.1 | 2.4 | 2.6 |
| P/CF (x) | 15.8 | 13.2 | 10.9 | 10.3 | 8.8 |
| P/FCF (x) | 21.3 | 30.1 | 20.4 | 20.6 | 18.7 |
| Price/book (x) | 4.1 | 3.4 | 3.0 | 2.6 | 2.3 |
| Price/tangible book (x) | 10.5 | 6.8 | 5.1 | 4.1 | 3.3 |
| EV/EBITDA (x) ** | 11.3 | 10.6 | 8.8 | 8.3 | 6.8 |
| EV/EBITDA @ target price (x) ** | 8.1 | 7.5 | 6.2 | 5.8 | 4.7 |
| EV/invested capital (x) | 3.6 | 3.2 | 2.9 | 2.7 | 2.4 |

** Pre exceptional, pre-goodwill and fully diluted*
*** EBITDA includes associate income and recurring non-operating income*

*Sources: HCL Technologies; BNP Paribas estimates*

# MindTree Ltd MTCL IN

INDIA / SOFTWARE & SERVICES

| | |
|---|---|
| TARGET | INR270.00 |
| PRIOR TP | INR400.00 |
| CLOSE | INR358.15 |
| UP/DOWNSIDE | -24.6% |

**REDUCE**

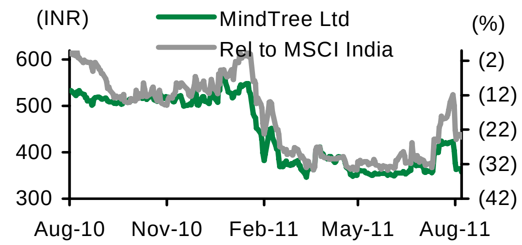
FROM HOLD

## HOW WE DIFFER FROM THE STREET

| | BNP | Consensus | % Diff |
|---|---|---|---|
| Target Price (INR) | 270.00 | 430.09 | (37.2) |
| EPS 2012 (INR) | 40.33 | 36.53 | 10.4 |
| EPS 2013 (INR) | 32.68 | 43.62 | (25.1) |
| | Positive | Neutral | Negative |
| Market Recs. | 11 | 8 | 8 |

## KEY STOCK DATA

| YE Mar (INR m) | 2012E | 2013E | 2014E |
|---|---|---|---|
| Revenue | 17,602 | 19,183 | 22,639 |
| Rec. net profit | 1,644 | 1,358 | 1,642 |
| Recurring EPS (INR) | 40.33 | 32.68 | 39.12 |
| Prior rec. EPS (INR) | 32.72 | 40.87 | 47.16 |
| Chg. In EPS est. (%) | 23.3 | (20.0) | (17.1) |
| EPS growth (%) | 62.1 | (19.0) | 19.7 |
| Recurring P/E (x) | 8.9 | 11.0 | 9.2 |
| Dividend yield (%) | 0.8 | 1.1 | 1.3 |
| EV/EBITDA (x) | 4.9 | 4.5 | 3.5 |
| Price/book (x) | 1.6 | 1.4 | 1.3 |
| Net debt/Equity | (28.5) | (33.5) | (38.4) |
| ROE (%) | 19.3 | 13.8 | 14.7 |




| Share price performance | 1 Month | 3 Month | 12 Month |
|---|---|---|---|
| Absolute (%) | 8.2 | 11.6 | (24.9) |
| Relative to country (%) | 19.6 | 25.4 | (13.6) |

| | |
|---|---|
| Next results | October 2011 |
| Mkt cap (USD m) | 319 |
| 3m avg daily turnover (USD m) | 2.3 |
| Free float (%) | 100 |
| Major shareholder | Walden Software (10%) |
| 12m high/low (INR) | 563.35/345.85 |
| 3m historic vol. (%) | 33.6 |
| ADR ticker | - |
| ADR closing price (USD) | - |

*Sources : Bloomberg consensus; BNP Paribas estimates*

## RECENT COMPANY & SECTOR RESEARCH

On the mend? ....................................................... 21 Jul 2011
Time to turn the page........................................... 2 Feb 2011
Rotten Apple evidence? .................................... 17 Aug 2011
GOOG-MMI deal and Japan.............................. 16 Aug 2011

INDUSTRY OUTLOOK ↓ CHANGE IN RECOMMENDATION

# Tough road ahead

- **Downgrade to REDUCE, significant risk to Street EPS**
- **Operational improvements may not offset macro hurdles**
- **Price losses could put margins under further pressure**
- **Heightened risk aversion likely for mid and small caps**

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### Downgrade to REDUCE

We downgrade MindTree to REDUCE (from Hold) and the Indian IT services sector outlook to DETERIORATING. Even though the company has high near-term revenue visibility, we believe the environment could worsen by late 2011 given our economists forecast of a 50% probability of a US recession over the next six months. We also believe the pricing could be hurt, while lower visibility could reduce fresh graduate hiring – both of which could adversely impact MindTree's margin improvement programme. In recent investor meetings that we hosted, the CEO was not concerned about the deteriorating macro picture then, but has since said that the company was assessing the situation given the extreme nature of recent events.

### Back-to-basics programme only just started delivering

Over the past few months, MindTree has emerged strongly by focussing on its key clients and exiting smaller sub-verticals. This comes after about a year of strategic mis-steps (venturing into handset design and later abandoning it, ex-Chairman resigning). The company reported a solid 1QFY12 and management sounded upbeat on the business and remained confident of beating the FY12 industry revenue growth (16-18%, as per Nasscom). MindTree's new revenue is coming from European clients and three recent large infrastructure management deals (together USD100m in size over five years) that are ramping up.

