IMAGING: RASHMI

Buying or selling price is the only factor that individual investors can control and for that Stocks@MRP promises to be a worthy decision-making input

The right price

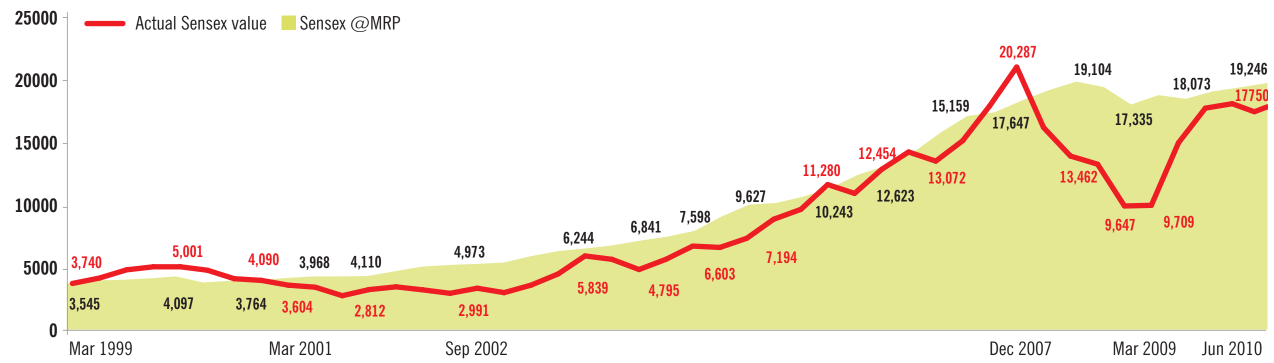
Appearances can be deceptive, especially in stock markets – it's the only place in the world where there is higher demand at higher prices. If that was not confounding enough, also consider that stock prices fluctuate every trading minute. Sure, prices tend to be fickle in local vegetable markets too as we haggle with vendors, but the stakes are much higher in stock markets. Buying at the wrong price leaves a very bitter aftertaste, so much so that one may vow never to enter the stock market ever again. So what can make investing more profitable and not a game of chance for lay investors? Think about it - what if stocks came with a price tag that tells you how much it is worth. A tag of maximum retail price (MRP) – pretty much like the stuff we are used to seeing at supermarkets and on most product wrappers. This is precisely what the folks at MoneyWorks4me.com have attempted – labelling not just every stock but also the benchmark Sensex with a MRP tag. Sounds interesting surely, but how can you go about putting price tags on stocks? And even if you do, how reliable are these price tags and do they help you get a first-rate bargain across good and bad markets? The Pune-based investment portal has devised a method to arrive at a price tag for stocks based on the earnings power of a company and the likely multiple the stock will command in future (*See box: Fixing MRP*). To check its reliability, the firm has back-tested the model for 1999-2010.

But before we get to the findings, here is a preview into what triggered the concept of MRP and how investing based on MRP can help. Quite often, markets tend to overreact. Knowing when they are doing so can help you make wiser investment calls. In recent times, the overreaction was clearly visible after the Sensex reached its all-time high of 21,206 in January 2008. Sheer mayhem followed in the later months with the index hitting 8,500 in November 2008. The market then rose only to double-dip in March 2009 before it regained composure. Was such a decline warranted as corporate earnings had not suffered drastically? If you follow the value school of investing you must be familiar with Benjamin Graham's saying that "in the short run, the market is a voting machine, but in the long run it is a weighing machine." Raymond Moses, co-founder of MoneyWorks4me.com says over a longer period, the market will invariably reflect its intrinsic value based on its earnings. "But during 'voting machine' moments if there is a tool guiding you to gauge the extent of the under or overreaction you have a clear head-start. This is what

Quite often, markets tend to overreact. Knowing when they are doing so can help you make wiser investment calls

Fair value – not quite

The Sensex tends to deviate sharply from its intrinsic value. The June MRP for the Sensex is currently pegged at 19,246, which means the index is currently quoting at a discount



triggered the conception of MRP for the Sensex and stocks," adds Raymond.