### However, demand weakness could hurt progress

During the previous downturn in 2008-09, MindTree reported successive quarters of 8-9% q-q USD revenue declines on a combination of pricing and volume cuts. We fear that a repeat of such a situation could hurt the company's already low margins (~11% EBITDA in 1Q) even more and cause considerable damage to valuations. We cut our FY13-14 revenue estimates by 10-11% and our EPS estimates by 17-20%.

### Valuation and target price derivation

In 2008-09, FY10 P/E multiples contracted 30-50% for large-cap Indian IT stocks, while those of some mid-cap companies fell more to fundamentally unjustifiable levels. Given likely investor risk aversion ahead, we believe there is a strong-enough reason to avoid smaller Indian IT names. To capture this extra risk, we increase the beta in our DCF model to 1.1, from 1.3. As a result of this and our estimate cuts, our TP falls to INR270 (from INR400), which implies an FY13E P/E of 8.3x. Risks: unexpected USD/INR weakness, less-than-expected deterioration of the macro environment.

# RISK EXPERTS

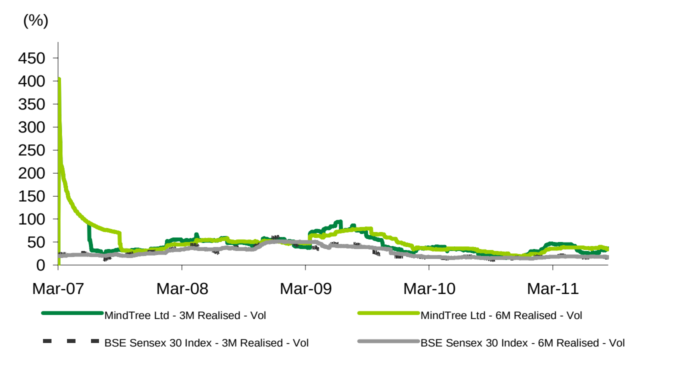
| | Base | | Worst | | Best | |
|---|---|---|---|---|---|---|
| **Year-end 31 Mar** | **2012E** | **2013E** | **2012E** | **2013E** | **2012E** | **2013E** |
| USD/INR average | 45.20 | 45.50 | 44.24 | 39.80 | 46.22 | 50.80 |
| EPS (INR) | 40.33 | 32.68 | 36.53 | 9.37 | 44.41 | 54.39 |
| Change (%) | — | — | (9.4) | (71.3) | 10.1 | 66.4 |

*Sources: BNP Paribas estimates*

## Key Earnings Drivers & Sensitivity

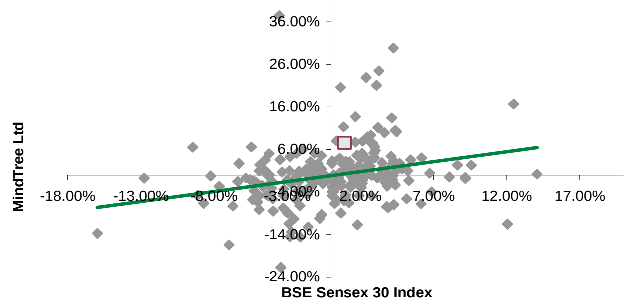
- The key macro factor that can impact MindTree's earnings is currency fluctuation, specifically the USD/INR rate.
- In our best and worst cases, we assume the FY13 average USD/INR rate changes by 10% versus our base case. We calculate that, all else staying the same, this could cause a more than a 60% variation to our base-case FY13 EPS.

## MindTree Ltd and SENSEX Index (3M and 6M realised-vol)




Sources: Bloomberg; BNP Paribas

## Regression – MindTree Ltd to SENSEX Index



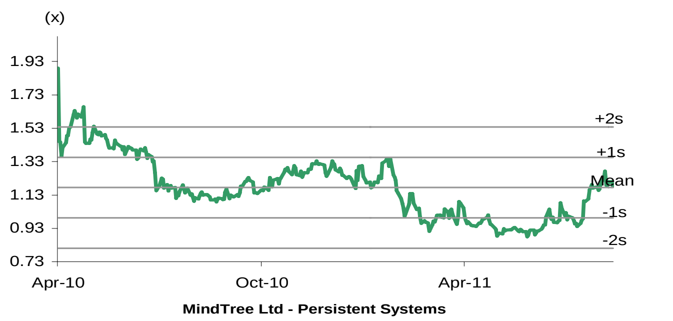

MindTree Ltd = 12 + 0.0296 * SENSEX Index
R Square = 0.0757
Regression based on 232 observations of 5 years weekly data.
Sources: Bloomberg; BNP Paribas

## India sector correlation matrix at 25 July 2011

| | Autos | Banks | Engineering & Construction | Metals & Mining | Oil & Gas | IT Services | Telecom | Utilities | Property |
|---|---|---|---|---|---|---|---|---|---|
| **Autos** | 1.00 | 0.67 | 0.64 | 0.66 | 0.50 | 0.43 | 0.36 | 0.58 | 0.62 |
| **Banks** | | 1.00 | 0.71 | 0.70 | 0.58 | 0.46 | 0.36 | 0.63 | 0.66 |
| **Engineering & Construction** | | | 1.00 | 0.71 | 0.58 | 0.46 | 0.41 | 0.65 | 0.68 |
| **Metals & Mining** | | | | 1.00 | 0.66 | 0.50 | 0.40 | 0.69 | 0.72 |
| **Oil & Gas** | | | | | 1.00 | 0.40 | 0.30 | 0.57 | 0.57 |
| **IT Services** | | | | | | 1.00 | 0.27 | 0.45 | 0.38 |
| **Telecom** | | | | | | | 1.00 | 0.43 | 0.43 |
| **Utilities** | | | | | | | | 1.00 | 0.63 |
| **Property** | | | | | | | | | 1.00 |

*Source: BNP Paribas Sector Strategy*

## Long/short chart




*Sources: Bloomberg, BNP Paribas*

## The risk experts

### The Risk Experts

- Our starting point for this page is a recognition of the macro factors that can have a significant impact on stock-price performance, sometimes independently of bottom-up factors.
- With our Risk Expert page, we identify the key macro risks that can impact stock performance.
- This analysis enhances the fundamental work laid out in the rest of this report, giving investors yet another resource to use in their decision-making process.

FINANCIAL STATEMENTS

## MindTree Ltd

| Profit and Loss (INR m) Year Ending Mar | 2010A | 2011A | 2012E | 2013E | 2014E |
|---|---|---|---|---|---|
| Revenue | 12,960 | 15,090 | 17,602 | 19,183 | 22,639 |
| Cost of sales ex depreciation | (7,982) | (10,145) | (11,636) | (12,990) | (15,259) |
| **Gross profit ex depreciation** | **4,977** | **4,945** | **5,966** | **6,193** | **7,380** |
| Other operating income | 0 | 0 | 0 | 0 | 0 |
| Operating costs | (2,522) | (3,167) | (3,550) | (3,792) | (4,437) |
| **Operating EBITDA** | **2,456** | **1,778** | **2,416** | **2,400** | **2,942** |
| Depreciation | (652) | (712) | (732) | (828) | (941) |
| Goodwill amortisation | 0 | 0 | 0 | 0 | 0 |
| **Operating EBIT** | **1,804** | **1,066** | **1,685** | **1,573** | **2,002** |
| Net financing costs | 647 | 153 | 216 | 0 | (2) |
| Associates | 0 | 0 | 0 | 0 | 0 |
| Recurring non operating income | 96 | 86 | 85 | 142 | 133 |
| Non recurring items | 0 | 0 | 0 | 0 | 0 |
| **Profit before tax** | **2,547** | **1,305** | **1,986** | **1,715** | **2,133** |
| Tax | (398) | (287) | (342) | (356) | (491) |
| **Profit after tax** | **2,149** | **1,017** | **1,644** | **1,358** | **1,642** |
| Minority interests | 0 | 0 | 0 | 0 | 0 |
| Preferred dividends | 0 | 0 | 0 | 0 | 0 |
| Other items | 0 | 0 | 0 | 0 | 0 |
| **Reported net profit** | **2,149** | **1,017** | **1,644** | **1,358** | **1,642** |
| Non recurring items & goodwill (net) | 0 | 0 | 0 | 0 | 0 |
| **Recurring net profit** | **2,149** | **1,017** | **1,644** | **1,358** | **1,642** |
| ***Per share (INR)*** | | | | | |
| Recurring EPS * | 52.79 | 24.89 | 40.33 | 32.68 | 39.12 |
| Reported EPS | 54.77 | 25.58 | 40.69 | 32.97 | 39.46 |
| DPS | 3.01 | 2.51 | 3.01 | 4.01 | 4.50 |
| ***Growth*** | | | | | |
| Revenue (%) | 4.7 | 16.4 | 16.7 | 9.0 | 18.0 |
| Operating EBITDA (%) | (25.8) | (27.6) | 35.9 | (0.7) | 22.6 |
| Operating EBIT (%) | (34.2) | (40.9) | 58.0 | (6.6) | 27.3 |
| Recurring EPS (%) | 285.3 | (52.9) | 62.1 | (19.0) | 19.7 |
| Reported EPS (%) | 295.7 | (53.3) | 59.1 | (19.0) | 19.7 |
| ***Operating performance*** | | | | | |
| Gross margin inc depreciation (%) | 33.4 | 28.1 | 29.7 | 28.0 | 28.4 |
| Operating EBITDA margin (%) | 18.9 | 11.8 | 13.7 | 12.5 | 13.0 |
| Operating EBIT margin (%) | 13.9 | 7.1 | 9.6 | 8.2 | 8.8 |
| Net margin (%) | 16.6 | 6.7 | 9.3 | 7.1 | 7.3 |
| Effective tax rate (%) | 15.6 | 22.0 | 17.2 | 20.8 | 23.0 |
| Dividend payout on recurring profit (%) | 5.7 | 10.1 | 7.5 | 12.3 | 11.5 |
| Interest cover (x) | - | - | - | - | 1,186.0 |
| Inventory days | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Debtor days | 72.7 | 62.8 | 63.1 | 65.1 | 60.4 |
| Creditor days | 113.7 | 67.5 | 52.7 | 50.0 | 45.0 |
| Operating ROIC (%) | 27.9 | 13.8 | 19.1 | 17.0 | 20.5 |
| Operating ROIC – WACC (%) | - | - | - | - | - |
| ROIC (%) | 19.3 | 11.9 | 17.6 | 16.3 | 19.3 |
| ROIC – WACC (%) | - | - | - | - | - |
| ROE (%) | 35.2 | 14.1 | 19.3 | 13.8 | 14.7 |
| ROA (%) | 17.5 | 9.4 | 13.7 | 10.9 | 11.8 |

** Pre exceptional, pre-goodwill and fully diluted*

*Sources: MindTree Ltd; BNP Paribas estimates*

Translates into 17.7% and 8.3% USD revenue growth for FY12E and FY13E respectively