MRP for stocks is fine but how does it help to have a price tag for the Sensex? After all, as a long-term investor you can't be buying and selling the Sensex. The logic is simple here. The index is the "bellwether" for anyone tracking the stock markets. Now, what is a bellwether? The term has its origin in the bell placed around the neck of the sheep that leads the flock. Hearing the ring, the shepherd can locate the flock. This description of bellwether could not be more apt for the index because markets witness herding too. But unlike the flock of sheep which gravitate only towards greener pastures, stock markets are hostage to both positive and negative triggers. This could either be local politics, geopolitics, capital flows or changing fancies of heavyweight institutional investors. Therefore, the bellwether Sensex, despite being a narrow barometer, is a good gauge of overall market mood. So if the big names in the market are getting hit, and the Sensex tanks, there is an equal probability of small names getting clobbered as well. That is how opportunities to enter stocks at bargain levels get created.

Although Sensex@MRP is a good measure of value embedded in the market at any given point, buying opportunities are not always created without a near-term knock on earnings

Introducing Sensex@MRP

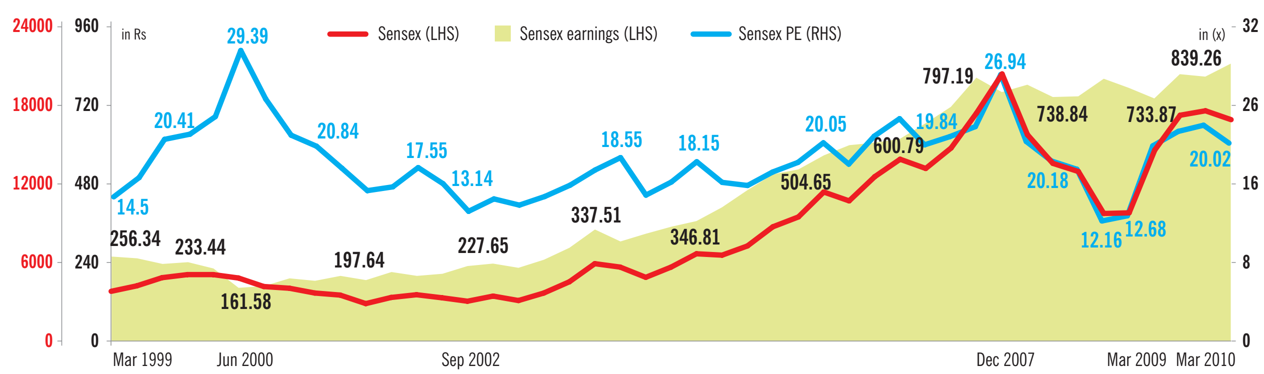
The Sensex comprises 30 stocks. These are institutional favourites and among the most liquid counters that one can find. The corollary then must be that one would always expect the Sensex to trade near fair value. As the chart on page 47 titled, *Fair value–not quite,* shows that has seldom been the case. Going by the MRP estimate for the Sensex against the actual index trajectory it is evident that irrationality has taken hold of the market on more than one occasion. To be sure if the method of arriving at the right price tag for Sensex can provide useful indication about the future course of the market, MoneyWorks4me looked at quarterly earnings data since 1999 and back-tested the model. The MRP calculation was done keeping in mind the composition of Sensex at that particular time period. The corresponding Sensex P/E values were taken from the Bombay Stock Exchange website and Sensex earnings were arrived at by dividing the Sensex values by the respective Sensex P/E figures. Then, the Sensex@MRP values were plotted against actual Sensex level. The main observations were:

- From March 1999 to December 2000, Sensex was quoting consistently above the MRP, which implied a 'sell'. This was also the time when the technology stocks mania was at its zenith. On a trailing basis in June 2000, the Sensex was trading at 30 times earnings. Company profits did not keep pace and in line with the correction in the Nasdaq, the markets started losing ground. The gap narrowed, and within a year the Sensex was quoting at a discount of 15 per cent to the MRP.
- Between June 2000 and March 2003, the MRP did not change much. The Sensex traded at an average P/E of around 16 during this period and a near 30 per cent discount to the MRP. Notably, this period was marked by stagnant earnings, but in hindsight, this was a very good time to enter the market.
- From the June 2003 quarter, earnings started to move into a high growth trajectory. So much so that earnings grew at a compounded 25 per cent annually till March 2008. This also saw the Sensex cross the MRP in September 2007. By December 2007, the indicator showed an overvaluation of as much as 15 per cent. For a conservative investor it was a sign to head for the exit. Then came the sub-prime crisis and the subsequent meltdown.
- At the very bottom of March 2009, the Sensex was trading at 12 times trailing earnings. On the face of it there was not much damage to earnings, but fear had taken hold of the market. In December 2008 and March 2009, the benchmark traded at a discount of 46 per cent to the MRP. If one looks back, that seems like the buying opportunity of a lifetime. For within two quarters, that is, by September 2009, the Sensex was trading closer to its fair value.

Although Sensex@MRP is a good measure of

Ready, steady, earnings

Sensex earnings are steady but the index tends to swing because of the moods of the market as reflected in its earnings-multiple




SANJIT KUNDU

FIXING MRP

Stocks@MRP:

MRP is the maximum price we should pay for a stock so as to get a minimum expected rate of return of 15 per cent for the next 10 years. How do we calculate this? If price is the investment you make in a share, your returns comes in two ways: (a) future dividends or the dividend income you earn through the time you hold the stock (b) future price or the stock price at the time of sale.

Therefore, **future value of a stock = future price + future dividend**

In order to arrive at MRP, we discount the future price of a stock as arrived through the above process with 15 per cent expected rate of return. Why 15 per cent? Traditional investment options which guarantee returns give an average of around 8 per cent returns, but when you invest in stock markets you are taking on additional risk. Considering that investments will also get eroded by inflation – the average inflation over the past years has been 6.5 per cent – the minimum return you should expect is, therefore, 15 per cent.

Future dividends: A company will usually maintain the level of dividends that it has paid out in the past. This makes it easier for us to predict future dividends. We can consider historical dividends paid as the minimum level for calculating future dividend.

How do you estimate future price of a stock? The future price of a stock depends on its real worth, that is its ability to generate earnings per share (EPS) in future multiplied by future earnings-multiple (P/e) it would command. Future earnings per share is arrived at by compounding current (trailing 12-month) EPS by expected earnings growth for a company. In certain cases where current year EPS is exaggerated because of one-time earnings, we have normalised earnings using a historical trend-line. Expected EPS growth rate for a company is arrived at based on the retention ratio, which is the part of earnings a company reinvests in its business, and the return on equity (ROE). In order to grow, a company will reinvest some part of its earnings back into the business. This return on equity will then determine the growth rate of a company and is calculated as follows:

Expected book value growth rate = Retention ratio x return on equity

Since traditional investments guarantee about 8 per cent, the minimum return you should expect from equities is 15 per cent

We then compound the current book value at the rate of expected book value growth to get the future book value. **Future book value = Current book value x (1 + expected book value growth rate) ^ 10**

Then we multiply this by the six-year average RoE to calculate a theoretical EPS after 10 years. Using the current EPS and theoretical EPS after 10 years, we can calculate expected EPS growth rate according to the model. However, this rate acts as a base to arrive at our final expected EPS growth rate. We analyse future prospects of a company, industry dynamics, historical performance, growth stage of a company to decide its expected EPS growth rate used to calculate its future price. For future P/e, we look at historical multiples for the past six years and also analysis of the industry P/e, growth stage of a company and its future prospects to arrive at a final multiple. To exercise caution, we have kept a cap of 25 per cent for our expected EPS growth rate and 18 for future P/e.

Calculating Sensex@MRP

Sensex is calculated using a "free-float market capitalisation" methodology, wherein, the level of index at any point of time reflects the free-float market value of the 30 component stocks, relative to a base period. The market capitalisation of a company is determined by multiplying the price of its stock by the number of shares issued by it. This market capitalisation is further multiplied by the free-float factor to determine the free-float market capitalisation. The calculation of Sensex involves dividing the free-float market capitalisation of 30 companies in the index by a number called the index divisor, which keeps the index comparable over time and is the adjustment point for all index changes arising out of corporate actions, replacement of scrips etc.