Tax rates likely to go up as government granted tax benefits expire

## MindTree Ltd

| Cash Flow (INR m) Year Ending Mar | 2010A | 2011A | 2012E | 2013E | 2014E |
|---|---|---|---|---|---|
| Recurring net profit | 2,149 | 1,017 | 1,644 | 1,358 | 1,642 |
| Depreciation | 652 | 712 | 732 | 828 | 941 |
| Associates & minorities | 0 | 0 | 0 | 0 | 0 |
| Other non-cash items | 393 | 286 | 336 | 356 | 491 |
| **Recurring cash flow** | **3,193** | **2,016** | **2,711** | **2,542** | **3,073** |
| Change in working capital | 237 | (1,377) | (636) | (532) | (663) |
| Capex - maintenance | (457) | (840) | (790) | (963) | (1,132) |
| Capex – new investment | 0 | 0 | 0 | 0 | 0 |
| **Free cash flow to equity** | **2,974** | **(201)** | **1,286** | **1,047** | **1,279** |
| Net acquisitions & disposals | (243) | 0 | 0 | 0 | 0 |
| Dividends paid | (46) | (89) | (112) | (193) | (219) |
| Non recurring cash flows | (1,409) | 256 | 36 | 0 | 0 |
| **Net cash flow** | **1,275** | **(34)** | **1,210** | **854** | **1,060** |
| Equity finance | 94 | 139 | 25 | 0 | 0 |
| Debt finance | (1,414) | (52) | (30) | 0 | 0 |
| **Movement in cash** | **(44)** | **53** | **1,205** | **854** | **1,060** |
| ***Per share (INR)*** | | | | | |
| Recurring cash flow per share | 81.40 | 50.69 | 67.13 | 61.70 | 73.85 |
| FCF to equity per share | 75.79 | (5.06) | 31.83 | 25.41 | 30.73 |

| Balance Sheet (INR m) Year Ending Mar | 2010A | 2011A | 2012E | 2013E | 2014E |
|---|---|---|---|---|---|
| Working capital assets | 4,268 | 4,831 | 5,188 | 5,537 | 5,908 |
| Working capital liabilities | (2,603) | (2,044) | (2,197) | (2,370) | (2,570) |
| **Net working capital** | **1,665** | **2,787** | **2,991** | **3,166** | **3,338** |
| Tangible fixed assets | 2,859 | 2,952 | 3,023 | 3,159 | 3,350 |
| **Operating invested capital** | **4,524** | **5,739** | **6,014** | **6,325** | **6,688** |
| Goodwill | 154 | 0 | 0 | 0 | 0 |
| Other intangible assets | 0 | 55 | 52 | 52 | 52 |
| Investments | 1,442 | 7 | 7 | 7 | 7 |
| Other assets | 214 | 743 | 788 | 788 | 788 |
| **Invested capital** | **6,334** | **6,544** | **6,861** | **7,172** | **7,535** |
| Cash & equivalents | (403) | (1,564) | (2,680) | (3,533) | (4,593) |
| Short term debt | 0 | 0 | 0 | 0 | 0 |
| Long term debt * | 31 | 41 | 36 | 36 | 36 |
| **Net debt** | **(372)** | **(1,523)** | **(2,644)** | **(3,497)** | **(4,557)** |
| Deferred tax | 0 | 0 | 0 | 0 | 0 |
| Other liabilities | 0 | 305 | 223 | 223 | 223 |
| Total equity | 6,706 | 7,762 | 9,281 | 10,446 | 11,870 |
| Minority interests | 0 | 0 | 0 | 0 | 0 |
| **Invested capital** | **6,334** | **6,544** | **6,861** | **7,172** | **7,535** |

** includes convertibles and preferred stock which is being treated as debt*

| | | | | | |
|---|---|---|---|---|---|
| ***Per share (INR)*** | | | | | |
| Book value per share | 171 | 195 | 230 | 254 | 285 |
| Tangible book value per share | 167 | 194 | 229 | 252 | 284 |
| ***Financial strength*** | | | | | |
| Net debt/equity (%) | (5.5) | (19.6) | (28.5) | (33.5) | (38.4) |
| Net debt/total assets (%) | (4.0) | (15.0) | (22.5) | (26.7) | (31.0) |
| Current ratio (x) | 1.8 | 3.1 | 3.6 | 3.8 | 4.1 |
| CF interest cover (x) | - | - | - | - | 711.6 |

| Valuation | 2010A | 2011A | 2012E | 2013E | 2014E |
|---|---|---|---|---|---|
| Recurring P/E (x) * | 6.8 | 14.4 | 8.9 | 11.0 | 9.2 |
| Recurring P/E @ target price (x) * | 5.1 | 10.8 | 6.7 | 8.3 | 6.9 |
| Reported P/E (x) | 6.5 | 14.0 | 8.8 | 10.9 | 9.1 |
| Dividend yield (%) | 0.8 | 0.7 | 0.8 | 1.1 | 1.3 |
| P/CF (x) | 4.4 | 7.1 | 5.3 | 5.8 | 4.8 |
| P/FCF (x) | 4.7 | (70.7) | 11.3 | 14.1 | 11.7 |
| Price/book (x) | 2.1 | 1.8 | 1.6 | 1.4 | 1.3 |
| Price/tangible book (x) | 2.1 | 1.8 | 1.6 | 1.4 | 1.3 |
| EV/EBITDA (x) ** | 5.6 | 7.1 | 4.9 | 4.5 | 3.5 |
| EV/EBITDA @ target price (x) ** | 4.2 | 5.2 | 3.5 | 3.1 | 2.3 |
| EV/invested capital (x) | 2.2 | 1.9 | 1.7 | 1.6 | 1.4 |

** Pre exceptional, pre-goodwill and fully diluted*

*** EBITDA includes associate income and recurring non-operating income*

*Sources: MindTree Ltd; BNP Paribas estimates*

# Persistent Systems PSYS IN

INDIA / SOFTWARE & SERVICES

| | | |
|---|---|---|
| TARGET | INR250.00 | REDUCE |
| PRIOR TP | INR470.00 | |
| CLOSE | INR310.20 | |
| UP/DOWNSIDE | -19.4% | FROM BUY |

INDUSTRY OUTLOOK ↓ CHANGE IN RECOMMENDATION

## Should be available cheaper

- **Downgrade to REDUCE, significant risk to Street FY12-13 EPS**
- **Weak macro puts revenue at risk just as it did in 2008-09**
- **Price losses could put margins under further pressure**
- **Heightened risk aversion likely for mid and small caps**

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### Downgrade to REDUCE

We downgrade Persistent Systems to REDUCE (from Buy) and the Indian IT services sector outlook to DETERIORATING. In a series of recent investor meetings that we hosted with the company, the CEO did not seem concerned about the weakening macro environment and insisted the work Persistent does is not discretionary, but is “bread-and-butter” for its clients. Management cited the examples of strong results from top client IBM (IBM US, Not rated), and key clients such as Cisco (CSCO US, Not rated), which are unlikely to cut spending on focus areas such as collaboration (Persistent is a key partner for Cisco in the area). Persistent has about 90% revenue visibility for the immediate quarter and a reasonable idea of customer plans for the year which is factored into its guidance. However, during the previous downturn, Persistent saw three successive quarters of 5-7% USD revenue growth declines, which we worry could repeat.

### Revising estimates significantly downward

Other points of concern are: 1) About 30% of Persistent’s revenue comes from smaller clients and start-ups that contribute less than USD1m in revenue each annually. In the eventuality of a recession, we believe this revenue base could be at particular risk. 2) During the previous downturn, price cuts accompanied volume declines, which could hurt the company’s margins that are already under pressure from an increasing wage base. Our FY13-14 revenue estimates are now lower by 16-21%, while we cut our EPS estimates by 30-32%.

### Valuation and target price derivation

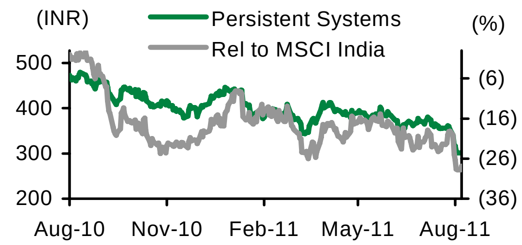
We have so far liked Persistent as a play on the structural shifts (cloud computing, collaboration, data analytics and mobility, which contribute over 40% of its revenue) that the software industry is undergoing. However, given heightened macro uncertainty, we believe investors would be able to buy the stock cheaper over the next few months. We also note that in 2008-09, FY10 P/E multiples went down 30-50% for large-cap stocks, while those of some mid-cap companies fell more to fundamentally unjustifiable levels. Given the likely investor risk aversion ahead, we believe this is another reason to avoid smaller Indian IT names. To capture this extra risk, we increase the beta in our DCF assumptions to 1.3, from 1.1. As a result of this and our estimate cuts, our TP for Persistent falls to INR250.00 (from INR470), which implies an FY13E P/E of 9.1x. Risks: unexpected USD/INR weakness and less-than-expected deterioration of the macro environment.

### HOW WE DIFFER FROM THE STREET

| | BNP | Consensus | % Diff |
|---|---|---|---|
| Target Price (INR) | 250.00 | 464.80 | (46.2) |
| EPS 2012 (INR) | 31.44 | 32.68 | (3.8) |
| EPS 2013 (INR) | 27.52 | 40.21 | (31.6) |
| | Positive | Neutral | Negative |
| Market Recs. | 30 | 2 | 1 |

### KEY STOCK DATA

| YE Mar (INR m) | 2012E | 2013E | 2014E |
|---|---|---|---|
| Revenue | 10,067 | 11,073 | 13,003 |
| Rec. net profit | 1,277 | 1,146 | 1,360 |
| Recurring EPS (INR) | 31.44 | 27.52 | 32.49 |
| Prior rec. EPS (INR) | 32.02 | 39.33 | 47.74 |
| Chg. In EPS est. (%) | (1.8) | (30.0) | (31.9) |
| EPS growth (%) | (9.9) | (12.5) | 18.1 |
| Recurring P/E (x) | 9.9 | 11.3 | 9.5 |
| Dividend yield (%) | 1.0 | 1.4 | 2.0 |
| EV/EBITDA (x) | 5.3 | 5.0 | 4.1 |
| Price/book (x) | 1.4 | 1.3 | 1.2 |
| Net debt/Equity | (12.1) | (20.7) | (22.8) |
| ROE (%) | 15.9 | 12.6 | 13.5 |




| Share price performance | 1 Month | 3 Month | 12 Month |
|---|---|---|---|
| Absolute (%) | (15.0) | (19.8) | (34.8) |
| Relative to country (%) | (3.6) | (8.6) | (23.5) |

| | |
|---|---|
| Next results | October 2011 |
| Mkt cap (USD m) | 265 |
| 3m avg daily turnover (USD m) | 0.3 |
| Free float (%) | 61 |
| Major shareholder | Anand Deshpande (28%) |
| 12m high/low (INR) | 479.95/300.90 |
| 3m historic vol. (%) | 30.6 |
| ADR ticker | - |
| ADR closing price (USD) | - |

*Sources : Bloomberg consensus; BNP Paribas estimates*

### RECENT COMPANY & SECTOR RESEARCH

On course for FY12 targets ................................ 19 Jul 2011
Ideal base now for FY12 .................................... 19 Apr 2011
Rotten Apple evidence? .................................... 17 Aug 2011
GOOG-MMI deal and Japan ................................ 16 Aug 2011