Calculation of Sensex@MRP involves finding out at what price each of the 30 stocks should trade at, that is, their MRP. Then, we plug in these prices to calculate the market capitalisation at MRP. We calculate the index divisor for a particular day using the data made available for the Sensex. So, to calculate index divisor on say March 31, we use the following formula:

Index divisor = actual free float market cap (as on March 31)/ Sensex (as on March 31)

Once we got the index divisor, Sensex@MRP was calculated by the formula: **Sensex@MRP = Free float market cap considering MRP/index divisor**

Also, the methodology for calculation of Sensex shifted to a free-float mechanism only in September 2003. Prior to this period, Sensex was calculated on a total market capitalisation method, wherein the entire market capitalisation of the 30 index stocks was considered. Sensex@MRP till September 2003 was calculated using the similar method of considering total market capitalisation.

Big bang for small bucks

Sensex stocks	Expected earnings growth as per past financials (%)	MW expected earnings growth (%)	Assumed future P/e (X)	Maximum retail price in Rs	Current market price in Rs (21/06/2010)	Premium/ (discount in %) between MRP and CMP
Software stocks feature prominently among Sensex stocks that trade at a discount to current market price						
Bharti Airtel	33.4	19	18	608	265	(56.39)
Wipro	19	19	18	770	414	(46.23)
Tata Steel	31	18	8	834	504	(39.59)
TCS	42	21	18	1113	787	(29.26)
ACC	22.5	16	13	1232	882	(28.42)
Hindalco	23	16	10	205	154	(24.71)
Cipla	22	22	18	440	340	(22.69)
Reliance	22.3	21	15	1353	1065	(21.30)
Infosys	32.2	21	18	3408	2801	(17.81)
Maruti Suzuki	27	18	17	1630	1375	(15.62)
Realty and commodity stocks offer least margin of safety						
DLF	35.5	13	18	115	290	152.02
Sterlite	18	18	18	91	183	101.10
Jindal Steel	40.5	23	10.3	373	686	83.94
Tata Power	8.5	14	18	802	1315	64.01
JP Associates	17	17	16	83	133	61.17
Reliance Infra	8	12	18	746	1188	59.21
HUL	5	12	18	177	259	46.01
SBI	14.5	16	1.8	1865	2387	28.01
L&T	15	20	18	1475	1836	24.47
M&M	18.5	17	16	536	637	18.81

Note: Calculations based on March 2010 quarter earnings

value embedded in the market at any given point, it can't be overemphasised that buying opportunities are not always created without a near-term knock on earnings. To recall, 2000 to 2003 was a period of low earnings growth for Indian companies. As the chart *Ready, steady, earnings* shows, after 2003, earnings growth as well as price-multiple rose. But when the big jolt came in 2008, it dragged down earnings too. A look at the individual net profit figures of Sensex companies reveal that for the quarters ended June and December 2008, 17 out of 30 companies reported a fall in earnings on a quarter-on-quarter basis. Among companies whose earnings suffered the most were auto majors such as Tata Motors, Mahindra & Mahindra and Maruti Suzuki. If compared on year-on-year basis, the count was 9 and 15, respectively. The companies that were affected the most in terms of earnings included ACC and ICICI Bank, whereas outperformers included Sterlite, ITC, HDFC and Reliance. Interestingly, near-term uncertainty overwhelms markets and results in overreaction. The P/e multiple in such pessimistic times fall far more than what is warranted, thus creating buying opportunities for long-term investors.

The June quarter should show a 5 per cent earnings growth, which will take the Sensex MRP to 19,246

So how are we placed now? The first half of calendar 2010 has seen the Sensex take a stab at 18,000 as earnings growth has been encouraging since September 2009. Going forward, Raymond of MoneyWorks4me expects the June quarter to show a 5 per cent earnings growth compared with the March 2010 quarter. That will mean that the MRP for the Sensex will graduate to 19,246, up 250 points. Given the current volatility, however, the benchmark is expected to trade below its MRP. The discount could even increase if more global bad news follows and that is exactly what value investors are waiting for.