# RISK EXPERTS

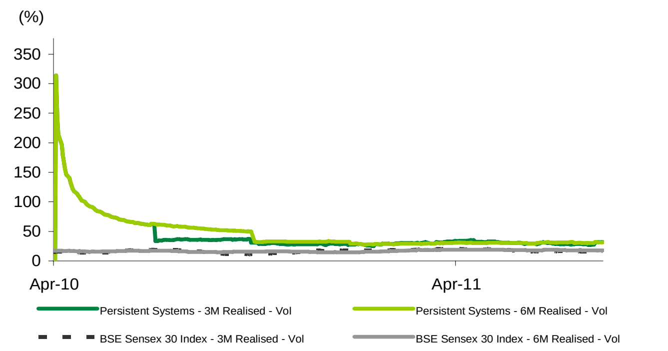
| | Base | | Worst | | Best | |
|---|---|---|---|---|---|---|
| **Year-end 31 Mar** | **2012E** | **2013E** | **2012E** | **2013E** | **2012E** | **2013E** |
| USD/INR average | 45.24 | 45.50 | 44.24 | 39.84 | 46.10 | 50.73 |
| EPS (INR) | 31.44 | 27.52 | 29.01 | 11.79 | 33.57 | 42.05 |
| *Change (%)* | — | — | *(7.7)* | *(57.2)* | *6.8* | *52.8* |

*Sources: BNP Paribas estimates*

## Key Earnings Drivers & Sensitivity

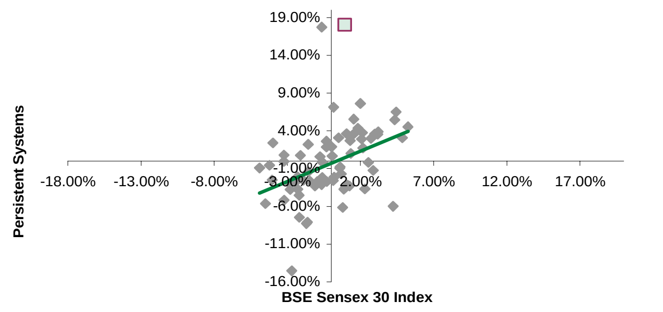
- The key macro factor that can impact Persistent's earnings is currency fluctuation, specifically the USD/INR rate.
- In our best and worst cases, we assume the FY13 average USD/INR rate changes by 10% versus our base case. We calculate that, all else staying the same, this could cause over a 50% variation to our base-case FY13 EPS.

## Persistent Systems and SENSEX Index (3M and 6M realised-vol)




Sources: Bloomberg; BNP Paribas

## Regression – Persistent Systems to SENSEX Index



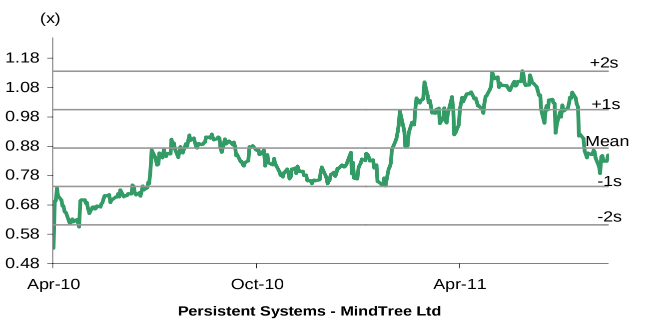

Persistent Systems = -131 + 0.0342 * SENSEX Index
R Square = 0.1805
Regression based on 71 observations of 5 years weekly data.
Sources: Bloomberg; BNP Paribas

## India sector correlation matrix at 25 July 2011

| | Autos | Banks | Engineering & Construction | Metals & Mining | Oil & Gas | IT Services | Telecom | Utilities | Property |
|---|---|---|---|---|---|---|---|---|---|
| **Autos** | 1.00 | 0.67 | 0.64 | 0.66 | 0.50 | 0.43 | 0.36 | 0.58 | 0.62 |
| **Banks** | | 1.00 | 0.71 | 0.70 | 0.58 | 0.46 | 0.36 | 0.63 | 0.66 |
| **Engineering & Construction** | | | 1.00 | 0.71 | 0.58 | 0.46 | 0.41 | 0.65 | 0.68 |
| **Metals & Mining** | | | | 1.00 | 0.66 | 0.50 | 0.40 | 0.69 | 0.72 |
| **Oil & Gas** | | | | | 1.00 | 0.40 | 0.30 | 0.57 | 0.57 |
| **IT Services** | | | | | | 1.00 | 0.27 | 0.45 | 0.38 |
| **Telecom** | | | | | | | 1.00 | 0.43 | 0.43 |
| **Utilities** | | | | | | | | 1.00 | 0.63 |
| **Property** | | | | | | | | | 1.00 |

*Source: BNP Paribas Sector Strategy*

## Long/short chart




*Sources: Bloomberg, BNP Paribas*

## The risk experts

### The Risk Experts

- Our starting point for this page is a recognition of the macro factors that can have a significant impact on stock-price performance, sometimes independently of bottom-up factors.
- With our Risk Expert page, we identify the key macro risks that can impact stock performance.
- This analysis enhances the fundamental work laid out in the rest of this report, giving investors yet another resource to use in their decision-making process.

FINANCIAL STATEMENTS

## Persistent Systems

| Profit and Loss (INR m) Year Ending Mar | 2010A | 2011A | 2012E | 2013E | 2014E |
|---|---|---|---|---|---|
| Revenue | 6,012 | 7,758 | 10,067 | 11,073 | 13,003 |
| Cost of sales ex depreciation | (3,687) | (5,123) | (6,603) | (7,427) | (8,780) |
| **Gross profit ex depreciation** | **2,324** | **2,635** | **3,464** | **3,646** | **4,223** |
| Other operating income | 0 | 0 | 0 | 0 | 0 |
| Operating costs | (860) | (1,052) | (1,414) | (1,533) | (1,755) |
| **Operating EBITDA** | **1,464** | **1,583** | **2,050** | **2,114** | **2,468** |
| Depreciation | (335) | (424) | (572) | (659) | (722) |
| Goodwill amortisation | 0 | 0 | 0 | 0 | 0 |
| **Operating EBIT** | **1,128** | **1,159** | **1,478** | **1,455** | **1,745** |
| Net financing costs | 112 | 344 | 373 | 127 | 117 |
| Associates | 0 | 0 | 0 | 0 | 0 |
| Recurring non operating income | 0 | 0 | 0 | 0 | 0 |
| Non recurring items | 0 | 2 | 0 | 0 | 0 |
| **Profit before tax** | **1,241** | **1,505** | **1,851** | **1,582** | **1,862** |
| Tax | (91) | (108) | (575) | (436) | (503) |
| **Profit after tax** | **1,150** | **1,397** | **1,277** | **1,146** | **1,360** |
| Minority interests | 0 | 0 | 0 | 0 | 0 |
| Preferred dividends | 0 | 0 | 0 | 0 | 0 |
| Other items | 0 | 0 | 0 | 0 | 0 |
| **Reported net profit** | **1,150** | **1,397** | **1,277** | **1,146** | **1,360** |
| Non recurring items & goodwill (net) | 0 | (2) | 0 | 0 | 0 |
| **Recurring net profit** | **1,150** | **1,396** | **1,277** | **1,146** | **1,360** |
| ***Per share (INR)*** | | | | | |
| Recurring EPS * | 32.05 | 34.89 | 31.44 | 27.52 | 32.49 |
| Reported EPS | 35.72 | 36.48 | 32.99 | 28.88 | 34.10 |
| DPS | 2.58 | 5.74 | 3.20 | 4.26 | 6.30 |
| ***Growth*** | | | | | |
| Revenue (%) | 1.2 | 29.1 | 29.8 | 10.0 | 17.4 |
| Operating EBITDA (%) | (18.1) | 8.2 | 29.5 | 3.1 | 16.7 |
| Operating EBIT (%) | (24.3) | 2.7 | 27.5 | (1.6) | 20.0 |
| Recurring EPS (%) | 70.1 | 8.8 | (9.9) | (12.5) | 18.1 |
| Reported EPS (%) | 72.7 | 2.1 | (9.6) | (12.5) | 18.1 |
| ***Operating performance*** | | | | | |
| Gross margin inc depreciation (%) | 33.1 | 28.5 | 28.7 | 27.0 | 26.9 |
| Operating EBITDA margin (%) | 24.3 | 20.4 | 20.4 | 19.1 | 19.0 |
| Operating EBIT margin (%) | 18.8 | 14.9 | 14.7 | 13.1 | 13.4 |
| Net margin (%) | 19.1 | 18.0 | 12.7 | 10.3 | 10.5 |
| Effective tax rate (%) | 7.3 | 7.2 | 31.0 | 27.5 | 27.0 |
| Dividend payout on recurring profit (%) | 8.0 | 16.5 | 10.2 | 15.5 | 19.4 |
| Interest cover (x) | - | - | - | - | - |
| Inventory days | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Debtor days | 72.8 | 69.3 | 64.0 | 66.8 | 60.5 |
| Creditor days | 0.0 | 14.5 | 27.6 | 29.1 | 24.6 |
| Operating ROIC (%) | 25.8 | 16.3 | 14.0 | 12.8 | 15.3 |
| Operating ROIC – WACC (%) | 8.6 | (1.0) | (3.3) | (4.4) | (2.0) |
| ROIC (%) | 18.1 | 13.7 | 13.6 | 12.5 | 14.4 |
| ROIC – WACC (%) | 0.9 | (3.5) | (3.7) | (4.8) | (2.9) |
| ROE (%) | 22.2 | 20.1 | 15.9 | 12.6 | 13.5 |
| ROA (%) | 16.5 | 13.5 | 10.3 | 9.3 | 10.2 |

** Pre exceptional, pre-goodwill and fully diluted*

*Sources: Persistent Systems; BNP Paribas estimates*

Translates into USD revenue growth of 30.7% in FY12 and 9.4% in FY13

We expect EBIT margin to fall on price and wage pressures contribution from higher margin IP

Tax rate expected to increase as government-granted tax benefits expire

## Persistent Systems

| Cash Flow (INR m) Year Ending Mar | 2010A | 2011A | 2012E | 2013E | 2014E |
|---|---|---|---|---|---|
| Recurring net profit | 1,150 | 1,396 | 1,277 | 1,146 | 1,360 |
| Depreciation | 335 | 424 | 572 | 659 | 722 |
| Associates & minorities | 0 | 0 | 0 | 0 | 0 |
| Other non-cash items | (373) | (292) | 10 | 0 | 0 |
| **Recurring cash flow** | **1,112** | **1,527** | **1,859** | **1,805** | **2,082** |
| Change in working capital | 126 | 48 | (59) | (133) | (265) |
| Capex - maintenance | (476) | (972) | (1,985) | (536) | (585) |
| Capex – new investment | 0 | 0 | 0 | 0 | 0 |
| **Free cash flow to equity** | **762** | **603** | **(185)** | **1,135** | **1,232** |
| Net acquisitions & disposals | 1 | 2 | 2 | 0 | 0 |
| Dividends paid | (27) | (280) | (145) | (198) | (294) |
| Non recurring cash flows | (710) | (1,684) | 327 | 0 | (500) |
| **Net cash flow** | **26** | **(1,358)** | **(1)** | **938** | **438** |
| Equity finance | 1,618 | (417) | 0 | 0 | 0 |
| Debt finance | 89 | 110 | 42 | 0 | 0 |
| **Movement in cash** | **1,733** | **(1,666)** | **41** | **938** | **438** |
| ***Per share (INR)*** | | | | | |
| Recurring cash flow per share | 34.54 | 39.86 | 48.03 | 45.48 | 52.21 |
| FCF to equity per share | 23.67 | 15.75 | (4.79) | 28.61 | 30.89 |