How do you profit then? Since you can't really go out and buy the Sensex (you can't take the index fund route because most of them tend to have Nifty as underlying and the only exchange traded fund based on Sensex is thinly traded), a viable strategy would be to bet on index constituents that promise maximum bang for your buck.

Before we talk about stocks, one inevitable question: how effective is a MRP as a stock picking tool, especially as the price tag for a stock (and the Sensex) is arrived at based on past data? After all in markets, past performance has not much use as a guide for the future. Says Raymond, "As seen in the graphs, stocks tend to move towards their MRP over the long term." So if you buy any stock at a considerable discount to its MRP (preferably 50 per cent) and sell it at MRP, you would end up making handsome returns. Once the stock crosses its MRP, the probability of a correction increases.

There is room for error though, like with all forecasts. There is the possibility of the stock running considerably higher above its MRP, reflecting the irrational nature of the market. So, you could miss out on upside fuelled by sentiment rather than earnings. But that is an upside value investors usually like to give a pass as the risk of losing capital is higher in such situations.

Here comes Stocks@MRP

The Sensex currently seems to be trading 10-15 per cent lower to its true worth, but when you look at stocks in the index basket individually, you get a mixed bag (*See table: Big bang for small bucks*). Bharti Airtel, ACC and Infosys are three companies on the list of stocks going cheap, that is, whose current market price is quoting at maximum discount to the MRP. On the contrary, Reliance Infrastructure, Larsen & Toubro and Mahindra & Mahindra look overvalued as their current prices are higher than the MRP. Obviously, the undervalued stocks are prime candidates for buying and the overvalued stocks for selling. Here is the low-down on these six candidates:

Bharti Airtel

Market price - Rs **265**

MRP - Rs **608**

Upside **129** per cent

BEST BUY

Barring the initial three years after its listing when mobile telephony had still not taken-off, telecom major Bharti has been consistently trading above its MRP. Strong leadership and high-powered growth in the mobile market helped the company ring in robust earnings quarter after quarter and had the markets excited. By March 2006, Bharti was trading at around 45 per cent above its MRP, but that premium started to shrink thereafter as competition intensified, especially after the entry of Reliance Communication. Since then the premium has slipped into a discount as the telecom sector has been besieged with all kinds of problems, including intense price war, detrimental policies, and very recently the audacious 3G licence bids. Bharti has also been hammered because of concerns over its financial position following the acquisition of Zain Telecom earlier this year. This series of bad news has caused the stock to tumble to the level seen in March 2009. If the markets correct overall, Bharti could take another round of beating, but that can be seen as a fresh buying opportunity. Assuming an earnings growth of 18 per cent, substantially lower than its past growth rates, Bharti's MRP is pegged at Rs 608, which makes it a good value candidate.