| Balance Sheet (INR m) Year Ending Mar | 2010A | 2011A | 2012E | 2013E | 2014E |
|---|---|---|---|---|---|
| Working capital assets | 2,341 | 5,080 | 5,415 | 5,619 | 6,071 |
| Working capital liabilities | (1,710) | (1,345) | (2,110) | (2,182) | (2,369) |
| **Net working capital** | **630** | **3,734** | **3,305** | **3,438** | **3,703** |
| Tangible fixed assets | 2,318 | 2,815 | 4,246 | 4,123 | 3,986 |
| **Operating invested capital** | **2,949** | **6,549** | **7,551** | **7,561** | **7,689** |
| Goodwill | 0 | 0 | 0 | 0 | 0 |
| Other intangible assets | 0 | 0 | 0 | 0 | 0 |
| Investments | 1,562 | 0 | 0 | 0 | 500 |
| Other assets | 7 | 209 | 215 | 215 | 215 |
| **Invested capital** | **4,517** | **6,758** | **7,766** | **7,776** | **8,404** |
| Cash & equivalents | (1,918) | (1,000) | (1,042) | (1,980) | (2,418) |
| Short term debt | 0 | 0 | 0 | 0 | 0 |
| Long term debt * | 0 | 0 | 0 | 0 | 0 |
| **Net debt** | **(1,918)** | **(1,000)** | **(1,042)** | **(1,980)** | **(2,418)** |
| Deferred tax | 0 | 0 | 0 | 0 | 0 |
| Other liabilities | 0 | 84 | 76 | 76 | 76 |
| Total equity | 6,435 | 7,471 | 8,612 | 9,561 | 10,626 |
| Minority interests | 0 | 0 | 0 | 0 | 0 |
| **Invested capital** | **4,517** | **6,758** | **7,766** | **7,776** | **8,404** |
| ** includes convertibles and preferred stock which is being treated as debt* | | | | | |
| ***Per share (INR)*** | | | | | |
| Book value per share | 169 | 195 | 223 | 241 | 266 |
| Tangible book value per share | 169 | 195 | 223 | 241 | 266 |
| ***Financial strength*** | | | | | |
| Net debt/equity (%) | (29.8) | (13.4) | (12.1) | (20.7) | (22.8) |
| Net debt/total assets (%) | (23.5) | (11.0) | (9.5) | (16.6) | (18.3) |
| Current ratio (x) | 2.5 | 4.5 | 3.1 | 3.5 | 3.6 |
| CF interest cover (x) | - | - | - | - | - |

| Valuation | 2010A | 2011A | 2012E | 2013E | 2014E |
|---|---|---|---|---|---|
| Recurring P/E (x) * | 9.7 | 8.9 | 9.9 | 11.3 | 9.5 |
| Recurring P/E @ target price (x) * | 7.8 | 7.2 | 8.0 | 9.1 | 7.7 |
| Reported P/E (x) | 8.7 | 8.5 | 9.4 | 10.7 | 9.1 |
| Dividend yield (%) | 0.8 | 1.9 | 1.0 | 1.4 | 2.0 |
| P/CF (x) | 9.0 | 7.8 | 6.5 | 6.8 | 5.9 |
| P/FCF (x) | 13.1 | 19.7 | (64.7) | 10.8 | 10.0 |
| Price/book (x) | 1.8 | 1.6 | 1.4 | 1.3 | 1.2 |
| Price/tangible book (x) | 1.8 | 1.6 | 1.4 | 1.3 | 1.2 |
| EV/EBITDA (x) ** | 6.7 | 6.6 | 5.3 | 5.0 | 4.1 |
| EV/EBITDA @ target price (x) ** | 5.3 | 5.1 | 4.2 | 3.9 | 3.1 |
| EV/invested capital (x) | 2.2 | 1.6 | 1.4 | 1.3 | 1.2 |

** Pre exceptional, pre-goodwill and fully diluted*

*** EBITDA includes associate income and recurring non-operating income*

*Sources: Persistent Systems; BNP Paribas estimates*

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|---|---|
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All share prices are as at market close on 17 August 2011 unless otherwise stated.

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**Stock Ratings**

Stock ratings are based on absolute upside or downside, which we define as (target price* - current price) / current price.
BUY (B). The upside is 10% or more.
HOLD (H). The upside or downside is less than 10%.
REDUCE (R). The downside is 10% or more.

Unless otherwise specified, these recommendations are set with a 12-month horizon. Thus, it is possible that future price volatility may cause a temporary mismatch between upside/downside for a stock based on market price and the formal recommendation.

* *In most cases, the target price will equal the analyst's assessment of the current fair value of the stock. However, if the analyst doesn't think the market will reassess the stock over the specified time horizon due to a lack of events or catalysts, then the target price may differ from fair value. In most cases, therefore, our recommendation is an assessment of the mismatch between current market price and our assessment of current fair value.*

**Industry Recommendations**

Improving (↑): The analyst expects the fundamental conditions of the sector to be positive over the next 12 months.
Neutral (←→ ): The analyst expects the fundamental conditions of the sector to be maintained over the next 12 months.
Deteriorating (↓): The analyst expects the fundamental conditions of the sector to be negative over the next 12 months.

**Country (Strategy) Recommendations**

Overweight (O). Over the next 12 months, the analyst expects the market to score positively on two or more of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.

Neutral (N). Over the next 12 months, the analyst expects the market to score positively on one of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.

Underweight (U). Over the next 12 months, the analyst does not expect the market to score positively on any of the criteria used to determine market recommendations: index returns relative to the regional benchmark, index sharpe ratio relative to the regional benchmark and index returns relative to the market cost of equity.

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|---|---|---|---|
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