Infosys

Market price - Rs **2,801**

MRP - Rs **3,408**

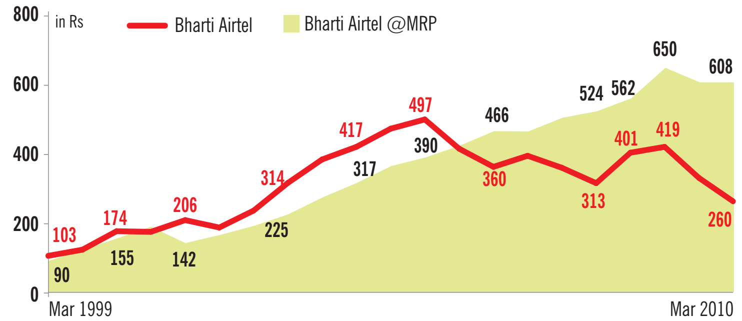
Upside **21** per cent

BEST BUY

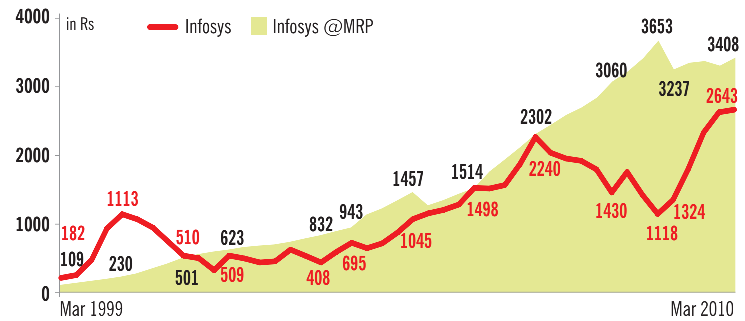
Infosys stellar performance through the nineties catapulted it to extraordinarily high levels during the technology boom in 2000. The stock was clearly quoting at levels far higher that it's MRP and an unsustainable P/e of 200 times, signalling a clear sell before the crash. Post-crash, the stock languished below its intrinsic value for a long, long time before it inched close to MRP in December 2006. But this surge was short-lived as the strengthening rupee pooped the party. As the market became fearful of Infosys's earnings sustainability, P/e contracted sharply leading to a fall in the share price. The MRP calculation was based on earnings growth assumption of 25 per cent for 1999-2005 and 23 per cent for 2006 to 2009. Owing to fears about global recession hurting software firms, growth assumptions were lowered to 21 per cent. But excessive correction dragged down the stock to a 60 per cent discount to its MRP from December 2008 through March 2009. Since then, the stock price has doubled but it still quotes at a discount, making a decent case for accumulating the stock.

Discount offer

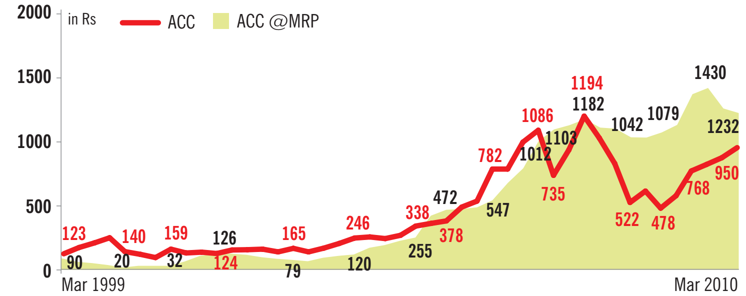
Bharti Airtel is available at a 56 per cent discount to its MRP



Infosys Technologies is quoting at a 18 per cent discount to its MRP



ACC is trading at a 28 per cent discount to its MRP



ACC

Market price - Rs **882**

MRP - Rs **1,232**

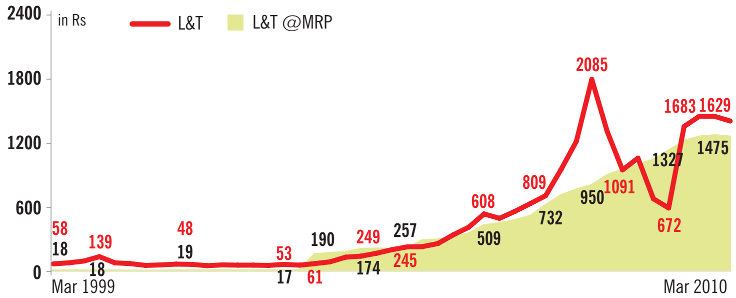
Upside **40** per cent

BEST BUY

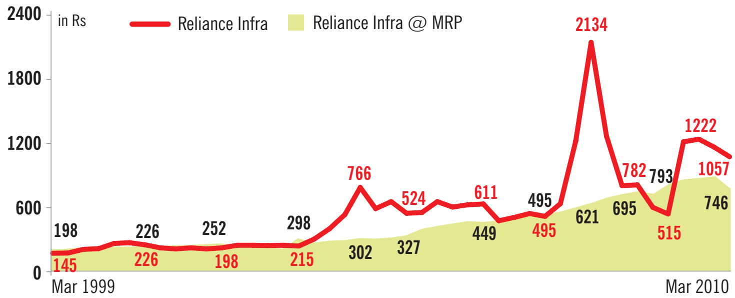
Cement company ACC was quoting consistently above its MRP since 1999 all the way till March 2007. Interestingly, despite its tepid financial performance, the company was valued at 60 times earnings back in 1999. Even in March 2006, its shares were quoting at a 45 per cent premium to MRP, signalling a sell. The stock fell considerably in March 2007 and its premium slipped into a discount. The subsequent rebound did not hold, and the stock fell back, and by June 2009, the stock was quoting at a 55 per cent discount to its MRP. Even now, the stock trades at a discount, warranting a buy.

Premium counter

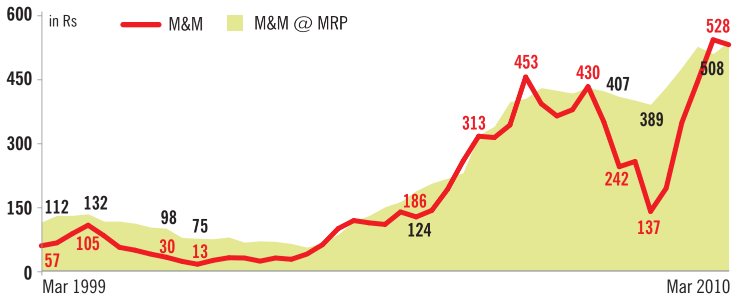
Larsen & Toubro is trading at a 24 per cent premium to its MRP



Reliance Infrastructure is quoting at 59 per cent premium to its MRP



Mahindra & Mahindra is quoting at 18 per cent premium to its MRP



Mahindra & Mahindra

Market price - Rs **637**

MRP - Rs **536**

Downside **16** per cent

Mahindra & Mahindra's chart reveals that the crash in the auto sector in December 2007 was more to do with investor fear than earnings deterioration. M&M traded below its MRP from 1999 to 2003. However, after January 2005 the stock ran up and started trading 20 per cent above its MRP for the next few quarters. The premium over the MRP was the highest at 47 per cent in December 2006.

The crash of 2008, however, brought bad tidings for M&M too. As the auto industry took a severe beating following a domestic slowdown after the credit crunch, the stock dropped and was available at a whopping 64 per cent discount to its MRP in December 2008. But the strong recovery ensured that the price rebounded and crossed the MRP soon enough. Currently, the stock is trading at a 18 per cent premium to its MRP. Investors holding the stock can consider selling it if it runs up further.

Reliance Infrastructure

Market price - Rs **1188**

MRP - Rs **746**

Downside **37** per cent

Quoting at a discount of 20 per cent back in 1999, Reliance Infrastructure saw its price cross its MRP in 2000. Till 2003, the price remained close to its MRP even though its financial performance was not very consistent and earnings registered a drop in 2002 and 2003. Post 2003, the company's performance picked up considerably and the price soon crossed the MRP. In 2004, the stock was quoting at 150 per cent above its MRP. That seemed like a golden sell signal, but the stock continued to defy gravity and rocketed to unimaginable levels in 2007. Clearly, it was irrational exuberance as the stock more than tripled in the two quarters from June 2007 to December 2007, quoting at a P/e of 50 when it peaked at Rs 2,130. Soon, the price crashed and by March 2009 it was hovering around Rs 430, quoting at a discount of 35 per cent to its MRP. Interestingly, the company registered a drop in net profit only during the December 2008 quarter. Currently, the stock is trading 59 per cent above its MRP, arrived at by considering a 12 per cent earnings growth rate.

Larsen & Toubro

Market price - Rs **1836**

MRP - Rs **1475**

Downside **20** per cent

The engineering and construction major was trading considerably higher over its MRP between 1999 and 2003, when its earnings growth was assumed to be 16 per cent. Riding on the economic boom since 2003, L&T's financial performance improved dramatically. 2003 was a good time to buy the stock as it was quoting at a 60 per cent discount to its MRP, calculated based on an earnings growth of 18 per cent. L&T's stock price increased soon and crossed its MRP and stayed above it for quite some time. The price reached a peak in December 2007, quoting at a P/e of around 60 times. With the crash, the price dropped and mirrored its MRP. A good time to buy the stock was December 2008-March 2009, when the stock was available at a 50 per cent discount. Since then the price has inched up steadily. Notably, L&T has not posted a year-on-year decline in net profit in any quarter over the last two years. Currently, the stock is trading at a 24 per cent premium. ◻